



VALVES

CHAPTER 2



General informations

Valves technical features

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Solenoid and air operated valves

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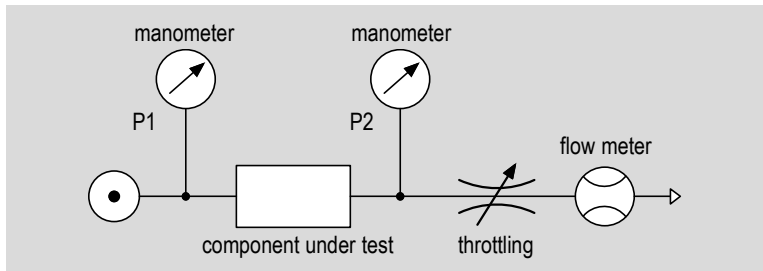
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Flow of the valves

The quantity of compressed air that can flow through the valve depends on the size of the orifices and the type of course that must be followed within the valve itself by the fluid under pressure.

The flow of a valve is measured using suitable measuring circuits with the hypothesis that the upstream pressure is constant and that quantity of air required downstream is variable.

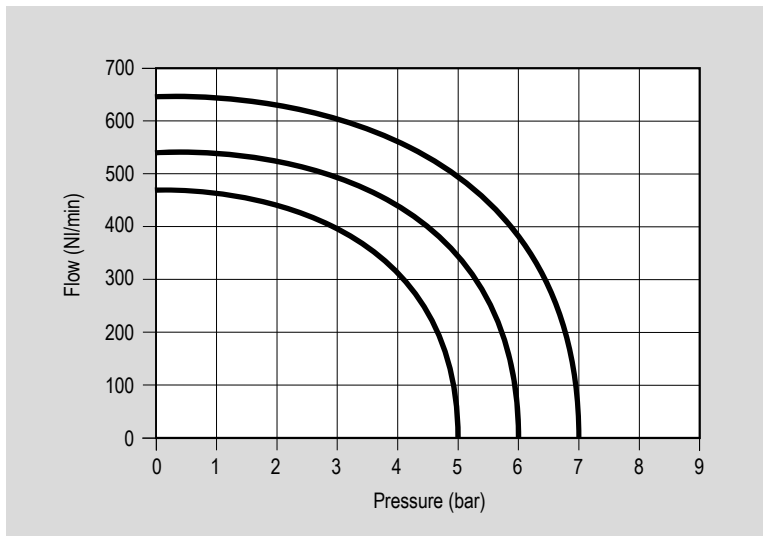


Flow characteristics

Curves known as “flow characteristic” are drawn, which indicate how the flow of the valve varies with the variation in downstream pressure, with a constant pressure supply. Once these characteristics are known, the flow of the valve is also known in all working conditions.

These curves show how the study model adopted for a valve - which consists of comparing it with a converging nozzle that releases a compressible gas with constant upstream pressure - is reasonably valid. Indeed, according to this model, the flow that passes through the nozzle depends on the following factors: the upstream pressure, the difference in pressure Δp and the valvular coefficient K_v .

The coefficient K_v summarizes the characteristics of the internal passages of the valve and is represented by the “number of litres of water that flow through the valve in one minute, in normal conditions (atmospheric pressure, 20 °C) in the presence of a fall in pressure $\Delta p = 1$ bar.



Formula for calculating the flow rate

The following formula constitutes the relationship between all the aforementioned elements:

$$Q = 28,3 K_v \sqrt{\Delta p (p_1 - \Delta p)} \quad \text{where:}$$

- Q = flow [nl/min]
- K_v = valvular coefficient of the H2O valve [nl/min]
- Δp = p - p2 = fall in pressure between upstream and downstream [bar]
- p1 = absolute pressure upstream [bar]
- 28,3 = conversion coefficient from water to air

So: the capacities calculated with the given formula differ little from those that can be obtained from the flow characteristic of the corresponding valve. Furthermore, it also provides confirmation, from the characteristic itself, of the limits of validity of the formula.

It is only valid for $\Delta p < Q p_1$; i.e. only up until the fall of pressure across the valve reaches a value equivalent to half the absolute supply pressure.

Nominal flow Q_n

In this condition the air reaches maximum velocity (critical velocity V_c) and consequently maximum capacity Q_{max} .

For $\Delta p < Q p_1$, the pressure energy is converted into kinetic energy with an increase in velocity and consequently capacity. For $\Delta p > Q p_1$ the extra pressure energy is no longer converted into velocity energy, but dissipated in local turbulences in the form of heat.

All of this is confirmed by the flow characteristics.

From the same characteristics it is possible to discover that that the value of the flow with $\Delta p = 1$ bar is $\cong 2/3 Q_{max}$.

The capacity corresponding to $\Delta p = 1$ bar is defined nominal flow (Q_n).

In the case of a valve, a different flow characteristic exists for each absolute supply pressure, and thus corresponding values for Q_{max} and Q_n .

Falls in pressure of $\Delta p > 1$ bar are too economically onerous; for this reason it is advisable to limit the falls in pressure to $\Delta p = 0,5$ bar, by choosing a larger size valve.

In the catalogue reference is normally made to the nominal flow, but the flow characteristics and the valvular coefficient are also provided.

Let's calculate, for example, the flow of a valve with $K_v = 12$ NL/min, $P_1 = 6$ bar,

$$\begin{aligned} \Delta P = 0,5 \text{ bar} \quad Q &= 28,3 \cdot 12 \sqrt{0,5 (7 - 0,5)} = 612 \text{ [NL/min]} \\ Q_n &= 831 \text{ [NL/min]} \\ Q_{max} &= 1118 \text{ [NL/min]} \end{aligned}$$

15 MM

directly operated solenoid valves



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Solution for most applications



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Excellent value for money



Wide availability



Fast delivery



Features and certifications

Series of 15 mm directly operated poppet valves for single or manifold bases, standard with coil and without connector (to be ordered separately).
 Supplied as standard in compliance with Reach and RoHS directives

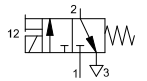


Type AE05C..

from page 2.5.20



15 mm directly operated solenoid valves, 3/2 normally closed.
 Connectors to be ordered separately.

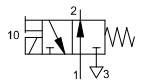


Type AE05A..

from page 2.5.20



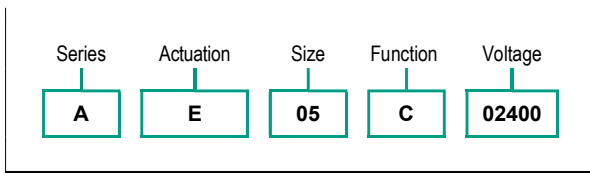
15 mm directly operated solenoid valves, 3/2 normally open.
 Connectors to be ordered separately.



Code key

Series	Actuation	Size	Function	Voltage
A	E	05	C	02400
A	E = Electric	05 = 15 mm	C = 3/2 Normally closed A = 3/2 Normally open	01200 = 12 V DC 02400 = 24 V DC 02450 = 12 V AC 11050 = 110 V AC 22050 = 230 V AC

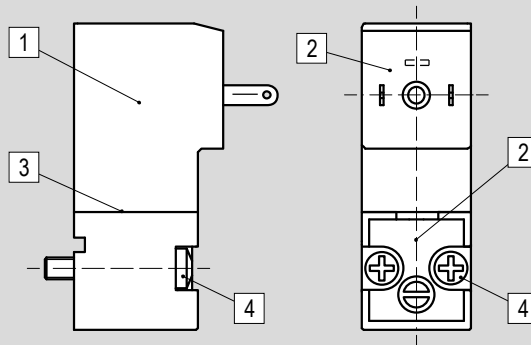
How to order



Notes

Options in the same grid are alternative to each others.
Connectors to be ordered separately, see page 2.5.50

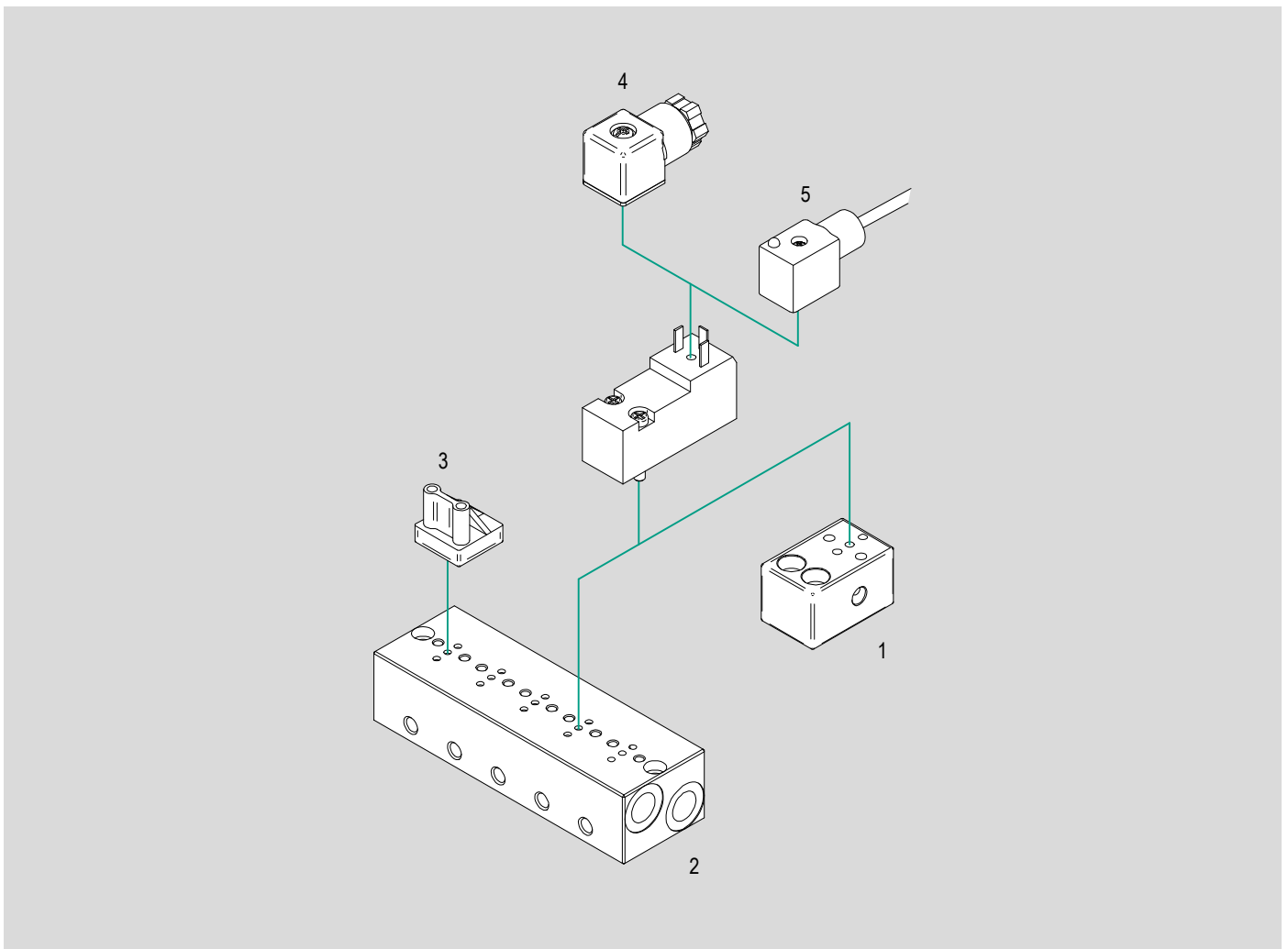
Standard materials



Position	Description	Material
1	Body	Acetal resin
2	Internal parts	Acetal resin and Stainless Steel
3	Seals	NBR
4	Screws	Zinc-plated steel

Accessories

2 - VALVES



N.	Item	Description	Compliance	Matching		Code key page	Data sheet page
				AE05C	AE05A		
1	ABAS05S	Single base	-	●	●	2.5.50	2.6.20
2	ABAS05..	Manifold base	-	●	●		2.6.40
3	ABAS05T	Closing plate for manifold base	-	●	●		2.6.60
4	A19207..	Connector	-	●	●		2.318.10
5	A19207..K	Cabled connector	-	●	●		

Key
 ● matching accessory; - not matching accessory

15 mm directly operated solenoid valves

Series AE05



Main features

Version	Code	Item	Symbol
3/2 Normally closed 12 V DC	034601	AE05C01200	
3/2 Normally closed 24 V DC	034602	AE05C02400	
3/2 Normally closed 24 V AC	034603	AE05C02450	
3/2 Normally closed 110 V AC	034604	AE05C11050	
3/2 Normally closed 230 V AC	034605	AE05C22050	
3/2 Normally open 12 V DC	034611	AE05A01200	
3/2 Normally open 24 V DC	034612	AE05A02400	
3/2 Normally open 24 V AC	034613	AE05A02450	
3/2 Normally open 110V AC	034614	AE05A11050	
3/2 Normally open 230 V AC	034615	AE05A22050	



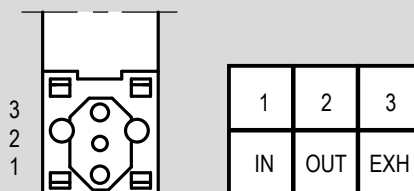
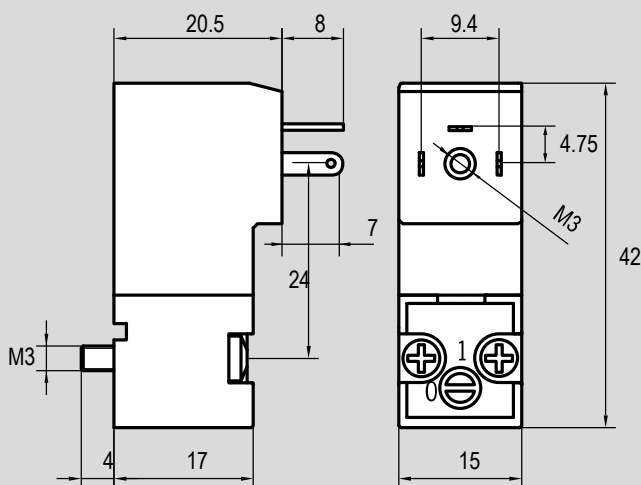
Technical data

Version	3/2 Normally closed					3/2 Normally open														
	Code	Item	Code	Item	Code	Item	Code	Item	Code	Item										
	034601	AE05C01200	034602	AE05C02400	034603	AE05C02450	034604	AE05C11050	034605	AE05C22050	034611	AE05A01200	034612	AE05A02400	034613	AE05A02450	034614	AE05A11050	034615	AE05A22050
Fluid	Filtered compressed air with or without lubrication.																			
Pressure range	0 ÷ 10 bar																			
Temperature range	-10°C ÷ +50°C																			
Orifice Ø	1.1 mm																			
Manual override	Two stable position, flat																			
Flow at 6 bar with ΔP 1 bar	35 NI/min.																			
Response time	5 ms. (energising); 6 ms. (de-energizing)																			
Duty cycle	ED 100%																			
Voltage tolerance	±5%																			
Electrical consumption	2 W																			
Maximum frequency	30 Hz																			
Electrical insulation	1000 V AC																			
Class protection	IP 65*																			
Mounting	In every position																			
Fastening	2 screws (size M3)																			
Weight	35 g.																			

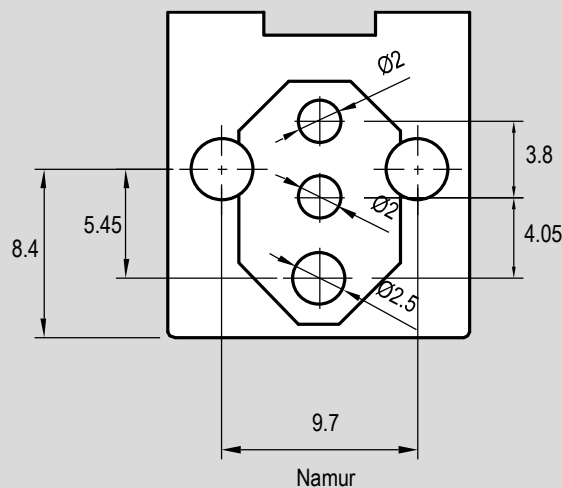
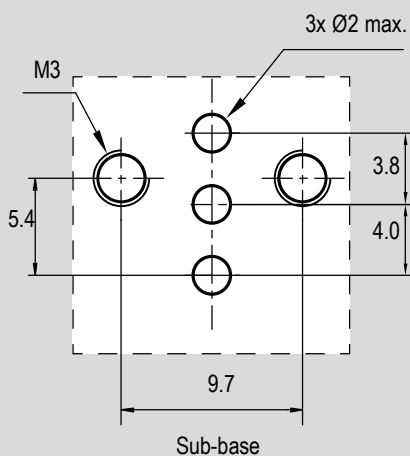
*With connector already mounted. Connectors to be ordered separately, see page 2.5.50

Standard dimensions

Type: AE05C
AE05A



3/2 Normally Closed
3/2 Normally Open



Version	Symbol	Code	Item
3/2 Normally closed 12 V DC		034601	AE05C01200
3/2 Normally closed 24 V DC		034602	AE05C02400
3/2 Normally closed 24 V AC		034603	AE05C02450
3/2 Normally closed 110 V AC		034604	AE05C11050
3/2 Normally closed 230 V AC		034605	AE05C22050
3/2 Normally open 12 V DC		034611	AE05A01200
3/2 Normally open 24 V DC		034612	AE05A02400
3/2 Normally open 24 V AC		034613	AE05A02450
3/2 Normally open 110V AC		034614	AE05A11050
3/2 Normally open 230 V AC		034615	AE05A22050

Connectors A192..

	Code	Item	Description
	032117	A19207N	Black standard
	033511	A19207NK	Black standard cabled
	032201	A19207T1	LED+VDR transparent 24VAC-DC
	032202	A19207T2	LED+VDR transparent 115VAC-DC
	032203	A19207T3	LED+VDR transparent 230VAC-DC
	033512	A19207N1K	LED+VDR black cabled 24VAC-DC
	033513	A19207N2K	LED+VDR black cabled 115VAC-DC
	033514	A19207N3K	LED+VDR black cabled 230VAC-DC

Single base ABAS05S

	Positions	Code	Item	Matching
	1	034621	ABAS05S	AE05

Manifold base ABAS05..

	Positions	Code	Item	Matching
	2	034625	ABAS050205	AE05
	3	034626	ABAS050305	
	4	034627	ABAS050405	
	5	034628	ABAS050505	
	6	034629	ABAS050605	
	7	034630	ABAS050705	
	8	034631	ABAS050805	
	9	034632	ABAS050905	
	10	034633	ABAS051005	

Closing plate ABAS05T

	Positions	Code	Item	Matching
	1	034622	ABAS05T	AE05

BASES FOR 15 MM

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Features and certifications

Series of bases for 15 mm directly operated solenoid valves available in version single and manifold.
Supplied as standard in compliance with Reach and RoHS directives.



Type ABAS05S

from page 2.6.20



Single bases for 15 mm directly operated solenoid valves.

Type ABAS05..

from page 2.6.40



Manifold bases for 15 mm directly operated solenoid valves.

Type ABAS05T

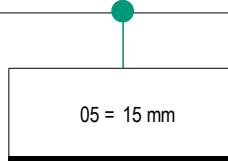
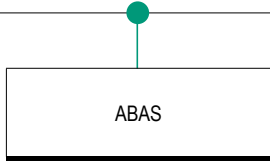
from page 2.6.60



Closing plate for manifold bases.

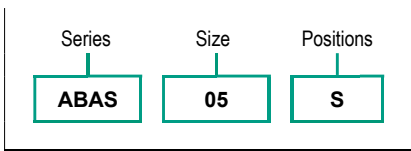
Code key

Series	Size	Positions
ABAS	05	S



S = 1
0205 = 2
0305 = 3
0405 = 4
0505 = 5
0605 = 6
0705 = 7
0805 = 8
0905 = 9
1005 = 10

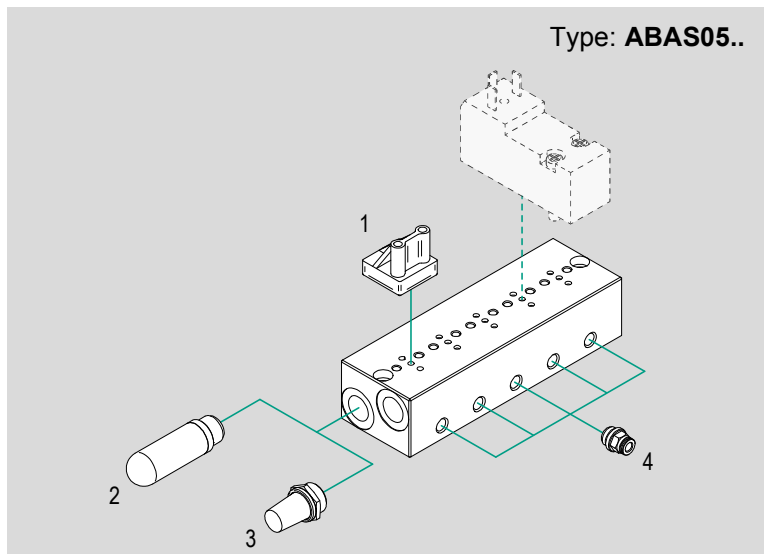
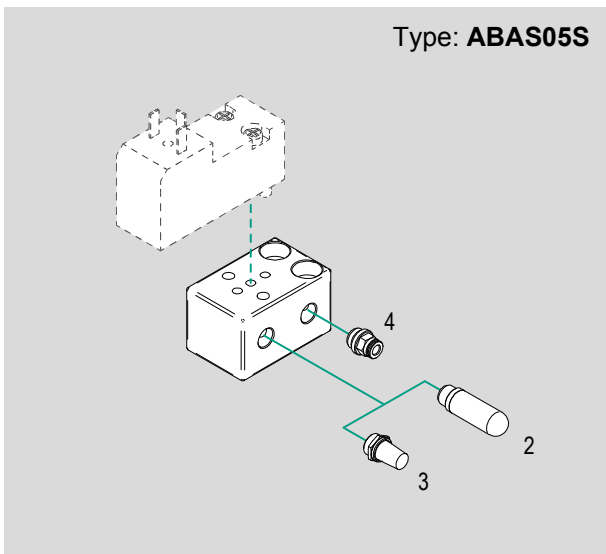
How to order



Notes

For standard materials see the data sheet of single components.
Options in the same grid are alternative to each others.

Accessories



N.	Item	Description	Compliance	Matching		Code key & data sheet page
				ABAS05S	ABAS050205 + ABAS051005	
1	ABAS05T	Closing plate	-	-	●	2.6.60
2	AS..	Plastic silencers	-	●	●	4.151.10
	SP..			●	●	4.151.20
3	A..	Sintered silencers		●	●	4.153.10
4	R..	Push-in fittings	UNI ISO 228/1 UNI ISO7/1 ISO R/232	●	●	4.2.1

Key
● matching accessory; - not matching accessory

Bases for 15 mm directly operated solenoid valves

Series ABAS05S



Main features

Version	Code	Item
Single base	034621	ABAS05S



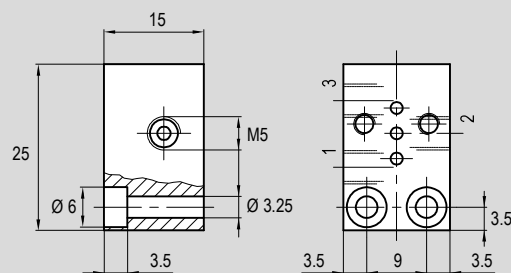
Technical data

Version	Single base ABAS05S
Code	034621
Item	ABAS05S
Size	15 mm
Function	Single
Positions	1
Ports	M5
Matching valves	Series AE05

Standard materials

Description	Material
Body	Aluminium

Standard dimensions



Bases for 15 mm directly operated solenoid valves

Series ABAS05..



Main features

Version	Code	Item
Manifold base 2 positions	034625	ABAS050205
Manifold base 3 positions	034626	ABAS050305
Manifold base 4 positions	034627	ABAS050405
Manifold base 5 positions	034628	ABAS050505
Manifold base 6 positions	034629	ABAS050605
Manifold base 7 positions	034630	ABAS050705
Manifold base 8 positions	034631	ABAS050805
Manifold base 9 positions	034632	ABAS050905
Manifold base 10 positions	034633	ABAS051005



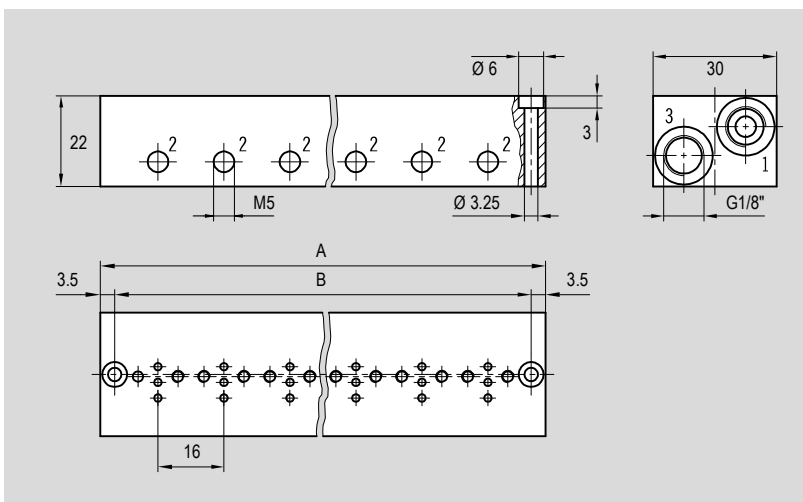
Technical data

Version	Manifold base ABAS05..									
Code	034625	034626	034627	034628	034629	034630	034631	034632	034633	
Item	ABAS050205	ABAS050305	ABAS050405	ABAS050505	ABAS050605	ABAS050705	ABAS050805	ABAS050905	ABAS051005	
Size	15 mm									
Function	Manifold									
Positions	2	3	4	5	6	7	8	9	10	
Ports	M5									
Matching valves	Series AE05									

Standard materials

Description	Material
Body	Aluminium

Standard dimensions



Item	Code	Positions	A	B
ABAS050205	034625	2	44	37
ABAS050305	034626	3	60	53
ABAS050405	034627	4	76	69
ABAS050505	034628	5	92	85
ABAS050605	034629	6	108	101
ABAS050705	034630	7	124	117
ABAS050805	034631	8	140	133
ABAS050905	034632	9	156	149
ABAS051005	034633	10	172	165

Bases for 15 mm directly operated solenoid valves

Accessories for bases



2 - VALVES

Main features

Version	Code	Item
Closing plate	034622	ABAS05T



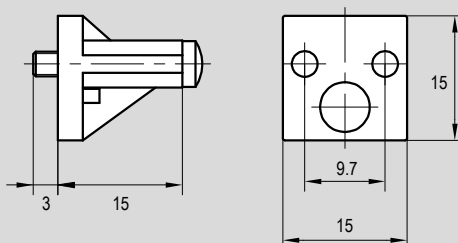
Technical data

Version	Closing plate ABAS05T
Code	034622
Item	ABAS05T
Size	15 mm
Function	Closing plate for manifold bases
Positions	-
Ports	-
Matching	Manifold base ABAS05.. for valves series AE05

Standard materials

Description	Material
Body	PVC

Standard dimensions



22 MM

directly operated solenoid valves



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Wide availability



Fast delivery



Features and certifications

22 mm directly operated solenoid valves, available in size 1/8" and 1/4" (only for series A1..MD), 3/2 normally closed. Coils and connectors to be ordered separately.

Supplied as standard in compliance to Reach and RoHS directives, and SIL certified. On request the valve body can be supplied according to 2014/34/EU ATEX Directive, classification Ex h, and also complete with ATEX coil and connector, in different classifications (see from page 2.320.1).

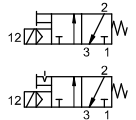


Series A1EM.. 1/8" 3/2 N.C.

from page 2.12.10



22 mm directly operated solenoid valves for single or modular mounting. Size 1/8", 3/2 normally closed, with spring return or bistable manual override. Orifice 1,0 or 1,2 mm wide. Coils and connectors to be ordered separately.

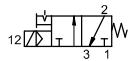


Series A1E1..MD 1/8" 3/2 N.C.

from page 2.14.10



22 mm directly operated solenoid valves for direct mounting on application (cylinder or actuator). Size 1/8", 3/2 normally closed, with bistable manual override. Coils and connectors to be ordered separately.



Series A1E2..MD 1/4" 3/2 N.C.

from page 2.14.10



22 mm directly operated solenoid valves for direct mounting on application (cylinder or actuator). Size 1/4", 3/2 normally closed, with bistable manual override. Coils and connectors to be ordered separately.



Series A1EM.. 1/8" 3/2 N.C. ATEX

from page 2.320.1



22 mm directly operated solenoid valves for single or modular mounting. Size 1/8", 3/2 normally closed, with spring return or bistable manual override. Orifice 1,0 or 1,2 mm wide. Available according to 2014/34/EU ATEX Directive in different classifications.



Series A1E1..MD 1/8" 3/2 N.C. ATEX

from page 2.320.1



22 mm directly operated solenoid valves for direct mounting on application (cylinder or actuator). Size 1/8", 3/2 normally closed, with bistable manual override. Available according to 2014/34/EU ATEX Directive in different classifications.



Series A1E2..MD 1/4" 3/2 N.C. ATEX

from page 2.320.1



22 mm directly operated solenoid valves for direct mounting on application (cylinder or actuator). Size 1/4", 3/2 normally closed, with bistable manual override. Available according to 2014/34/EU ATEX Directive in different classifications.



Options			
Description		Symbol	Suffix
High temperatures seals	-10°C ÷ +150°C		V
Low temperatures seals	-25°C ÷ +60°C		BT
ATEX valve body*			/ATEX
Special versions on request			/S

The options, when this is possible, can be combined with each other. For options matching see the table below; For code key see pages 2.10.4 e 2.10.5

*For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Options matching					
Type	Size	Function	Standard options matching		
			V	BT	/ATEX
A1EM..	1/8"	3/2 N.C.	●	●	●
A1E..MD	1/8"	3/2 N.C.	●	●	●
	1/4"		●	●	●

Key

● allowed matching; - not allowed matching

22 mm directly operated solenoid valves

Series A1EM..



Code key valves series A1EM

Series	Actuation	Size	Function	Orifice	Manual override	Option	/	ATEX valve body
A1	EM	1	30	12	M		/	

A1

EM = Electric

1 = 1/8"

30 = 3/2 N.C.

M = Spring return

B = Bistable

ATEX II 2G Ex h IIC T5 Gb
 II 2D Ex h IIC T100°C Db

ATEX note

For ATEX coils and connectors choice, classification, features, dimensions and matching, see page 2.320.1

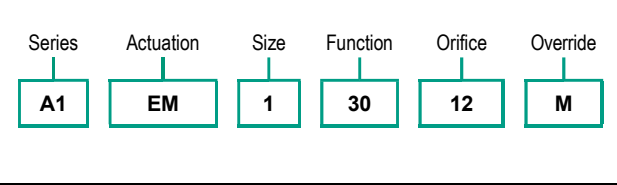
10 = Ø 1,0 mm (12 bar)

12 = Ø 1,2 mm (10 bar)

V = High temperatures seals

BT = Low temperatures seals

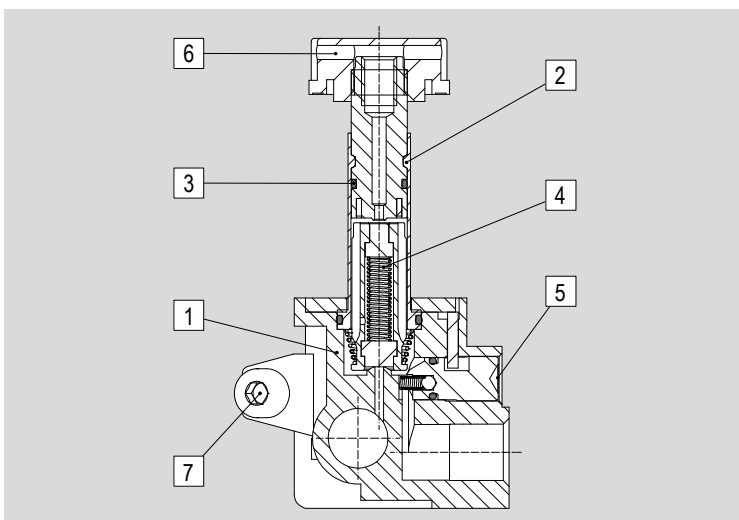
How to order



Notes

Options in the same grid are alternative to each others.
 For further information on options and their matching, see page 2.10.3.
 Coils and connectors to be ordered separately, see page 2.16.1
 For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

Standard materials



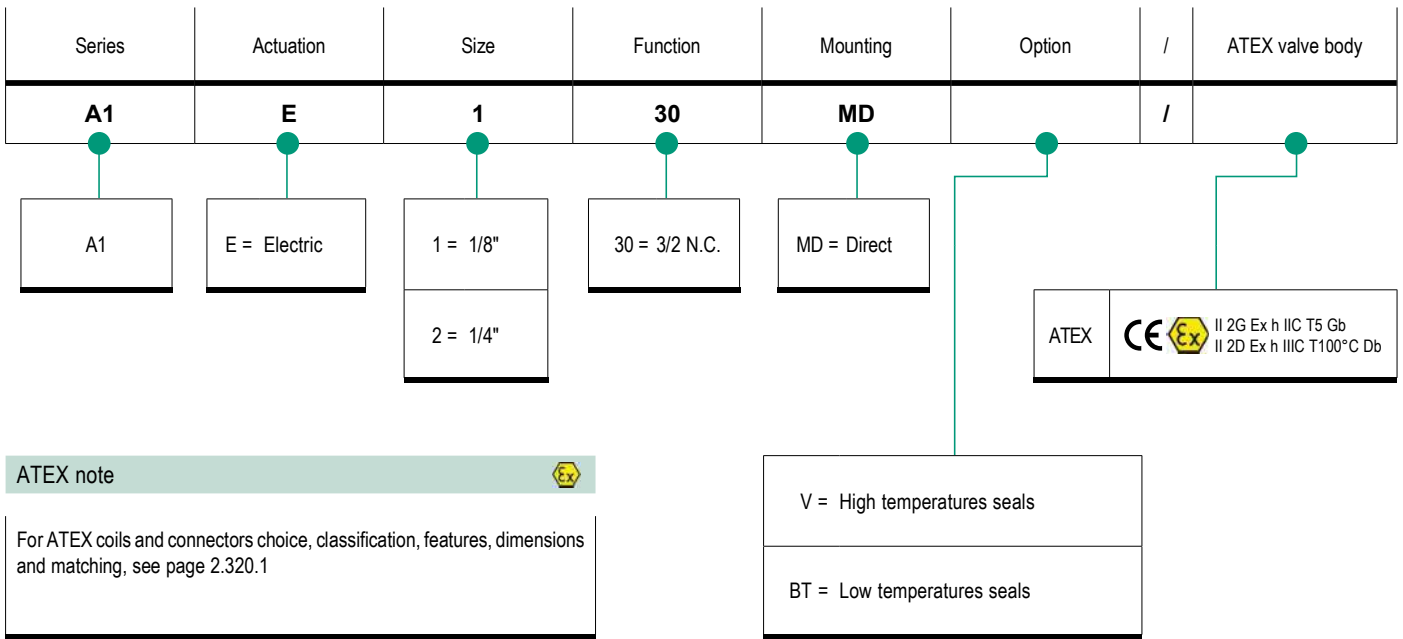
Position	Description	Material
1	Body	Zinc alloy die cast
2	Plunger	Brass
3	Seals	NBR
4	Springs	Spring steel
5	Manual override	Nickel-plated brass
6	Locking nut	Plastic
7	Screws	Zinc-plated steel

22 mm directly operated solenoid valves

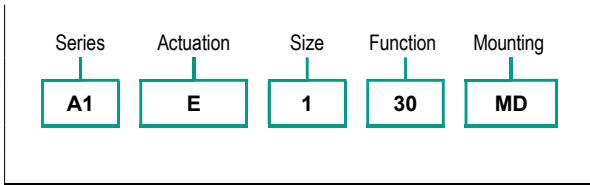
Series A1E..MD



Code key valves series A1E..MD



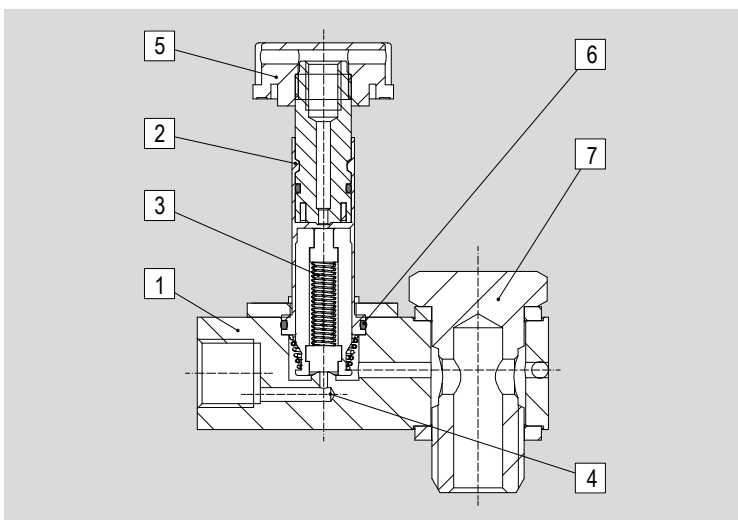
How to order



Notes

Options in the same grid are alternative to each others.
 For further information on options and their matching, see page 2.10.3.
 Coils and connectors for standard versions to be ordered separately, see page 2.16.1
 For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

Standard materials

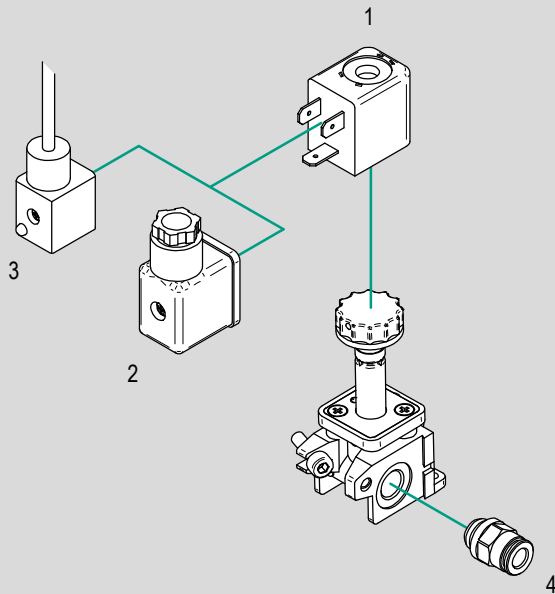


Position	Description	Material
1	Body	Anodized aluminium
2	Plunger	Brass
3	Springs	Spring steel
4	Manual override	Nickel-plated brass
5	Locking nut	Plastic
6	Seals	NBR
7	Screw	Nickel-plated brass

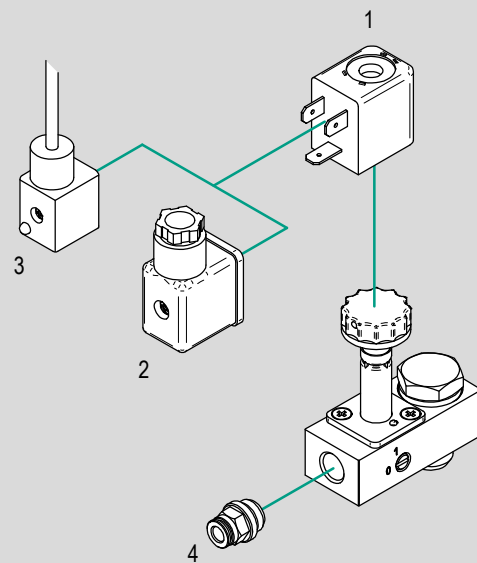
Accessories

2 - VALVES

Type: A1EM..



Type: A1E..MD



N.	Item	Description	Compliance	Matching			Code key page	Data sheet page
				A1EM..	A1E1..MD	A1E2..MD		
1	ASA12..	Coil	EN60204 VDE0580	●	●	●	2.16.1	2.315.10
2	A12209..	Connector	VDE 0110 - 1/89	●	●	●		2.318.12
3	A12209..K	Cabled connector		●	●	●		
4	R..	Push-in fittings	UNI ISO 228/1 UNI ISO 7/1 ISO R/232	●	●	●	4.2.1	

Key


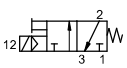
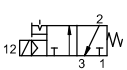
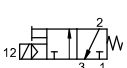

● matching accessory; - not matching accessory

22 mm directly operated solenoid valves

Series A1EM, 1/8" 3/2 N.C.



Main features

Version	Code	Item	Symbol
3/2 Normally closed, with spring return manual override, orifice Ø1.2 mm	034188 	A1EM13012M	
3/2 Normally closed, with bistable manual override, orifice Ø1.2 mm	034189	A1EM13012B	
3/2 Normally closed, with spring return manual override, orifice Ø1.0 mm	034197	A1EM13010M	
3/2 Normally closed, with bistable manual override, orifice Ø1.0 mm	034198	A1EM13010B	



Technical data

Version	3/2 Normally closed, with spring return manual override, orifice Ø1.2 mm	3/2 Normally closed, with bistable manual override, orifice Ø1.2 mm	3/2 Normally closed, with spring return manual override, orifice Ø1.0 mm	3/2 Normally closed, with bistable manual override, orifice Ø1.0 mm
Code	034188	034189	034197	034198
Item	A1EM13012M	A1EM13012B	A1EM13010M	A1EM13010B
Size	1/8"			
Fluid	Filtered compressed air, min. 5µm, with or without lubrication.			
Pressure range	0 ÷ 10 bar		0 ÷ 12 bar	
Temperature range	-10°C ÷ +60°C (standard)	-10°C ÷ +150°C (V)	-25°C ÷ +60°C (BT)	
Orifice Ø	1.2 mm		1.0 mm	
Flow at 6 bar with ΔP 1 bar	29 Nl/min.			
Mounting	In every position			
Manual override	Spring return	Bistable	Spring return	Bistable

Notes

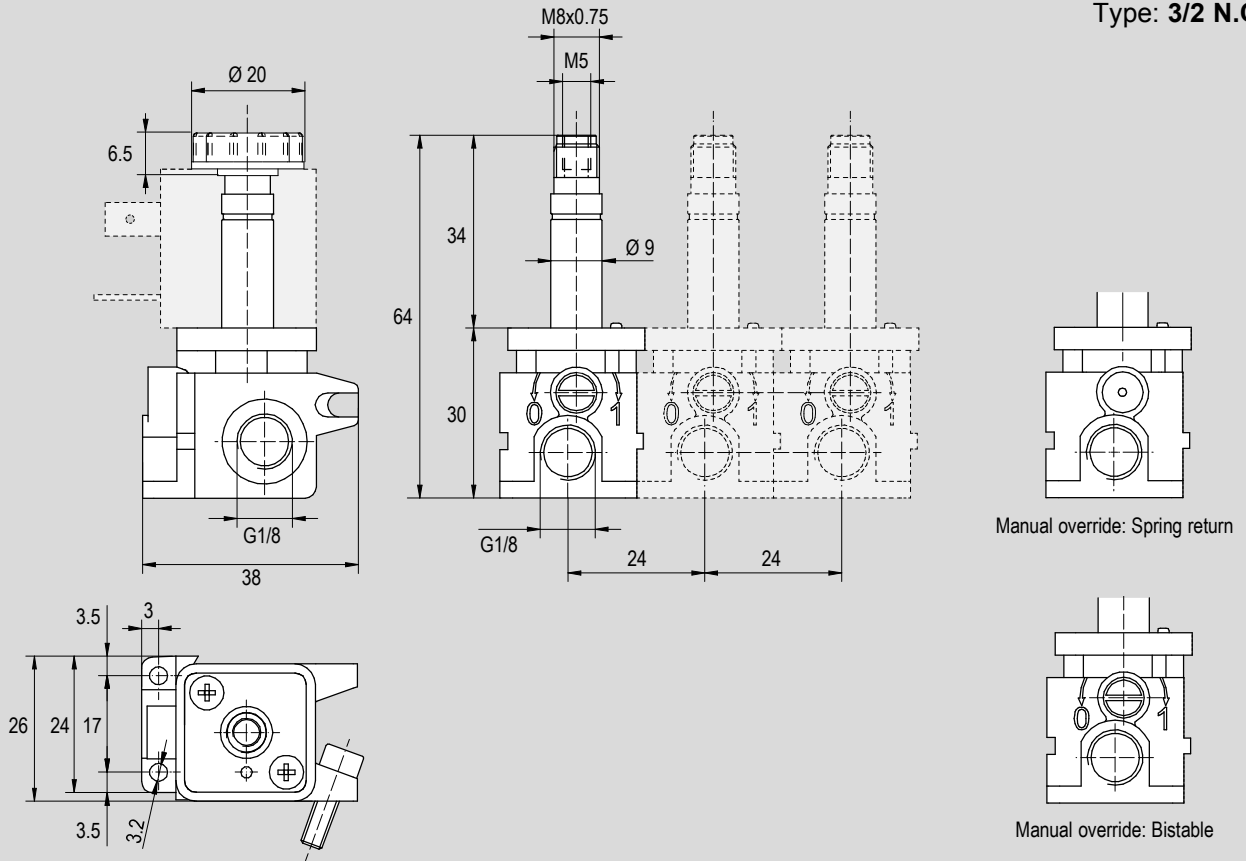
Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

22 mm directly operated solenoid valves
Series A1EM, 1/8" 3/2 N.C.



Standard dimensions

Type: 3/2 N.C.



2 - VALVES

Version	Symbol	Code	Item
3/2 Normally closed, with spring return manual override, orifice Ø1.2 mm		034188	A1EM13012M
3/2 Normally closed, with bistable manual override, orifice Ø1.2 mm		034189	A1EM13012B
3/2 Normally closed, with spring return manual override, orifice Ø1.0 mm		034197	A1EM13010M
3/2 Normally closed, with bistable manual override, orifice Ø1.0 mm		034198	A1EM13010B

22 mm directly operated solenoid valves

Series A1E..MD, 1/8" and 1/4" 3/2 N.C.



Main features

Version	Code	Item	Symbol
1/8", 3/2 N.C.	034226	A1E130MD	
1/4", 3/2 N.C.	034227	A1E230MD	



Technical data

Version	1/8", 3/2 N.C.	1/4", 3/2 N.C.
Code	034226	034227
Item	A1E130MD	A1E230MD
Size	1/8"	1/4"
Fluid	Filtered compressed air, min. 5µm, with or without lubrication.	
Pressure range	0 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C (standard)	-10°C ÷ +150°C (V) -25°C ÷ +60°C (BT)
Orifice Ø	1.2 mm	
Flow at 6 bar with ΔP 1 bar	29 NI/min.	
Mounting	In every position	
Manual override	Bistable	
Weight	100 g.	

Notes

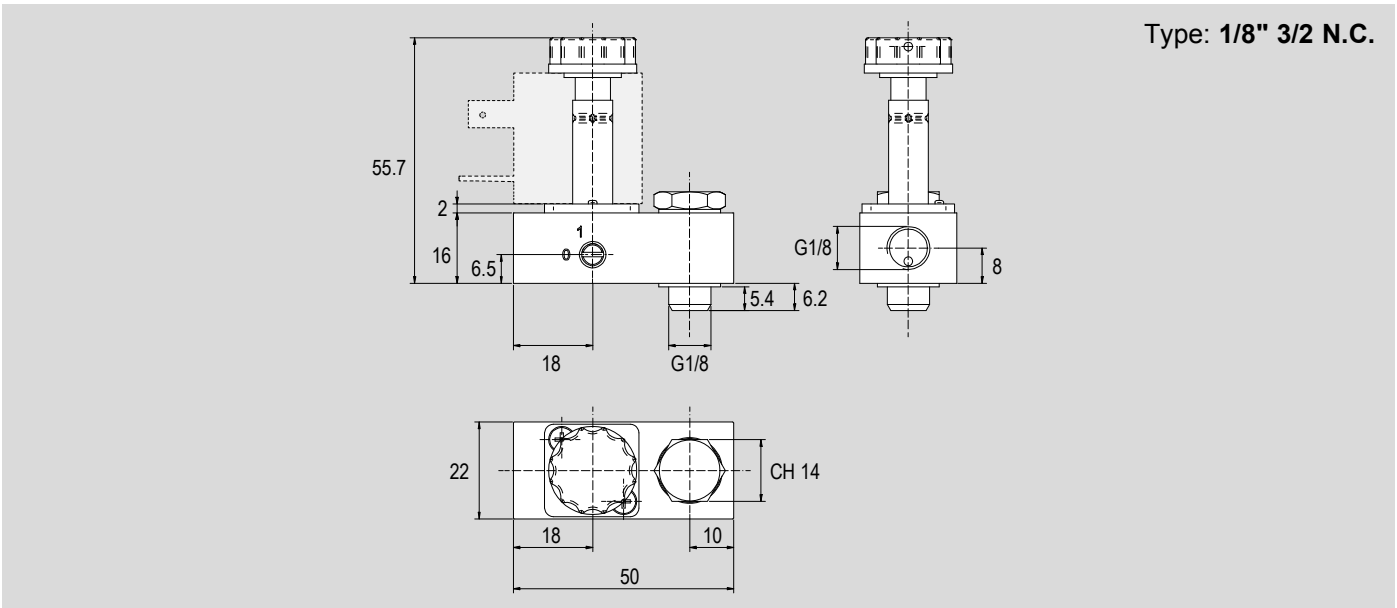
Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

22 mm directly operated solenoid valves
 Series A1E..MD, 1/8" and 1/4" 3/2 N.C.



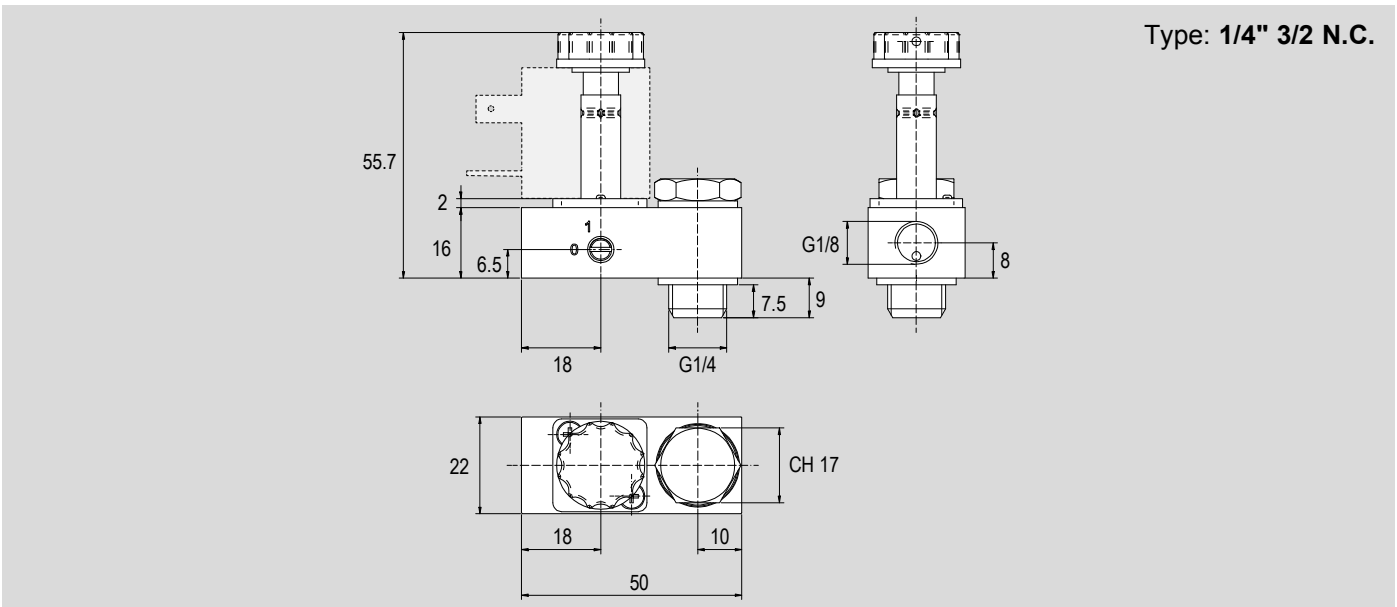
2 - VALVES

Standard dimensions



Version	Symbol	Code	Item
1/8", 3/2 N.C., with bistable manual override		034226	A1E130MD

Standard dimensions

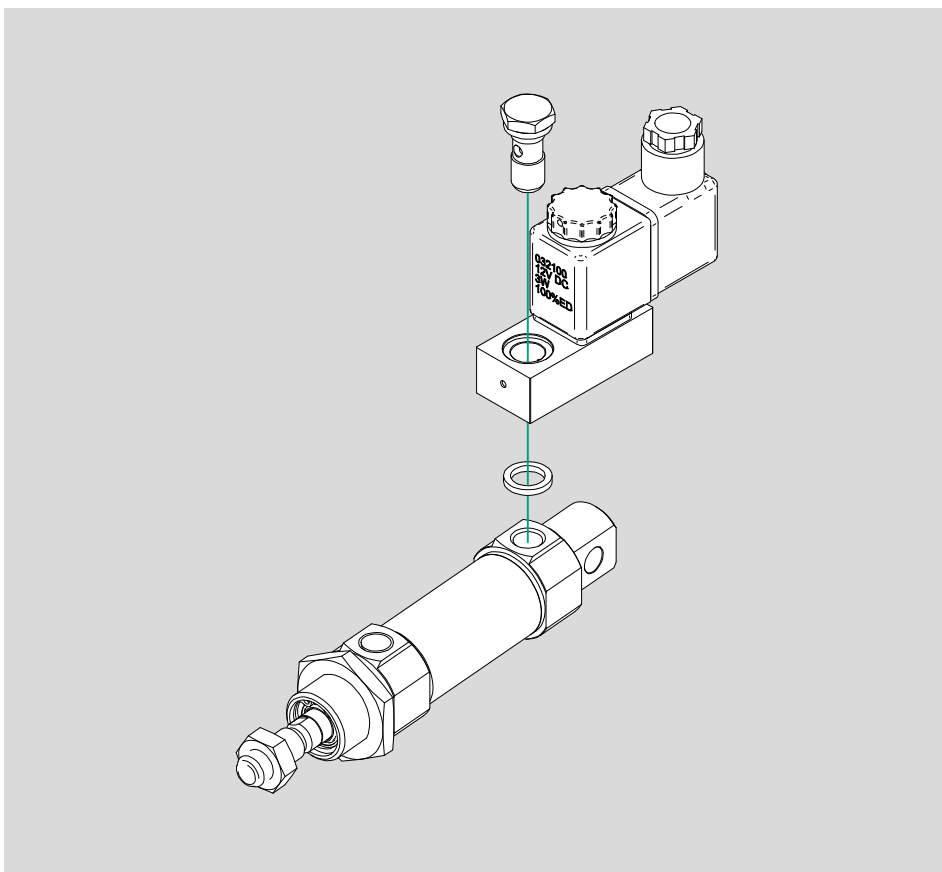
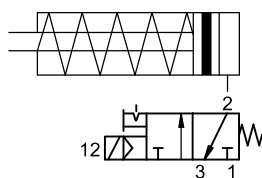


Version	Symbol	Code	Item
1/4", 3/2 N.C., with bistable manual override		034227	A1E230MD

Direct mounting on microcylinder

Example of 22 mm. directly operated solenoid valves series A1EMD application on a single acting microcylinder series MSM (fo these cylinders see page 1.2.1).

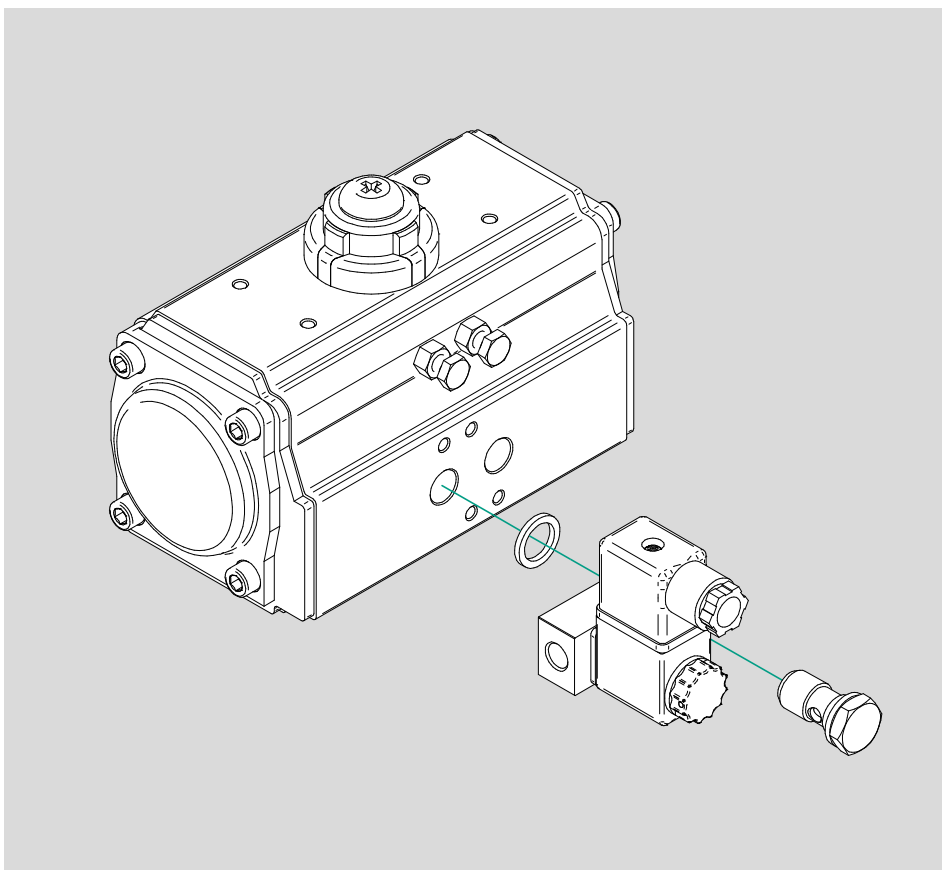
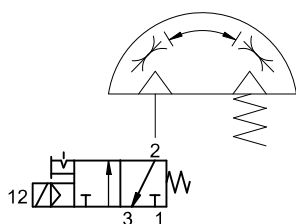
These valves can be directly mounted on the air connection of the cylinder without tubes.








Direct mounting on actuator

Example of 22 mm. directly operated solenoid valves series A1EMD application on a single acting rotary actuator series AR..SE (for these actuators see page 2.400.1).




These valves can be directly mounted on the air connection of the actuator without tubes or plates.



Coils ASA12..

	Voltage	Code	Item	Matching
	12V DC	032100	ASA1201200	A1EM A1E..MD
	12V AC	032101	ASA1201250	
	24V DC	032102 	ASA1202400	
	24V AC	032103 	ASA1202450	
	48V AC	032104	ASA1204850	
	110V AC	032105 	ASA1211050	
	230V AC	032106 	ASA1223050	

Connectors A122..*

	Code	Item	Description
 	032118 	A12209N	Black standard
	033521	A12209NK	Black standard cabled
	032204	A12209T1	LED+VDR transparent 24VAC-DC
	032205	A12209T2	LED+VDR transparent 115VAC-DC
	032206	A12209T3	LED+VDR transparent 230VAC-DC
	033522	A12209N1K	LED+VDR black cabled 24VAC-DC
	033523	A12209N2K	LED+VDR black cabled 115VAC-DC
	033524	A12209N3K	LED+VDR black cabled 230VAC-DC

* For coils type ASA12

SOLENOID OPERATED

valves Series A1



Find out our
key products



Solution for most applications



Easy and intuitive choice



Excellent value for money



Wide availability



Fast delivery



Features and certifications

Spool valves, with static seals, high flow, for panel or sub-base mounting. Available in sizes 1/8", 1/4" and 1/2", solenoid operated also with external air pilot, with functions: 3/2 solenoid/spring normally closed, 3/2 solenoid/spring normally open, 3/2 solenoid/solenoid, 5/2 solenoid/spring, 5/2 solenoid/solenoid and solenoid/solenoid differential, 5/3 with open centres, closed centres and pressurized centres.

Coils and connectors to be ordered separately.

Supplied as standard in compliance to Reach and RoHS directives, and SIL certified. On request the valve body can be supplied according to 2014/34/EU ATEX Directive, classification Ex h, and also complete with ATEX coil and connector, in different classifications (see from page 2.320.1).

Series A1 1/8" 3/2 Solenoid/Spring

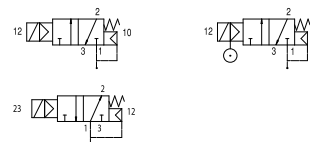
from page 2.21.10



Series of spool valves, with static seals, high flow, for panel or sub-base mounting.

Available in size 1/8", 3/2 solenoid/spring normally closed also with external air pilot, or 3/2 solenoid/spring normally open.

Coils and connectors to be ordered separately.



Series A1 1/8" 3/2 Solenoid/Solenoid

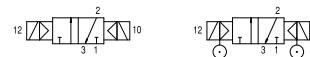
from page 2.21.30



Series of spool valves, with static seals, high flow, for panel or sub-base mounting.

Available in size 1/8", 3/2 solenoid/solenoid, also with external air pilot.

Coils and connectors to be ordered separately.



Series A1 1/8" 5/2 Solenoid/Spring

from page 2.21.50



Series of spool valves, with static seals, high flow, for panel or sub-base mounting.

Available in size 1/8", 5/2 solenoid/spring also with external air pilot.

Coils and connectors to be ordered separately.



Series A1 1/8" 5/2 Solenoid/Solenoid

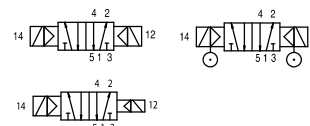
from page 2.21.70



Series of spool valves, with static seals, high flow, for panel or sub-base mounting.

Available in size 1/8", 5/2 solenoid/solenoid also with external air pilot, and 5/2 solenoid/solenoid differential.

Coils and connectors to be ordered separately.



Series A1 1/8" 5/3

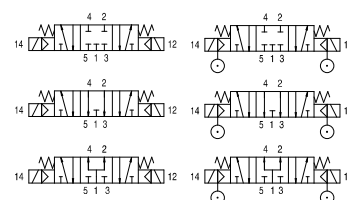
from page 2.21.90



Series of spool valves, with static seals, high flow, for panel or sub-base mounting.

Available in size 1/8", 5/3 closed centres, 5/3 open centres and 5/3 pressurized centres, solenoid operated also with external air pilot.

Coils and connectors to be ordered separately.



Series A1 1/8" 3/2 - 5/2 - 5/3 ATEX

from page 2.320.1



Series of spool valves, with static seals, high flow, for panel or sub-base mounting. Available in size 1/8", 3/2 solenoid/spring normally closed, normally open and solenoid/solenoid, 5/2 solenoid/spring and solenoid/solenoid, an 5/3 open centres, closed centres and pressurized centres, solenoid operated, supplied according to 2014/34/EU ATEX Directive in different classifications.



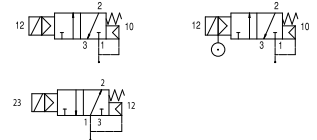


Series A1 1/4" 3/2 Solenoid/Spring

from page 2.23.10



Series of spool valves, with static seals, high flow, for panel or sub-base mounting.
Available in size 1/4", 3/2 solenoid/spring normally closed also with external air pilot, or 3/2 solenoid/spring normally open.
Coils and connectors to be ordered separately.



Series A1 1/4" 3/2 Solenoid/Solenoid

from page 2.23.30



Series of spool valves, with static seals, high flow, for panel or sub-base mounting.
Available in size 1/4", 3/2 solenoid/solenoid also with external air pilot.
Coils and connectors to be ordered separately.



Series A1 1/4" 5/2 Solenoid/Spring

from page 2.23.50



Series of spool valves, with static seals, high flow, for panel or sub-base mounting.
Available in size 1/4", 5/2 solenoid/spring also with external air pilot.
Coils and connectors to be ordered separately.

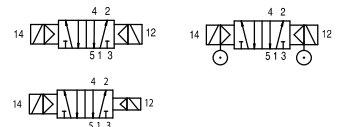


Series A1 1/4" 5/2 Solenoid/Solenoid

from page 2.23.70



Series of spool valves, with static seals, high flow, for panel or sub-base mounting.
Available in size 1/4", 5/2 solenoid/solenoid also with external air pilot, and 5/2 solenoid/solenoid differential.
Coils and connectors to be ordered separately.

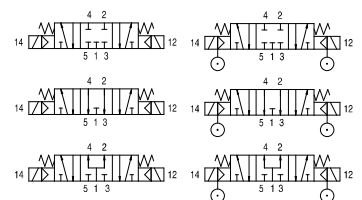


Series A1 1/4" 5/3

from page 2.23.90



Series of spool valves, with static seals, high flow, for panel or sub-base mounting.
Available in size 1/4", 5/3 closed centres, 5/3 open centres and 5/3 pressurized centres, solenoid operated also with external air pilot.
Coils and connectors to be ordered separately.



Series A1 1/4" 3/2 - 5/2 - 5/3 ATEX

from page 2.320.1



Series of spool valves, with static seals, high flow, for panel or sub-base mounting.
Available in size 1/4", 3/2 solenoid/spring normally closed, normally open and solenoid/solenoid, 5/2 solenoid/spring and solenoid/solenoid, an 5/3 open centres, closed centres and pressurized centres, solenoid operated, supplied according to 2014/34/EU ATEX Directive in different classifications.

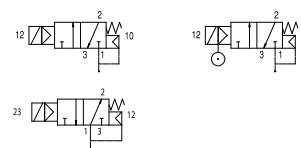


Series A1 1/2" 3/2 Solenoid/Spring

from page 2.25.10



Series of spool valves, with static seals, high flow, for panel mounting with screws.
Available in size 1/2", 3/2 solenoid/spring normally closed also with external air pilot, or 3/2 solenoid/spring normally open.
Coils and connectors to be ordered separately.

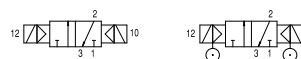


Series A1 1/2" 3/2 Solenoid/Solenoid

from page 2.25.30



Series of spool valves, with static seals, high flow, for panel mounting with screws.
Available in size 1/2", 3/2 solenoid/solenoid also with external air pilot.
Coils and connectors to be ordered separately.

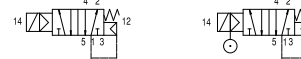


Series A1 1/2" 5/2 Solenoid/Spring

from page 2.25.50



Series of spool valves, with static seals, high flow, for panel mounting with screws.
Available in size 1/2", 5/2 solenoid/spring also with external air pilot.
Coils and connectors to be ordered separately.

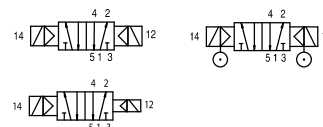


Series A1 1/2" 5/2 Solenoid/Solenoid

from page 2.25.70



Series of spool valves, with static seals, high flow, for panel mounting with screws.
Available in size 1/2", 5/2 solenoid/solenoid also with external air pilot, and 5/2 solenoid/solenoid differential.
Coils and connectors to be ordered separately.

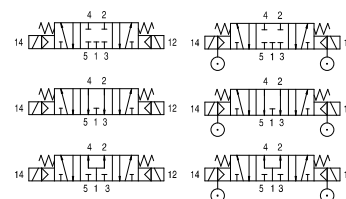


Series A1 1/2" 5/3

from page 2.25.90



Series of spool valves, with static seals, high flow, for panel mounting with screws.
Available in size 1/2", 5/3 closed centres, 5/3 open centres and 5/3 pressurized centres, solenoid operated, also with external air pilot.
Coils and connectors to be ordered separately.



Series A1 1/2" 3/2 - 5/2 - 5/3 ATEX

from page 2.320.1



Series of spool valves, with static seals, high flow, for panel mounting with screws.
Available in size 1/2", 3/2 solenoid/spring normally closed, normally open and solenoid/solenoid, 5/2 solenoid/spring and solenoid/solenoid, an 5/3 open centres, closed centres and pressurized centres, solenoid operated, supplied according to 2014/34/EU ATEX Directive in different classifications.



Options		
Description		Suffix
Low temperatures seals	-25°C ÷ +60°C	BT
ATEX valve body*		/ATEX
Special versions on request		/S

The options, when this is possible, can be combined with each other. For options matching see the table below; For code key see from page 2.20.6

*For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1.

Options matching

Series	Size	Function	Standard options matching		
			BT	/ATEX	
A1	1/8"	3/2	Solenoid/Spring	●	●
			Solenoid/Solenoid	●	●
		5/2	Solenoid/Spring	●	●
			Solenoid/Solenoid	●	●
		5/3		●	●
		1/4"	3/2	Solenoid/Spring	●
	Solenoid/Solenoid			●	●
	5/2		Solenoid/Spring	●	●
			Solenoid/Solenoid	●	●
	5/3		●	●	
	1/2"		3/2	Solenoid/Spring	●
		Solenoid/Solenoid		●	●
		5/2	Solenoid/Spring	●	●
			Solenoid/Solenoid	●	●
		5/3		●	●

Key

● allowed matching; - not allowed matching

Code key

Series	Actuation	Size	Function	Options	/	ATEX valve body						
A1	E	2	50		/							
A1	E = Electric K ⁽¹⁾ = Electric with external air pilot	1 = 1/8" 2 = 1/4" 4 = 1/2"	30 = 3/2 Normally closed 31 = 3/2 Normally open 32 = 3/2 Solenoid/Solenoid 50 = 5/2 Solenoid/Spring 51 = 5/2 Solenoid/Solenoid 52 = 5/2 Solenoid/Solenoid differential 70 = 5/3 Closed Centres 71 = 5/3 Open Centres 72 = 5/3 Pressurized Centres	BT = Low temperatures seals		<table border="1"> <tr> <td>ATEX*</td> <td> </td> <td>II 2G Ex h IIB T5 Gb II 2D Ex h IIIC T100°C Db</td> </tr> <tr> <td>ATEX**</td> <td> </td> <td>II 2G Ex h IIC T5 Gb II 2D Ex h IIIC T100°C Db</td> </tr> </table> <p>* For size 1/8" and 1/4" ** For size 1/2"</p>	ATEX*		II 2G Ex h IIB T5 Gb II 2D Ex h IIIC T100°C Db	ATEX**		II 2G Ex h IIC T5 Gb II 2D Ex h IIIC T100°C Db
ATEX*		II 2G Ex h IIB T5 Gb II 2D Ex h IIIC T100°C Db										
ATEX**		II 2G Ex h IIC T5 Gb II 2D Ex h IIIC T100°C Db										
						ATEX note <p>For ATEX coils and connectors choice, classification, features, dimensions and matching, see page 2.320.1</p> <p>For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1</p>						

How to order

Series	Actuation	Size	Function	Option
A1	E	2	50	-

Notes

Options in the same grid are alternative to each others.

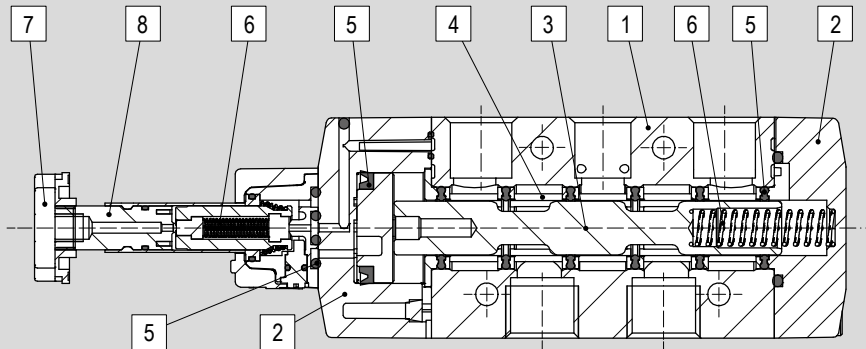
For further information on options and their matching, see page 2.20.5.

(1) Electrical actuation with external air pilot (K) is available only for function 3/2 N.C. (30), 3/2 solenoid/solenoid (32), 5/2 solenoid/spring (50), 5/2 solenoid/solenoid (51) and 5/3 (70, 71, 72).

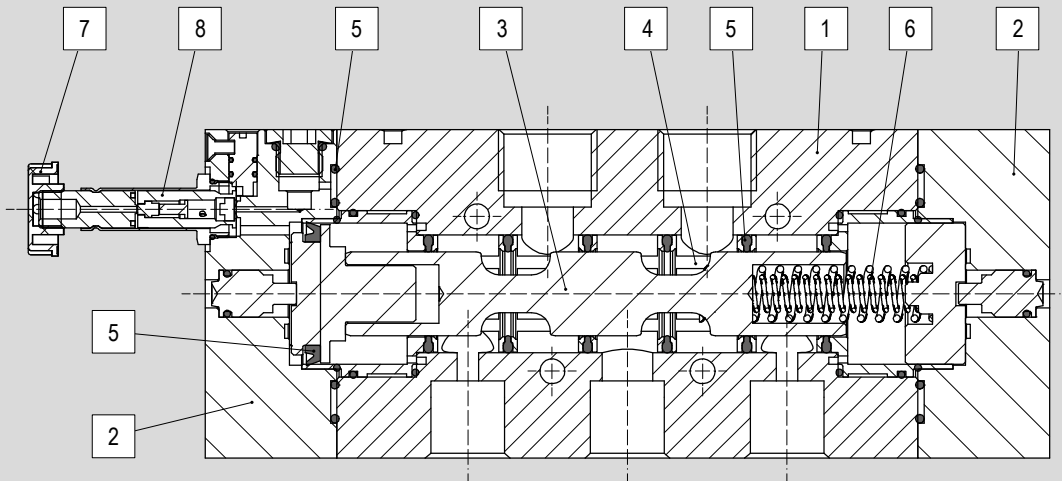
Coils and connectors to be ordered separately, see page 2.27.1

Standard materials

Size: 1/8"
1/4"



Size: 1/2"



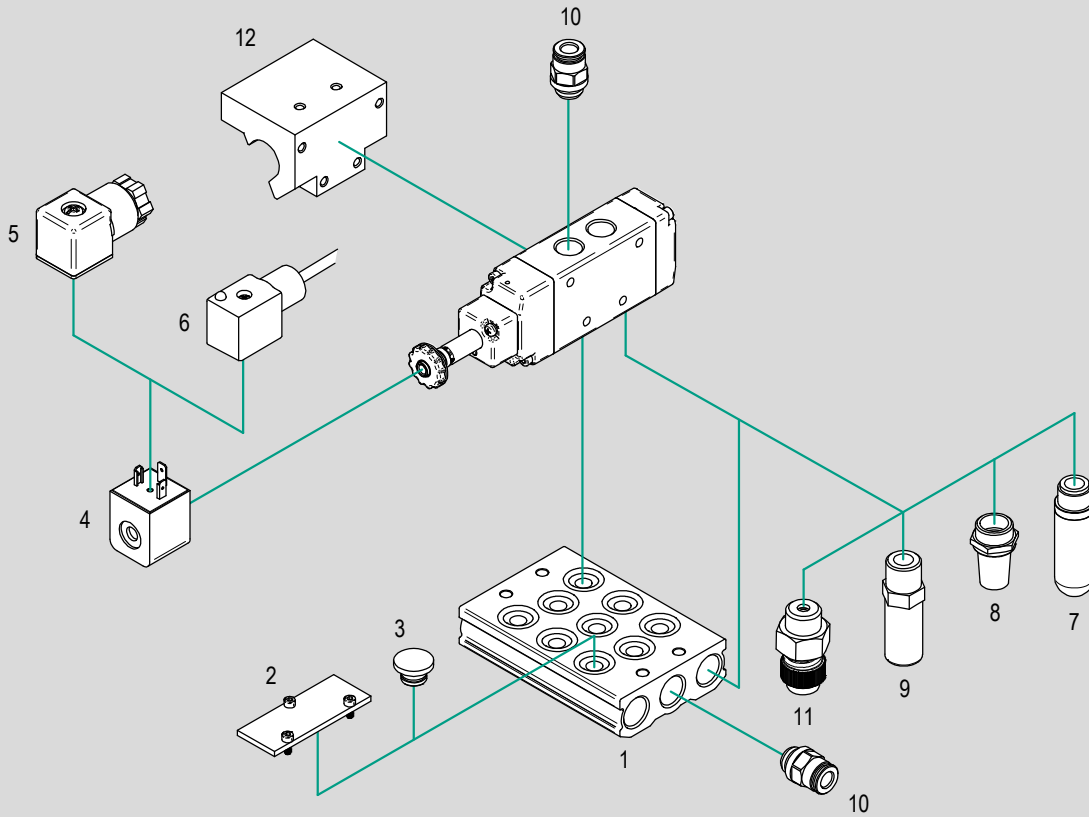
2 - VALVES

Position	Description	Material		
		1/8"	1/4"	1/2"
1	Body	Die-cast painted aluminium		Anodized aluminium
2	Covers	Tecnopolymer		Anodized aluminium
3	Spool	Hard anodized aluminium		
4	Distancers	Tecnopolymer		
5	Seals	HNBR		
6	Springs	Spring steel		
7	Locking nut	Plastic		
8	Plunger	Brass		

For coils materials see page 2.315.1

For connectors materials see page 2.318.1

Accessories



2 - VALVES

N.	Item	Description	Compliance	Matching			Code key page	Data sheet page	
				1/8"	1/4"	1/2"			
1	A1B..	Sub-bases	-	●	●	-	2.27.1	2.38.1	
2	A1C..	Closing plates for sub-bases	-	●	●	-		2.38.30	
3	A1T..	Plugs for sub-bases	-	●	●	-		2.315.10	
4	ASA12..	Coil	EN60204 VDE0580	●	●	●	2.27.1	2.315.11	
	ASA2..		EN60204.1 VDE0580	●	●	●		2.318.12	
5	A12209..	Connector	VDE 0110 - 1/89	●	●	●	2.27.1	2.318.14	
	A18209..			●	●	●		2.318.12	
6	A12209..K	Cabled connector		●	●	●		2.27.1	2.318.12
	A18209..K			●	●	●			2.318.14
7	AS..	Plastic silencers	-	●	●	●	4.151.10		
	SP..		-	●	●	●	4.151.20		
8	A..	Sintered silencers	-	●	●	●	4.153.10		
9	M..	Metal silencers	-	●	●	●	4.155.10		
10	R..	Push-in fittings	UNI ISO 228/1 UNI ISO7/1 ISO R/232	●	●	●	4.2.1		
11	A..	Silenced exhaust restrictors	-	●	●	●	4.97.1		
12	PSV..	Plate for ISO cylinders	ISO15552	●	●	●	2.27.2	2.39.1	

Key

● matching accessory; - not matching accessory

Solenoid operated valves series A1

1/8", 3/2 Solenoid/Spring



Main features

Version	Code	Item	Symbol
3/2 Normally closed	034003	A1E130	
3/2 Normally closed with external air pilot	034006	A1K130	
3/2 Normally open	034004	A1E131	



Technical data

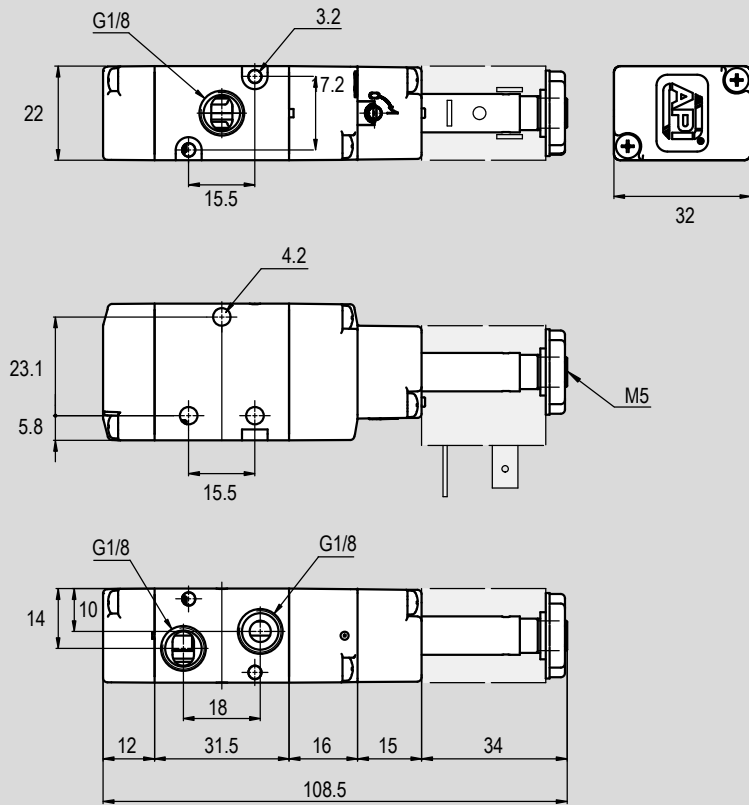
Version	3/2 Normally closed	3/2 Normally closed with external air pilot	3/2 Normally open
Code	034003	034006	034004
Item	A1E130	A1K130	A1E131
Size	1/8"		
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	1,5 ÷ 10 bar		
Minimum external air pressure	-	1,5 bar	-
Temperature range	-10°C ÷ +60°C (standard)		-25°C ÷ +60°C (BT)
Plunger Ø	9 mm		
Orifice Ø	6.5 mm		
Flow at 6 bar with ΔP 1 bar	650 NI/min.		
Mounting	In every position		
Manual override	Bistable		
Response time at 6 bar	Energizing	35 ms.	
	De-energizing	15 ms.	

Notes

Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Standard dimensions

Type: **3/2 N.C.**
3/2 N.O.

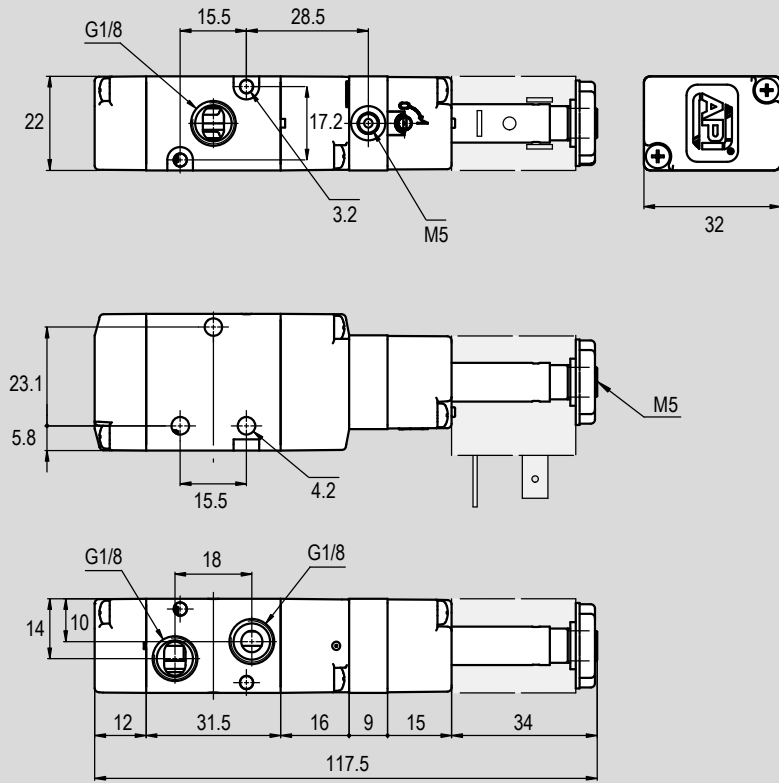


2 - VALVES

Version	Symbol	Code	Item
1/8" 3/2 Normally closed		034003	A1E130
1/8" 3/2 Normally open		034004	A1E131

Standard dimensions

Type: 3/2 N.C. with external air pilot



2 - VALVES

Version	Symbol	Code	Item
1/8" 3/2 Normally closed with external air pilot		034006	A1K130

Solenoid operated valves series A1

1/8", 3/2 Solenoid/Solenoid



Main features

Version	Code	Item	Symbol
3/2 solenoid/solenoid	034005	A1E132	
3/2 solenoid/solenoid with external air pilot	034007	A1K132	



Technical data

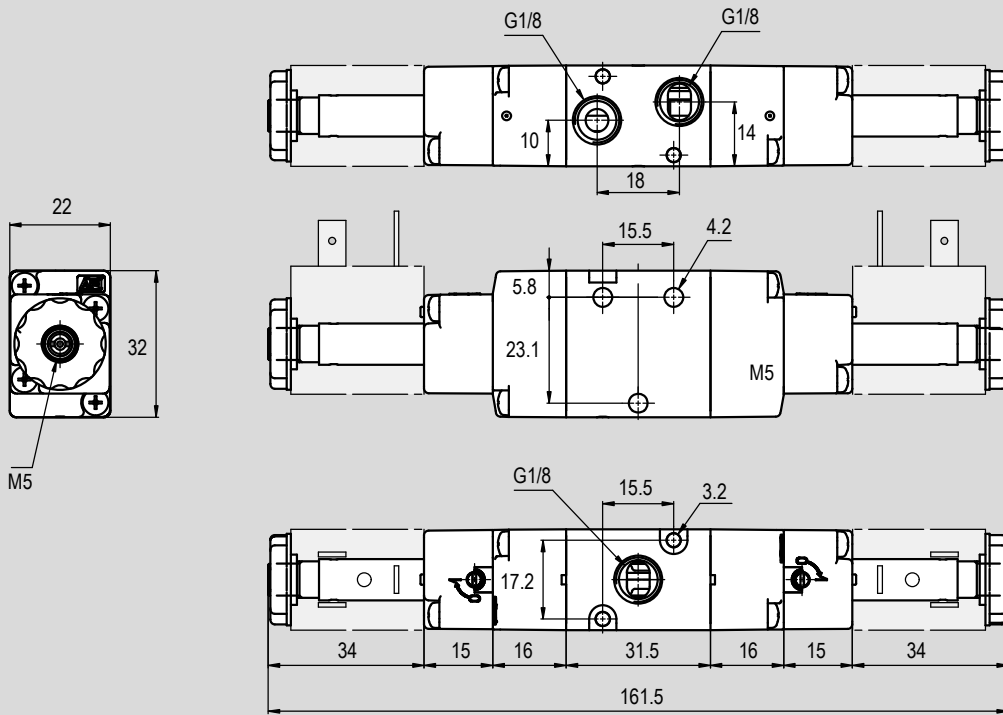
Version	3/2 solenoid/solenoid	3/2 solenoid/solenoid with external air pilot
Code	034005	034007
Item	A1E132	A1K132
Size	1/8"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1 ÷ 10 bar	
Minimum external air pressure	-	1,5 bar
Temperature range	-10°C ÷ +60°C (standard)	-25°C ÷ +60°C (BT)
Plunger Ø	9 mm	
Orifice Ø	6.5 mm	
Flow at 6 bar with ΔP 1 bar	650 NI/min.	
Mounting	In every position	
Manual override	Bistable	
Response time at 6 bar	Energizing	20 ms.
	De-energizing	20 ms.

Notes

Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Standard dimensions

Type: **3/2 solenoid/solenoid**



2 - VALVES

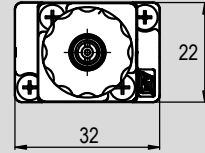
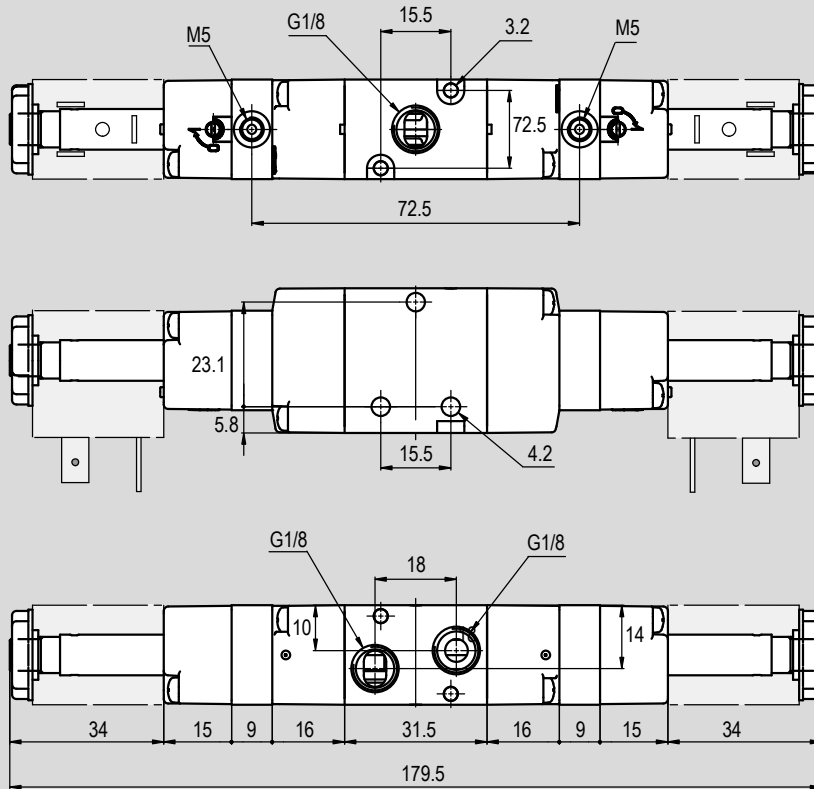
Version	Symbol	Code	Item
1/8" 3/2 solenoid/solenoid		034005	A1E132

Solenoid operated valves series A1
1/8", 3/2 Solenoid/Solenoid



Standard dimensions

Type: 3/2 solenoid/solenoid with external air pilot



2 - VALVES


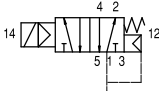
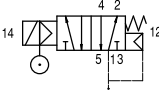
Version	Symbol	Code	Item
1/8" 3/2 solenoid/solenoid with external air pilot		034007	A1K132

Solenoid operated valves series A1

1/8", 5/2 Solenoid/Spring



Main features

Version	Code	Item	Symbol
5/2 solenoid/spring	034011 	A1E150	
5/2 solenoid/spring with external air pilot	034012	A1K150	



Technical data

Version	5/2 solenoid/spring	5/2 solenoid/spring with external air pilot
Code	034011	034012
Item	A1E150	A1K150
Size	1/8"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1,5 ÷ 10 bar	
Minimum external air pressure	-	1,5 bar
Temperature range	-10°C ÷ +60°C (standard) -25°C ÷ +60°C (BT)	
Plunger Ø	9 mm	
Orifice Ø	6.5 mm	
Flow at 6 bar with ΔP 1 bar	650 NI/min.	
Mounting	In every position	
Manual override	Bistable	
Response time at 6 bar	Energizing	35 ms.
	De-energizing	15 ms.

Notes

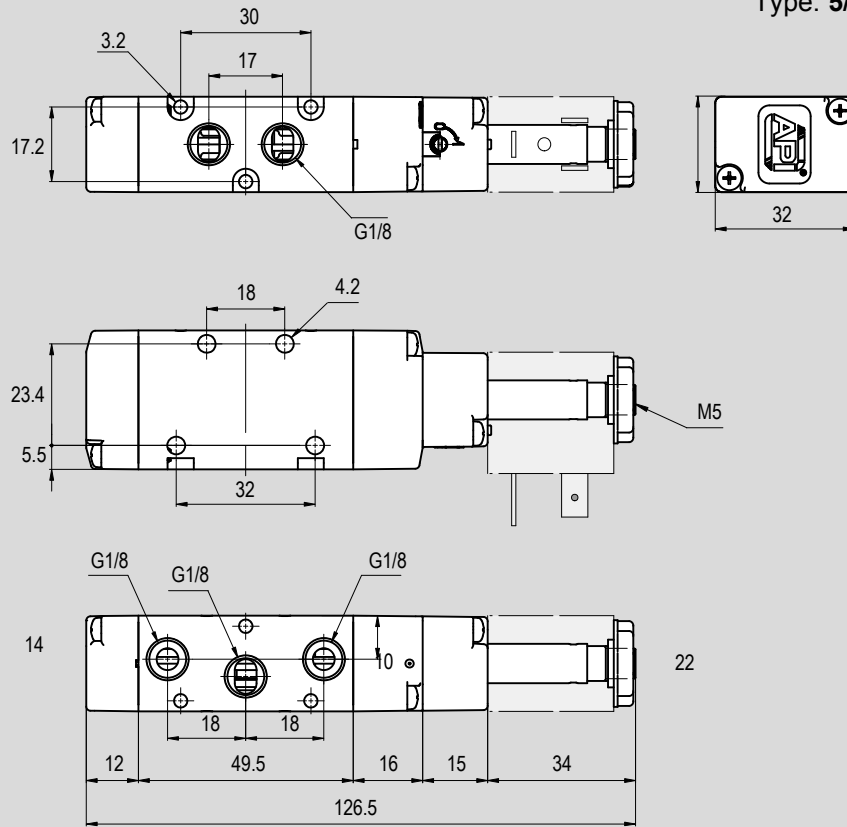
Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Solenoid operated valves series A1
 1/8", 5/2 Solenoid/Spring



Standard dimensions

Type: 5/2 solenoid/spring

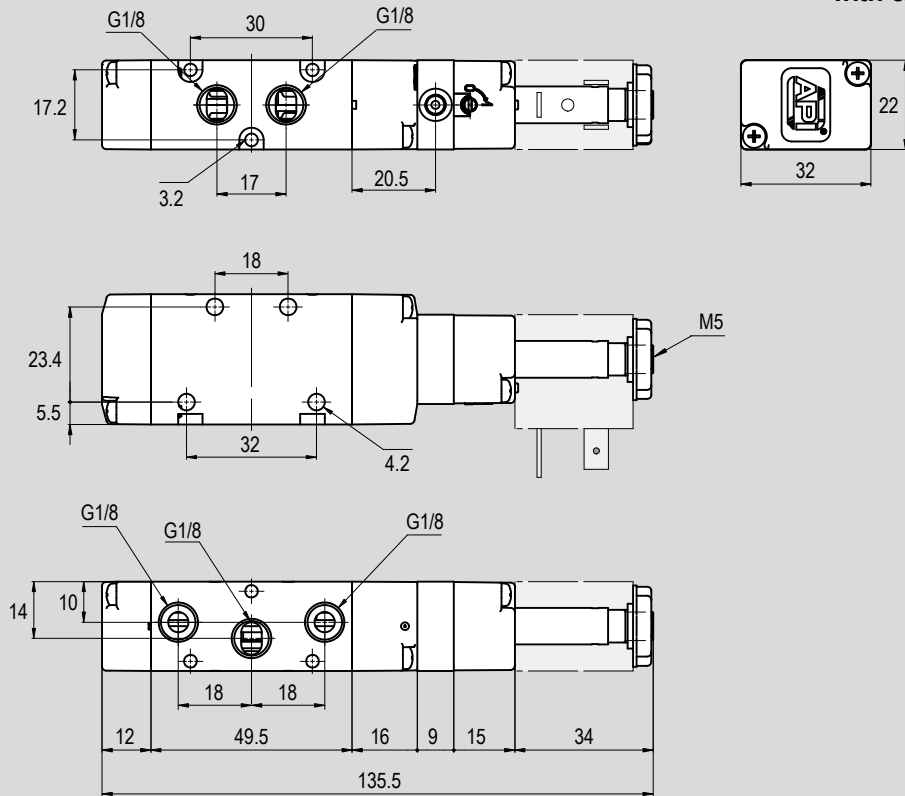


2 - VALVES

Version	Symbol	Code	Item
1/8" 5/2 solenoid/spring		034011	A1E150

Standard dimensions

Type: **5/2 solenoid/spring with external air pilot**



Version	Symbol	Code	Item
1/8" 5/2 solenoid/spring with external air pilot		034012	A1K150

Solenoid operated valves series A1

1/8", 5/2 Solenoid/Solenoid



Main features

Version	Code	Item	Symbol
5/2 solenoid/solenoid	034021	A1E151	
5/2 solenoid/solenoid differential	034222	A1E152	
5/2 solenoid/solenoid with external air pilot	034008	A1K151	



Technical data

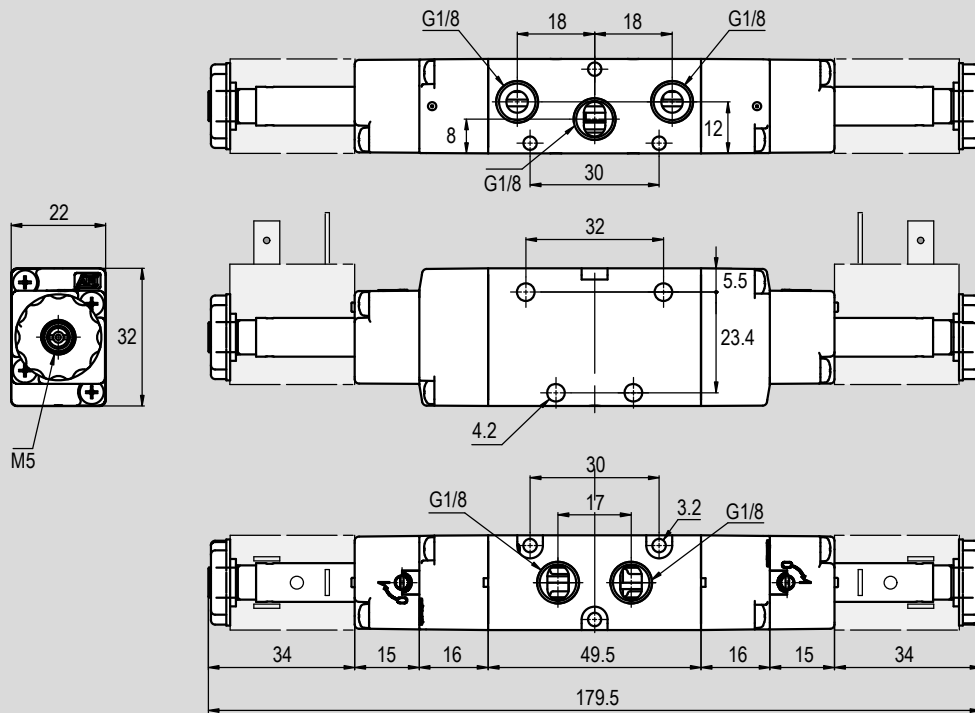
Version	5/2 bistabile	5/2 solenoid/solenoid differential	5/2 solenoid/solenoid with external air pilot
Code	034021	034222	034008
Item	A1E151	A1E152	A1K151
Size	1/8"		
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	1 ÷ 10 bar		
Minimum external air pressure	-		1,5 bar
Temperature range	-10°C ÷ +60°C (standard)		-25°C ÷ +60°C (BT)
Plunger Ø	9 mm		
Orifice Ø	6.5 mm		
Flow at 6 bar with ΔP 1 bar	650 NI/min.		
Mounting	In every position		
Manual override	Bistable		
Response time at 6 bar	Energizing	20 ms.	
	De-energizing	20 ms.	

Notes

Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Standard dimensions

Type: **5/2 solenoid/solenoid**
5/2 sol./sol. differential

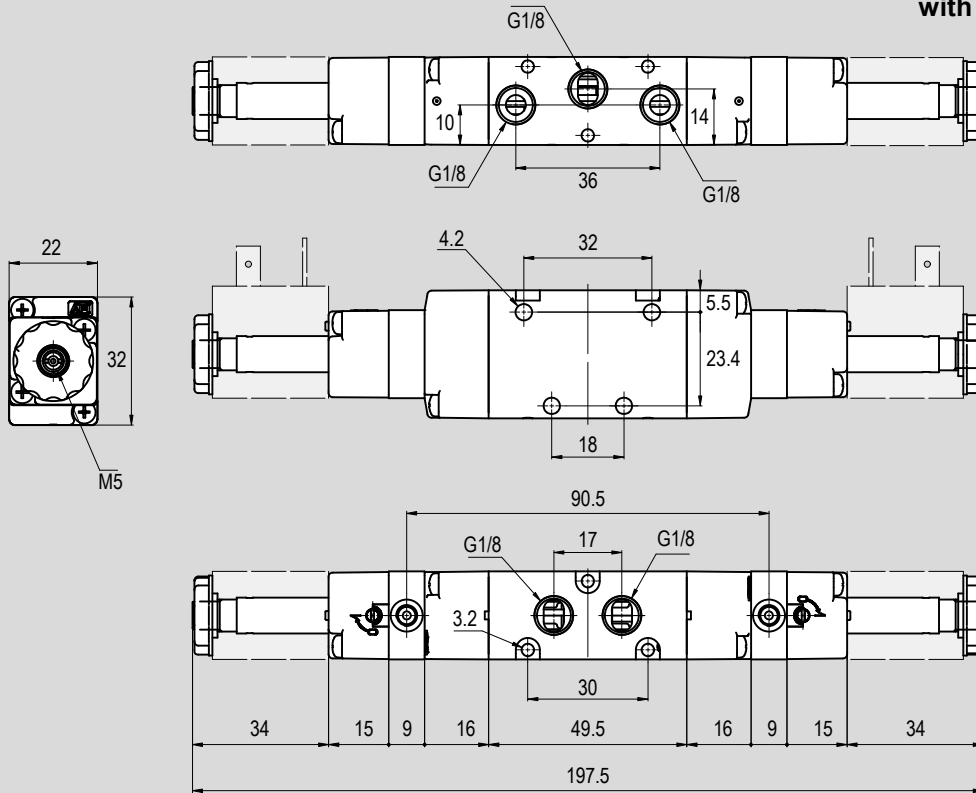


2 - VALVES

Version	Symbol	Code	Item
1/8" 5/2 solenoid/solenoid		034021	A1E151
1/8" 5/2 solenoid/solenoid differential		034222	A1E152

Standard dimensions

Type: **5/2 solenoid/solenoid with external air pilot**



2 - VALVES

Version	Symbol	Code	Item
1/8" 5/2 solenoid/solenoid with external air pilot		034008	A1K151

Solenoid operated valves series A1

1/8", 5/3



Main features

Version	Code	Item	Symbol
5/3 closed centres	034031	A1E170	
5/3 open centres	034033	A1E171	
5/3 pressurized centres	034032	A1E172	
5/3 closed centres with external air pilot	034009	A1K170	
5/3 open centres with external air pilot	034010	A1K171	
5/3 pressurized centres with external air pilot	034013	A1K172	



Technical data

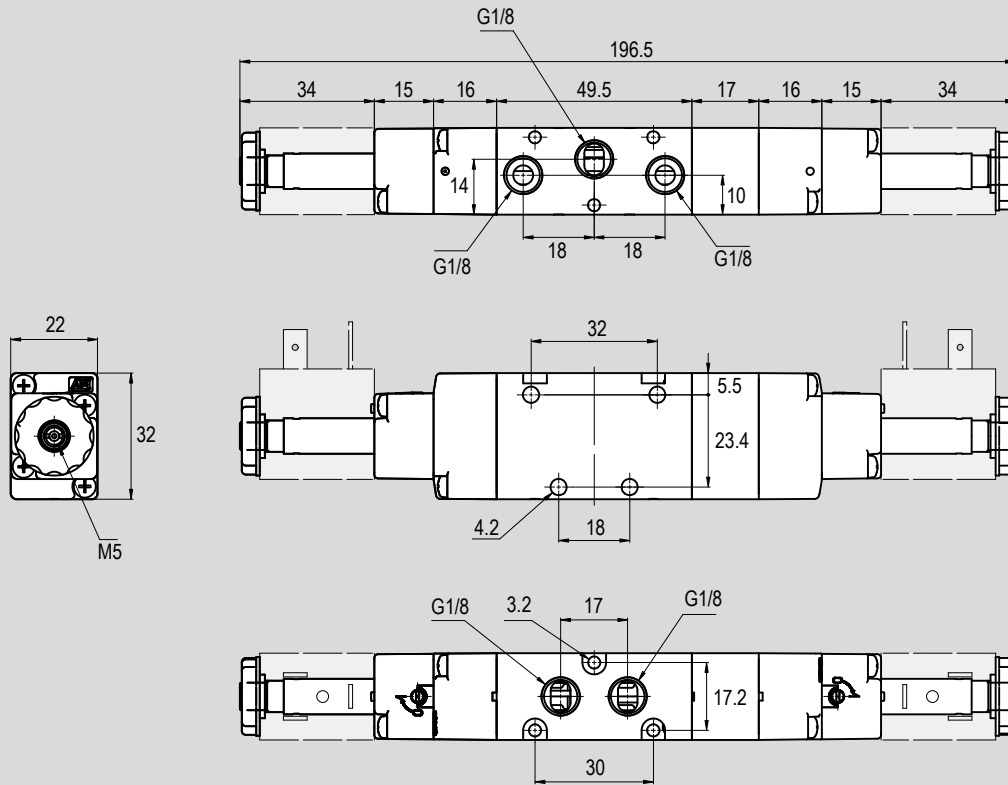
Version	5/3 closed centres	5/3 open centres	5/3 pressurized centres	5/3 closed centres with external air pilot	5/3 open centres with external air pilot	5/3 pressurized centres with external air pilot
Code	034031	034033	034032	034009	034010	034013
Item	A1E170	A1E171	A1E172	A1K170	A1K171	A1K172
Size	1/8"					
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.					
Pressure range	2,5 ÷ 10 bar					
Minimum external air pressure	-			1,5 bar		
Temperature range	-10°C ÷ +60°C (standard)		-25°C ÷ +60°C (BT)			
Plunger Ø	9 mm					
Orifice Ø	6.5 mm					
Flow at 6 bar with ΔP 1 bar	650 NI/min.					
Mounting	In every position					
Manual override	Bistable					
Response time at 6 bar	Energizing	20 ms.				
	De-energizing	20 ms.				

Notes

Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Standard dimensions

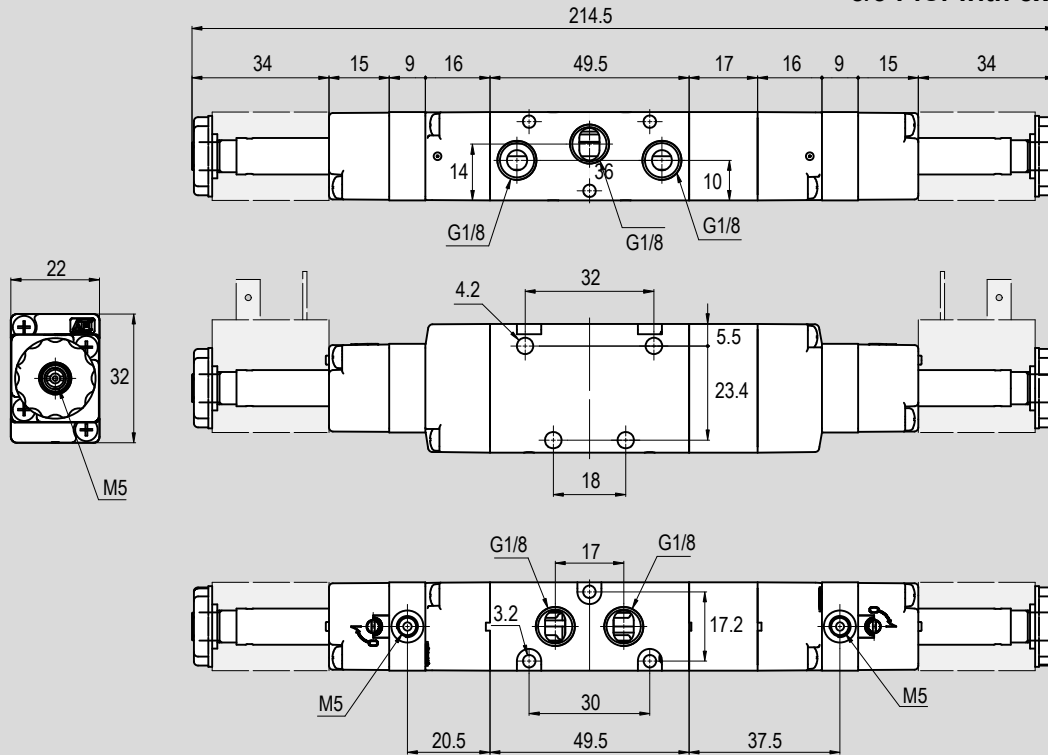
Type: **5/3 C.C.**
5/3 O.C.
5/3 P.C.



Version	Symbol	Code	Item
1/8" 5/3 closed centres		034031	A1E170
1/8" 5/3 open centres		034033	A1E171
1/8" 5/3 pressurized centres		034032	A1E172

Standard dimensions

Type: 5/3 C.C. with external air pilot
5/3 O.C. with external air pilot
5/3 P.C. with external air pilot



2 - VALVES

Version	Symbol	Code	Item
1/8" 5/3 closed centres with external air pilot		034009	A1K170
1/8" 5/3 open centres with external air pilot		034010	A1K171
1/8" 5/3 pressurized centres with external air pilot		034013	A1K172

Solenoid operated valves series A1

1/4", 3/2 Solenoid/Spring



Main features

Version	Code	Item	Symbol
3/2 Normally closed	034025	A1E230	
3/2 Normally closed with external air pilot	034039	A1K230	
3/2 Normally open	034040	A1E231	



Technical data

Version	3/2 Normally closed	3/2 Normally closed with external air pilot	3/2 Normally open
Code	034025	034039	034040
Item	A1E230	A1K230	A1E231
Size	1/4"		
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	1,5 ÷ 10 bar		
Minimum external air pressure	-	1,5 bar	-
Temperature range	-10°C ÷ +60°C (standard)		-25°C ÷ +60°C (BT)
Plunger Ø	9 mm		
Orifice Ø	8 mm		
Flow at 6 bar with ΔP 1 bar	1.100 Nl/min.		
Mounting	In every position		
Manual override	Bistable		
Response time at 6 bar	Energizing	45 ms.	
	De-energizing	19 ms.	

Notes

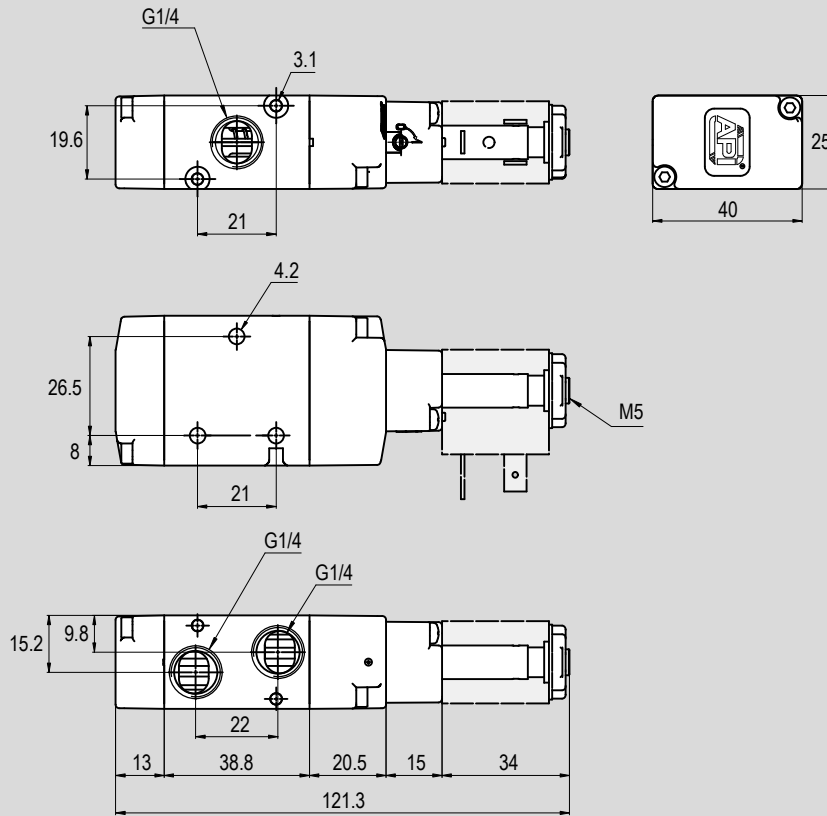
Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Solenoid operated valves series A1
1/4", 3/2 Solenoid/Spring



Standard dimensions

Type: **3/2 N.C.**
3/2 N.O.

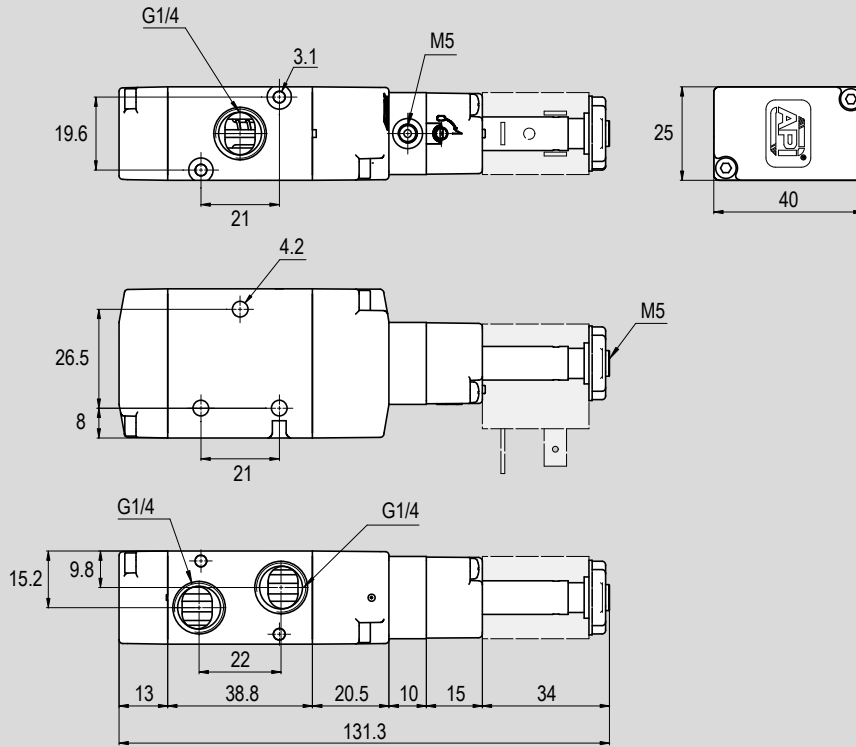


2 - VALVES

Version	Symbol	Code	Item
1/4" 3/2 Normally closed		034025	A1E230
1/4" 3/2 Normally open		034040	A1E231

Standard dimensions

Type: 3/2 N.C. with external air pilot



2 - VALVES

Version	Symbol	Code	Item
1/4" 3/2 Normally closed with external air pilot		034039	A1K230

Solenoid operated valves series A1

1/4", 3/2 Solenoid/Solenoid



Main features

Version	Code	Item	Symbol
3/2 solenoid/solenoid	034024	A1E232	
3/2 solenoid/solenoid with external air pilot	034023	A1K232	



Technical data

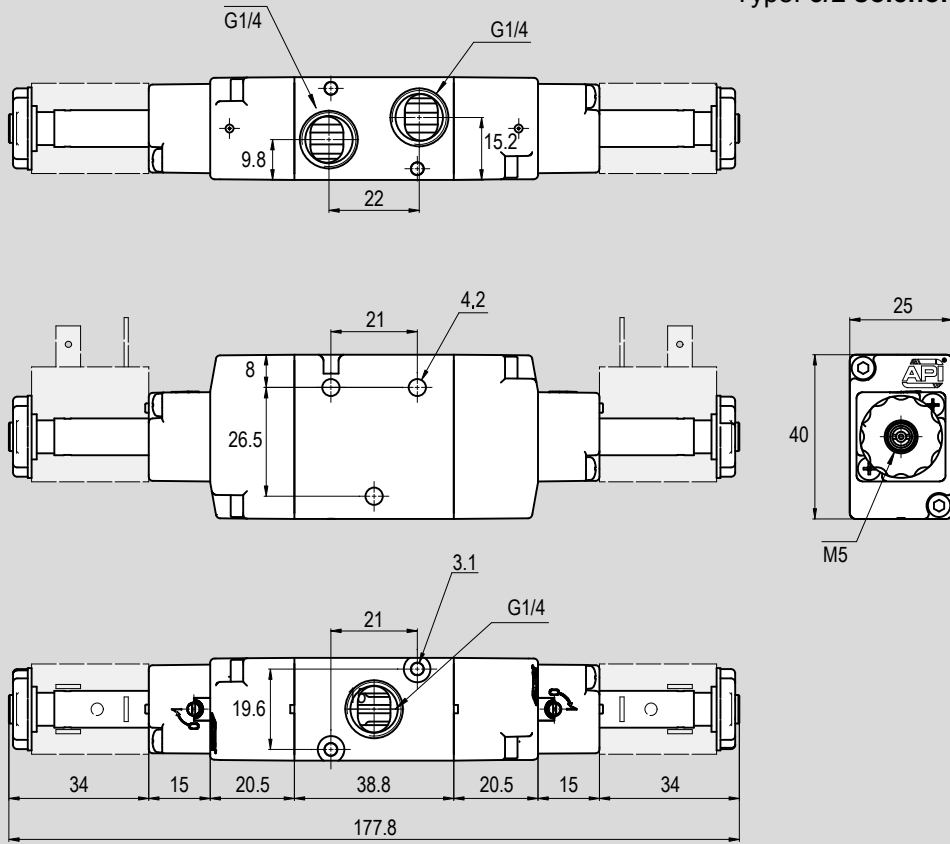
Version	3/2 solenoid/solenoid	3/2 solenoid/solenoid with external air pilot
Code	034024	034023
Item	A1E232	A1K232
Size	1/4"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1 ÷ 10 bar	
Minimum external air pressure	-	1,5 bar
Temperature range	-10°C ÷ +60°C (standard) -25°C ÷ +60°C (BT)	
Plunger Ø	9 mm	
Orifice Ø	8 mm	
Flow at 6 bar with ΔP 1 bar	1.100 NI/min.	
Mounting	In every position	
Manual override	Bistable	
Response time at 6 bar	Energizing	21 ms.
	De-energizing	21 ms.

Notes

Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Standard dimensions

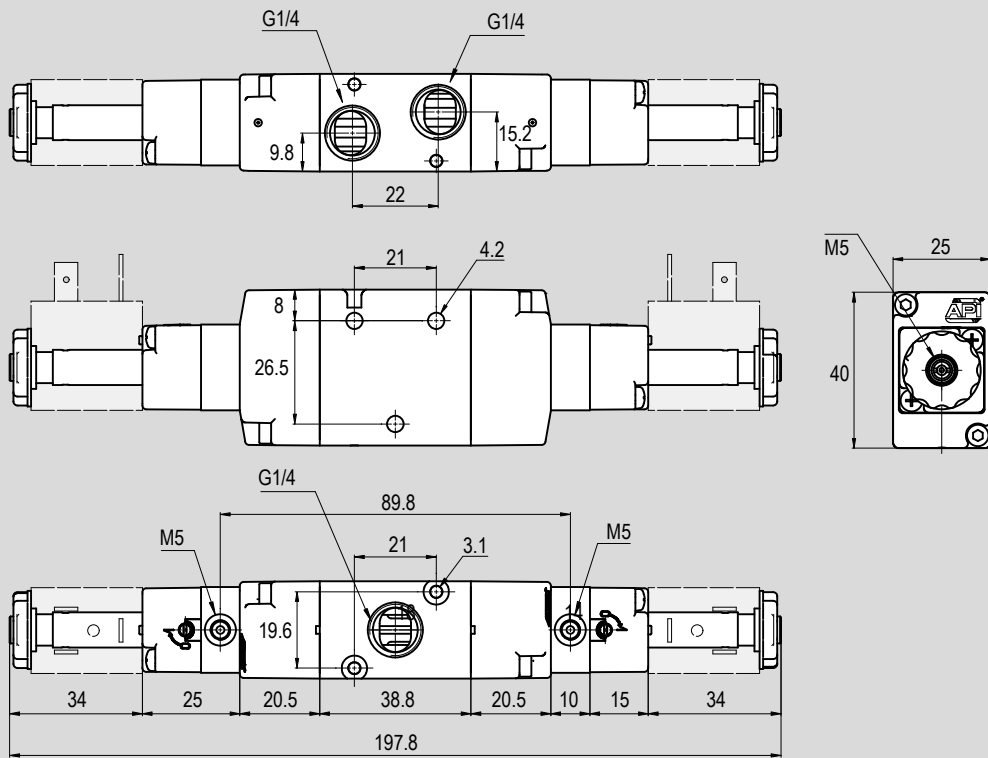
Type: 3/2 solenoid/solenoid



Version	Symbol	Code	Item
1/4" 3/2 solenoid/solenoid		034024	A1E232

Standard dimensions

Type: **3/2 solenoid/solenoid with external air pilot**



Version	Symbol	Code	Item
1/4" 3/2 solenoid/solenoid with external air pilot		034023	A1K232

Solenoid operated valves series A1

1/4", 5/2 Solenoid/Spring



Main features

Version	Code	Item	Symbol
5/2 solenoid/spring	034111	A1E250	
5/2 solenoid/spring with external air pilot	034035	A1K250	



Technical data

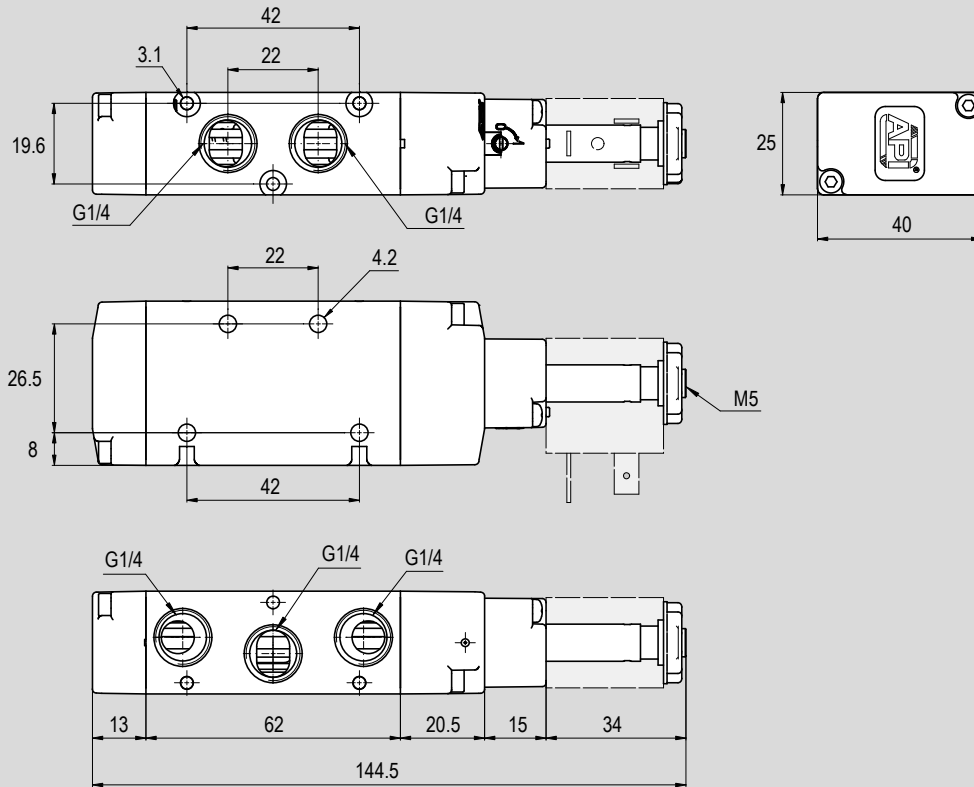
Version	5/2 solenoid/spring	5/2 solenoid/spring with external air pilot
Code	034111	034035
Item	A1E250	A1K250
Size	1/4"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1,5 ÷ 10 bar	
Minimum external air pressure	-	1,5 bar
Temperature range	-10°C ÷ +60°C (standard) -25°C ÷ +60°C (BT)	
Plunger Ø	9 mm	
Orifice Ø	8 mm	
Flow at 6 bar with ΔP 1 bar	1.100 NI/min.	
Mounting	In every position	
Manual override	Bistable	
Response time at 6 bar	Energizing	45 ms.
	De-energizing	19 ms.

Notes

Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Standard dimensions

Type: 5/2 solenoid/spring



2 - VALVES

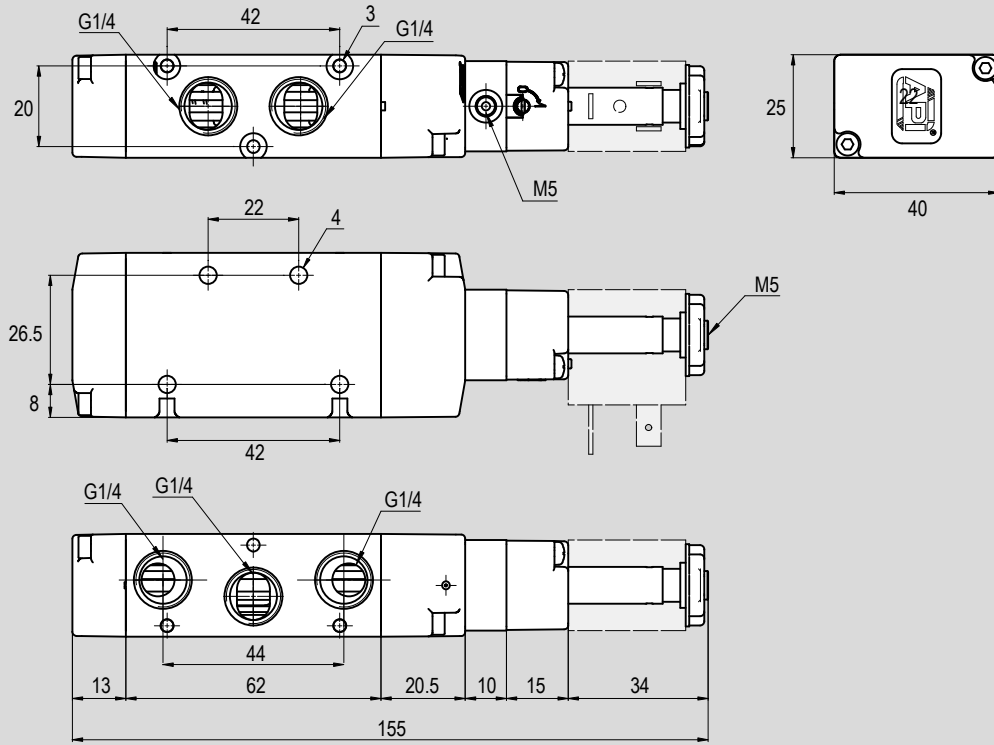
Version	Symbol	Code	Item
1/4" 5/2 solenoid/spring		034111	A1E250

Solenoid operated valves series A1
1/4", 5/2 Solenoid/Spring



Standard dimensions

Type: **5/2 solenoid/spring with external air pilot**



Version	Symbol	Code	Item
1/4" 5/2 solenoid/spring with external air pilot		034035	A1K250

Solenoid operated valves series A1

1/4", 5/2 Solenoid/Solenoid



Main features

Version	Code	Item	Symbol
5/2 solenoid/solenoid	034121	A1E251	
5/2 solenoid/solenoid differential	034223	A1E252	
5/2 solenoid/solenoid with external air pilot	034034	A1K251	



Technical data

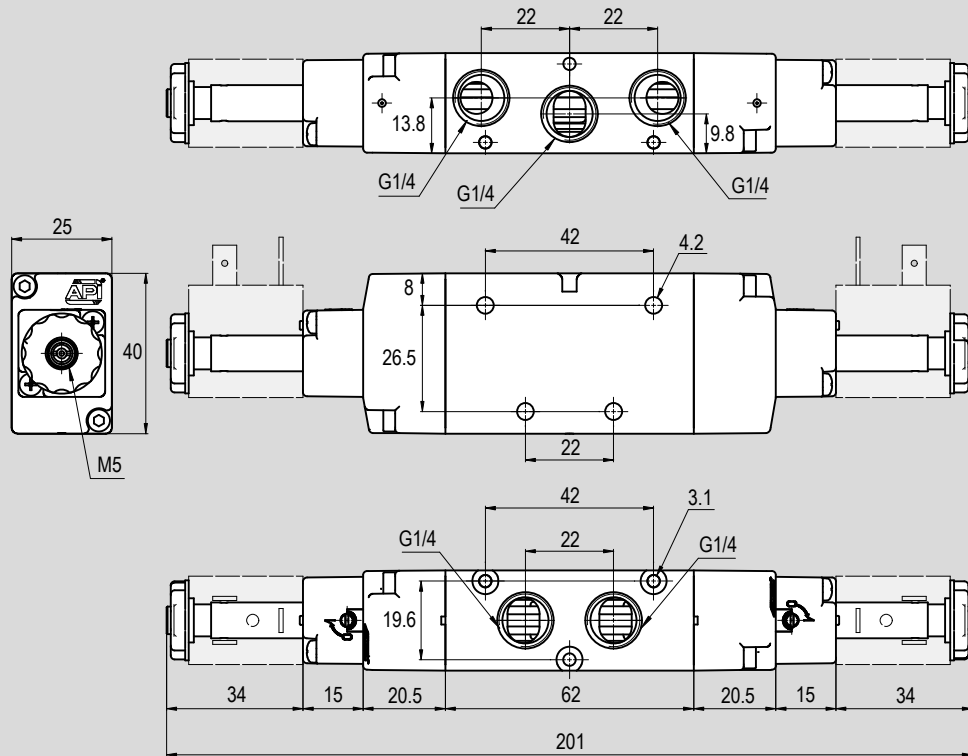
Version	5/2 solenoid/solenoid	5/2 solenoid/solenoid differential	5/2 solenoid/solenoid with external air pilot
Code	034121	034223	034034
Item	A1E251	A1E252	A1K251
Size	1/4"		
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	1 ÷ 10 bar		
Minimum external air pressure	-		1,5 bar
Temperature range	-10°C ÷ +60°C (standard)		-25°C ÷ +60°C (BT)
Plunger Ø	9 mm		
Orifice Ø	8 mm		
Flow at 6 bar with ΔP 1 bar	1.100 Nl/min.		
Mounting	In every position		
Manual override	Bistable		
Response time at 6 bar	Energizing	21 ms.	
	De-energizing	21 ms.	

Notes

Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Standard dimensions

Type: **5/2 solenoid/solenoid**
5/2 sol./sol. differential

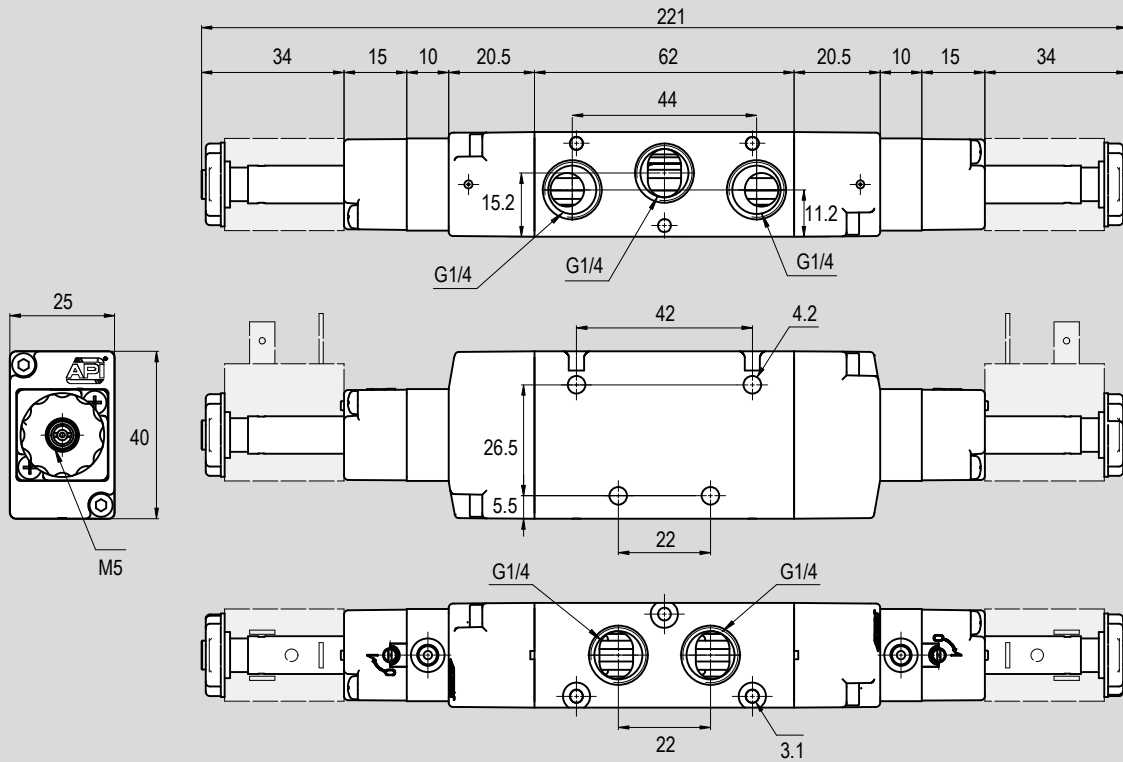


2 - VALVES

Version	Symbol	Code	Item
1/4" 5/2 solenoid/solenoid		034121	A1E251
1/4" 5/2 solenoid/solenoid differential		034223	A1E252

Standard dimensions

Type: 5/2 solenoid/solenoid with external air pilot



2 - VALVES

Version	Symbol	Code	Item
1/4" 5/2 solenoid/solenoid with external air pilot		034034	A1K251

Solenoid operated valves series A1

1/4", 5/3



Main features

Version	Code	Item	Symbol
5/3 closed centres	034131	A1E270	
5/3 open centres	034133	A1E271	
5/3 pressurized centres	034132	A1E272	
5/3 closed centres with external air pilot	034037	A1K270	
5/3 open centres with external air pilot	034038	A1K271	
5/3 pressurized centres with external air pilot	034036	A1K272	



Technical data

Version	5/3 closed centres	5/3 open centres	5/3 pressurized centres	5/3 closed centres with external air pilot	5/3 open centres with external air pilot	5/3 pressurized centres with external air pilot
Code	034131	034133	034132	034037	034038	034036
Item	A1E270	A1E271	A1E272	A1K270	A1K271	A1K272
Size	1/4"					
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.					
Pressure range	2,5 ÷ 10 bar					
Minimum external air pressure	-			1,5 bar		
Temperature range	-10°C ÷ +60°C (standard)		-25°C ÷ +60°C (BT)			
Plunger Ø	9 mm					
Orifice Ø	8 mm					
Flow at 6 bar with ΔP 1 bar	1.100 NI/min.					
Mounting	In every position					
Manual override	Bistable					
Response time at 6 bar	Energizing	21 ms.				
	De-energizing	21 ms.				

Notes

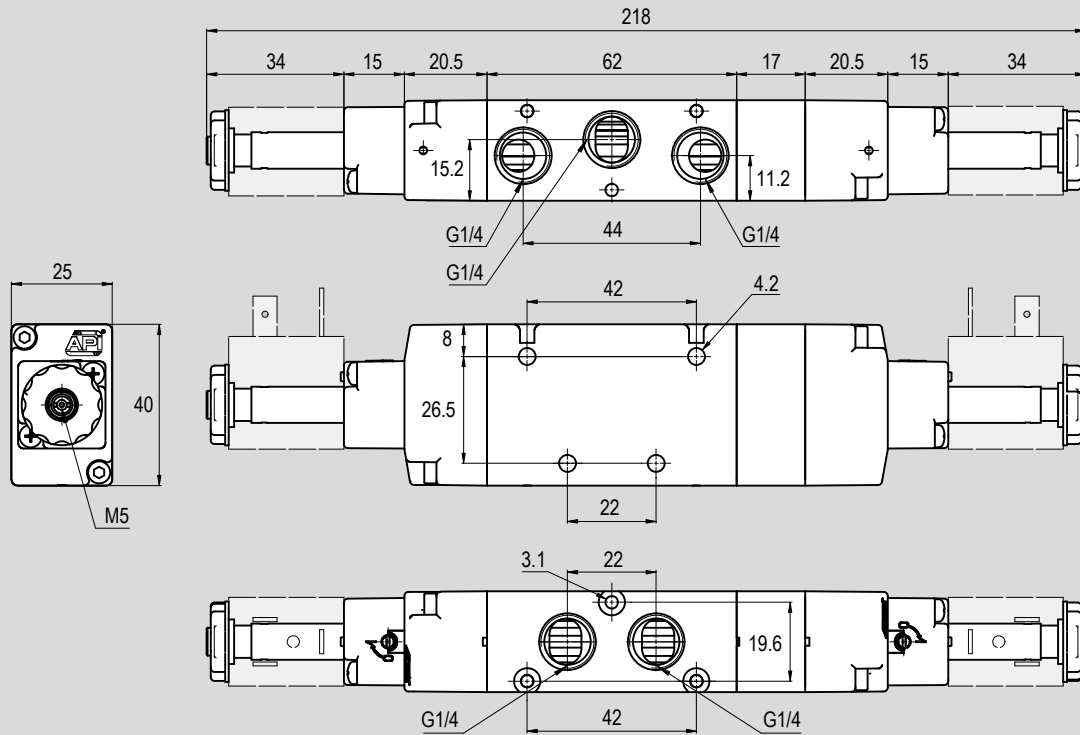
Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Solenoid operated valves series A1
1/4", 5/3



Standard dimensions

Type: 5/3 C.C.
5/3 O.C.
5/3 P.C.

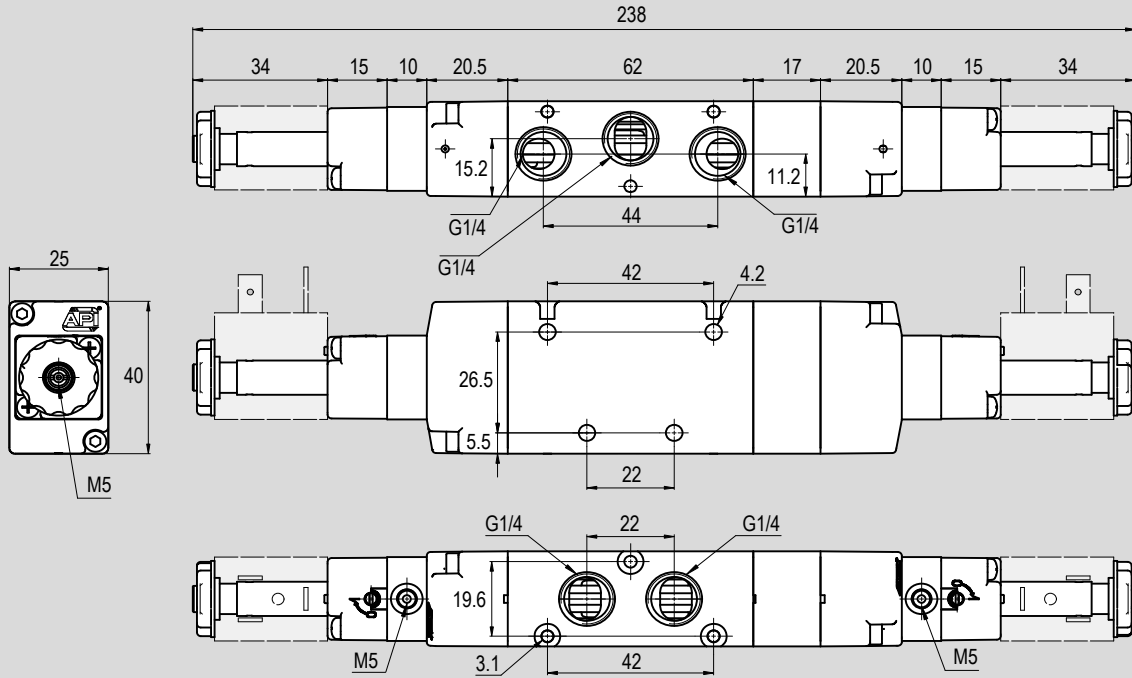


2 - VALVES

Version	Symbol	Code	Item
1/4" 5/3 closed centres		034131	A1E270
1/4" 5/3 open centres		034133	A1E271
1/4" 5/3 pressurized centres		034132	A1E272

Standard dimensions

Type: 5/3 C.C. with external air pilot
5/3 O.C. with external air pilot
5/3 P.C. with external air pilot



Version	Symbol	Code	Item
1/4" 5/3 closed centres with external air pilot		034037	A1K270
1/4" 5/3 open centres with external air pilot		034038	A1K271
1/4" 5/3 pressurized centres with external air pilot		034036	A1K272

Solenoid operated valves series A1

1/2", 3/2 Solenoid/Spring



Main features

Version	Code	Item	Symbol
3/2 Normally closed	034113	A1E430	
3/2 Normally closed with external air pilot	034137	A1K430	
3/2 Normally open	034122	A1E431	



Technical data

Version	3/2 Normally closed	3/2 Normally closed with external air pilot	3/2 Normally open
Code	034113	034137	034122
Item	A1E430	A1K430	A1E431
Size	1/2"		
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	2,5 ÷ 10 bar		
Minimum external air pressure	-	2,5 bar	-
Temperature range	-10°C ÷ +60°C (standard)		-25°C ÷ +60°C (BT)
Plunger Ø	9 mm		
Orifice Ø	15 mm		
Flow at 6 bar with ΔP 1 bar	2.900 Nl/min.		
Mounting	In every position		
Manual override	Bistable		
Response time at 6 bar	Energizing	60 ms.	
	De-energizing	35 ms.	

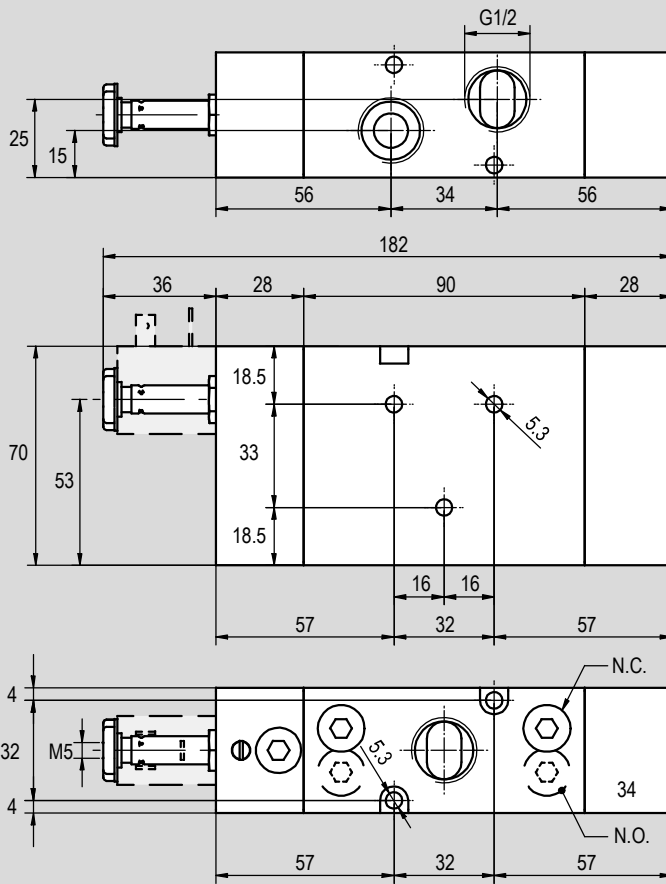
Notes

Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Solenoid operated valves series A1
1/2", 3/2 Solenoid/Spring

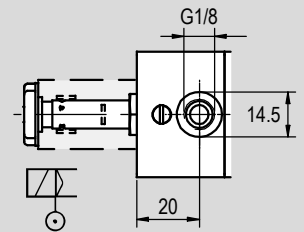


Standard dimensions



Type: **3/2 N.C.**
3/2 N.O.

Type: **3/2 N.C. with external air pilot**



2 - VALVES

Version	Symbol	Code	Item
1/2" 3/2 Normally closed		034113	A1E430
1/2" 3/2 Normally closed with external air pilot		034137	A1K430
1/2" 3/2 Normally open		034122	A1E431

Solenoid operated valves series A1

1/2", 3/2 Solenoid/Solenoid



Main features

Version	Code	Item	Symbol
3/2 solenoid/solenoid	034123	A1E432	
3/2 solenoid/solenoid with external air pilot	034158	A1K432	



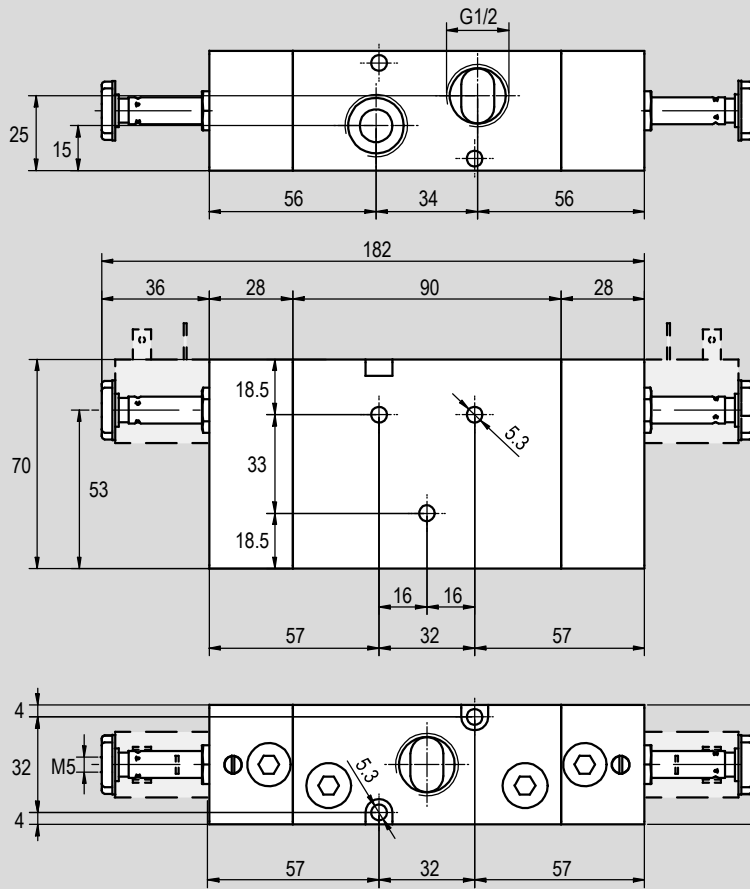
Technical data

Version	3/2 solenoid/solenoid	3/2 solenoid/solenoid with external air pilot
Code	034123	034158
Item	A1E432	A1K432
Size	1/2"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	2,5 ÷ 10 bar	
Minimum external air pressure	-	1 bar
Temperature range	-10°C ÷ +60°C (standard)	-25°C ÷ +60°C (BT)
Plunger Ø	9 mm	
Orifice Ø	15 mm	
Flow at 6 bar with ΔP 1 bar	2.900 NI/min.	
Mounting	In every position	
Manual override	Bistable	
Response time at 6 bar	Energizing	30 ms.
	De-energizing	30 ms.

Notes

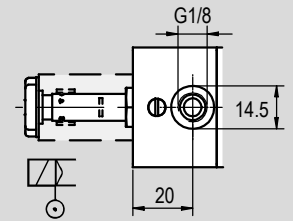
Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Standard dimensions



Type: **3/2 solenoid/solenoid**

Type: **5/2 solenoid/solenoid with external air pilot**



2 - VALVES


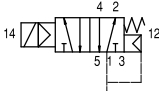
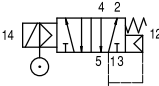
Version	Symbol	Code	Item
1/2" 3/2 solenoid/solenoid		034123	A1E432
1/2" 3/2 solenoid/solenoid with external air pilot		034158	A1K432

Solenoid operated valves series A1

1/2", 5/2 Solenoid/Spring



Main features

Version	Code	Item	Symbol
5/2 solenoid/spring	034114 	A1E450	
5/2 solenoid/spring with external air pilot	034138	A1K450	



Technical data

Version	5/2 solenoid/spring	5/2 solenoid/spring with external air pilot
Code	034114	034138
Item	A1E450	A1K450
Size	1/2"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	2,5 ÷ 10 bar	
Minimum external air pressure	-	2,5 bar
Temperature range	-10°C ÷ +60°C (standard)	-25°C ÷ +60°C (BT)
Plunger Ø	9 mm	
Orifice Ø	15 mm	
Flow at 6 bar with ΔP 1 bar	2.900 NI/min.	
Mounting	In every position	
Manual override	Bistable	
Response time at 6 bar	Energizing	60 ms.
	De-energizing	35 ms.

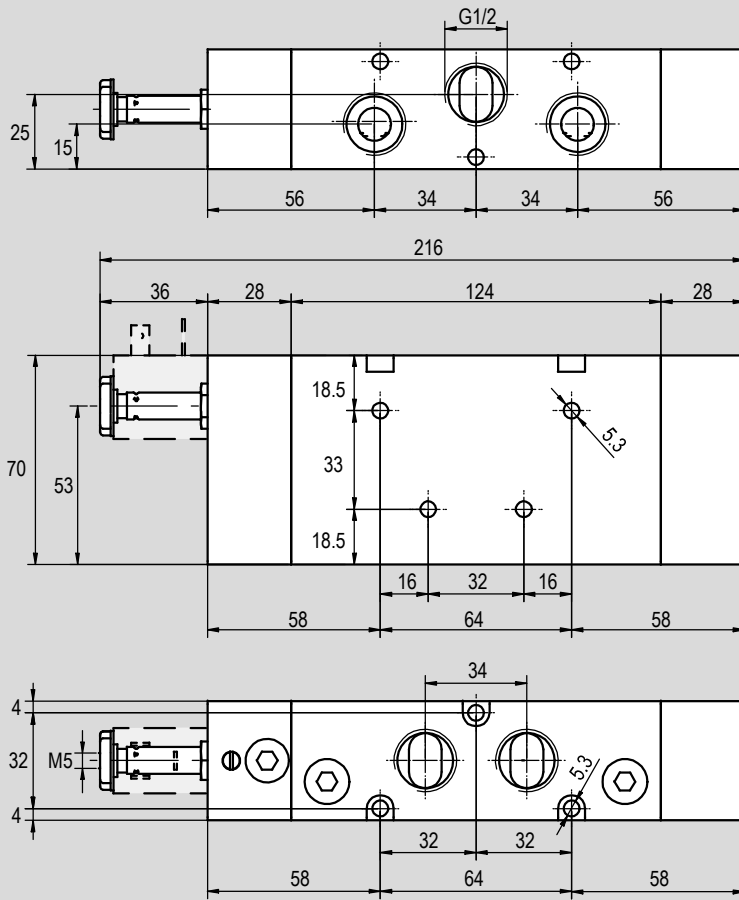
Notes

Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Solenoid operated valves series A1
1/2", 5/2 Solenoid/Spring

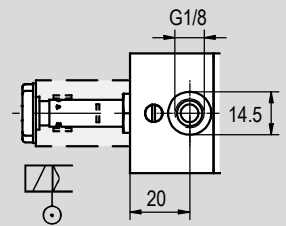


Standard dimensions



Type: 5/2 solenoid/spring

Type: 5/2 solenoid/spring with external air pilot



2 - VALVES

Version	Symbol	Code	Item
1/2" 5/2 solenoid/spring		034114	A1E450
1/2" 5/2 solenoid/spring with external air pilot		034138	A1K450

Solenoid operated valves series A1

1/2", 5/2 Solenoid/Solenoid



Main features

Version	Code	Item	Symbol
5/2 solenoid/solenoid	034115	A1E451	
5/2 solenoid/solenoid differential	034139	A1E452	
5/2 solenoid/solenoid with external air pilot	034140	A1K451	



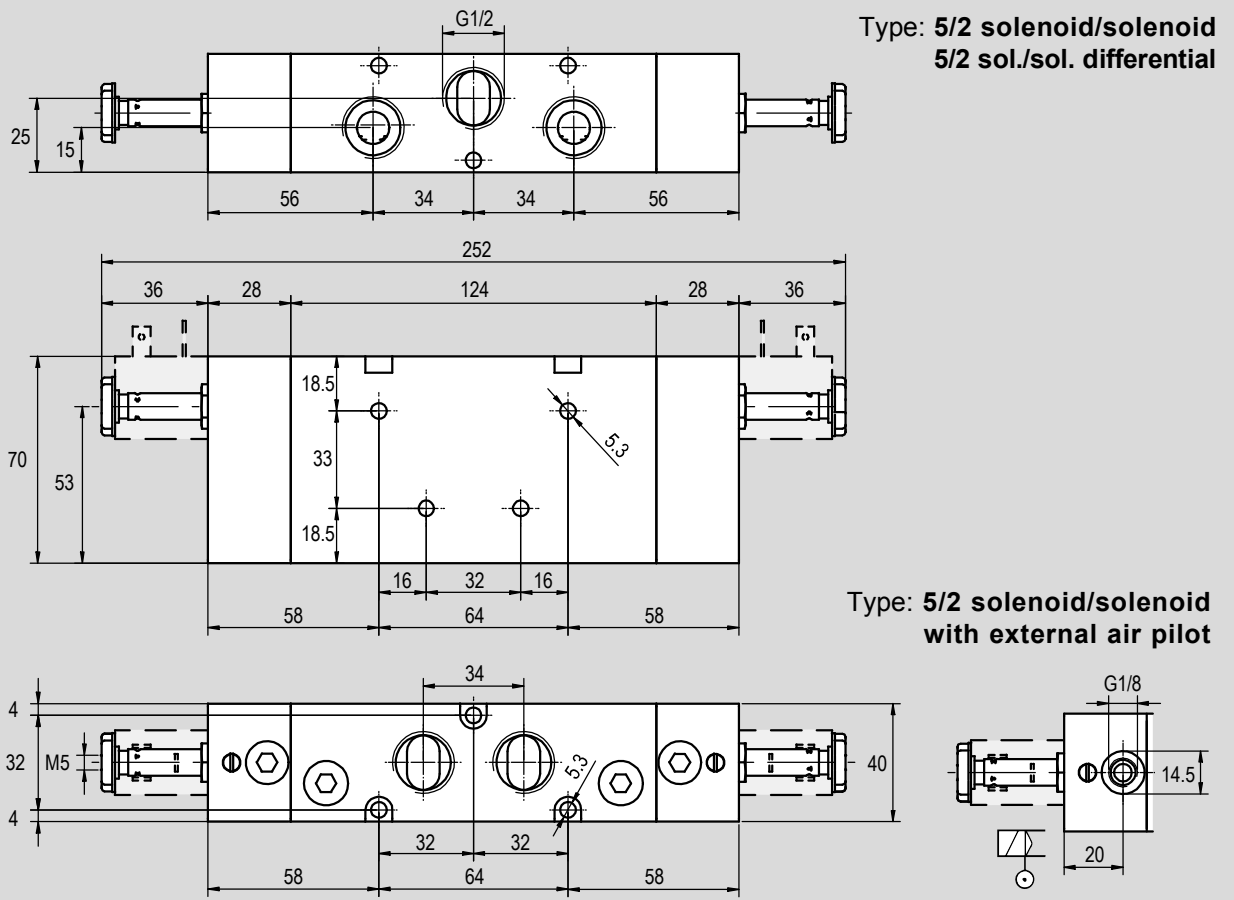
Technical data

Version	5/2 solenoid/solenoid	5/2 solenoid/solenoid differential	5/2 solenoid/solenoid with external air pilot
Code	034115	034139	034140
Item	A1E451	A1E452	A1K451
Size	1/2"		
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	2,5 ÷ 10 bar		
Minimum external air pressure	-		1 bar
Temperature range	-10°C ÷ +60°C (standard)		-25°C ÷ +60°C (BT)
Plunger Ø	9 mm		
Orifice Ø	15 mm		
Flow at 6 bar with ΔP 1 bar	2.900 NI/min.		
Mounting	In every position		
Manual override	Bistable		
Response time at 6 bar	Energizing	30 ms.	
	De-energizing	30 ms.	

Notes

Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Standard dimensions



Type: **5/2 solenoid/solenoid**
5/2 sol./sol. differential

Type: **5/2 solenoid/solenoid**
with external air pilot

2 - VALVES

Version	Symbol	Code	Item
1/2" 5/2 solenoid/solenoid		034115	A1E451
1/2" 5/2 solenoid/solenoid differential		034139	A1E452
1/2" 5/2 solenoid/solenoid with external air pilot		034140	A1K451

Solenoid operated valves series A1

1/2", 5/3



Main features

Version	Code	Item	Symbol
5/3 closed centres	034124	A1E470	
5/3 open centres	034125	A1E471	
5/3 pressurized centres	034126	A1E472	
5/3 closed centres with external air pilot	034159	A1K470	
5/3 open centres with external air pilot	034160	A1K471	
5/3 pressurized centres with external air pilot	034161	A1K472	



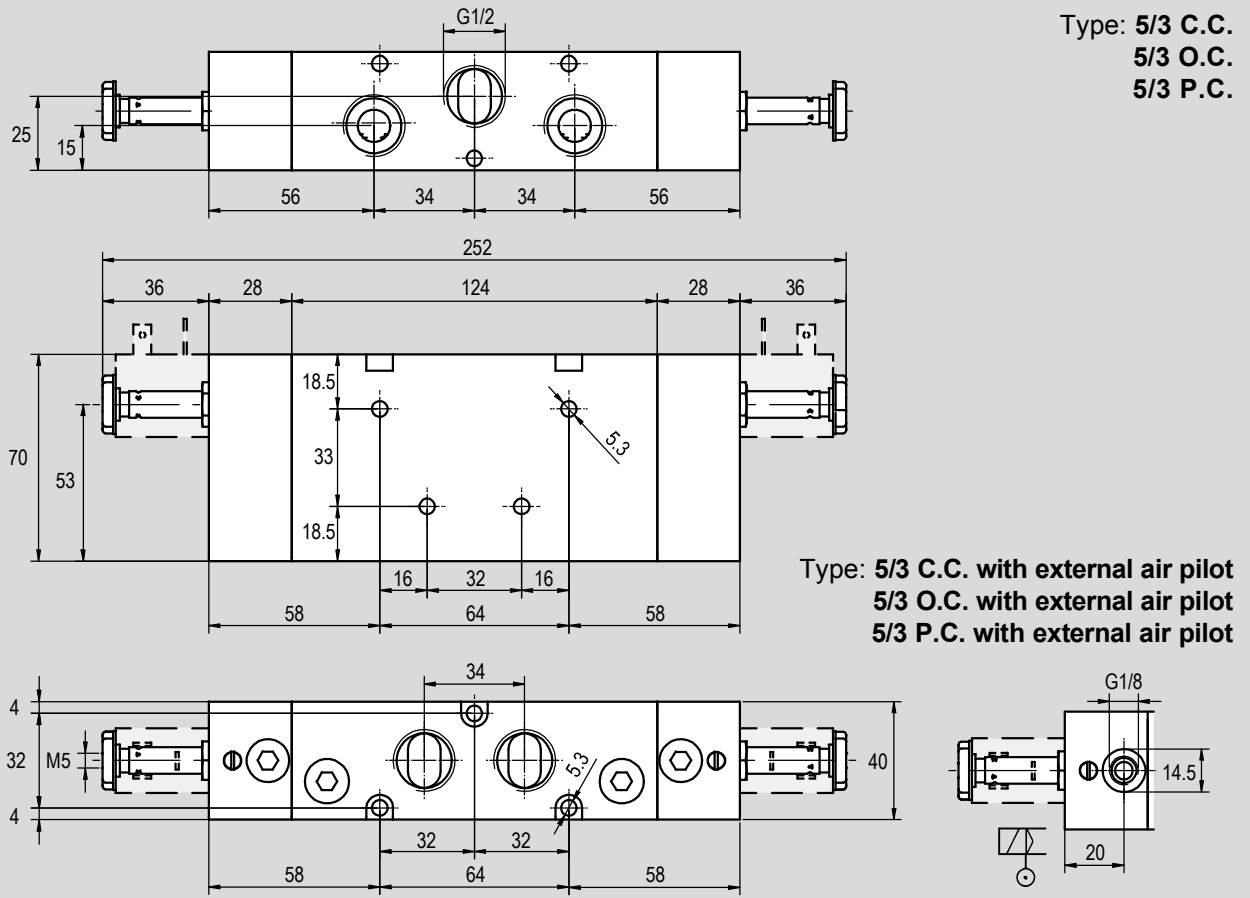
Technical data

Version	5/3 closed centres	5/3 open centres	5/3 pressurized centres	5/3 closed centres with external air pilot	5/3 open centres with external air pilot	5/3 pressurized centres with external air pilot
Code	034124	034125	034126	034159	034160	034161
Item	A1E470	A1E471	A1E472	A1K470	A1K471	A1K472
Size	1/2"					
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.					
Pressure range	2,5 ÷ 10 bar					
Minimum external air pressure	-			2,5 bar		
Temperature range	-10°C ÷ +60°C (standard)		-25°C ÷ +60°C (BT)			
Plunger Ø	9 mm					
Orifice Ø	15 mm					
Flow at 6 bar with ΔP 1 bar	2.900 NI/min.					
Mounting	In every position					
Manual override	Bistable					
Response time at 6 bar	Energizing	30 ms.				
	De-energizing	30 ms.				

Notes

Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1


Standard dimensions



2 - VALVES

Version	Symbol	Code	Item
1/2" 5/3 closed centres		034124	A1E470
1/2" 5/3 open centres		034125	A1E471
1/2" 5/3 pressurized centres		034126	A1E472
1/2" 5/3 closed centres with external air pilot		034159	A1K470
1/2" 5/3 open centres with external air pilot		034160	A1K471
1/2" 5/3 pressurized centres with external air pilot		034161	A1K472


Sub-bases 1/8" A1B1..



Positions	Code	Item	Matching*
2	034041	A1B102	1/8"
3	034042	A1B103	
4	034043	A1B104	
5	034044	A1B105	
6	034045	A1B106	
7	034046	A1B107	
8	034047	A1B108	
9	034048	A1B109	
10	034049	A1B110	

*Note: for mounting valves with coils type ASA2 and ASA2/ATEX (size 30mm) require the sub-base option P32, see page 2.305.3


Sub-bases 1/4" A1B2..



Positions	Code	Item	Matching*
2	034141	A1B202	1/4"
3	034142	A1B203	
4	034143	A1B204	
5	034144	A1B205	
6	034145	A1B206	
7	034146	A1B207	
8	034147	A1B208	
9	034148	A1B209	
10	034149	A1B210	


*Note: for mounting valves with coils type ASA2 and ASA2/ATEX (size 30mm) require the sub-base option P32, see page 2.305.3

Closing plates for sub-bases A1C..




Code	Item	Matching
034050	A1C1	A1B1 (1/8")
034150	A1C2	A1B2 (1/4")

Plugs for sub-bases A1T..




Code	Item	Matching
034051	A1T1	A1B1 (1/8")
034151	A1T2	A1B2 (1/4")

Coils ASA12..



Voltage	Code	Item	Matching
12V DC	032100	ASA1201200	1/8" 1/4" 1/2"
12V AC	032101	ASA1201250	
24V DC	032102	ASA1202400	
24V AC	032103	ASA1202450	
48V AC	032104	ASA1204850	
110V AC	032105	ASA1211050	
230V AC	032106	ASA1223050	


Coils ASA2..



Voltage	Code	Item	Matching
12V DC	032109	ASA201200	1/8" 1/4" 1/2"
12V AC	032110	ASA201250	
24V DC	032111	ASA202400	
24V AC	032112	ASA202450	
48V AC	032113	ASA204850	
110V AC	032114	ASA211050	
230V AC	032115	ASA223050	

For mounting on sub-bases require the sub-base option P32, see page 2.305.3


Connectors A122..*



Code	Item	Description
032118	A12209N	Black standard
033521	A12209NK	Black standard cabled
032204	A12209T1	LED+VDR transparent 24VAC-DC
032205	A12209T2	LED+VDR transparent 115VAC-DC
032206	A12209T3	LED+VDR transparent 230VAC-DC
033522	A12209N1K	LED+VDR black cabled 24VAC-DC
033523	A12209N2K	LED+VDR black cabled 115VAC-DC
033524	A12209N3K	LED+VDR black cabled 230VAC-DC

* For coils type ASA12

Connectors A182..**



Code	Item	Description
032119	A18209N	Black standard
033531	A18209NK	Black standard cabled
032207	A18209T1	LED+VDR transparent 24VAC-DC
032208	A18209T2	LED+VDR transparent 115VAC-DC
032209	A18209T3	LED+VDR transparent 230VAC-DC
033532	A18209N1K	LED+VDR black cabled 24VAC-DC
033533	A18209N2K	LED+VDR black cabled 115VAC-DC
033534	A18209N3K	LED+VDR black cabled 230VAC-DC

** For coils type ASA2

Plate for valves PSV..



For valve (5/2-5/3) size	Code	Item	Matching with cylinder Ø mm
1/8" - 1/4"	071458	PSV/A1/AMA-32-40	32-40
	071459	PSV/A1/AMA-50-63	50-63
1/8" - 1/4" - 1/2"	071460	PSV/A1/AMA-80-100-125	80÷125
1/4" - 1/2"	070822	PSV/A1/AMT-160-200	160-200

AIR OPERATED

valves Series A1



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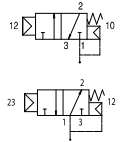
Spool valves, with static seals, high flow, for panel or sub-base mounting. Available in sizes 1/8", 1/4" and 1/2", air operated, with functions: 3/2 pilot/spring normally closed, 3/2 pilot/spring normally open, 3/2 pilot/pilot and pilot/pilot differential (only for size 1/8" and 1/4"), 5/2 pilot/spring, 5/2 pilot/pilot and pilot/pilot differential, 5/3 with open centres, closed centres, pressurized centres and closed centres differential (only for size 1/8"). Supplied as standard in compliance to Reach and RoHS directives, and SIL certified. On request the valve body can be supplied according to 2014/34/EU ATEX Directive, classification Ex h.

Series A1 1/8" 3/2 Pilot/Spring

from page 2.31.10



Series of spool valves, with static seals, high flow, for panel or sub-base mounting. Available in size 1/8", 3/2 pilot/spring normally closed and 3/2 pilot/spring normally open, air operated.

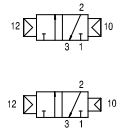


Series A1 1/8" 3/2 Pilot/Pilot

from page 2.31.30



Series of spool valves, with static seals, high flow, for panel or sub-base mounting. Available in size 1/8", 3/2 pilot/pilot and 3/2 pilot/pilot differential, air operated.

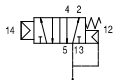


Series A1 1/8" 5/2 Pilot/Spring

from page 2.31.50



Series of spool valves, with static seals, high flow, for panel or sub-base mounting. Available in size 1/8", 5/2 pilot/spring, air operated.

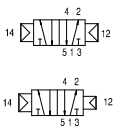


Series A1 1/8" 5/2 Pilot/Pilot

from page 2.31.70



Series of spool valves, with static seals, high flow, for panel or sub-base mounting. Available in size 1/8", 5/2 pilot/pilot and 5/2 pilot/pilot differential, air operated.

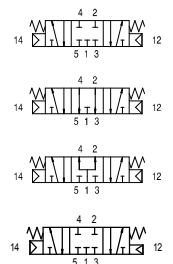


Series A1 1/8" 5/3

from page 2.31.90



Series of spool valves, with static seals, high flow, for panel or sub-base mounting. Available in size 1/8", 5/3 closed centres, 5/3 open centres, 5/3 pressurized centres and 5/3 closed centres differential, air operated.



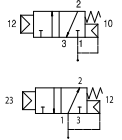


Series A1 1/4" 3/2 Pilot/Spring

from page 2.33.10



Series of spool valves, with static seals, high flow, for panel or sub-base mounting. Available in size 1/4", 3/2 pilot/spring normally closed and 3/2 pilot/spring normally open, air operated.

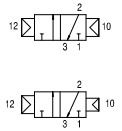


Series A1 1/4" 3/2 Pilot/Pilot

from page 2.33.30



Series of spool valves, with static seals, high flow, for panel or sub-base mounting. Available in size 1/4", 3/2 pilot/pilot and 3/2 pilot/pilot differential, air operated.

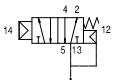


Series A1 1/4" 5/2 Pilot/Spring

from page 2.33.50



Series of spool valves, with static seals, high flow, for panel or sub-base mounting. Available in size 1/4", 5/2 pilot/spring, air operated.

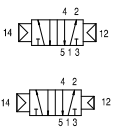


Series A1 1/4" 5/2 Pilot/Pilot

from page 2.33.70



Series of spool valves, with static seals, high flow, for panel or sub-base mounting. Available in size 1/4", 5/2 pilot/pilot and 5/2 pilot/pilot differential, air operated.

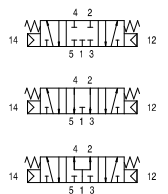


Series A1 1/4" 5/3

from page 2.33.90



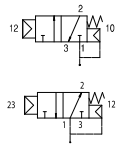
Series of spool valves, with static seals, high flow, for panel or sub-base mounting. Available in size 1/4", 5/3 closed centres, 5/3 open centres and 5/3 pressurized centres, air operated.



Series A1 1/2" 3/2 Pilot/Spring from page 2.35.10



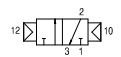
Series of spool valves, with static seals, high flow, for panel mounting with screws.
Available in size 1/2", 3/2 pilot/spring normally closed and 3/2 pilot/spring normally open, air operated.



Series A1 1/2" 3/2 Pilot/Pilot from page 2.35.30



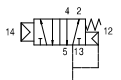
Series of spool valves, with static seals, high flow, for panel mounting with screws.
Available in size 1/2", 3/2 pilot/pilot, air operated



Series A1 1/2" 5/2 Pilot/Spring from page 2.35.50



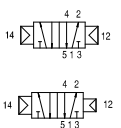
Series of spool valves, with static seals, high flow, for panel mounting with screws.
Available in size 1/2", 5/2 pilot/spring, air operated.



Series A1 1/2" 5/2 Pilot/Pilot from page 2.35.70



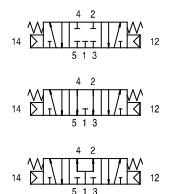
Series of spool valves, with static seals, high flow, for panel mounting with screws.
Available in size 1/2", 5/2 pilot/pilot and 5/2 pilot/pilot differential, air operated.



Series A1 1/2" 5/3 from page 2.35.70



Series of spool valves, with static seals, high flow, for panel mounting with screws.
Available in size 1/2", 5/3 closed centres, 5/3 open centres and 5/3 pressurized centres, air operated.



Options

Description		Symbol	Suffix
Low temperatures seals	-25°C ÷ +60°C		BT
ATEX valve body			/ATEX
Special versions on request			/S

The options, when this is possible, can be combined with each other. For options matching see the table below; For code key see from page 2.30.6

Options matching

Series	Size	Function	Standard options matching		
			BT	/ATEX	
A1	1/8"	3/2	Pilot/Spring	●	●
			Pilot/Pilot	●	●
		5/2	Pilot/Spring	●	●
			Pilot/Pilot	●	●
		5/3		●	●
		1/4"	3/2	Pilot/Spring	●
	Pilot/Pilot			●	●
	5/2		Pilot/Spring	●	●
			Pilot/Pilot	●	●
	5/3		●	●	
	1/2"		3/2	Pilot/Spring	●
		Pilot/Pilot		●	●
		5/2	Pilot/Spring	●	●
			Pilot/Pilot	●	●
		5/3		●	●

Key

● allowed matching; - not allowed matching

Code key

Series	Actuation	Size	Function	Options	/	ATEX valve body
A1	P	2	50		/	
A1	P = Pneumatic	1 = 1/8" 2 = 1/4" 4 = 1/2"	30 = 3/2 Normally closed 31 = 3/2 Normally open 32 = 3/2 Pilot/Pilot 33 ⁽¹⁾ = 3/2 Pilot/Pilot differential 50 = 5/2 Pilot/Spring 51 = 5/2 Pilot/Pilot 52 = 5/2 Pilot/Pilot differential 70 = 5/3 Closed Centres 71 = 5/3 Open Centres 72 = 5/3 Pressurized Centres 73 ⁽²⁾ = 5/3 Closed Centres differential	BT = Low temperatures seals		ATEX* ATEX**

* For size 1/8" e 1/4"
** For size 1/2"

2 - VALVES

How to order

Series	Actuation	Size	Function	Option
A1	P	2	50	-

Notes

Options in the same grid are alternative to each others.

(1) Only for size 1/8" and 1/4".

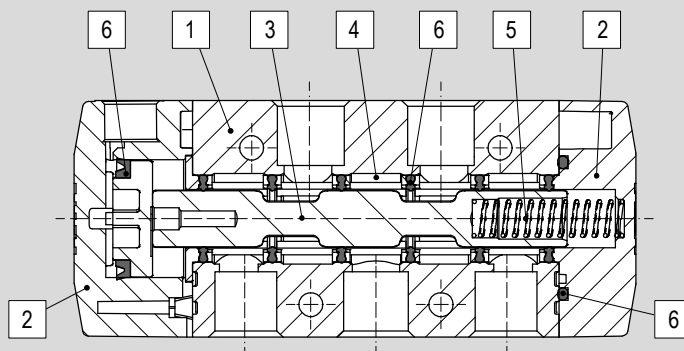
(2) Only for size 1/8".

For further information on options and their matching, see page 2.30.5.

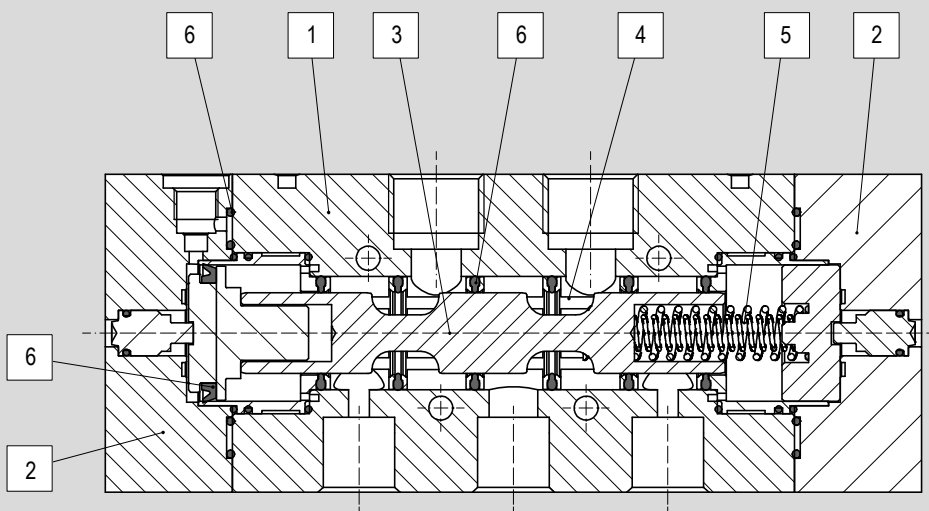
For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

Standard materials

Size: 1/8"
1/4"



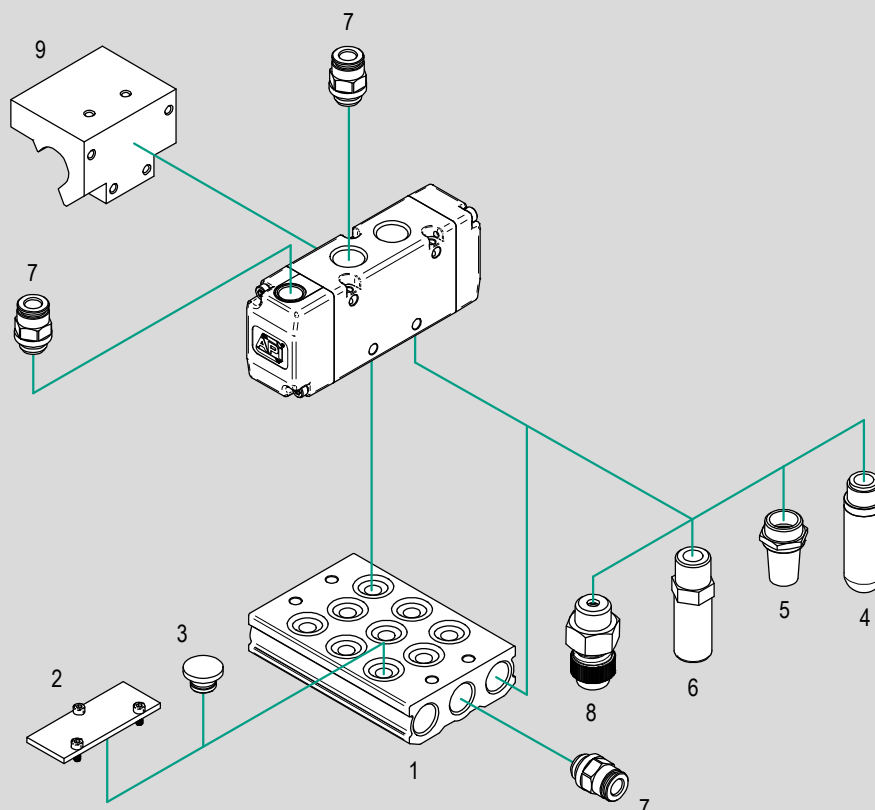
Size: 1/2"



2 - VALVES

Position	Description	Material		
		1/8"	1/4"	1/2"
1	Body	Die-cast painted aluminium		Anodized aluminium
2	Covers	Tecnopolymer		Anodized aluminium
3	Spool	Hard anodized aluminium		
4	Distancers	Tecnopolymer		
5	Spring	Spring steel		
6	Seals	HNBR		

Accessories



N.	Item	Description	Compliance	Matching			Code key page	Data sheet page
				1/8"	1/4"	1/2"		
1	A1B..	Sub-bases	-	●	●	-	2.37.1	2.38.1
2	A1C..	Closing plates for sub-bases	-	●	●	-		2.38.30
3	A1T..	Plugs for sub-bases	-	●	●	-		
4	AS..	Plastic silencers	-	●	●	●	4.151.10	
	SP..			●	●	●	4.151.20	
5	A..	Sintered silencers	-	●	●	●	4.153.10	
6	M..	Metal silencers	-	●	●	●	4.155.10	
7	R..	Push-in fittings	UNI ISO 228/1 UNI ISO7/1 ISO R/232	●	●	●	4.2.1	
8	A..	Silenced exhaust restrictors	-	●	●	●	4.97.1	
9	PSV..	Plate for ISO cylinders	ISO15552	●	●	●	2.37.1	2.39.1

Key

● matching accessory; - not matching accessory

Air operated valves series A1

1/8", 3/2 Pilot/Spring



Main features

Version	Code	Item	Symbol
3/2 Normally closed	034014	A1P130	
3/2 Normally open	034015	A1P131	



Technical data

Version	3/2 Normally closed	3/2 Normally open
Code	034014	034015
Item	A1P130	A1P131
Size	1/8"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1,5 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C (standard)	-25°C ÷ +60°C (BT)
Orifice Ø	6.5 mm	
Flow at 6 bar with ΔP 1 bar	650 NI/min.	
Mounting	In every position	

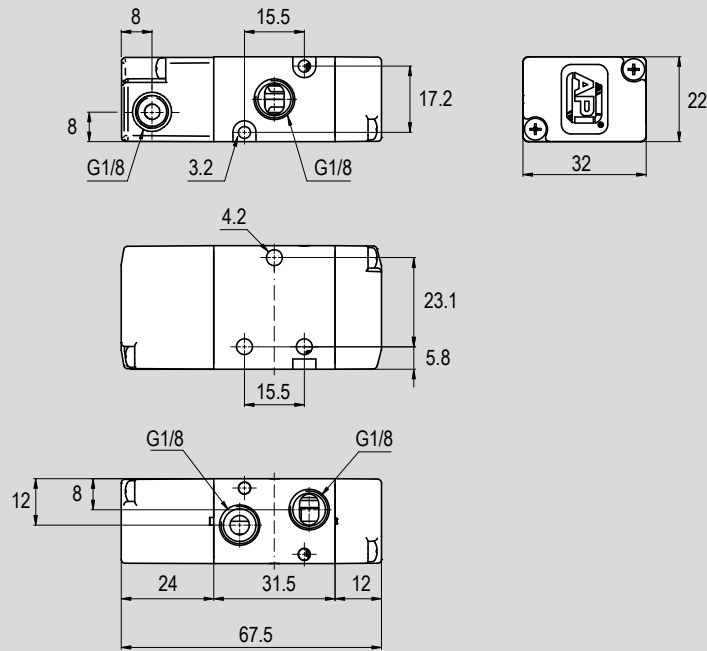
Air operated valves series A1

1/8", 3/2 Pilot/Spring



Standard dimensions

Type: **3/2 N.C.**
3/2 N.O.



2 - VALVES

Version	Symbol	Code	Item
1/8" 3/2 Normally closed		034014	A1P130
1/8" 3/2 Normally open		034015	A1P131

Air operated valves series A1

1/8", 3/2 Pilot/Pilot



Main features

Version	Code	Item	Symbol
3/2 pilot/pilot	034016	A1P132	
3/2 pilot/pilot differential	034017	A1P133	



Technical data

Version	3/2 pilot/pilot	3/2 pilot/pilot differential
Code	034016	034017
Item	A1P132	A1P133
Size	1/8"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C (standard)	-25°C ÷ +60°C (BT)
Orifice Ø	6.5 mm	
Flow at 6 bar with ΔP 1 bar	650 NI/min.	
Mounting	In every position	

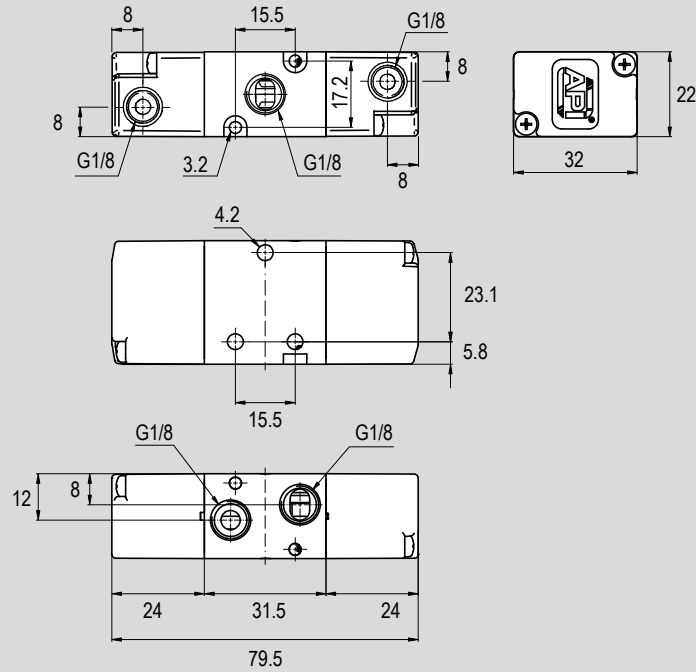
Air operated valves series A1

1/8", 3/2 Pilot/Pilot



Standard dimensions

Type: **3/2 pilot/pilot**
3/2 pilot/pilot
differential



2 - VALVES

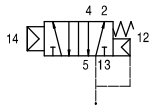
Version	Symbol	Code	Item
1/8" 3/2 pilot/pilot		034016	A1P132
1/8" 3/2 pilot/pilot differential		034017	A1P133

Air operated valves series A1

1/8", 5/2 Pilot/Spring



Main features

Version	Code	Item	Symbol
5/2 pilot/spring	034001	A1P150	



Technical data

Version	5/2 pilot/spring	
Code	034001	
Item	A1P150	
Size	1/8"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1,5 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C (standard)	-25°C ÷ +60°C (BT)
Orifice Ø	6.5 mm	
Flow at 6 bar with ΔP 1 bar	650 NI/min.	
Mounting	In every position	

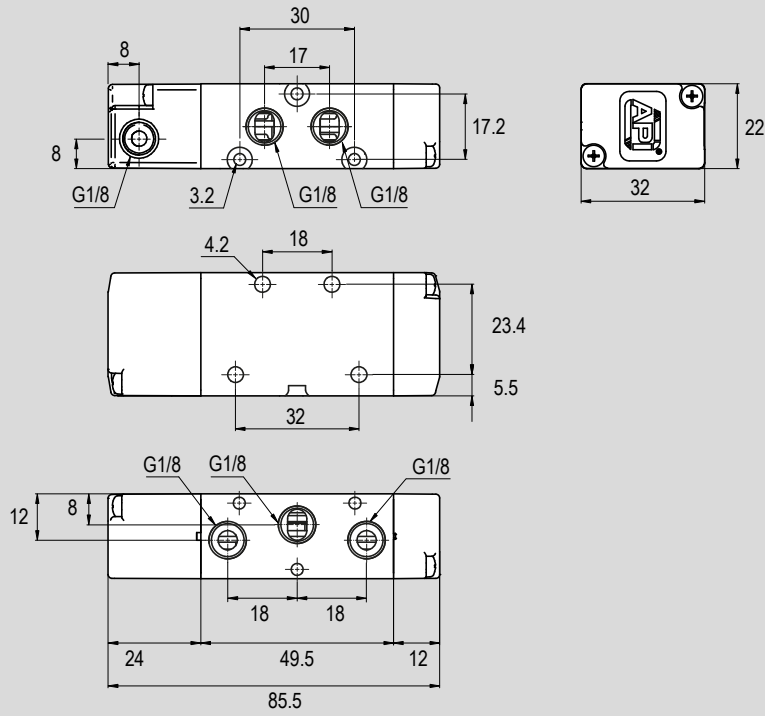
Air operated valves series A1

1/8", 5/2 Pilot/Spring



Standard dimensions

Type: **5/2 pilot/spring**



2 - VALVES

Version	Symbol	Code	Item
1/8" 5/2 pilot/spring		034001	A1P150

Air operated valves series A1

1/8", 5/2 Pilot/Pilot



Main features

Version	Code	Item	Symbol
5/2 pilot/pilot	034002	A1P151	
5/2 pilot/pilot differential	034018	A1P152	



Technical data

Version	5/2 pilot/pilot	5/2 pilot/pilot differential
Code	034002	034018
Item	A1P151	A1P152
Size	1/8"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C (standard)	-25°C ÷ +60°C (BT)
Orifice Ø	6.5 mm	
Flow at 6 bar with ΔP 1 bar	650 NI/min.	
Mounting	In every position	

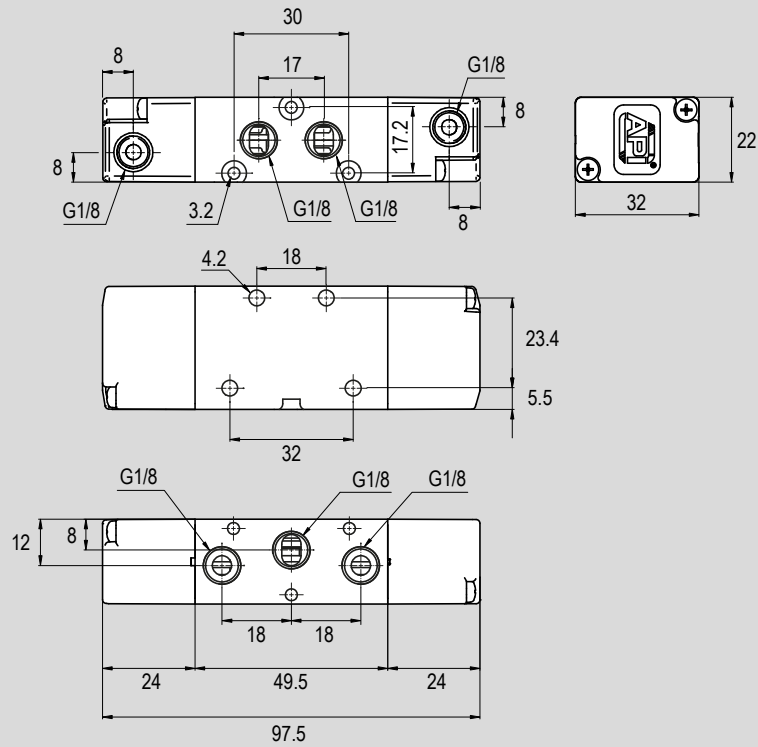
Air operated valves series A1



1/8", 5/2 Pilot/Pilot



Standard dimensions

Type: **5/2 pilot/pilot**
5/2 pilot/pilot
differential



Version	Symbol	Code	Item
1/8" 5/2 pilot/pilot		034002	A1P151
1/8" 5/2 pilot/pilot differential		034018	A1P152

Air operated valves series A1

1/8", 5/3



Main features

Version	Code	Item	Symbol
5/3 closed centres	034019	A1P170	
5/3 open centres	034020	A1P171	
5/3 pressurized centres	034022	A1P172	
5/3 closed centres differential	034175	A1P173	



Technical data

Version	5/3 closed centres	5/3 open centres	5/3 pressurized centres	5/3 closed centres differential
Code	034019	034020	034022	034175
Item	A1P170	A1P171	A1P172	A1P173
Size	1/8"			
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.			
Pressure range	2,5 ÷ 10 bar			
Temperature range	-10°C ÷ +60°C (standard)		-25°C ÷ +60°C (BT)	
Orifice Ø	6.5 mm			
Flow at 6 bar with ΔP 1 bar	650 NI/min.			
Mounting	In every position			

Air operated valves series A1

1/4", 3/2 Pilot/Spring



Main features

Version	Code	Item	Symbol
3/2 Normally closed	034027	A1P230	
3/2 Normally open	034054	A1P231	



Technical data

Version	3/2 Normally closed	3/2 Normally open
Code	034027	034054
Item	A1P230	A1P231
Size	1/4"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1,5 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C (standard)	-25°C ÷ +60°C (BT)
Orifice Ø	8 mm	
Flow at 6 bar with ΔP 1 bar	1.100 Nl/min.	
Mounting	In every position	

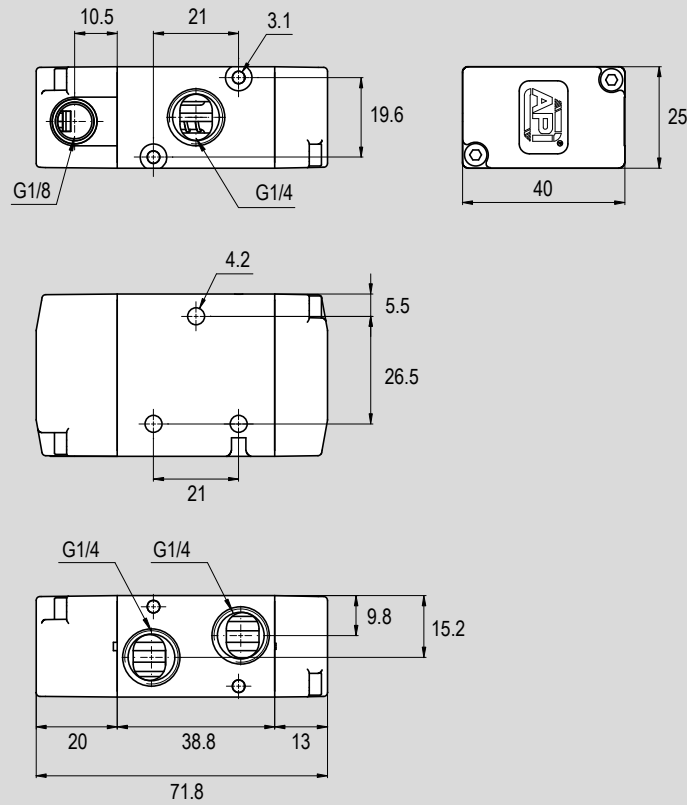
Air operated valves series A1

1/4", 3/2 Pilot/Spring



Standard dimensions

Type: **3/2 N.C.**
3/2 N.O.



2 - VALVES

Version	Symbol	Code	Item
1/4" 3/2 Normally closed		034027	A1P230
1/4" 3/2 Normally open		034054	A1P231

Air operated valves series A1

1/4", 3/2 Pilot/Pilot



Main features

Version	Code	Item	Symbol
3/2 pilot/pilot	034026	A1P232	
3/2 pilot/pilot differential	034055	A1P233	



Technical data

Version	3/2 pilot/pilot	3/2 pilot/pilot differential
Code	034026	034055
Item	A1P232	A1P233
Size	1/4"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C (standard)	-25°C ÷ +60°C (BT)
Orifice Ø	8 mm	
Flow at 6 bar with ΔP 1 bar	1.100 NI/min.	
Mounting	In every position	

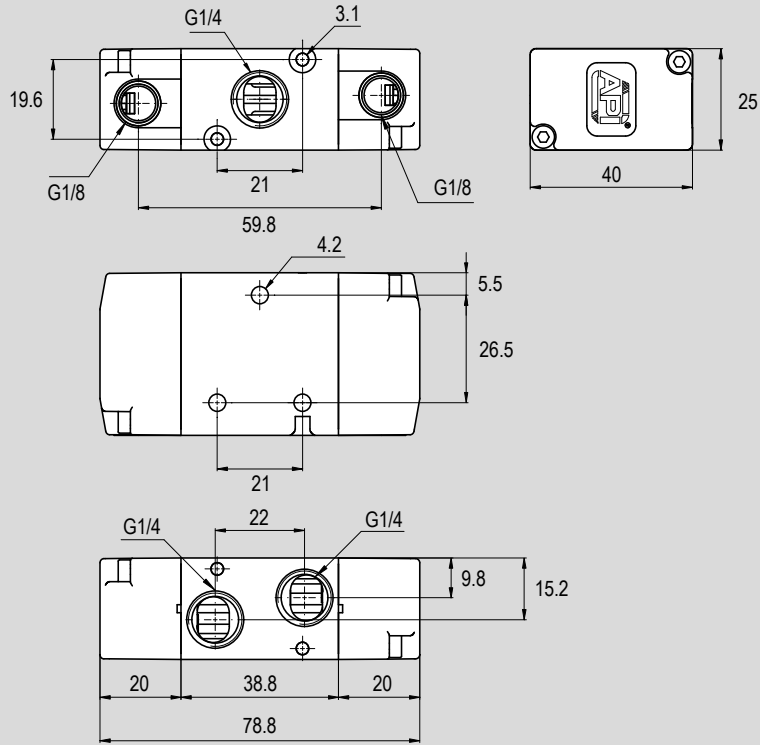
Air operated valves series A1

1/4", 3/2 Pilot/Pilot



Standard dimensions

Type: 3/2 pilot/pilot



2 - VALVES

Version	Symbol	Code	Item
1/4" 3/2 pilot/pilot		034026	A1P232
1/4" 3/2 pilot/pilot differential		034055	A1P233

Air operated valves series A1

1/4", 5/2 Pilot/Spring



Main features

Version	Code	Item	Symbol
5/2 pilot/spring	034101	A1P250	



Technical data

Version	5/2 pilot/spring	
Code	034101	
Item	A1P250	
Size	1/4"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1,5 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C (standard)	-25°C ÷ +60°C (BT)
Orifice Ø	8 mm	
Flow at 6 bar with ΔP 1 bar	1.100 NI/min.	
Mounting	In every position	

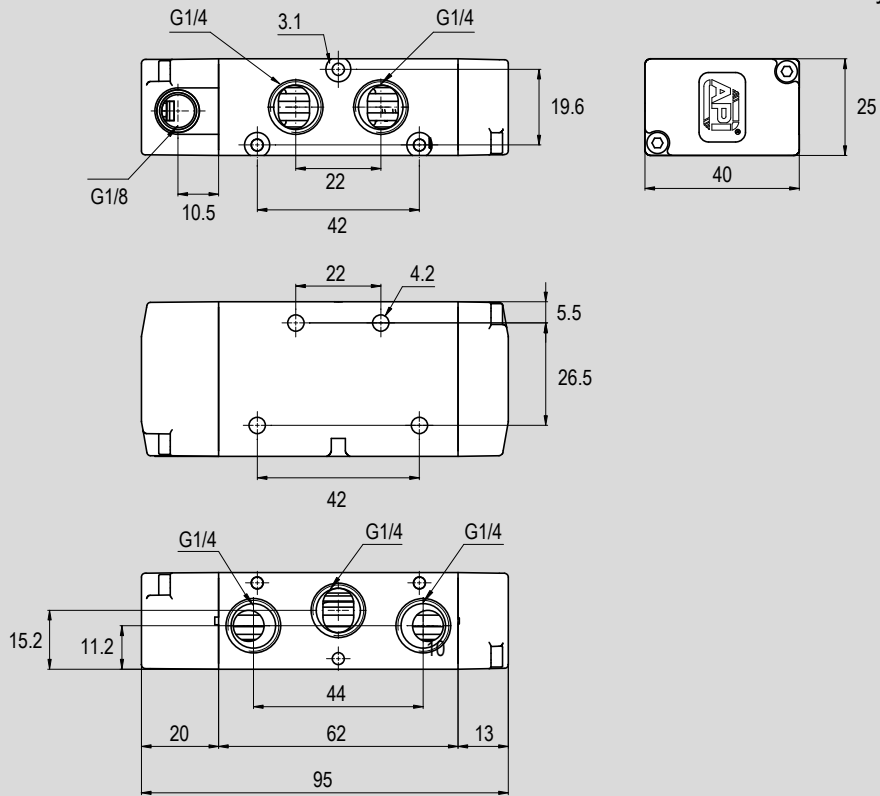
Air operated valves series A1

1/4", 5/2 Pilot/Spring



Standard dimensions

Type: **5/2 pilot/spring**



2 - VALVES

Version	Symbol	Code	Item
1/4" 5/2 pilot/spring		034101	A1P250

Air operated valves series A1

1/4", 5/2 Pilot/Pilot



Main features

Version	Code	Item	Symbol
5/2 pilot/pilot	034102	A1P251	
5/2 pilot/pilot differential	034056	A1P252	



Technical data

Version	5/2 pilot/pilot	5/2 pilot/pilot differential
Code	034102	034056
Item	A1P251	A1P252
Size	1/4"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C (standard)	-25°C ÷ +60°C (BT)
Orifice Ø	8 mm	
Flow at 6 bar with ΔP 1 bar	1.100 NI/min.	
Mounting	In every position	

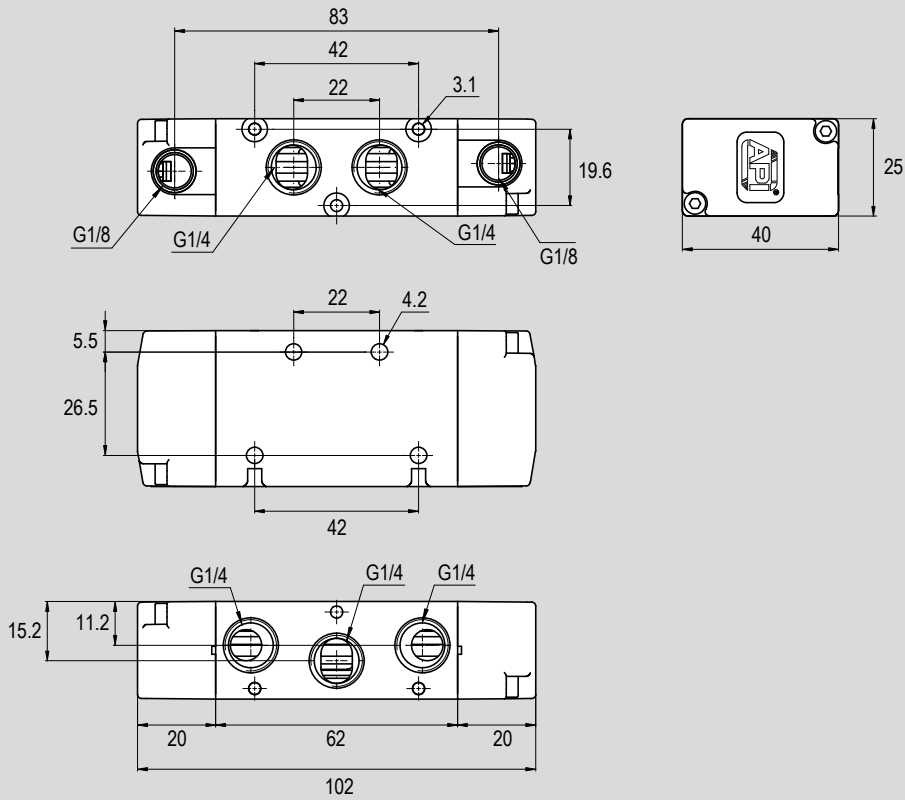
Air operated valves series A1

1/4", 5/2 Pilot/Pilot

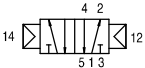



Standard dimensions

Type: **5/2 pilot/pilot**
5/2 pilot/pilot
differential



2 - VALVES

Version	Symbol	Code	Item
1/4" 5/2 pilot/pilot		034102	A1P251
1/4" 5/2 pilot/pilot differential		034056	A1P252

Air operated valves series A1

1/4", 5/3



Main features

Version	Code	Item	Symbol
5/3 closed centres	034029	A1P270	
5/3 open centres	034030	A1P271	
5/3 pressurized centres	034028	A1P272	



Technical data

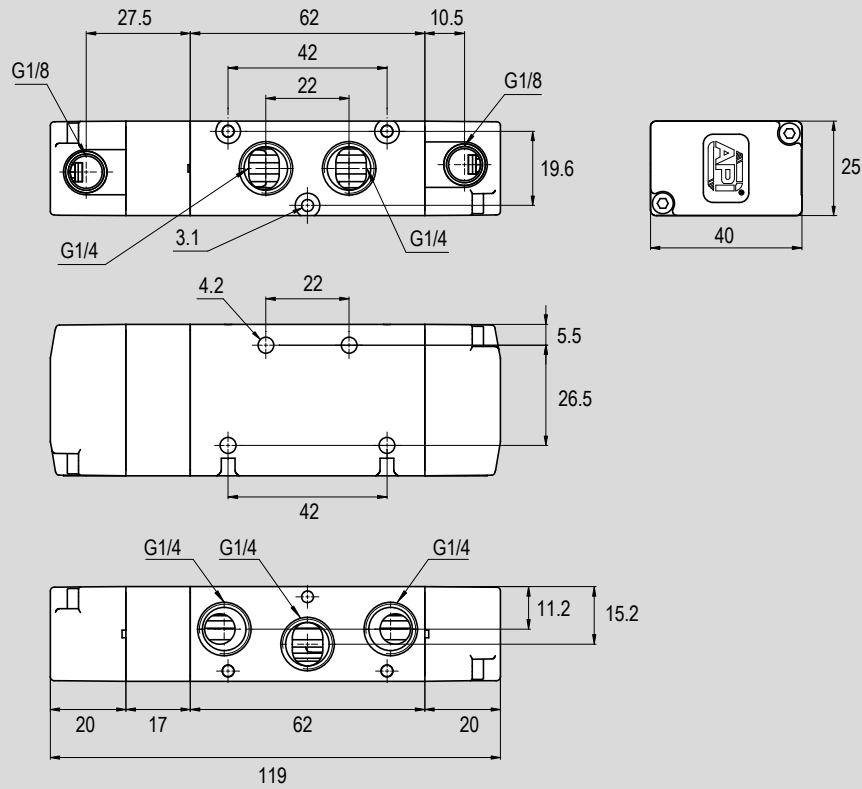
Version	5/3 closed centres	5/3 open centres	5/3 pressurized centres
Code	034029	034030	034028
Item	A1P270	A1P271	A1P272
Size	1/4"		
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	2,5 ÷ 10 bar		
Temperature range	-10°C ÷ +60°C (standard)	-25°C ÷ +60°C (BT)	
Orifice Ø	8 mm		
Flow at 6 bar with ΔP 1 bar	1.100 Nl/min.		
Mounting	In every position		

Air operated valves series A1
1/4", 5/3



Standard dimensions

Type: **5/3 C.C.**
5/3 O.C.
5/3 P.C.



2 - VALVES

Version	Symbol	Code	Item
1/4" 5/3 closed centres		034029	A1P270
1/4" 5/3 open centres		034030	A1P271
1/4" 5/3 pressurized centres		034028	A1P272

Air operated valves series A1

1/2", 3/2 Pilot/Spring



Main features

Version	Code	Item	Symbol
3/2 Normally closed	034116	A1P430	
3/2 Normally open	034127	A1P431	



Technical data

Version	3/2 Normally closed	3/2 Normally open
Code	034116	034127
Item	A1P430	A1P431
Size	1/2"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	2,5 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C (standard)	-25°C ÷ +60°C (BT)
Orifice Ø	15 mm	
Flow at 6 bar with ΔP 1 bar	2.900 Nl/min.	
Mounting	In every position	

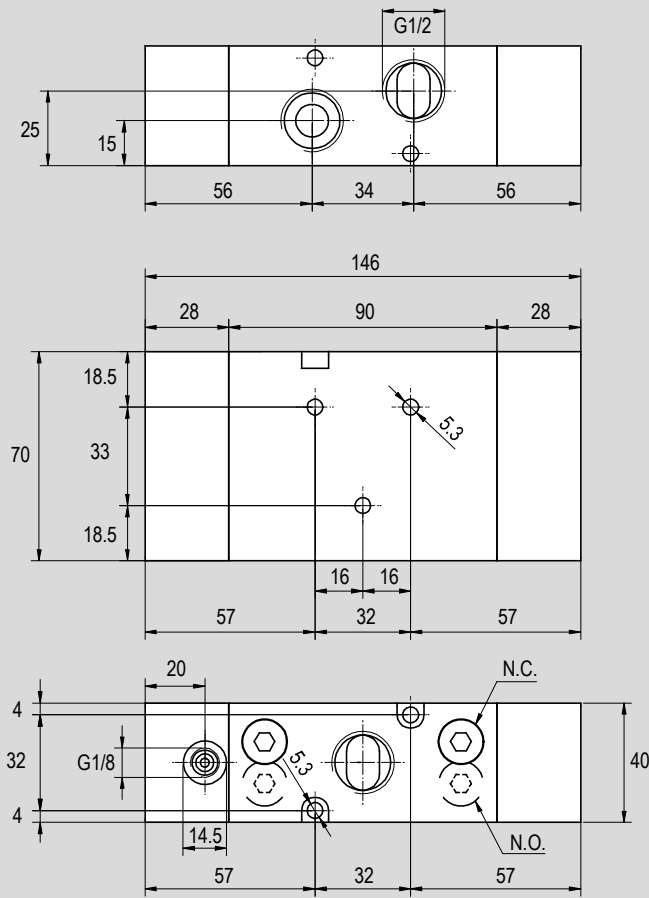
Air operated valves series A1

1/2", 3/2 Pilot/Spring



Standard dimensions

Type: **3/2 N.C.**
3/2 N.O.



2 - VALVES

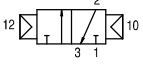
Version	Symbol	Code	Item
1/2" 3/2 Normally closed		034116	A1P430
1/2" 3/2 Normally open		034127	A1P431

Air operated valves series A1

1/2", 3/2 Pilot/Pilot



Main features

Version	Code	Item	Symbol
3/2 pilot/pilot	034128	A1P432	



Technical data

Version	3/2 pilot/pilot	
Code	034128	
Item	A1P432	
Size	1/2"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C (standard)	-25°C ÷ +60°C (BT)
Orifice Ø	15 mm	
Flow at 6 bar with ΔP 1 bar	2.900 NI/min.	
Mounting	In every position	

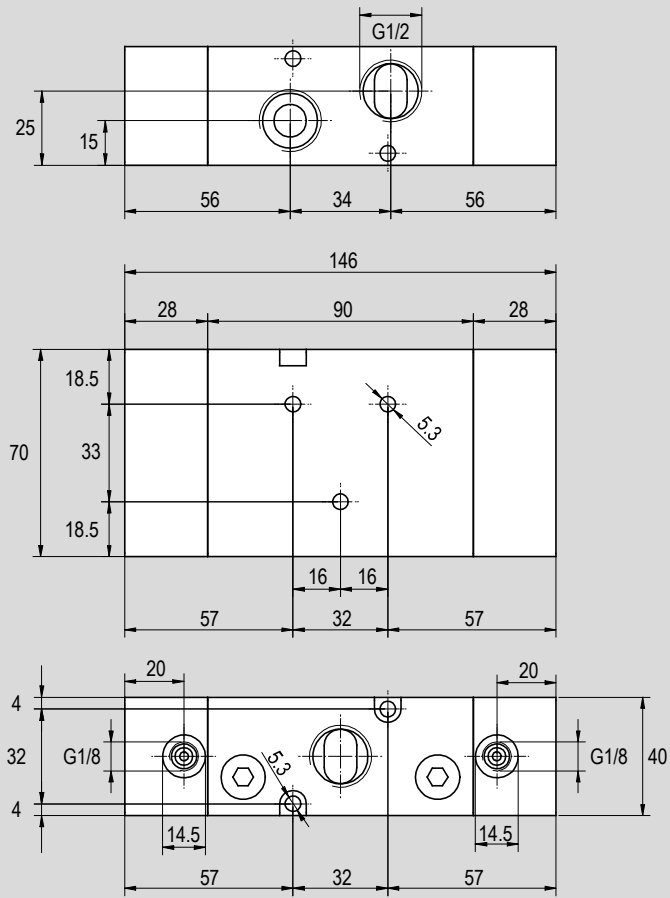
Air operated valves series A1

1/2", 3/2 Pilot/Pilot



Standard dimensions

Type: 3/2 pilot/pilot



2 - VALVES

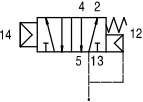
Version	Symbol	Code	Item
1/2" 3/2 pilot/pilot		034128	A1P432

Air operated valves series A1

1/2", 5/2 Pilot/Spring



Main features

Version	Code	Item	Symbol
5/2 pilot/spring	034117	A1P450	



Technical data

Version	5/2 pilot/spring	
Code	034117	
Item	A1P450	
Size	1/2"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	2,5 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C (standard)	-25°C ÷ +60°C (BT)
Orifice Ø	15 mm	
Flow at 6 bar with ΔP 1 bar	2.900 NI/min.	
Mounting	In every position	

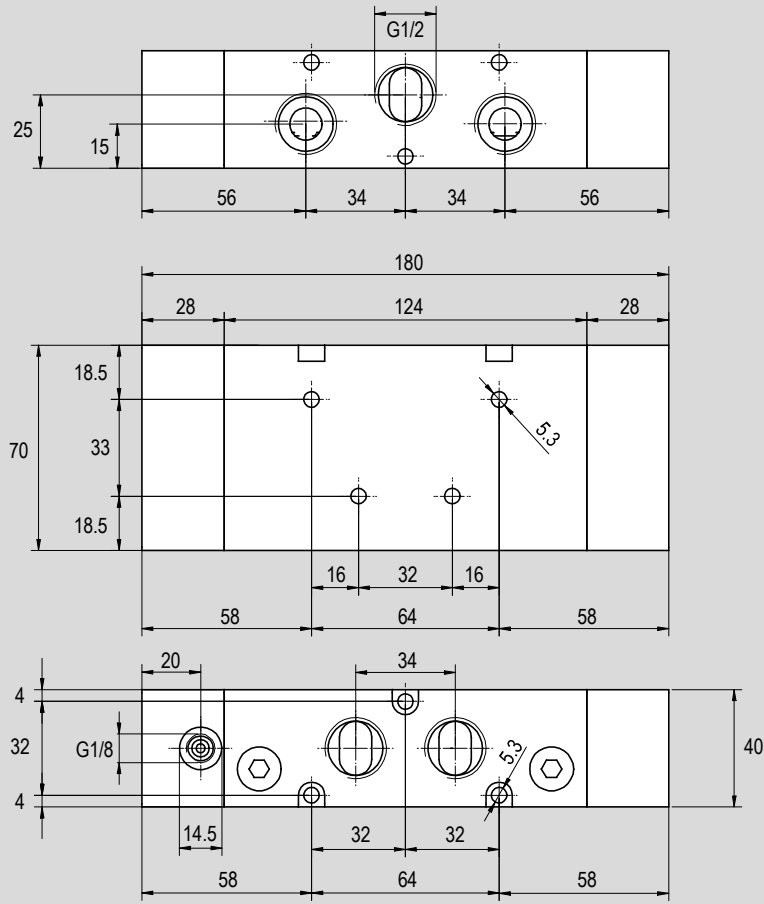
Air operated valves series A1

1/2", 5/2 Pilot/Spring



Standard dimensions

Type: **5/2 pilot/spring**



2 - VALVES

Version	Symbol	Code	Item
1/2" 5/2 pilot/spring		034117	A1P450

Air operated valves series A1

1/2", 5/2 Pilot/Pilot



Main features

Version	Code	Item	Symbol
5/2 pilot/pilot	034118	A1P451	
5/2 pilot/pilot differential	034136	A1P452	



Technical data

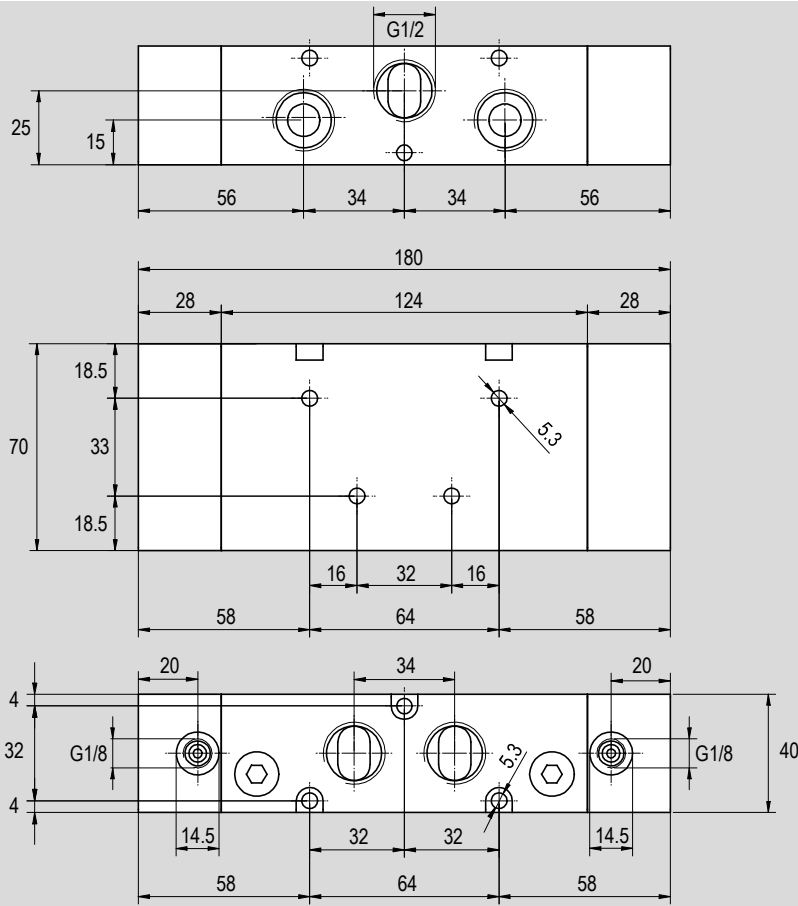
Version	5/2 pilot/pilot	5/2 pilot/pilot differential
Code	034118	034136
Item	A1P451	A1P452
Size	1/2"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C (standard)	-25°C ÷ +60°C (BT)
Orifice Ø	15 mm	
Flow at 6 bar with ΔP 1 bar	2.900 NI/min.	
Mounting	In every position	

Air operated valves series A1

1/2", 5/2 Pilot/Pilot



Standard dimensions



Type: **5/2 pilot/pilot**
5/2 pilot/pilot
differential

2 - VALVES

Version	Symbol	Code	Item
1/2" 5/2 pilot/pilot		034118	A1P451
1/2" 5/2 pilot/pilot differential		034136	A1P452

Air operated valves series A1

1/2", 5/3



Main features

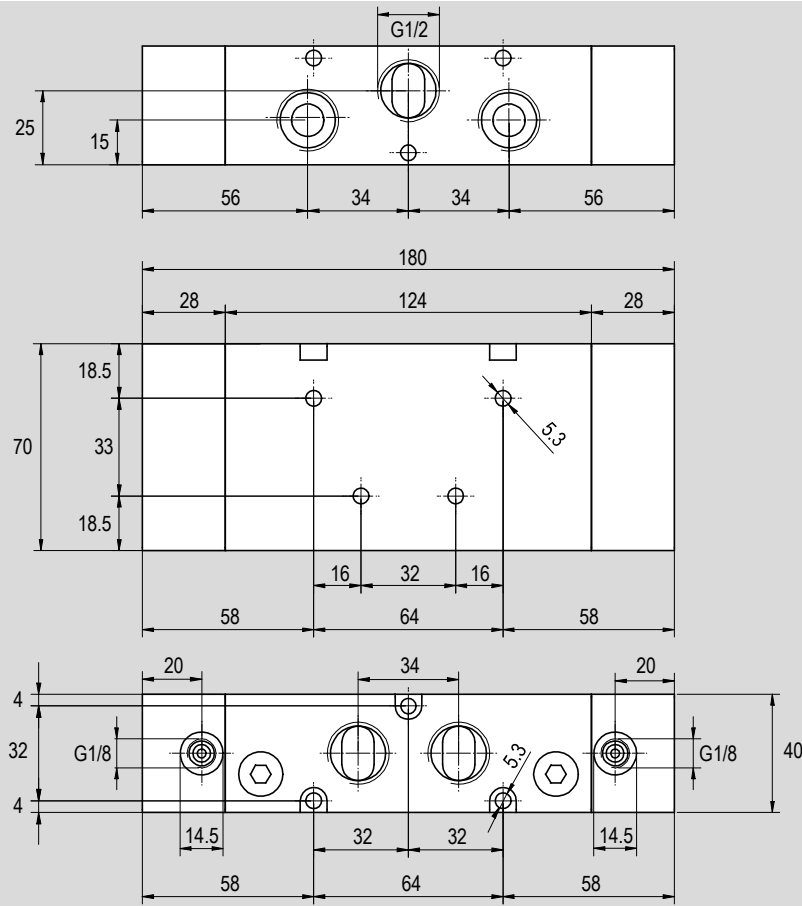
Version	Code	Item	Symbol
5/3 closed centres	034129	A1P470	
5/3 open centres	034130	A1P471	
5/3 pressurized centres	034135	A1P472	



Technical data

Version	5/3 closed centres	5/3 open centres	5/3 pressurized centres
Code	034129	034130	034135
Item	A1P470	A1P471	A1P472
Size	1/2"		
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	2,5 ÷ 10 bar		
Temperature range	-10°C ÷ +60°C (standard)	-25°C ÷ +60°C (BT)	
Orifice Ø	15 mm		
Flow at 6 bar with ΔP 1 bar	2.900 NI/min.		
Mounting	In every position		

Standard dimensions




Type: **5/3 C.C.**
5/3 O.C.
5/3 P.C.


2 - VALVES

Version	Symbol	Code	Item
1/2" 5/3 closed centres		034129	A1P470
1/2" 5/3 open centres		034130	A1P471
1/2" 5/3 pressurized centres		034135	A1P472


Sub-bases 1/8" A1B1..

	Positions	Code	Item	Matching
	2	034041	A1B102	1/8"
	3	034042	A1B103	
	4	034043	A1B104	
	5	034044	A1B105	
	6	034045	A1B106	
	7	034046	A1B107	
	8	034047	A1B108	
	9	034048	A1B109	
	10	034049	A1B110	


Sub-bases 1/4" A1B2..

	Positions	Code	Item	Matching
	2	034141	A1B202	1/4"
	3	034142	A1B203	
	4	034143	A1B204	
	5	034144	A1B205	
	6	034145	A1B206	
	7	034146	A1B207	
	8	034147	A1B208	
	9	034148	A1B209	
	10	034149	A1B210	


Closing plates for sub-bases A1C..

	Code	Item	Matching
	034050	A1C1	A1B1 (1/8")
	034150	A1C2	A1B2 (1/4")

Plugs for sub-bases A1T..

	Code	Item	Matching
	034051	A1T1	A1B1 (1/8")
	034151	A1T2	A1B2 (1/4")

Plates for valves PSV..

	Per valvola (5 vie) taglia	Code	Item	Matching with cylinder Ø mm
	1/8" - 1/4"	071458	PSV/A1/AMA-32-40	32-40
		071459	PSV/A1/AMA-50-63	50-63
	1/8" - 1/4" - 1/2"	071460	PSV/A1/AMA-80-100-125	80÷125
	1/4" - 1/2"	070822	PSV/A1/AMT-160-200	160-200

SUB-BASES

for valves Series A1



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Features and certifications

Multi-position sub-bases with fixed positions for valves, solenoid and air operated, series A1. Available for size 1/8" and 1/4", function 3/2 and 5/2 (solenoid/spring, solenoid/solenoid, pilot/spring, pilot/pilot) and 5/3. Mounting screws and relevant seals for each position included. Spare positions can be blanked with the closing plate, supplied with screws. With 3/2 valves, the plug close the not used way. Supplied as standard in compliance to Reach and RoHS directives, and SIL certified.



Series A1B1..

from page 2.38.10



Series of sub-bases for valves, solenoid and air operated, size 1/8".

Series A1B2..

from page 2.38.20



Series of sub-bases for valves, solenoid and air operated, size 1/4".

Code key

Series	Size	Positions	/	Option
A1B	2	04	/	

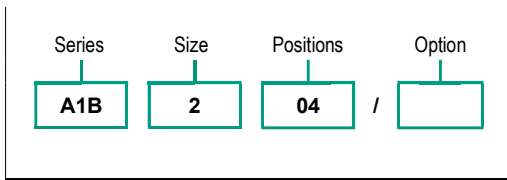
A1B

1 = 1/8"
2 = 1/4"

02 = 2
03 = 3
04 = 4
05 = 5
06 = 6
07 = 7
08 = 8
09 = 9
10 = 10

P32 * = Wide pitch 32 mm

How to order

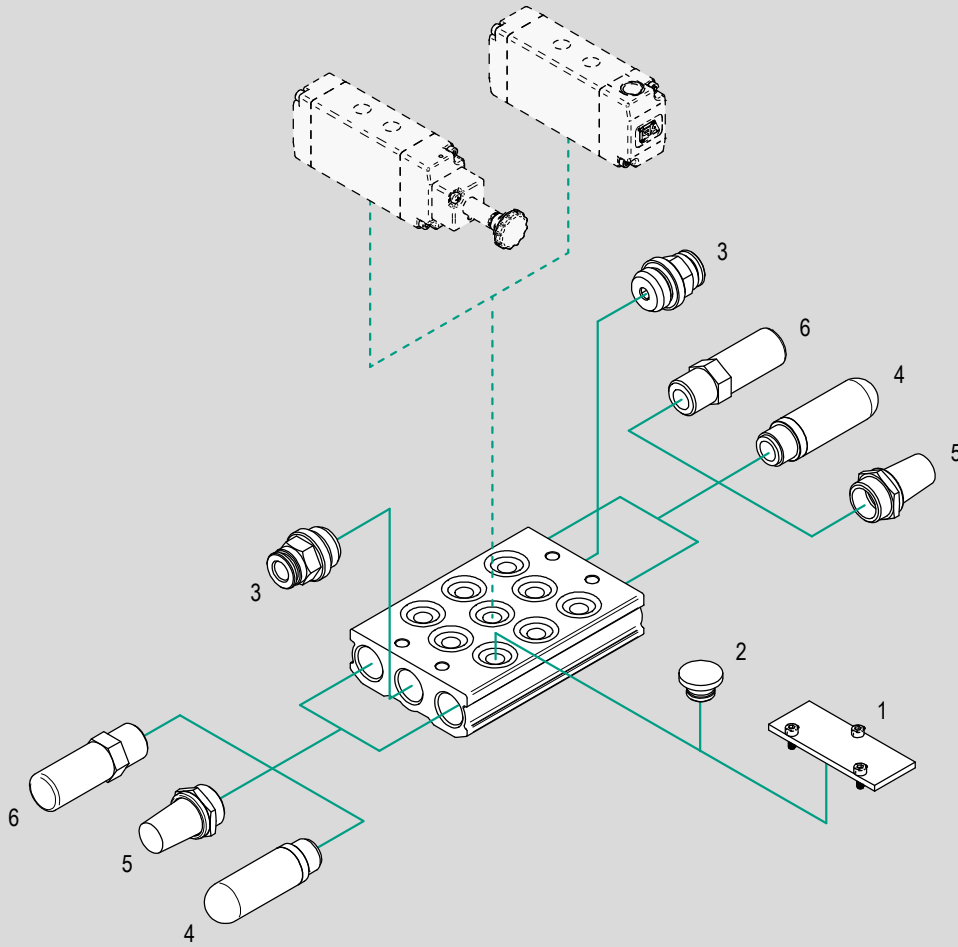


Notes

Options in the same grid are alternative to each others.

*Option Wide pitch 32 mm (**P32**) required for mounting of solenoid valves with coils type ASA2 and type ASA2/ATEX (size 30 mm) on the sub-base.

Accessories



2 - VALVES

N.	Item	Description	Compliance	Matching		Code key & data sheet page
				A1B1	A1B2	
1	A1C1	Closing plate 1/8"	-	●	-	2.38.30
	A1C2	Closing plate 1/4"	-	-	●	
2	A1T1	Plug 1/8"	-	●	-	2.38.30
	A1T2	Plug 1/4"	-	-	●	
3	R..	Push-in fittings	-	●	●	4.2.1
4	AS..	Plastic silencers	-	●	●	4.151.10
	SP..			●	●	4.151.20
5	A..	Sintered silencers	-	●	●	4.153.10
6	M..	Metal silencers	-	●	●	4.155.10






Key
 ● matching accessory; - not matching accessory

Sub-bases for valves series A1

Series A1B1, 1/8"



Main features

Version	Code	Item
Sub-base for valves A1 size 1/8", 2 positions	034041 	A1B102
Sub-base for valves A1 size 1/8", 3 positions	034042	A1B103
Sub-base for valves A1 size 1/8", 4 positions	034043 	A1B104
Sub-base for valves A1 size 1/8", 5 positions	034044	A1B105
Sub-base for valves A1 size 1/8", 6 positions	034045 	A1B106
Sub-base for valves A1 size 1/8", 7 positions	034046	A1B107
Sub-base for valves A1 size 1/8", 8 positions	034047 	A1B108
Sub-base for valves A1 size 1/8", 9 positions	034048	A1B109
Sub-base for valves A1 size 1/8", 10 positions	034049 	A1B110



Technical data

Version	Sub-base A1B1..								
Code	034041	034042	034043	034044	034045	034046	034047	034048	034049
Item	A1B102	A1B103	A1B104	A1B105	A1B106	A1B107	A1B108	A1B109	A1B110
Size	1/8"								
Function	Manifold								
Positions	2	3	4	5	6	7	8	9	10
Ports	G1/4"								
Matching valves	Series A1 1/8"								

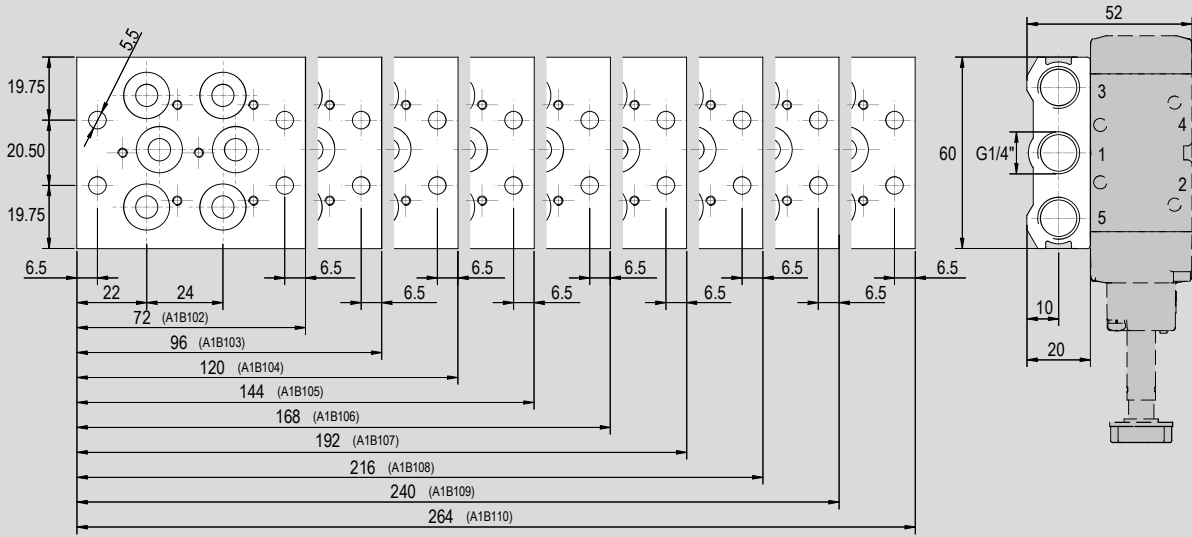
Standard materials

Description	Material
Body	Profiled die-cast aluminium

Important note

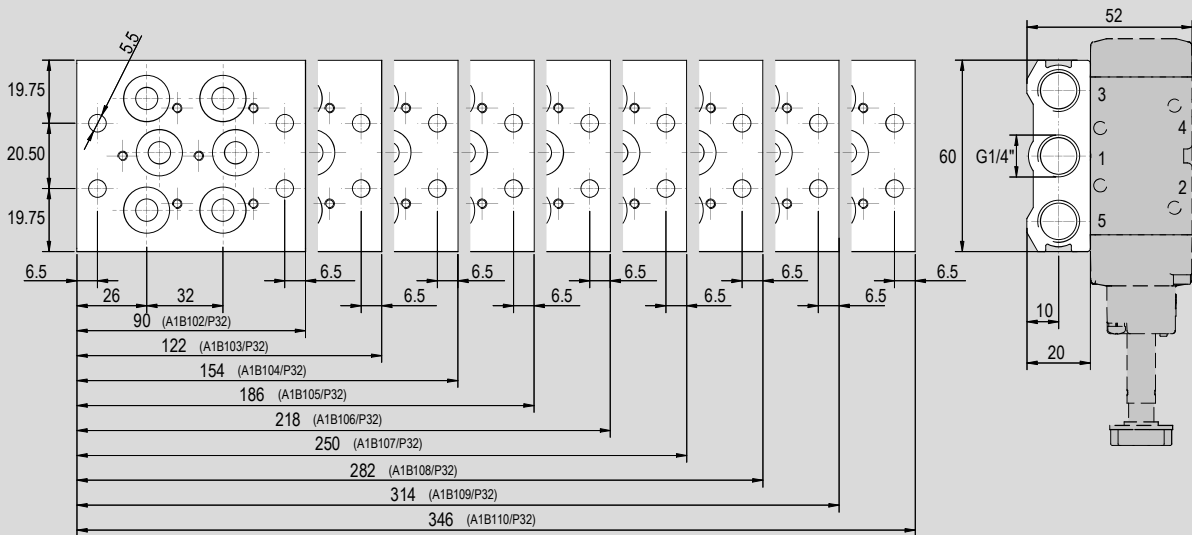
Option Wide pitch 32 mm (**P32**) required for mounting of solenoid valves with coils type ASA2 and type ASA2/ATEX (size 30 mm) on the sub-base, see page 2.38.3

Standard dimensions



2 - VALVES

Dimensions with option P32 - Wide pitch for valves with coil size 30 mm



Sub-bases for valves series A1

Series A1B2, 1/4"



Main features

Version	Code	Item
Sub-base for valves A1 size 1/4", 2 positions	034141	A1B202
Sub-base for valves A1 size 1/4", 3 positions	034142	A1B203
Sub-base for valves A1 size 1/4", 4 positions	034143	A1B204
Sub-base for valves A1 size 1/4", 5 positions	034144	A1B205
Sub-base for valves A1 size 1/4", 6 positions	034145	A1B206
Sub-base for valves A1 size 1/4", 7 positions	034146	A1B207
Sub-base for valves A1 size 1/4", 8 positions	034147	A1B208
Sub-base for valves A1 size 1/4", 9 positions	034148	A1B209
Sub-base for valves A1 size 1/4", 10 positions	034149	A1B210



Technical data

Version	Sub-base A1B2..								
Code	034141	034142	034143	034144	034145	034146	034147	034148	034149
Item	A1B202	A1B203	A1B204	A1B205	A1B206	A1B207	A1B208	A1B209	A1B210
Size	1/4"								
Function	Manifold								
Positions	2	3	4	5	6	7	8	9	10
Ports	G3/8"								
Matching valves	Series A1 1/4"								

Standard materials

Description	Material
Body	Profiled die-cast aluminium

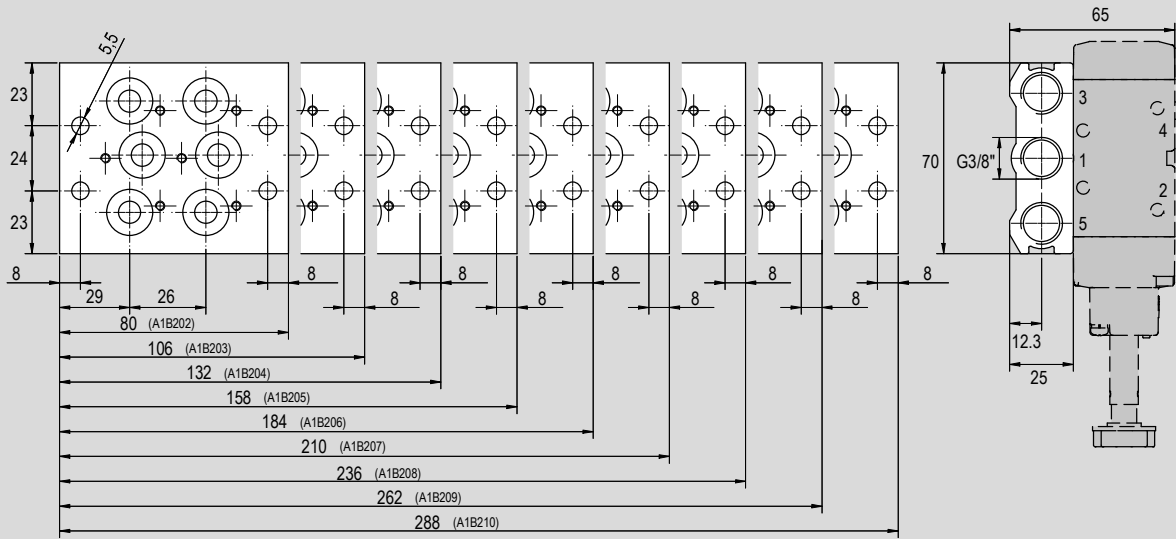
Important note

Option Wide pitch 32 mm (**P32**) required for mounting of solenoid valves with coils type ASA2 and type ASA2/ATEX (size 30 mm) on the sub-base, see page 2.38.3

Sub-bases for valves series A1
Series A1B2, 1/4"

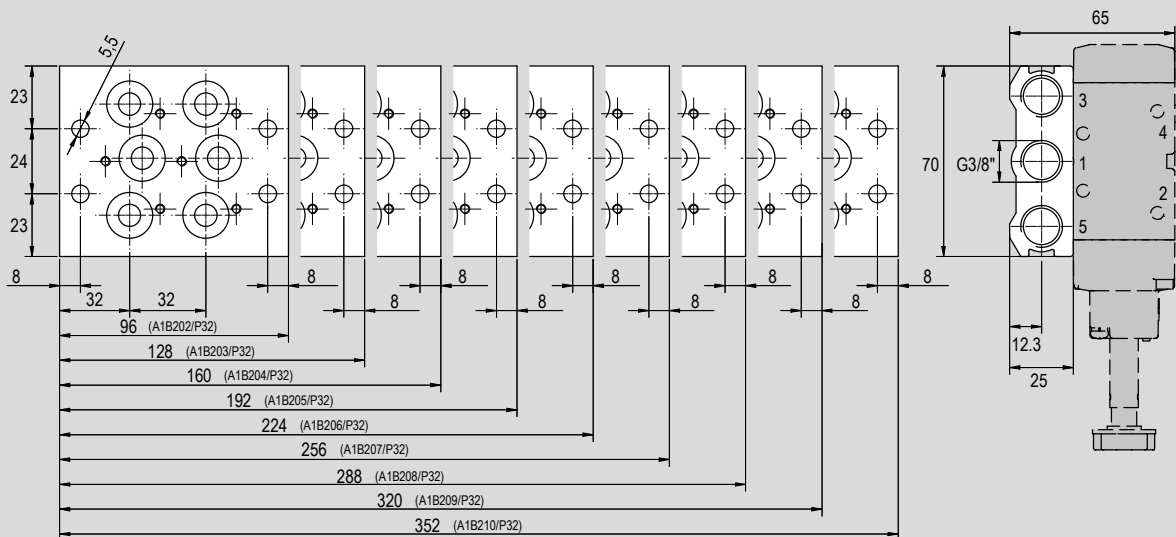


Standard dimensions



2 - VALVES

Dimensions with option P32 - Wide pitch for valves with coil size 30 mm



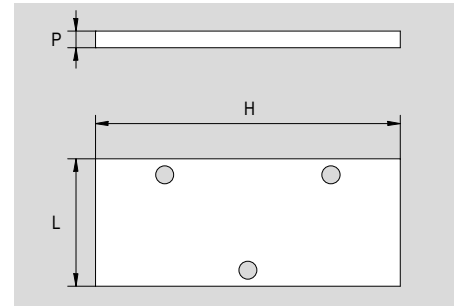
Sub-bases for valves series A1

Accessories for sub-bases



Main features

Version	Code	Item
Closing plate for sub-bases A1B1	034050	A1C1
Closing plate for sub-bases A1B2	034150	A1C2



Technical data

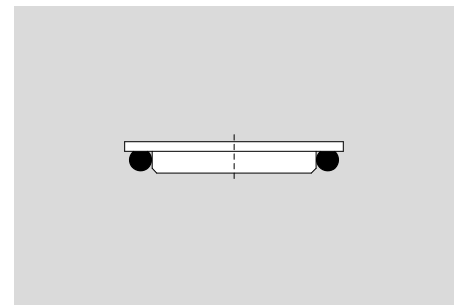
Version	Closing plate A1C..	
Code	034050	034150
Item	A1C1	A1C2
Size	1/8"	1/4"
Material	Aluminium	
Function	Closing plate for sub-bases	
Matching	Sub-base series A1B1	Sub-base series A1B2

Dimensions

Item	Code	Size	L	H	P
A1C1	034050	1/8"	23	55	3
A1C2	034150	1/4"	25	65	3

Main features

Version	Code	Item
Plug for sub-bases A1B1	034051	A1T1
Plug for sub-bases A1B2	034151	A1T2



Technical data

Version	Plug A1T..	
Code	034051	034151
Item	A1T1	A1T2
Size	1/8"	1/4"
Material	Body	Aluminium
	Seals	NBR
Function	Plug for sub-bases	
Matching	Sub-base series A1B1	Sub-base series A1B2

PLATES

for valves Series A1



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Features and certifications

Plates for valves series A1. These components allow the mounting of valves and solenoid valves series A1 directly on the barrel or on the tie-rod of cylinders ISO 15552 type AMA, BMA and AMT.

Supplied as standard in compliance to Reach and RoHS directives.



Series PSV..

from page 2.39.10



Series of plates for mounting valves and solenoid valves series A1 5/2 and 5/3 on cylinders ISO 15552 type AMA, BMA and AMT.

These plates are equipped with multiple holes for mounting at least two sizes of valves series A1, according to cylinder bore.

Code key

Series	/	Matching valves	/	Matching cylinder	-	Matching cylinder bore
PSV	/	A1	/	AMA	-	32-40

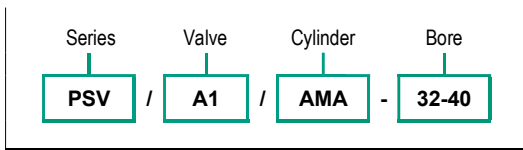
PSV

A1 = valves series A1

AMA = cylinder type AMA and BMA
 AMT = cylinder type AMT

32-40 = from Ø 32 to Ø 40
 50-63 = from Ø 50 to Ø 63
 80-100-125 = from Ø 80 to Ø 125
 160-200* = from Ø 160 to Ø 200

How to order



Notes

Options in the same grid are alternative to each others.
 For standard materials see data sheet.
 * Available only for type AMT.
 For matching with size of valves series A1 and with type/bore of cylinders, see page 2.39.4

Matching with valves

Series/size valve (5/2 - 5/3)	Plate				See from page
	PSV/A1/AMA-32-40	PSV/A1/AMA-50-63	PSV/A1/AMA-80-100-125	PSV/A1/AMT-160-200	
Series A1E1 (1/8")	●	●	●	-	2.21.10
Series A1P1 (1/8")	●	●	●	-	2.31.10
Series A1E2 (1/4")	●	●	●	●	2.23.10
Series A1P2 (1/4")	●	●	●	●	2.33.10
Series A1E4 (1/2")	-	-	●	●	2.25.10
Series A1E4 (1/2")	-	-	●	●	2.35.10

Key

● allowed matching; - not allowed matching

2 - VALVES

Matching with cylinders

Cylinder type/bore		Plate				See from page
		PSV/A1/AMA-32-40	PSV/A1/AMA-50-63	PSV/A1/AMA-80-100-125	PSV/A1/AMT-160-200	
Type AMA	Ø 32-40	●	-	-	-	1.5.20
	Ø 50-63	-	●	-	-	
	Ø 80+125	-	-	●	-	
Type BMA	Ø 32-40	●	-	-	-	1.5.50
	Ø 50-63	-	●	-	-	
	Ø 80+125	-	-	●	-	
Type AMT	Ø 32+125	-	-	-	-	1.5.20
	Ø 160-200	-	-	-	●	1.5.70
	Ø 250-320	-	-	-	-	
Type BMT	Ø 32+125	-	-	-	-	1.5.50

Key

● allowed matching; - not allowed matching

Plates for valves series A1

Series PSV



Main features

Version	Code	Item
Plate for cylinder ISO 15552 type AMA/BMA 32-40	071458	PSV/A1/AMA-32-40
Plate for cylinder ISO 15552 type AMA/BMA 50-63	071459	PSV/A1/AMA-50-63
Plate for cylinder ISO 15552 type AMA/BMA 80-100-125	071460	PSV/A1/AMA-80-100-125
Plate for cylinder ISO 15552 type AMT 160-200	070822	PSV/A1/AMT-160-200



Notes

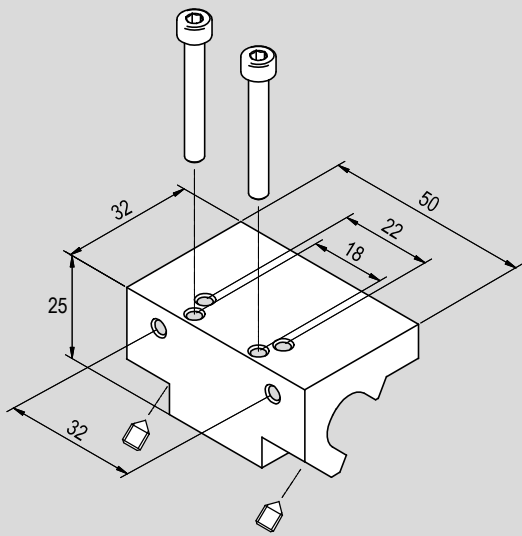
Kit include n. 2 screws and n. 2 grains

Standard materials

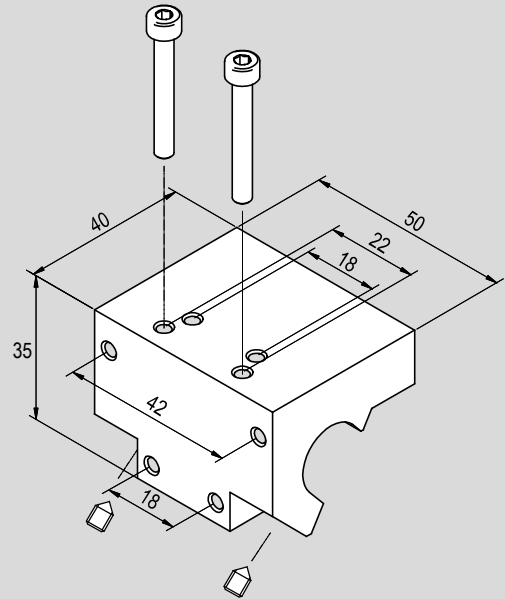
Description	Material
Body	Neutral anodized aluminium S11
Screws	Stainless Steel
Grains	Steel

Standard dimensions

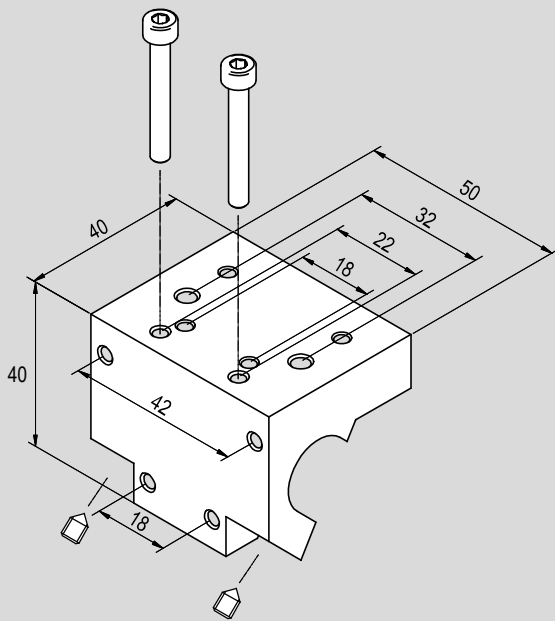
Type: **PSV/A1/AMA-32-40**



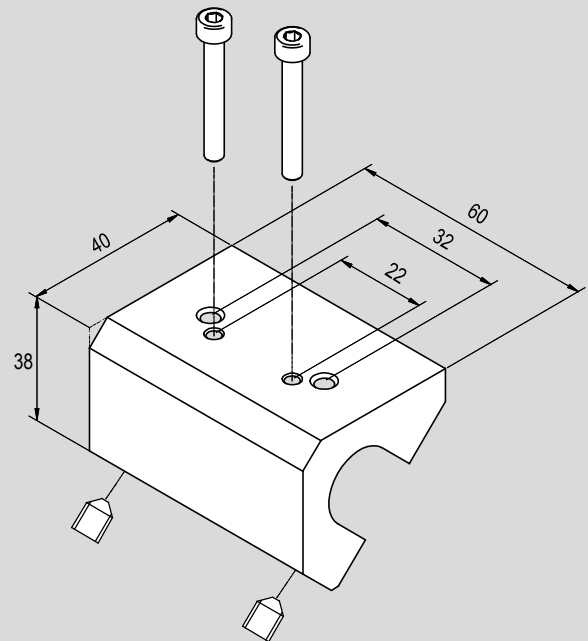
Type: **PSV/A1/AMA-50-63**



Type: **PSV/A1/AMA-80-100-125**



Type: **PSV/A1/AMT-160-200**



NAMUR

solenoid operated valves Series A1N



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Wide availability



Fast delivery



Features and certifications

Spool valves, with static seals, high flow, NAMUR interface. Available in size 1/4", solenoid operated, with functions: 3/2 solenoid/spring normally closed and solenoid/solenoid, 5/2 solenoid/spring and solenoid/solenoid, 5/3 open centres, closed centres and pressurized centres.

Coils and connectors to be ordered separately. These components are suitable for working with pneumatic rotary actuators series AR, see page 2.400.1

Supplied as standard in compliance to Reach and RoHS directives, and SIL certified. On request the valve body can be supplied according to 2014/34/EU ATEX Directive, classification Ex h, and also complete with ATEX coil and connector, in different classifications (see from page 2.320.1).

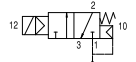


Series A1N 1/4" 3/2 Solenoid/Spring

from page 2.46.10



Series of spool valves, with static seals, high flow, NAMUR interface. Available in size 1/4", 3/2 solenoid/spring normally closed. Coils and connectors to be ordered separately.

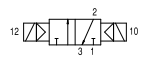


Series A1N 1/4" 3/2 Solenoid/Solenoid

from page 2.46.30



Series of spool valves, with static seals, high flow, NAMUR interface. Available in size 1/4", 3/2 solenoid/solenoid. Coils and connectors to be ordered separately.

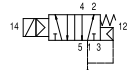


Series A1N 1/4" 5/2 Solenoid/Spring

from page 2.46.50



Series of spool valves, with static seals, high flow, NAMUR interface. Available in size 1/4", 5/2 solenoid/spring. Coils and connectors to be ordered separately.

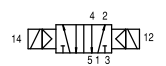


Series A1N 1/4" 5/2 Solenoid/Solenoid

from page 2.46.70



Series of spool valves, with static seals, high flow, NAMUR interface. Available in size 1/4", 5/2 solenoid/solenoid. Coils and connectors to be ordered separately.

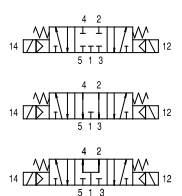


Series A1N 1/4" 5/3

from page 2.46.90



Series of spool valves, with static seals, high flow, NAMUR interface. Available in size 1/4", 5/3 closed centres, 5/3 open centres e 5/3 pressurized centres, solenoid operated. Coils and connectors to be ordered separately.





Series A1N 1/4" 3/2 - 5/2 - 5/3 ATEX

from page 2.320.1



Series of spool valves, with static seals, high flow, NAMUR interface. Available in size 1/4", 3/2 solenoid/spring normally closed and solenoid/solenoid, 5/2 solenoid/spring and solenoid/solenoid, 5/3 open centres, closed centres and pressurized centres, solenoid operated, supplied according to 2014/34/EU ATEX Directive in different classifications



Options		
Description	Symbol	Suffix
Low temperatures seals	-25°C ÷ +60°C 	BT
ATEX valve body*		/ATEX
Special versions on request		/S

The options, when this is possible, can be combined with each other. For options matching see the table below; For code key see from page 2.44.5

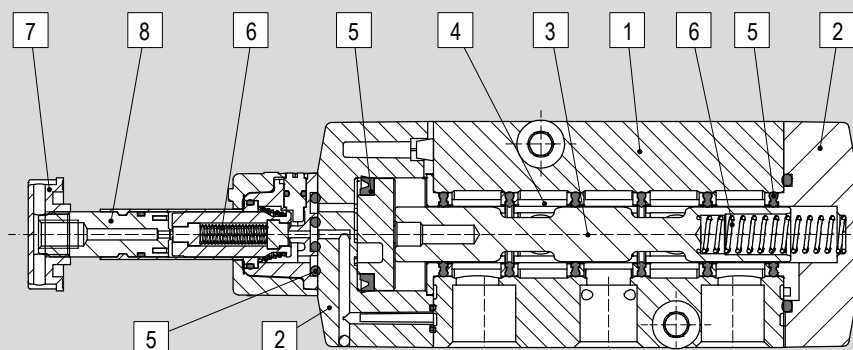
*For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1.

Options matching					
Series	Size	Function	Standard options matching		
			BT	/ATEX	
A1NE	1/4"	3/2	Solenoid/Spring	●	●
			Solenoid/Solenoid	●	●
		5/2	Solenoid/Spring	●	●
			Solenoid/Solenoid	●	●
		5/3		●	●

Key

● allowed matching; - not allowed matching

Standard materials



2 - VALVES

Position	Description	Material
		1/4"
1	Body	Die-cast painted aluminium
2	Covers	Tecnopolymer
3	Spool	Hard anodized aluminium
4	Distancers	Tecnopolymer
5	Seals	HNBR
6	Springs	Spring steel
7	Locking nut	Plastic
8	Plunger	Brass

Code key

Series	Actuation	Size	Function	Options	/	ATEX valve body
A1N	E	2	50		/	
A1N	E = Electric	2 = 1/4"	30 = 3/2 Normally closed 32 = 3/2 Solenoid/Solenoid 50 = 5/2 Solenoid/Spring 51 = 5/2 Solenoid/Solenoid 70 = 5/3 Closed Centres 71 = 5/3 Open Centres 72 = 5/3 Pressurized Centres	BT = Low temperatures seals		ATEX II 2G Ex h IIB T5 Gb II 2D Ex h IIIC T100°C Db

ATEX note



For ATEX coils and connectors choice, classification, features, dimensions and matching, see page 2.320.1

For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

How to order

Series	Actuation	Size	Function	Option
A1N	E	2	50	-

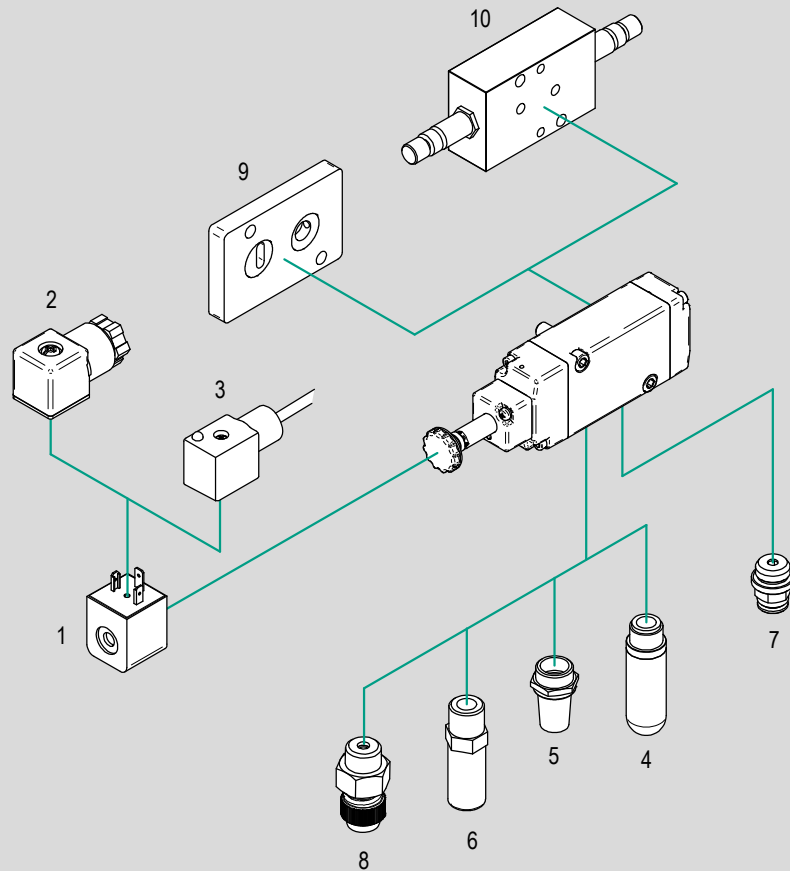
Notes

Options in the same grid are alternative to each others.

For further information on options and their matching, see page 2.44.3.

Coils and connectors to be ordered separately, see page 2.48.1

Accessories



2 - VALVES

N.	Item	Description	Compliance	Matching	Code key page	Data sheet page
				1/4"		
1	ASA12..	Coil	EN60204 VDE0580	●	2.48.1	2.315.10
	ASA2..*		EN60204.1 VDE0580	●		2.315.11
2	A122..N	Connector	VDE 0110 - 1/89	●	2.48.1	2.318.12
	A182..N*			●		2.318.14
3	A122..NK	Cabled connector	VDE 0110 - 1/89	●	2.48.1	2.318.12
	A182..NK*			●		2.318.14
4	AS..	Plastic silencers	-	●	4.151.10	
	SP..		-	●	4.151.20	
5	A..	Sintered silencers	-	●	4.153.10	
6	M..	Metal silencers	-	●	4.155.10	
7	R..	Push-in fittings	UNI ISO 228/1 UNI ISO 7/1 ISO R/232	●	4.2.1	
8	A..	Silenced exhaust restrictors	-	●	4.97.1	
9	PSN..	Plate for valves	NAMUR	●	2.48.1	2.56.10
10	APNR..	Speed regulators for rotary actuators	NAMUR	●		2.430.1

Key
● matching accessory; - not matching accessory


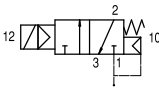
*The valve direct mounting to another component require the plate type PSN

NAMUR solenoid operated valves series A1N

1/4", 3/2 Solenoid/Spring



Main features

Version	Code	Item	Symbol
3/2 Normally closed	034059 	A1NE230	



Technical data

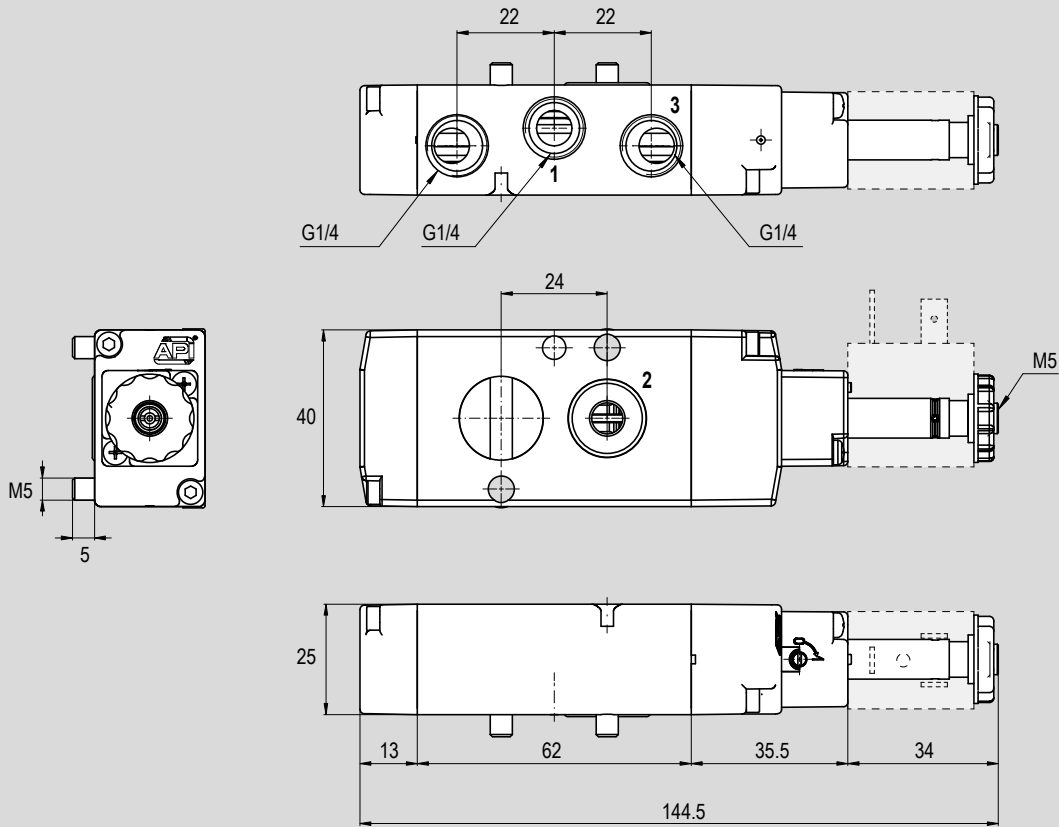
Version	3/2 Normally closed	
Code	034059	
Item	A1NE230	
Size	1/4"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1,5 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C (standard) -25°C ÷ +60°C (BT)	
Plunger Ø	9 mm	
Orifice Ø	7 mm	
Flow at 6 bar with ΔP 1 bar	1.000 NI/min.	
Mounting	In every position	
Manual override	Bistable	
Response time at 6 bar	Energizing	45 ms.
	De-energizing	19 ms.

Notes

Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Standard dimensions

Type: 3/2 N.C.



2 - VALVES

Version	Symbol	Code	Item
1/4" 3/2 Normally closed		034059	A1NE230

NAMUR solenoid operated valves series A1N

1/4", 3/2 Solenoid/Solenoid



Main features

Version	Code	Item	Symbol
3/2 solenoid/solenoid	034060	A1NE232	



Technical data

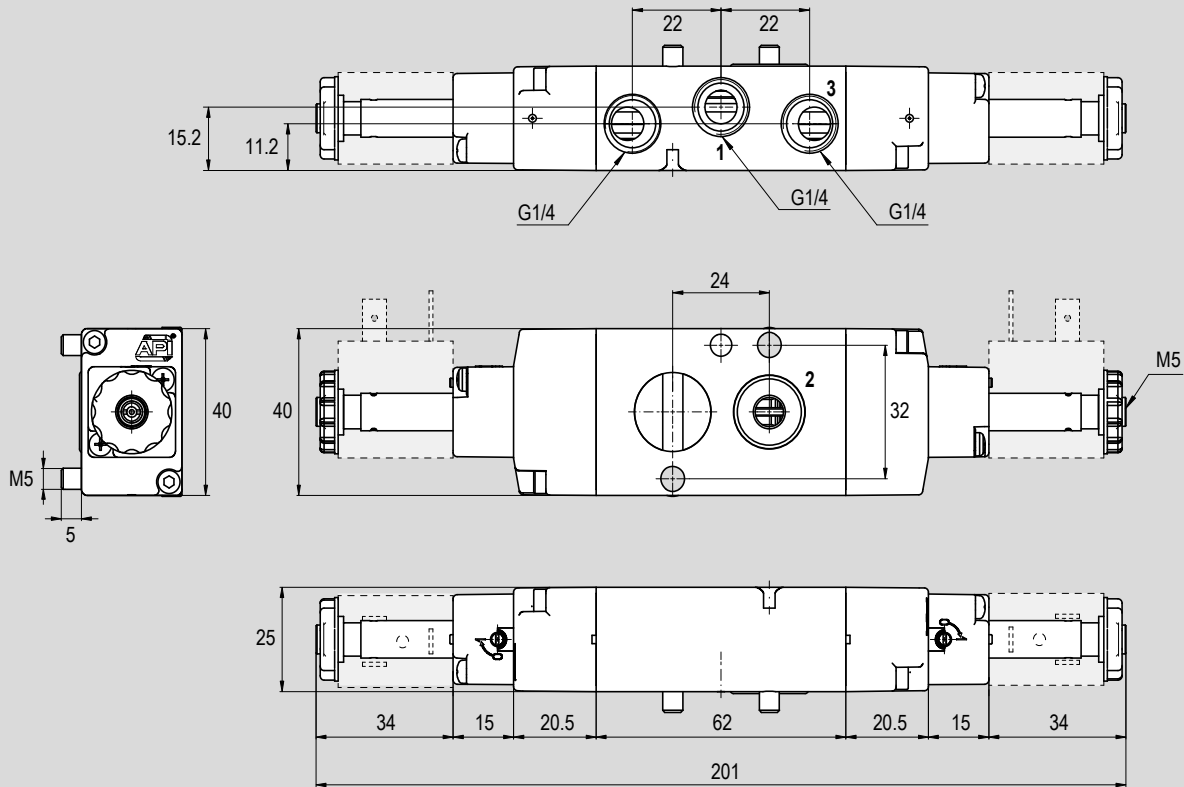
Version	3/2 solenoid/solenoid	
Code	034060	
Item	A1NE232	
Size	1/4"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C (standard) -25°C ÷ +60°C (BT)	
Plunger Ø	9 mm	
Orifice Ø	7 mm	
Flow at 6 bar with ΔP 1 bar	1.000 NI/min.	
Mounting	In every position	
Manual override	Bistable	
Response time at 6 bar	Energizing	21 ms.
	De-energizing	21 ms.

Notes

Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Standard dimensions

Type: 3/2 solenoid/solenoid




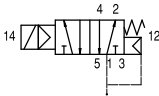
Version	Symbol	Code	Item
1/4" 3/2 solenoid/solenoid		034060	A1NE232

NAMUR solenoid operated valves series A1N

1/4", 5/2 Solenoid/Spring



Main features

Version	Code	Item	Symbol
5/2 solenoid/spring	034057 	A1NE250	



Technical data

Version	5/2 solenoid/spring	
Code	034057	
Item	A1NE250	
Size	1/4"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1,5 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C (standard) -25°C ÷ +60°C (BT)	
Plunger Ø	9 mm	
Orifice Ø	7 mm	
Flow at 6 bar with ΔP 1 bar	1.000 NI/min.	
Mounting	In every position	
Manual override	Bistable	
Response time at 6 bar	Energizing	45 ms.
	De-energizing	19 ms.

Notes

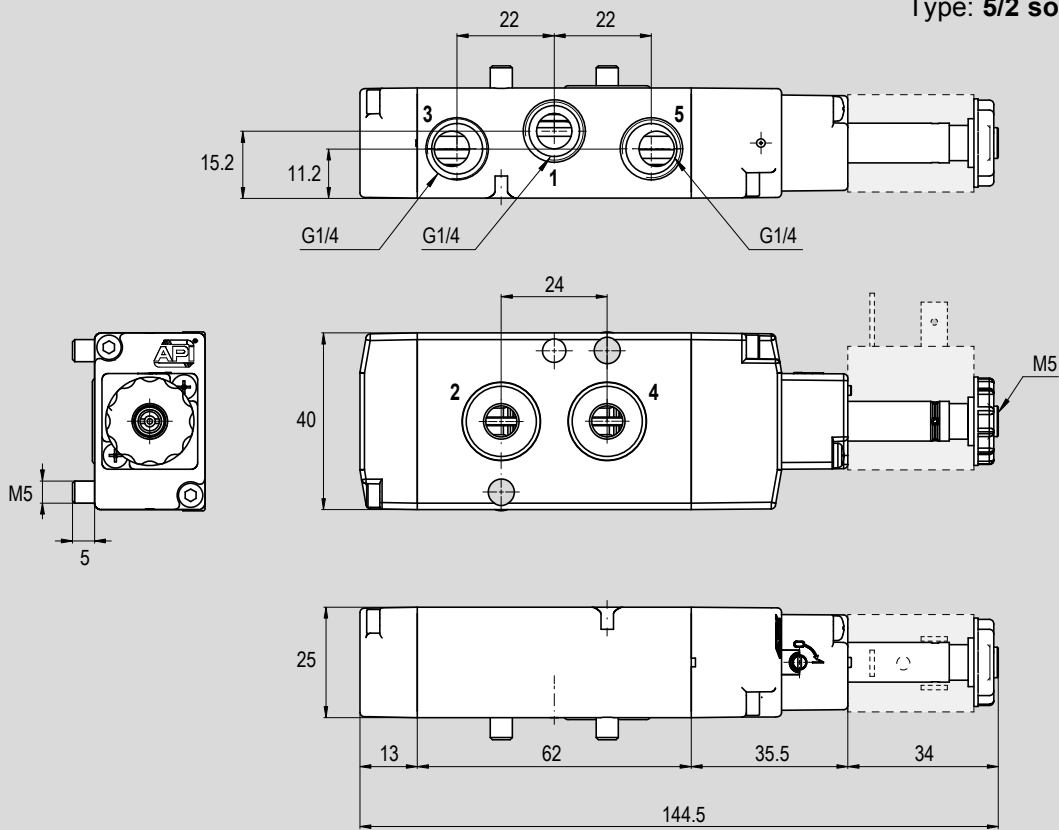
Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

NAMUR solenoid operated valves series A1N
 1/4", 5/2 Solenoid/Spring



Standard dimensions

Type: 5/2 solenoid/spring



2 - VALVES

Version	Symbol	Code	Item
1/4" 5/2 solenoid/spring		034057	A1NE250

NAMUR solenoid operated valves series A1N

1/4", 5/2 Solenoid/Solenoid



Main features

Version	Code	Item	Symbol
5/2 solenoid/solenoid	034058	A1NE251	



Technical data

Version	5/2 solenoid/solenoid	
Code	034058	
Item	A1NE251	
Size	1/4"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C (standard) -25°C ÷ +60°C (BT)	
Plunger Ø	9 mm	
Orifice Ø	7 mm	
Flow at 6 bar with ΔP 1 bar	1.000 NI/min.	
Mounting	In every position	
Manual override	Bistable	
Response time at 6 bar	Energizing	21 ms.
	De-energizing	21 ms.

Notes

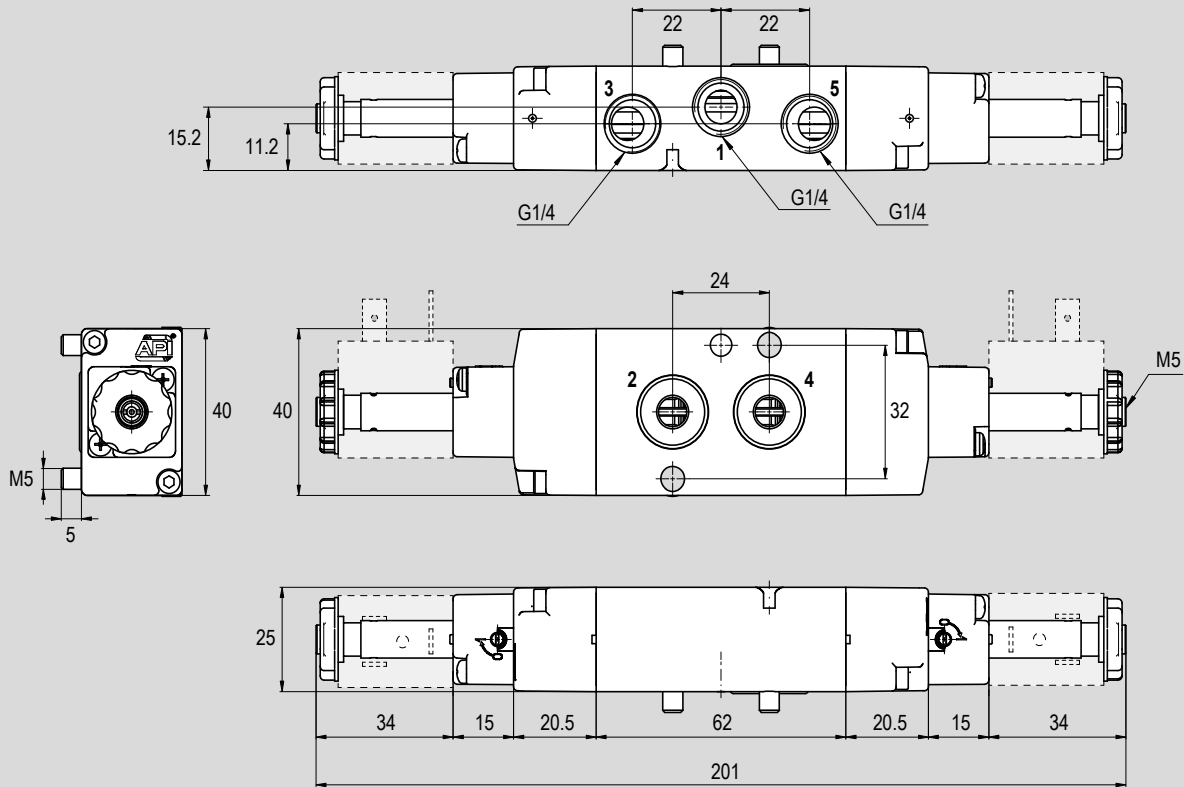
Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

NAMUR solenoid operated valves series A1N
 1/4", 5/2 Solenoid/Solenoid



Standard dimensions

Type: 5/2 solenoid/solenoid



2 - VALVES

Version	Symbol	Code	Item
1/4" 5/2 solenoid/solenoid		034058	A1NE251

NAMUR solenoid operated valves series A1N

1/4", 5/3



Main features

Version	Code	Item	Symbol
5/3 closed centres	034174	A1NE270	
5/3 open centres	034179	A1NE271	
5/3 pressurized centres	034254	A1NE272	



Technical data

Version	5/3 closed centres	5/3 open centres	5/3 pressurized centres
Code	034174	034179	034254
Item	A1NE270	A1E271	A1NE272
Size	1/4"		
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	2,5 ÷ 10 bar		
Temperature range	-10°C ÷ +60°C (standard)	-25°C ÷ +60°C (BT)	
Plunger Ø	9 mm		
Orifice Ø	7 mm		
Flow at 6 bar with ΔP 1 bar	1.000 NI/min.		
Mounting	In every position		
Manual override	Bistable		
Response time at 6 bar	Energizing	21 ms.	
	De-energizing	21 ms.	

Notes

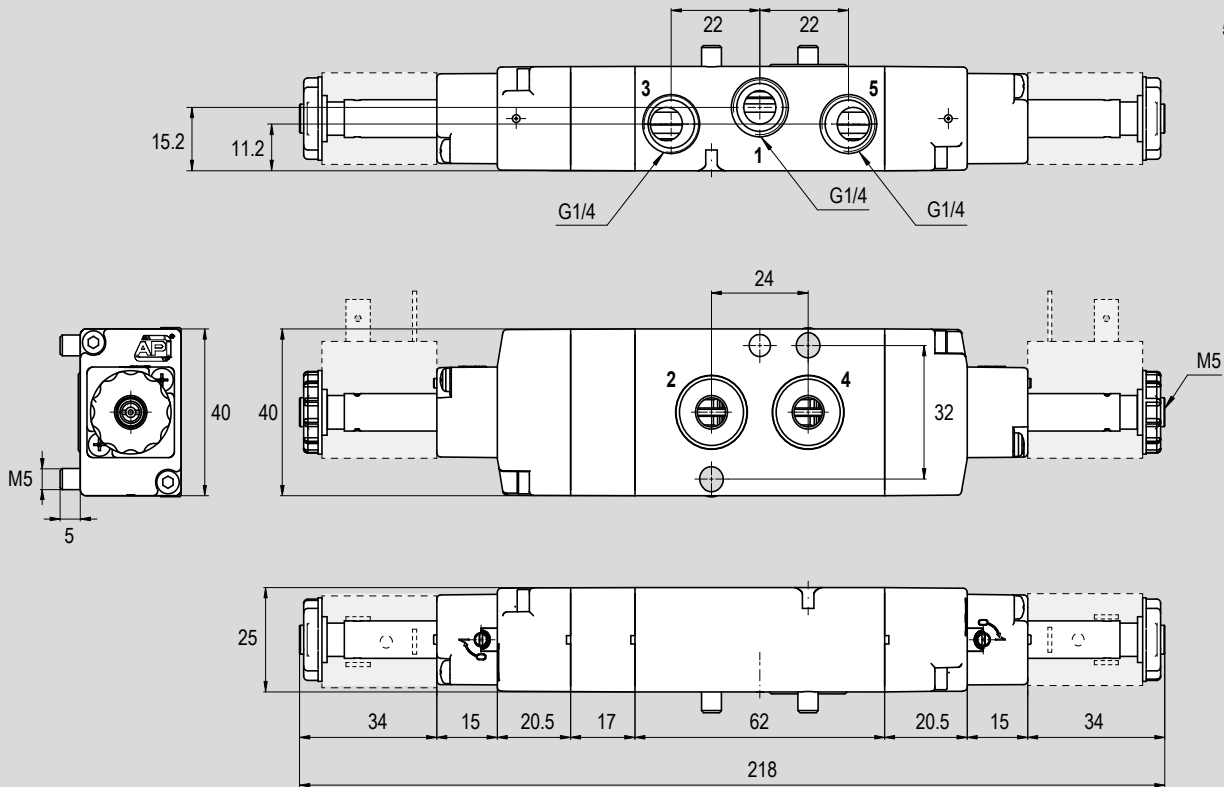
Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

NAMUR solenoid operated valves series A1N
1/4", 5/3



Standard dimensions






Type: 5/3 C.C.
5/3 O.C.
5/3 P.C.







2 - VALVES

Version	Symbol	Code	Item
1/4" 5/3 closed centres		034174	A1NE270
1/4" 5/3 open centres		034179	A1NE271
1/4" 5/3 pressurized centres		034254	A1NE272

Coils ASA12..



	Voltage	Code	Item	Matching
	12V DC	032100	ASA1201200	1/4"
	12V AC	032101	ASA1201250	
	24V DC	032102 	ASA1202400	
	24V AC	032103 	ASA1202450	
	48V AC	032104	ASA1204850	
	110V AC	032105 	ASA1211050	
	230V AC	032106 	ASA1223050	

Coils ASA2..*

	Voltage	Code	Item	Matching
	12V DC	032109	ASA201200	1/4"
	12V AC	032110	ASA201250	
	24V DC	032111 	ASA202400	
	24V AC	032112 	ASA202450	
	48V AC	032113	ASA204850	
	110V AC	032114	ASA211050	
	230V AC	032115 	ASA223050	



* The valve direct mounting to another component require the plate type PSN (see below).

Connectors A122..*

	Code	Item	Description
	032118 	A12209N	Black standard
	033521	A12209NK	Black standard cabled
	032204	A12209T1	LED+VDR transparent 24VAC-DC
	032205	A12209T2	LED+VDR transparent 115VAC-DC
	032206	A12209T3	LED+VDR transparent 230VAC-DC
	033522	A12209N1K	LED+VDR black cabled 24VAC-DC
	033523	A12209N2K	LED+VDR black cabled 115VAC-DC
033524	A12209N3K	LED+VDR black cabled 230VAC-DC	


* For coils type ASA12

Connectors A182..**

	Code	Item	Description
	032119 	A18209N	Black standard
	033531	A18209NK	Black standard cabled
	032207	A18209T1	LED+VDR transparent 24VAC-DC
	032208	A18209T2	LED+VDR transparent 115VAC-DC
	032209	A18209T3	LED+VDR transparent 230VAC-DC
	033532	A18209N1K	LED+VDR black cabled 24VAC-DC
	033533	A18209N2K	LED+VDR black cabled 115VAC-DC
033534	A18209N3K	LED+VDR black cabled 230VAC-DC	


** For coils type ASA2

Plate for valves* PSN..

	Code	Item	Matching (valve function)
	034203	PSN3/2	3/2
	034166	PSN5/2	5/2

* Required for valve direct mounting to another component, if the valve has a coil type ASA2.

Speed regulators for rotary actuators and valves, APNR..

	Code	Item	Matching with actuator	Matching with valve
	810153	APNRSR	AR..SE VSO..SE VSI..SE	3/2
	810152	APNRDA	AR..DE VSO..DE VSI..DE	5/25/3

NAMUR

air operated valves Series A1N



Find out our
key products



Solution for most applications



Easy and intuitive choice



Excellent value for money



Wide availability



Fast delivery



Features and certifications

Spool valves, with static seals, high flow, NAMUR interface. Available in size 1/4", air operated, with functions: 3/2 pilot/spring normally closed and pilot/pilot, 5/2 pilot/spring and pilot/pilot, 5/3 open centres, closed centres and pressurized centres.

These components are suitable for working with pneumatic rotary actuators series AR, see page 2.400.1

Supplied as standard in compliance to Reach and RoHS directives, and SIL certified. On request the valve body can be supplied according to 2014/34/EU ATEX Directive, classification Ex h.

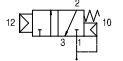


Series A1N 1/4" 3/2 Pilot/Spring

from page 2.52.10



Series of spool valves, with static seals, high flow, NAMUR interface. Available in size 1/4", 3/2 pilot/spring normally closed, air operated.

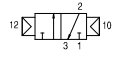


Series A1N 1/4" 3/2 Pilot/Pilot

from page 2.52.30



Series of spool valves, with static seals, high flow, NAMUR interface. Available in size 1/4", 3/2 pilot/pilot, air operated.

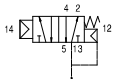


Series A1N 1/4" 5/2 Pilot/Spring

from page 2.52.50



Series of spool valves, with static seals, high flow, NAMUR interface. Available in size 1/4", 5/2 pilot/spring, air operated.

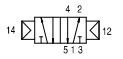


Series A1N 1/4" 5/2 Pilot/Pilot

from page 2.52.70



Series of spool valves, with static seals, high flow, NAMUR interface. Available in size 1/4", 5/2 pilot/pilot, air operated.

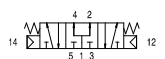
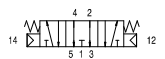
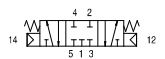




Series A1N 1/4" 5/3

from page 2.52.90



Series of spool valves, with static seals, high flow, NAMUR interface. Available in size 1/4", 5/3 closed centres, 5/3 open centres and 5/3 pressurized centres, air operated.



Options		
Description	Symbol	Suffix
Low temperatures seals	-25°C ÷ +60°C 	BT
ATEX valve body		/ATEX
Special versions on request		/S

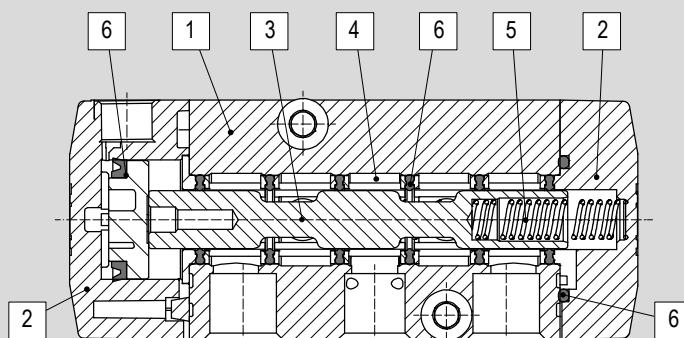
The options, when this is possible, can be combined with each other. For options matching see the table below; For code key see from page 2.50.5

Options matching					
Series	Size	Function	Standard options matching		
				BT	/ATEX
A1NP	1/4"	3/2	Pilot/Spring	●	●
			Pilot/Pilot	●	●
		5/2	Pilot/Spring	●	●
			Pilot/Pilot	●	●
	5/3		●	●	

Key

● allowed matching; - not allowed matching

Standard materials



2 - VALVES

Position	Description	Material
		1/4"
1	Body	Die-cast painted aluminium
2	Covers	Tecnopolymer
3	Spool	Hard anodized aluminium
4	Distancers	Tecnopolymer
5	Spring	Spring steel
6	Seals	HNBR

Code key

Series	Actuation	Size	Function	Options	/	ATEX valve body
A1N	P	2	50		/	
A1N	P = Pneumatico	2 = 1/4"	30 = 3/2 Normally closed 32 = 3/2 Pilot/Pilot 50 = 5/2 Pilot/Spring 51 = 5/2 Pilot/Pilot 70 = 5/3 Closed Centres 71 = 5/3 Open Centres 72 = 5/3 Pressurized Centres	BT = Low temperatures seals		ATEX II 2G Ex h IIB T5 Gb II 2D Ex h IIIC T100°C Db

2 - VALVES

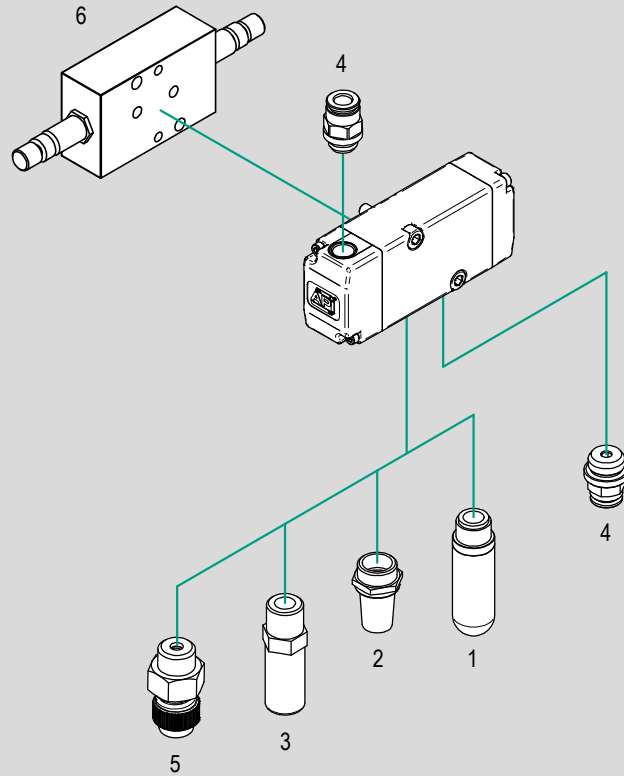
How to order

Series	Actuation	Size	Function	Option
A1N	P	2	50	-

Notes

Options in the same grid are alternative to each others.
 For further information on options and their matching, see page 2.50.3
 For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

Accessories



2 - VALVES

N.	Item	Description	Compliance	Matching	Code key page	Data sheet page
				1/4"		
1	AS..	Plastic silencers	-	●	4.151.10	
	SP..			●	4.151.20	
2	A..	Sintered silencers	-	●	4.153.10	
3	M..	Metal silencers	-	●	4.155.10	
4	R..	Push-in fittings	UNI ISO 228/1 UNI ISO7/1 ISO R/232	●	4.2.1	
5	A..	Silenced exhaust restrictors	-	●	4.97.1	
6	APNR..	Speed regulators for rotary actuators	NAMUR	●	2.54.1	2.430.1

Key

● matching accessory; - not matching accessory

NAMUR air operated valves series A1N

1/4", 3/2 Pilot/Spring



Main features

Version	Code	Item	Symbol
3/2 Normally closed	034238	A1NP230	

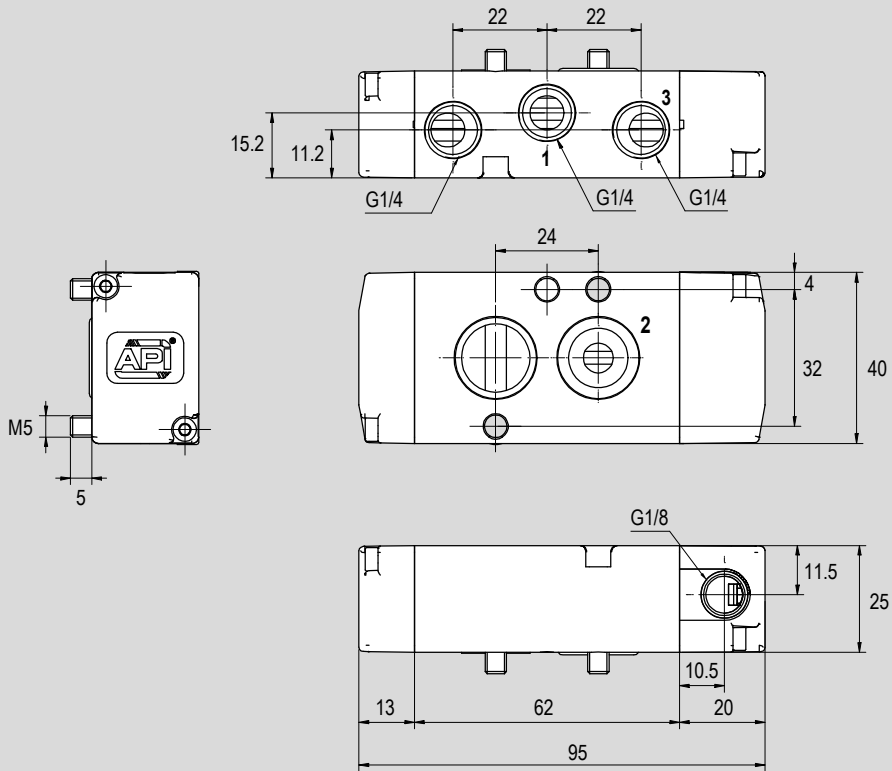


Technical data

Version	3/2 Normally closed	
Code	034238	
Item	A1NP230	
Size	1/4"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1,5 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C (standard)	-25°C ÷ +60°C (BT)
Orifice Ø	7 mm	
Flow at 6 bar with ΔP 1 bar	1.000 NI/min.	
Mounting	In every position	

Standard dimensions

Type: **3/2 N.C.**



2 - VALVES

Version	Symbol	Code	Item
1/4" 3/2 Normally closed		034238	A1NP230

NAMUR air operated valves series A1N

1/4", 3/2 Pilot/Pilot



Main features

Version	Code	Item	Symbol
3/2 pilot/pilot	034239	A1NP232	

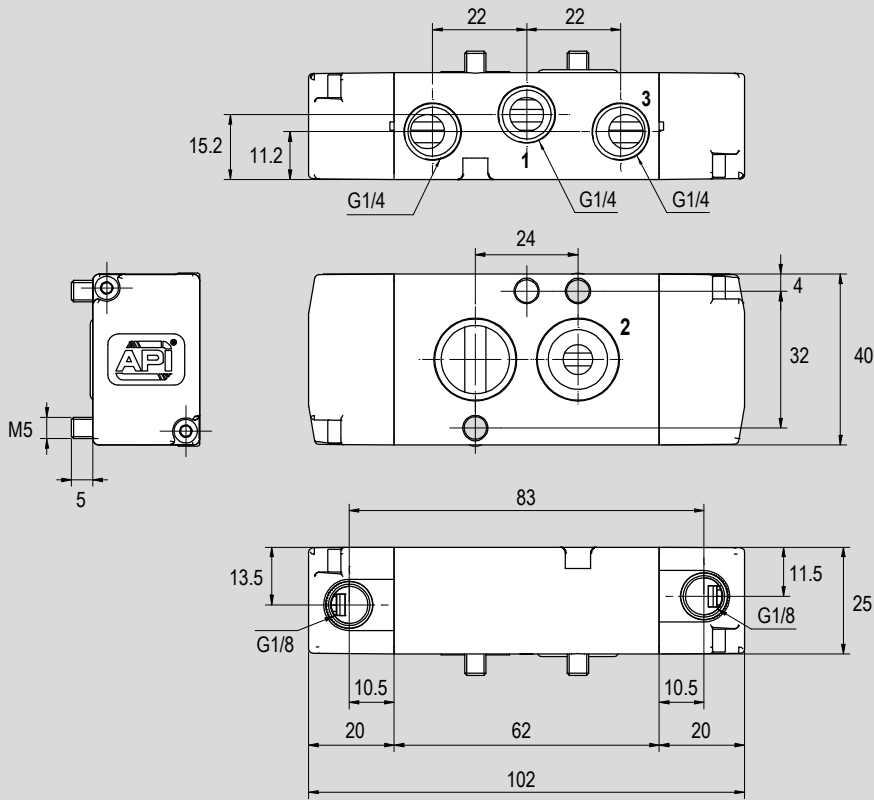


Technical data

Version	3/2 pilot/pilot	
Code	034239	
Item	A1NP232	
Size	1/4"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C (standard)	-25°C ÷ +60°C (BT)
Orifice Ø	7 mm	
Flow at 6 bar with ΔP 1 bar	1.000 NI/min.	
Mounting	In every position	

Standard dimensions

Type: 3/2 pilot/pilot



2 - VALVES

Version	Symbol	Code	Item
1/4" 3/2 pilot/pilot		034239	A1NP232

NAMUR air operated valves series A1N

1/4", 5/2 Pilot/Spring



Main features

Version	Code	Item	Symbol
5/2 pilot/spring	034108	A1NP250	

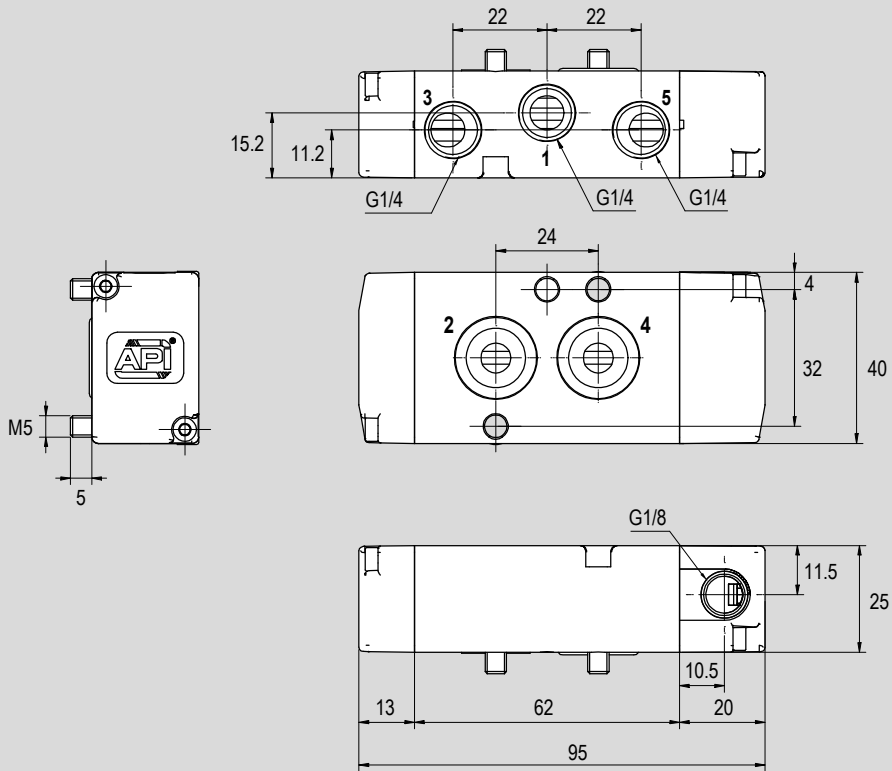


Technical data

Version	5/2 pilot/spring	
Code	034108	
Item	A1NP250	
Size	1/4"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1,5 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C (standard)	-25°C ÷ +60°C (BT)
Orifice Ø	7 mm	
Flow at 6 bar with ΔP 1 bar	1.000 NI/min.	
Mounting	In every position	

Standard dimensions

Type: **5/2 pilot/spring**



2 - VALVES

Version	Symbol	Code	Item
1/4" 5/2 pilot/spring		034108	A1NP250

NAMUR air operated valves series A1N

1/4", 5/2 Pilot/Pilot



Main features

Version	Code	Item	Symbol
5/2 pilot/pilot	034240	A1NP251	

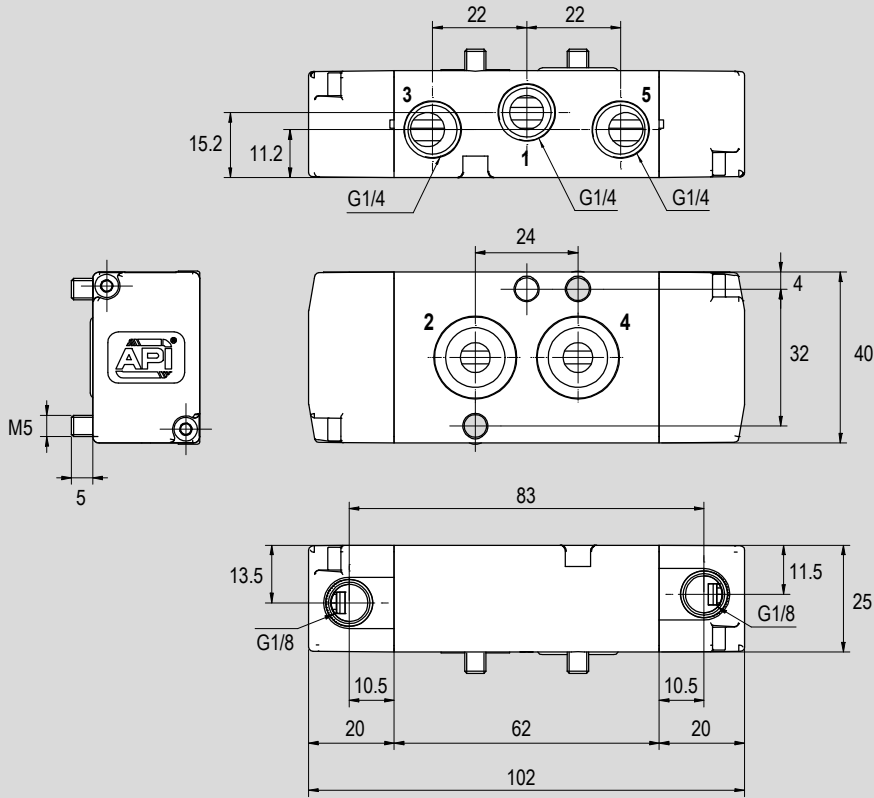


Technical data

Version	5/2 pilot/pilot	
Code	034240	
Item	A1NP251	
Size	1/4"	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C (standard) -25°C ÷ +60°C (BT)	
Orifice Ø	7 mm	
Flow at 6 bar with ΔP 1 bar	1.000 NI/min.	
Mounting	In every position	

Standard dimensions

Type: 5/2 pilot/pilot



2 - VALVES

Version	Symbol	Code	Item
1/4" 5/2 pilot/pilot		034240	A1NP251

NAMUR air operated valves series A1N

1/4", 5/3



Main features

Version	Code	Item	Symbol
5/3 closed centres	034251	A1NP270	
5/3 open centres	034252	A1NP271	
5/3 pressurized centres	034253	A1NP272	

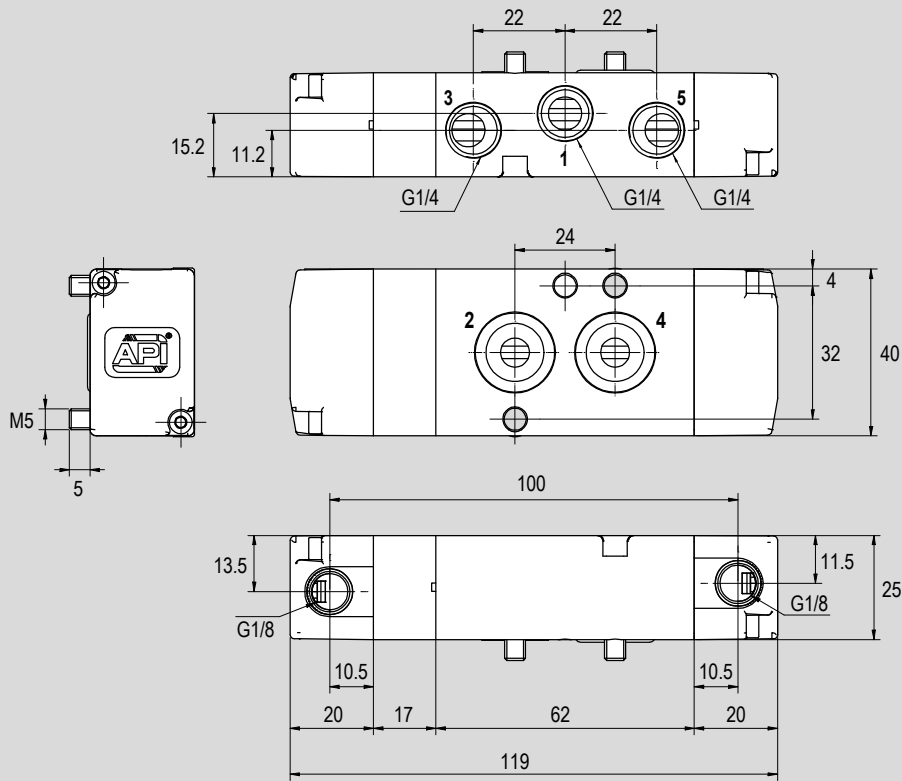


Technical data

Version	5/3 closed centres	5/3 open centres	5/3 pressurized centres
Code	034251	034252	034253
Item	A1NP270	A1NP271	A1NP272
Size	1/4"		
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	2,5 ÷ 10 bar		
Temperature range	-10°C ÷ +60°C (standard)		-25°C ÷ +60°C (BT)
Orifice Ø	7 mm		
Flow at 6 bar with ΔP 1 bar	1.000 NI/min.		
Mounting	In every position		

Standard dimensions


Type: **5/3 C.C.**
5/3 O.C.
5/3 P.C.



2 - VALVES

Version	Symbol	Code	Item
1/4" 5/3 closed centres		034251	A1NP270
1/4" 5/3 open centres		034252	A1NP271
1/4" 5/3 pressurized centres		034253	A1NP272

Speed regulators for rotary actuators and valves, APNR..

	Code	Item	Matching with actuator	Matching with valve
	810153	APNRSR	AR..SE VSO..SE VSI..SE	3/2
	810152	APNRDA	AR..DE VSO..DE VSI..DE	5/2 5/3

MOUNTING PLATES

for rotary actuators and valves Series A1N



Find out our
key products



Solution for most applications



Easy and intuitive choice



Excellent value for money



Wide availability



Fast delivery



Features and certifications

Plates for mounting NAMUR valves to rotary actuators, when valves are with coils thicker than the valve body. Complete with screws and o-ring. Supplied as standard in compliance to Reach and RoHS directives.



Series PSN..

from page 2.56.10



Series of plates for mounting NAMUR valves to rotary actuators, when valves are with coils thicker than the valve body. These plates are with NAMUR interface compatible holes, and supplied complete with screws and o-ring.

Mounting plates for rotary actuators and valves series A1N

Series PSN



Main features

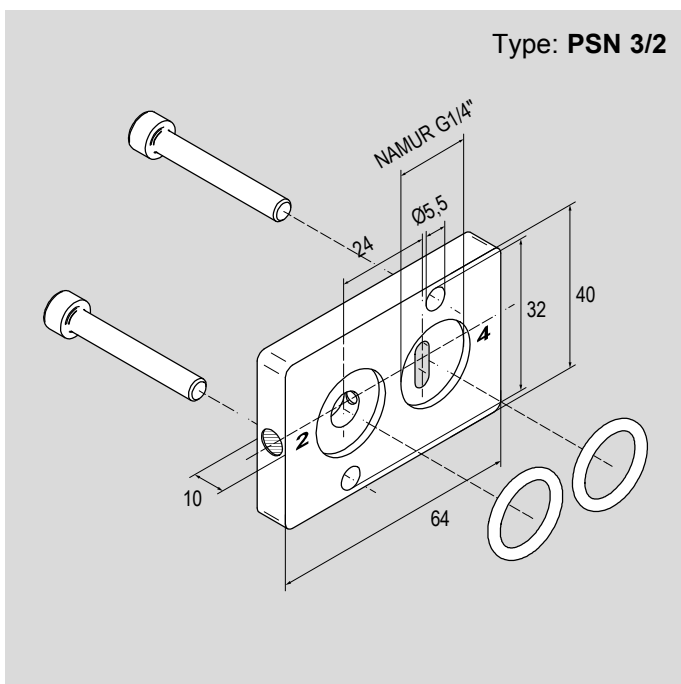
Version	Code	Item
Piastra for valves NAMUR 3/2	034203	PSN 3/2
Piastra for valves NAMUR 5/2	034166	PSN 5/2



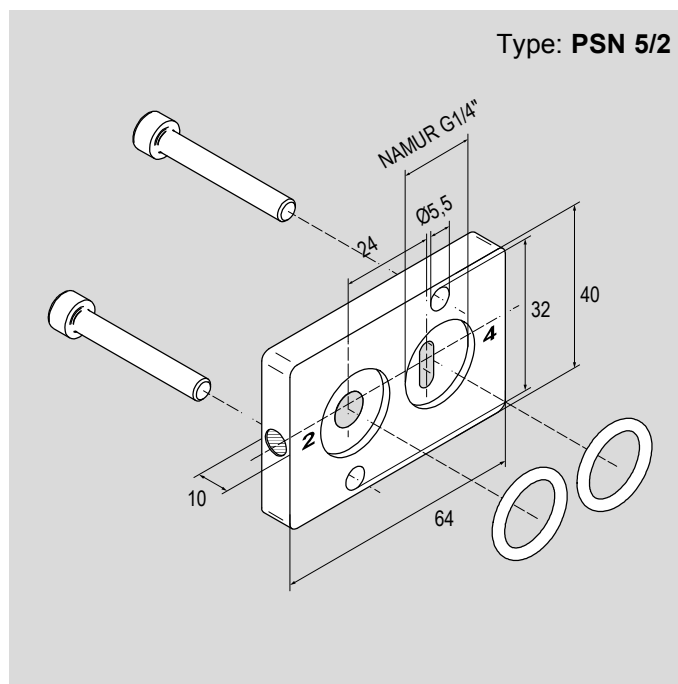
Standard materials

Description	Material
Body	Nylon
Screws	Stainless Steel AISI 304
Seals	HNBR

Standard dimensions



The kit include n. 2 screws and n. 1 O-ring



The kit include n. 2 screws and n. 2 O-rings

VALVE TERMINALS

Series A5



Find out our
key products



Solution for most applications



Easy and intuitive choice



Excellent value for money



Wide availability



Fast delivery



Features and certifications

Valve terminals available in sizes 10mm and 14mm. Three different modular interfaces can be applied to all sub-bases for configuring the type of communication: Fieldbus interface (with communication protocol configurable by choosing between ProfiNET®, EtherCAT®, EtherNET/IP® and CC-Link IE™ Field Basic, or with ProfiBUS® protocol), multipolar Sub-D interface and IO-Link® interface.

The solenoid valves are assembled in a simple and practical way. Each valve, even if in an intermediate position, can be easily replaced. The valve coils are low consumption (1.2W), with 360° view LED, equipped with "push" and bistable manual override.

The multiple sub-bases with set positions, from 4 to 24, and with the possibility of internal or external piloting to the solenoid valves by simply applying a screw or plug in the relevant connection. Blanking plugs for unused positions and diaphragms for separate feeding or exhausts are available.

Valve terminals are supplied complete (fittings, exhaust silencers and interface connection cables to be ordered separately), already assembled and tested.

Supplied as standard in compliance to Reach and RoHS directives.

The individual components necessary to compose a complete island can also be supplied separately.



Solenoid valves for valve terminals series A5

da pag. 2.71.1



Solenoid operated valves type A5V with sub-base connections for valve terminals series A5, available in size 10 mm and 14 mm, in different functions.

Low consumption coils (1.2W), with 360° view LED, equipped with "push" and bistable manual override.

These valves, compatible with sub-bases of the respective size and with all the available communication interfaces, are assembled to the sub-base in a simple and practical way.

Sub-bases for valve terminals series A5

da pag. 2.72.1



Sub-bases type A5B for valve terminals series A5, available in sizes 10 mm and 14 mm, with set position from 4 to 24 (4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 20 or 24 stations). Equipped with integrated PCB, are compatible with all the available interfaces (Fieldbus, Multipolar Sub-D and IO-Link®), and with solenoid valves of the respective size. Accessories such as plugs and screws for internal or external feeding, blanking plugs for unused positions, diaphragms for separated feeding and exhausts to be ordered separately.

Interfaces for valve terminals series A5

da pag. 2.73.1



Communication interfaces for valve terminals series A5. Available in three different types: Fieldbus interface (with communication protocol configurable by choosing between ProfiNET®, EtherCAT®, EtherNET/IP® and CC-Link IE™ Field Basic, or with ProfiBUS® protocol); multipole Sub-D 25 poles interface; IO-Link® interface in version 8, 16 or 24 (depending on the maximum number of manageable valves). Connection cables to be ordered separately.

Complete valve terminals series A5

da pag. 2.74.1



Complete valve terminals, available in sizes 10mm and 14mm, with sub-bases with set positions (from 4 to 24 stations) and with communication interface type Fieldbus (with communication protocol configurable by choosing between ProfiNET®, EtherCAT®, EtherNET/IP® and CC-Link IE™ Field Basic, or with ProfiBUS® protocol), Sub-D or IO-Link®.

Valve terminals are supplied already assembled and tested.

Fittings, exhaust silencers, communication cables for interface and accessories for sub-bases are to be ordered separately.

Accessories for valve terminals series A5

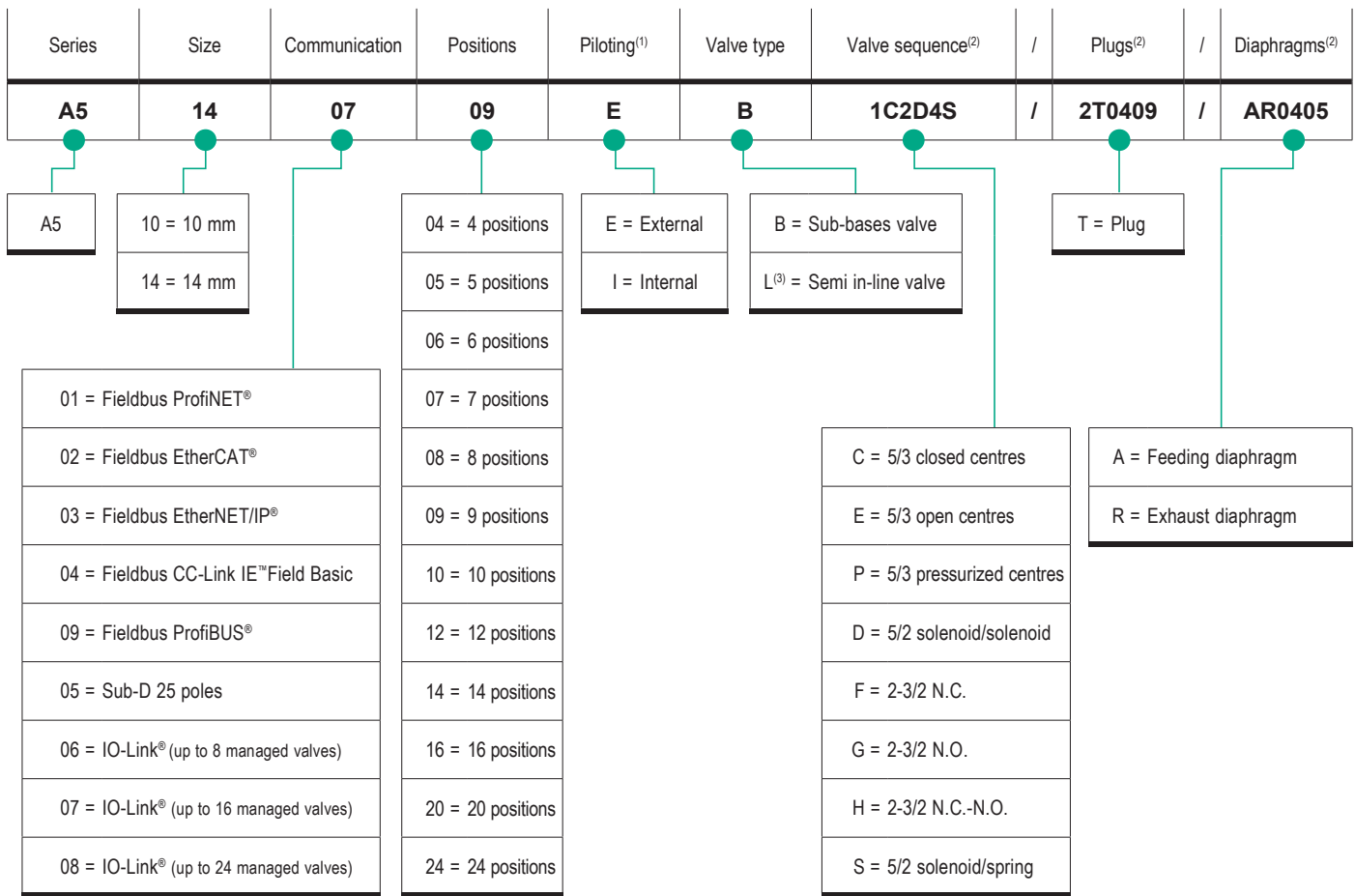
da pag. 2.75.1



Accessories for sub-bases such as plugs and screws for internal or external feeding, blanking plugs for unused positions, diaphragms for separated feeding and exhausts.

Cables compatibles with modular communication interfaces type Fieldbus, Sub-D 25 poles and IO-Link®, available in different types and configurations.

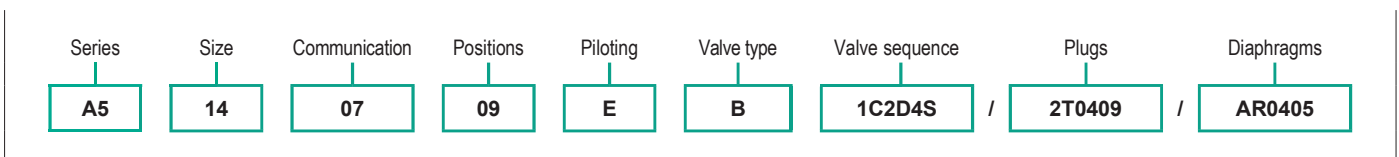
Code key



Important note

The desired valves has to be inserted in the code key as per the sequence indicated in the table:
first 5/3, then 5/2 sol./sol., then 2-3/2, finally 5/2 sol./spring.

How to order⁽⁴⁾



Notes

- For standard materials see from page 2.70.7
- For selection and configuration of the valve island, see from page 2.70.4
- (1) For further information on internal or external piloting, see page 2.70.6
- (2) For further information on valves sequence and position, on plugs and diaphragms sequence and position, see from page 2.70.4
- (3) For semi in-line valves, please contact the sales department.
- (4) Order example for 9 position sub-base, size 14mm, external piloting, IO-Link® 16 communication interface and the following solenoid valves assembled starting from the feeding/ communication module: one element with 5/3 closed centres function, two elements with 5/2 solenoid/solenoid function, one plug for unused position, diaphragm for separated feeding and diaphragms for separated exhausts, four elements with 5/2 solenoid/spring function and one plug for unused position.

Selection

Parameters for selection of the valve terminal:

- **size:** for flow rates up to 300 l/min size 10 mm, for flow rates up to 600 l/min size 14 mm;
- **the communication module**, available in Fieldbus interfaces (with communication protocol configurable by choosing between ProfiNET®, EtherCAT®, EtherNET/IP® and CC-Link IE™Field Basic, or with ProfiBUS® protocol), multipole Sub-D and IO-Link® (in version 8, 16 and 24 depending on the maximum number of manageable valves);
- **the number of positions on the sub-base**, from 4 to 24 positions, available: 4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 20 or 24 stations;
- **the internal or external piloting** of the valve terminal, which in any case is always switchable (see page 2.70.6);
- **the number and functions of solenoid valves** needed in the application, the blanking plugs for any unused position and diaphragms for separated feedings and/or exhausts.

For the configuration and sequence of the different elements, please refer to the relevant tables on this page.

Elements configuration

The solenoid valves are indicated with a letter, while the quantity with a number. The sequence in which they will be assembled on the sub-base is intended starting from the communication interface module.

The priority in the suffix and the positioning on the sub-base is given by the order inside the grid, from top to bottom, preceded by the indication of the number of valves required.

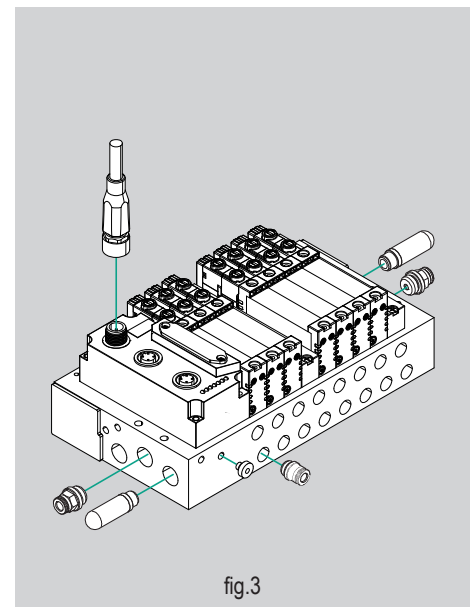
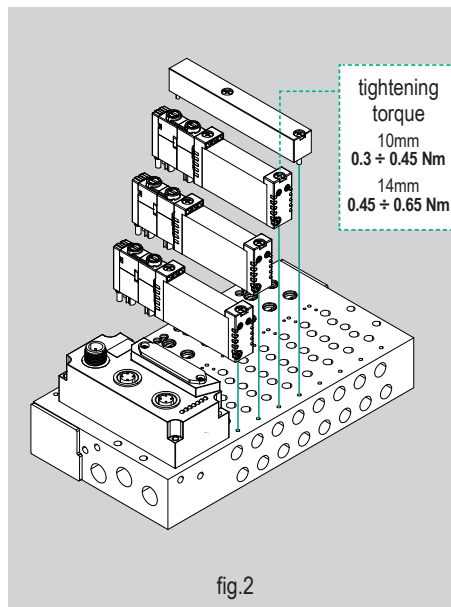
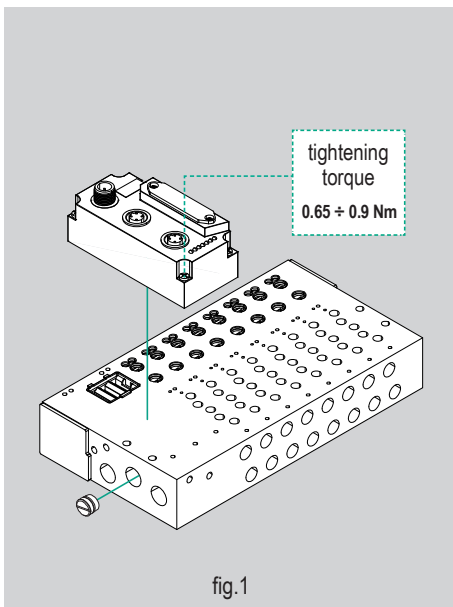
If is necessary to apply blanking plugs for unused positions, please indicate after the slash bar the number of elements required, the suffix "T", and the desired position on the base.

If is necessary to apply diaphragms to separate feedings and/or exhausts, please indicate after the slash bar the number of elements required, the suffix "A" for the separated feeding diaphragms and/or the suffix "R" for the separated exhausts diaphragms, and the desired position on the base.

For further information on the separated feeding and exhausts, please see page 2.70.6

The island configured in this way will be supplied complete (fittings, exhaust silencers and interface connection cables to be ordered separately), assembled and tested.

Elements assembly



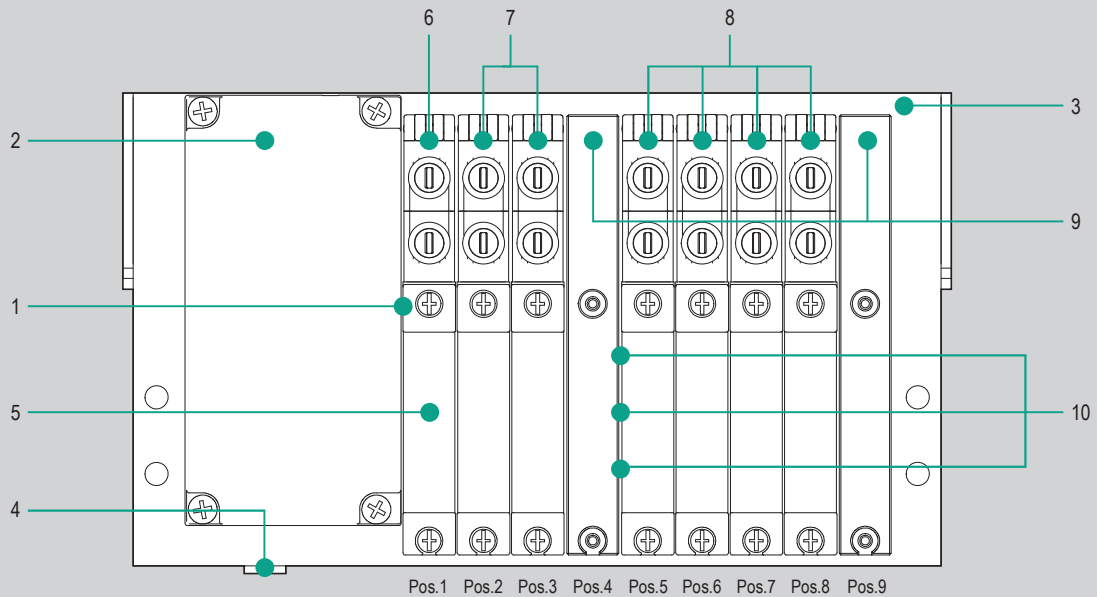
If is required to assemble the valve terminal, install as the first element the communication module and any diaphragms for separate feedings or exhausts (see fig.1). For configuration and assembly of diaphragms, please see page 2.70.6

Then proceed installing the individual valves and any plugs for unused positions where applicable, always starting from the interface (see fig.2) following the order indicated in the table at page 2.70.5

Finally apply fittings, silencers and cables (see fig.3). For piloting configuration, please see page 2.70.6

Fittings, silencers, cables and accessories, to be ordered separately, see page 2.70.8

Elements sequence example

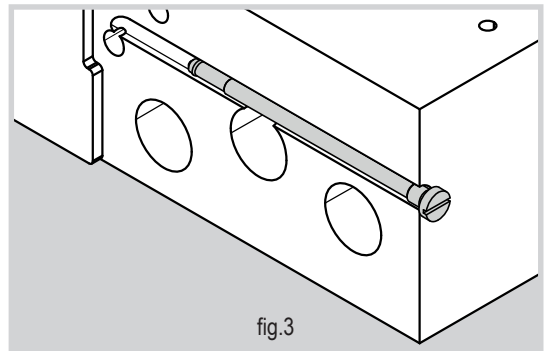
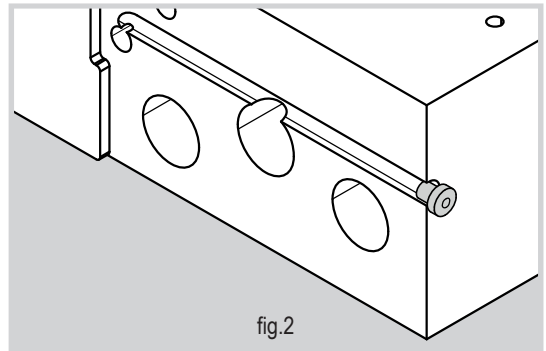
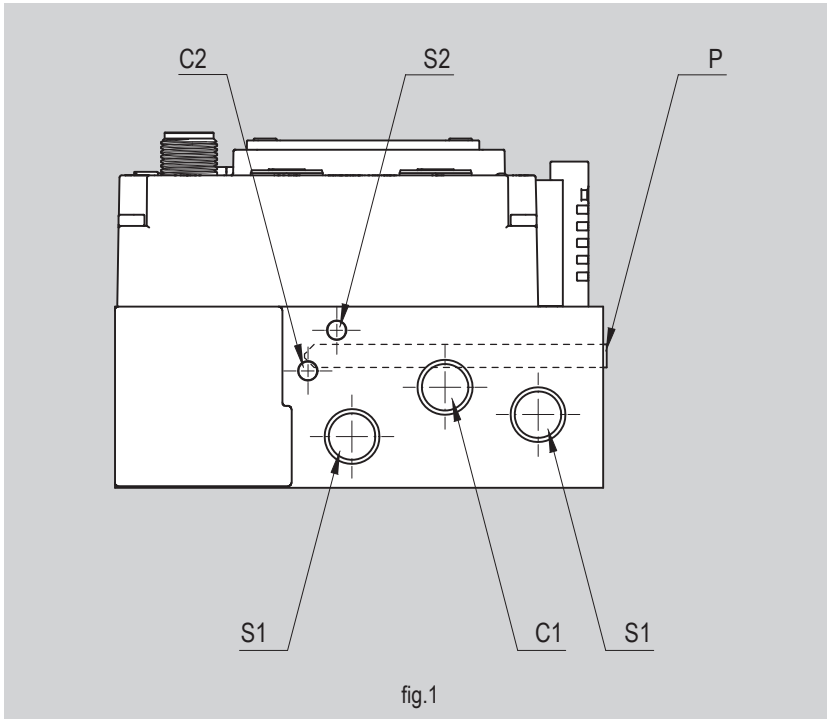


1	2	3	4	5	6	7	8	9	10							
A5	14	07	09	E	B	1 C	2 D	4 S	/	2 T	04	09	/	A	R	0405

N.	Sequence type	Sequence	Description
1	Valve terminal features	Elements number 14 Terminal size	Size 14 mm
2		Elements number 07 Module type	Feeding/communication module IO-Link® up to 16 managed valves
3		Elements number 09 Position number	9 positions on sub-base
4		Elements number E Piloting type	External piloting
5		Elements number B Valve type	Sub-base valve
6	Sequence at set positions (valves)	Elements number 1 C Valve function	(Table1) ● C = 5/3 closed centres ○ E = 5/3 open centres ○ P = 5/3 pressurized centres
7	The desired valves has to be inserted in the code key as per the sequence indicated in the table1: first 5/3, then 5/2 sol./sol., then 2-3/2, finally 5/2 sol./spring.	Elements number 2 D Valve function	● D = 5/2 solenoid/solenoid
8		Elements number 4 S Valve function	○ F = 2-3/2 N.C. ○ G = 2-3/2 N.O. ○ H = 2-3/2 N.C.-N.O. ● S = 5/2 solenoid/spring
9		Positionable sequence (plugs)	Elements type 2 T 04 09 2 nd element position 1 st element position
10	Positionable sequence (diaphragms)	Elements type A R 0405 Elements position	Diaphragms for separated feeding and exhaust positioned between 04 and 05

2 - VALVES

Piloting configuration



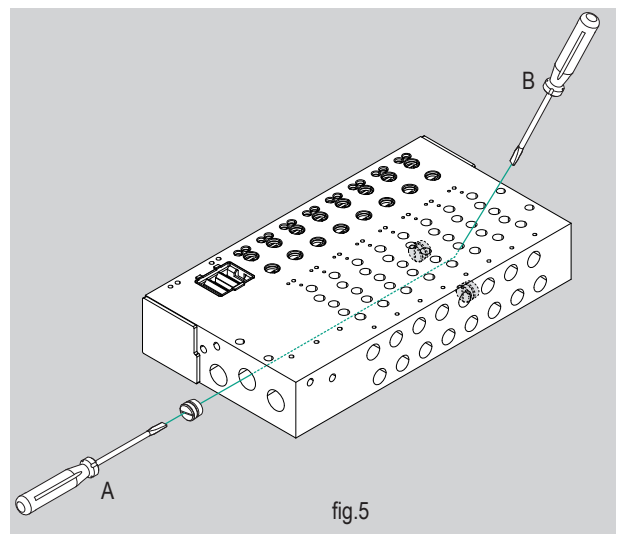
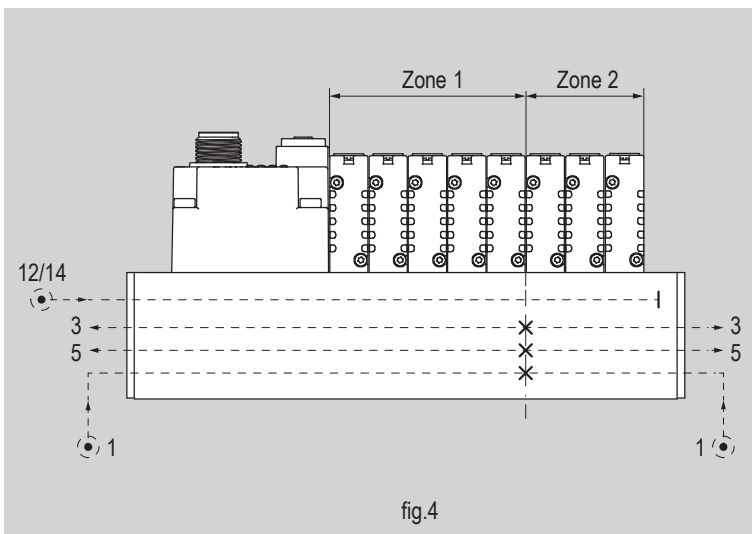
The A5 series valve terminals can be supplied with internal or external piloting. However, it's always possible to change the piloting from internal to external and vice versa by replacing the relevant component in the switching connection P (fig.1).

To switch internal piloting into external piloting, replace the plug type A0090505 (fig.2) with the screw type A5BAV (fig.3) to be ordered separately, see page 2.75.20. For feeding use the connection C2, for the exhaust use connection S2 (fig.1).

To switch external piloting into internal piloting, replace the screw type A5BAV (fig.3) with the plug type A0090505 (fig.2) to be ordered separately, see page 2.75.20. Feeding will be from the main connection C1 (fig.1).

The connections no longer used can be blanked with plugs, to be ordered separately, see page 2.75.21

Configuration of separated feeding and exhausts



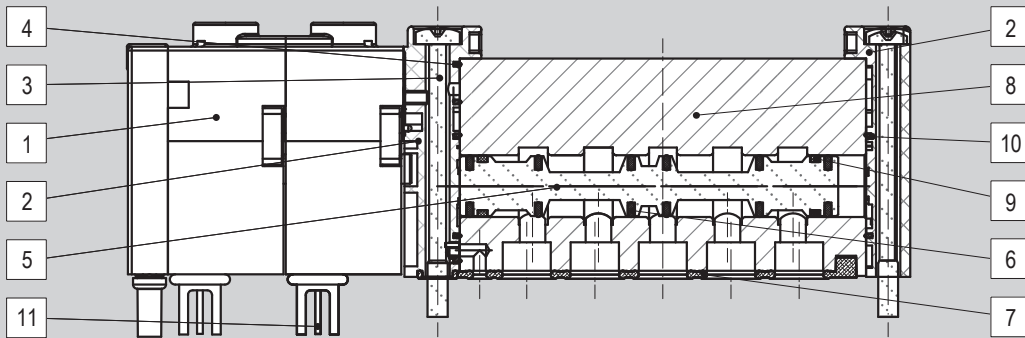
If needed is possible to separate the feedings and/or the exhausts (see fig.4).

For this configuration, use the blanking diaphragms type A5BMC, to be ordered separately, see page 2.75.20

Mounting: the diaphragm will have to be mounted in the sub-base through the feeding or exhaust connection, inserting it with the slotted screwdriver "A" until reaching the desired position, identified thanks to the screwdriver "B", then locking it by rotating the screwdriver "A", as shown in the example in fig.5.

Solenoid valves standard materials

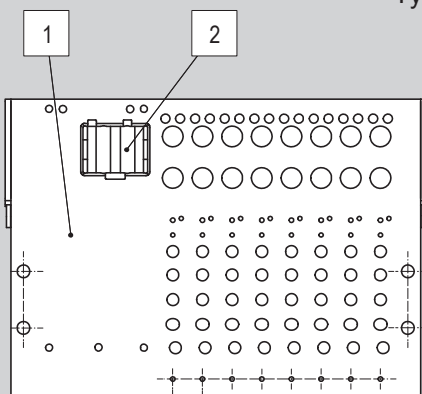
Type: **A5V..**



Position	Description	Material
1	Electric pilot	Technopolymer
2	Cover	Aluminum
3	Mounting screws	Steel
4	Cover seal	NBR
5	Spool	Aluminum
6	O-ring	NBR
7	Seal	NBR
8	Body	Aluminum
9	O-ring	NBR
10	Cover seal	NBR
11	Electrical contacts	Copper alloy

Sub-bases standard materials

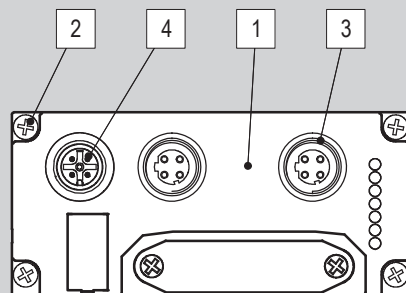
Type: **A5B..**



Position	Description	Material
1	Body	Anodized aluminium
2	PCB	Coppered vetronite
-	Electrical contacts	Copper alloy

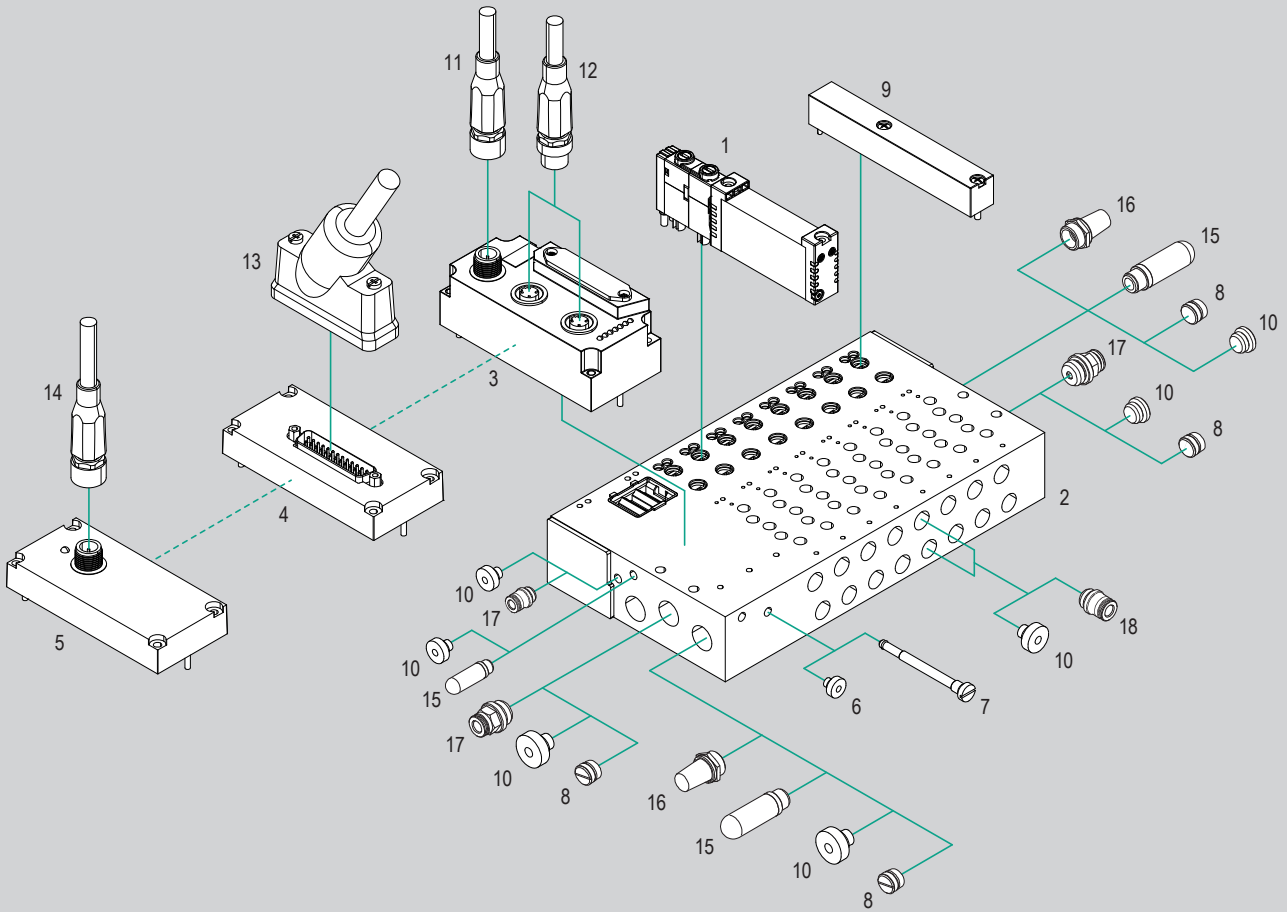
Interfaces standard materials

Type: **A50..**



Position	Description	Material
1	Body	Polymer
2	Mounting screws	Steel
3	Connectors	Brass
4	Electrical contacts	Copper alloy

Individual components and accessories



2 - VALVES

N.	Item	Description	Matching with valve terminals			Code key and data sheet page
			A5 Fieldbus	A5 Sub-D	A5 IO-Link®	
1	A5V10..	Solenoid valve 10 mm	●	●	●	2.71.10
	A5V14..	Solenoid valve 14 mm	●	●	●	2.71.20
2	A5B10..	Multiple sub-base 10mm with set position and integrated PCB	●	●	●	2.72.10
	A5B14..	Multiple sub-base 14mm with set position and integrated PCB	●	●	●	2.72.20
3	A501 ÷ A504	Fieldbus interface communication module	●	-	-	2.73.10
4	A505	Multipole Sub-D interface communication module	-	●	-	2.73.20
5	A506 ÷ A508	IO-Link interface communication module	-	-	●	2.73.30
6	A0090505	Plug for internal piloting	●	●	●	2.75.20
7	A5BAV	Screw for external piloting	●	●	●	
8	A5BMC..	Blanking diaphragm for separating feedings or exhausts	●	●	●	2.75.21
9	A5BTC..	Blanking plug for unused positions	●	●	●	
10	A009..	Blanking plug for feedings, exhausts and connections	●	●	●	2.75.21
11	CAVFBFD..	Power supply cable for Fieldbus interface	●	-	-	2.75.40
12	CAVFBM..	Connection cable for Fieldbus interface	●	-	-	2.75.40
13	CAVSDFD..	Connection cable Sub-D 25 poles	-	●	-	2.75.42
14	CAVILFD..	Connection cable IO-Link	-	-	●	2.75.43
15	AS..	Plastic silencers	●	●	●	4.151.10
	SP..		●	●	●	4.151.20
16	A..	Sintered silencers	●	●	●	4.153.10
17	R..	Push-in fittings for air supply or piloting	●	●	●	4.2.1
18	RT..	Push-in fittings for outlets (sub-bases 10 mm)	●	●	●	4.7.4
	R..	Push-in fittings for outlets (sub-bases 14 mm)	●	●	●	4.3.5

Key
● matching accessory; - not matching accessory

SOLENOID VALVES

for valve terminals series A5



Features and certifications

Sub-base solenoid valves for valve terminals series A5, available in sizes 10 mm and 14 mm, in different functions (5/2, 5/3 and 2-3/2). Compatible with respective size sub-bases (see from page 2.72.1). Solenoid valves are assembled in a simple and practical way. Each valve, even if in an intermediate position, can be easily replaced. Equipped with low consumption coils (1,2W), with 360° view LED and with "push" and bistable manual override. Supplied as standard in compliance to Reach and RoHS directives.

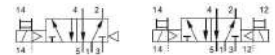


Solenoid valves type A5V10.. 5/2

from page 2.71.10



Solenoid valves size 10 mm with sub-base connections for valve terminals series A5, available in functions 5/2 solenoid/spring and 5/2 solenoid/solenoid. Easy and practical mounting, low consumption coils (1,2W), 360° view LED and equipped with "push" and bistable manual override. Compatible with sub-bases size 10 mm and with all the communication interfaces.

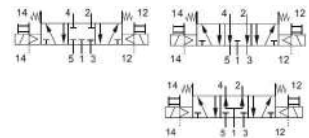


Solenoid valves type A5V10.. 5/3

from page 2.71.10



Solenoid valves size 10 mm with sub-base connections for valve terminals series A5, available in functions 5/3 closed centres, 5/3 open centres and 5/3 pressurized centres. Easy and practical mounting, low consumption coils (1,2W), 360° view LED and equipped with "push" and bistable manual override. Compatible with sub-bases size 10 mm and with all the communication interfaces.

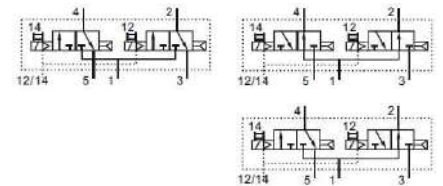


Solenoid valves type A5V10.. 2-3/2

from page 2.71.10



Solenoid valves size 10 mm with sub-base connections for valve terminals series A5, available in functions 2-3/2 normally closed-normally closed, 2-3/2 normally open-normally open and 2-3/2 normally closed-normally open. Easy and practical mounting, low consumption coils (1,2W), 360° view LED and equipped with "push" and bistable manual override. Compatible with sub-bases size 10 mm and with all the communication interfaces.

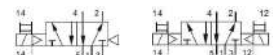


Solenoid valves type A5V14.. 5/2

from page 2.71.20



Solenoid valves size 14 mm with sub-base connections for valve terminals series A5, available in functions 5/2 solenoid/spring and 5/2 solenoid/solenoid. Easy and practical mounting, low consumption coils (1,2W), 360° view LED and equipped with "push" and bistable manual override. Compatible with sub-bases size 14 mm and with all the communication interfaces.

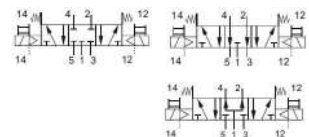


Solenoid valves type A5V14.. 5/3

da pag. 2.71.20



Solenoid valves size 14 mm with sub-base connections for valve terminals series A5, available in functions 5/3 closed centres, 5/3 open centres and 5/3 pressurized centres. Easy and practical mounting, low consumption coils (1,2W), 360° view LED and equipped with "push" and bistable manual override. Compatible with sub-bases size 14 mm and with all the communication interfaces.

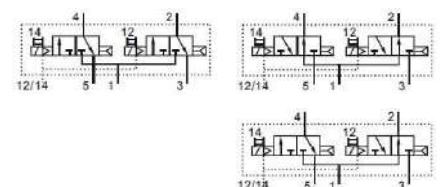


Solenoid valves type A5V14.. 2-3/2

from page 2.71.20



Solenoid valves size 14 mm with sub-base connections for valve terminals series A5, available in functions 2-3/2 normally closed-normally closed, 2-3/2 normally open-normally open and 2-3/2 normally closed-normally open. Easy and practical mounting, low consumption coils (1,2W), 360° view LED and equipped with "push" and bistable manual override. Compatible with sub-bases size 14 mm and with all the communication interfaces.



Solenoid valves for valve terminals series A5

Type A5V10, size 10 mm



Main features

Version	Code	Item	Symbol
Solenoid valve 10 mm 5/2 solenoid/spring	036123	A5V10B50	
Solenoid valve 10 mm 5/2 solenoid/solenoid	036124	A5V10B51	
Solenoid valve 10 mm 5/3 closed centres	036125	A5V10B70	
Solenoid valve 10 mm 5/3 open centres	036126	A5V10B71	
Solenoid valve 10 mm 5/3 pressurized centres	036127	A5V10B72	
Solenoid valve 10 mm 2-3/2 Normally Closed-Normally Open	036120	A5V10B33	
Solenoid valve 10 mm 2-3/2 Normally Closed-Normally Closed	036121	A5V10B34	
Solenoid valve 10 mm 2-3/2 Normally Open-Normally Open	036122	A5V10B35	



Technical data

Version	5/2		5/3			2-3/2		
	A5V10B50	A5V10B51	A5V10B70	A5V10B71	A5V10B72	A5V10B33	A5V10B34	A5V10B35
Code	036123	036124	036125	036126	036127	036120	036121	036122
Function	5/2 sol./spring	5/2 sol./sol.	5/3 C.C.	5/3 O.C.	5/3 P.C.	2-3/2 N.C.-N.O.	2-3/2 N.C.-N.C.	2-3/2 N.O.-N.O.
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.							
Size	10 mm							
Temperature range	-5°C ÷ +60°C							
Pressure range	2 ÷ 8 bar		3 ÷ 8 bar			2,5 ÷ 8 bar		
Flow at 6 bar with ΔP 1bar	300 l/min							
Voltage	24 VDC							
Electrical consumption	1,2 W							
Duty cycle	100% ED							
Manual override	"Push" and bistable							
Control indicator	LED							
Sub-base matching	A5B10..							

Notes

For possible configurations of valve terminals see from page 2.70.3;

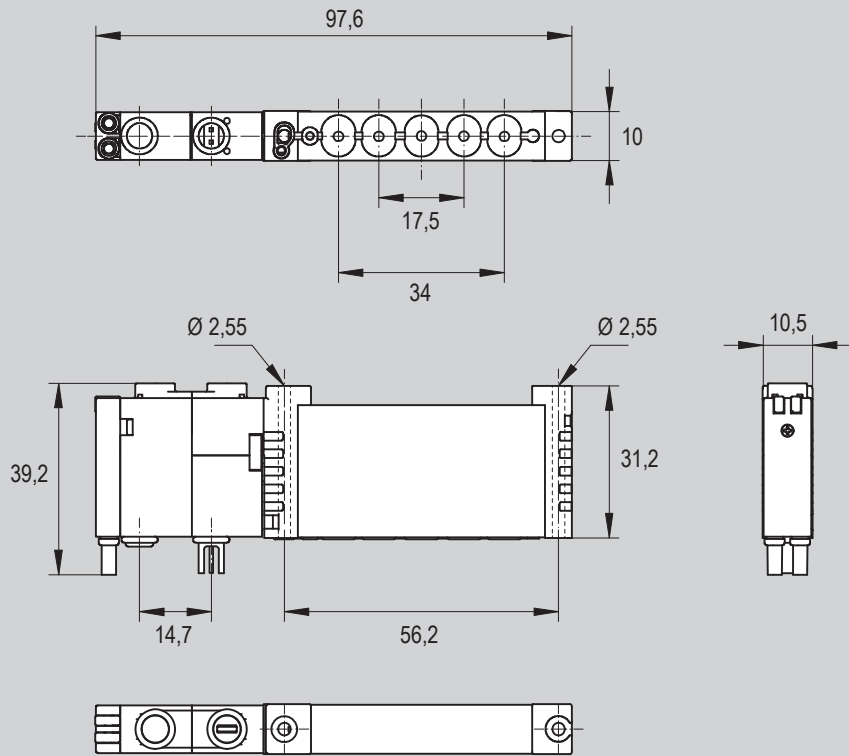
(1) For 10 mm sub-bases features see from page 2.72.20

Solenoid valves for valve terminals series A5
 Type A5V10, size 10 mm



Standard dimensions

Type: **A5V10B50**

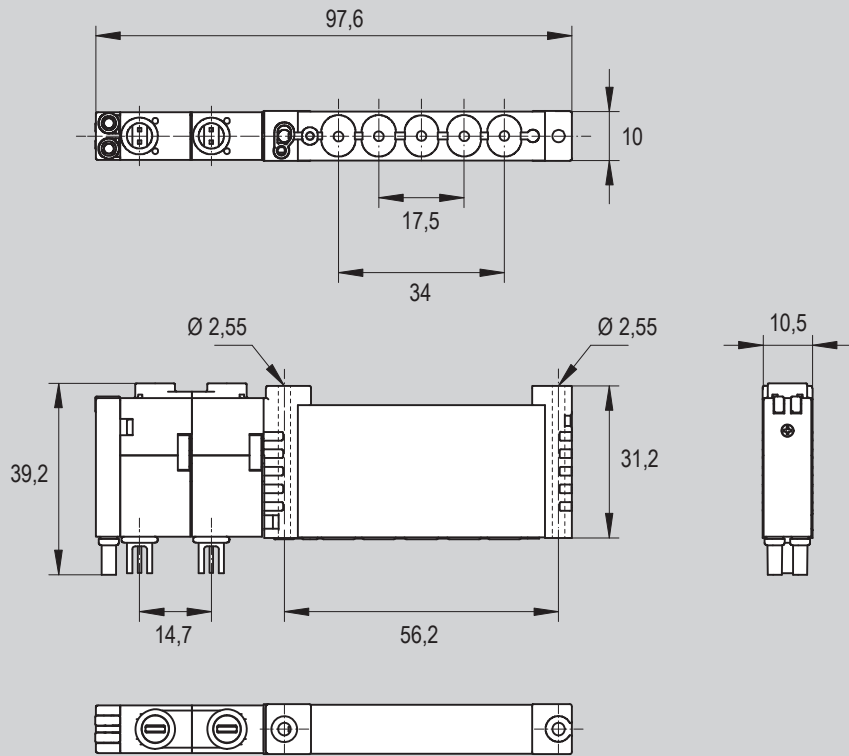


2 - VALVES

Version	Symbol	Code	Item
10 mm 5/2 solenoid/spring		036123	A5V10B50

Standard dimensions

Type: **A5V10B51**
A5V10B70
A5V10B71
A5V10B72
A5V10B33
A5V10B34
A5V10B35



Version	Symbol	Code	Item
10 mm 5/2 solenoid/solenoid		036124	A5V10B51
10 mm 5/3 closed centres		036125	A5V10B70
10 mm 5/3 open centres		036126	A5V10B71
10 mm 5/3 pressurized centres		036127	A5V10B72
10 mm 2-3/2 normally closed-normally open		036120	A5V10B33
10 mm 2-3/2 normally closed-normally closed		036121	A5V10B34
10 mm 2-3/2 normally open-normally open		036122	A5V10B35

Solenoid valves for valve terminals series A5

Type A5V14, size 14 mm



2 - VALVES

Main features

Version	Code	Item	Symbol
Solenoid valve 14 mm 5/2 solenoid/spring	036131	A5V14B50	
Solenoid valve 14 mm 5/2 solenoid/solenoid	036132	A5V14B51	
Solenoid valve 14 mm 5/3 closed centres	036133	A5V14B70	
Solenoid valve 14 mm 5/3 open centres	036134	A5V14B71	
Solenoid valve 14 mm 5/3 pressurized centres	036135	A5V14B72	
Solenoid valve 14 mm 2-3/2 Normally Closed-Normally Open	036128	A5V14B33	
Solenoid valve 14 mm 2-3/2 Normally Closed-Normally Closed	036129	A5V14B34	
Solenoid valve 14 mm 2-3/2 Normally Open-Normally Open	036130	A5V14B35	



Technical data

Version	5/2		5/3			2-3/2		
	A5V14B50	A5V14B51	A5V14B70	A5V14B71	A5V14B72	A5V14B33	A5V14B34	A5V14B35
Code	036131	036132	036133	036134	036135	036128	036129	036130
Function	5/2 sol./spring	5/2 sol./sol.	5/3 C.C.	5/3 O.C.	5/3 P.C.	2-3/2 N.C.-N.O.	2-3/2 N.C.-N.C.	2-3/2 N.O.-N.O.
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.							
Size	14 mm							
Temperature range	-5°C ÷ +60°C							
Pressure range	2 ÷ 8 bar		3 ÷ 8 bar			2,5 ÷ 8 bar		
Flow at 6 bar with ΔP 1bar	600 l/min							
Voltage	24 VDC							
Electrical consumption	1,2 W							
Duty cycle	100% ED							
Manual override	"Push" and bistable							
Control indicator	LED							
Sub-base matching	A5B14..							

Notes

For possible configurations of valve terminals see from page 2.70.3;

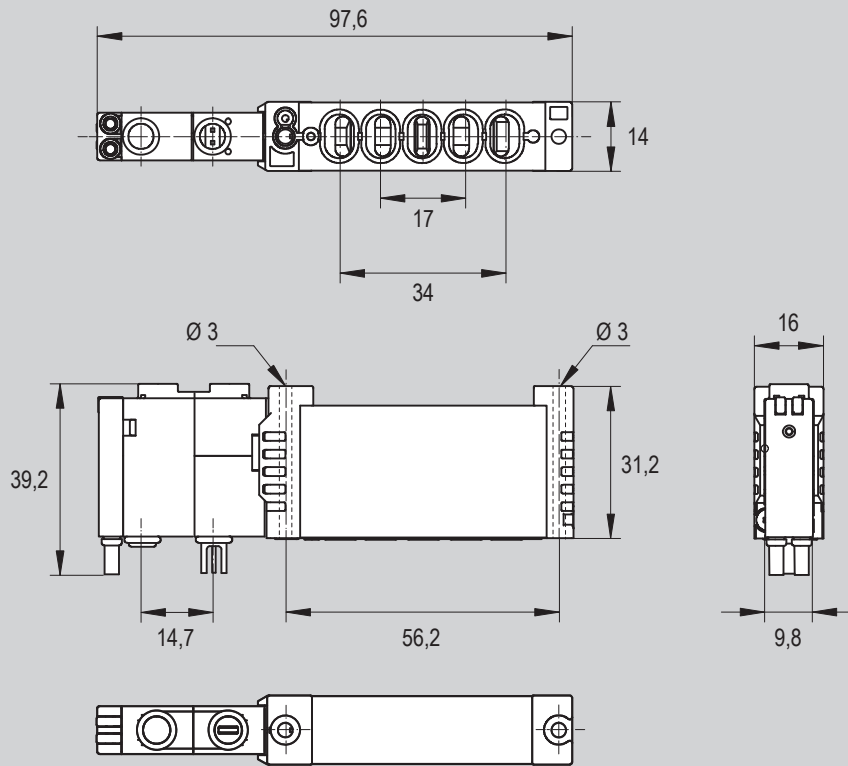
(1) For 14 mm sub-bases features see from page 2.72.40

Solenoid valves for valve terminals series A5
 Type A5V14, size 14 mm



Standard dimensions

Type: **A5V14B52**



2 - VALVES

Version	Symbol	Code	Item
14 mm 5/2 solenoid/spring		036131	A5V14B50

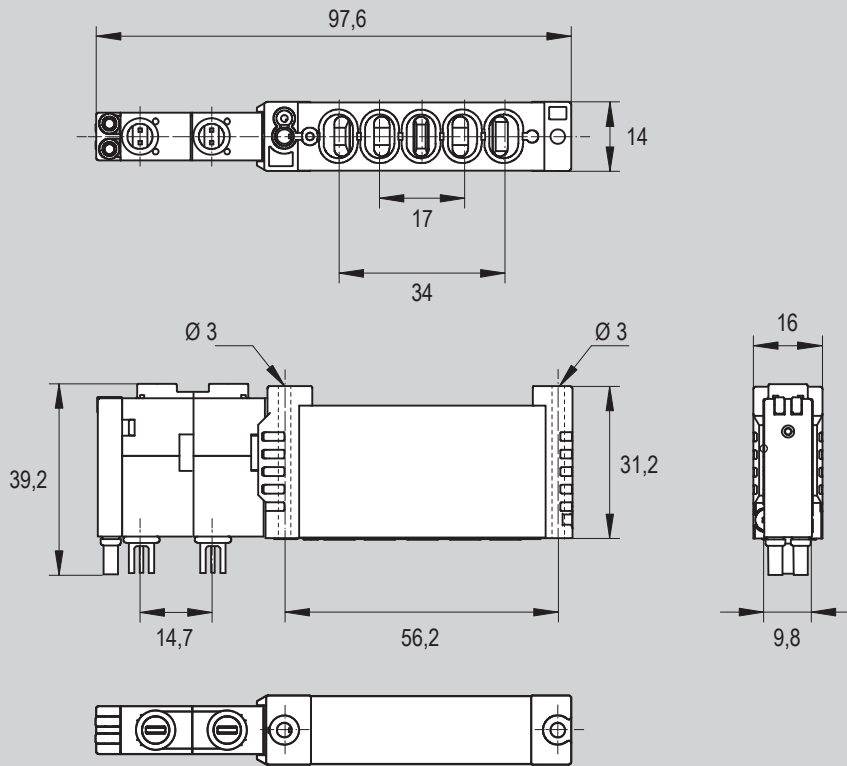
Solenoid valves for valve terminals series A5

Type A5V14, size 14 mm



Standard dimensions

Type: **A5V14B51**
A5V14B70
A5V14B71
A5V14B72
A5V14B33
A5V14B34
A5V14B35



2 - VALVES

Version	Symbol	Code	Item
14 mm 5/2 solenoid/solenoid		036132	A5V14B51
14 mm 5/3 closed centres		036133	A5V14B70
14 mm 5/3 open centres		036134	A5V14B71
14 mm 5/3 pressurized centres		036135	A5V14B72
14 mm 2-3/2 normally closed-normally open		036128	A5V14B33
14 mm 2-3/2 normally closed-normally closed		036129	A5V14B34
14 mm 2-3/2 normally open-normally open		036130	A5V14B35

SUB-BASES

for valve terminals series A5



Features and certifications

Multiple sub-bases with integrated PCB for valve terminals series A5, available in sizes 10 mm and 14 mm, from 4 to 24 positions. Both sizes are compatible with all the communication interfaces (see from page 2.73.1). About solenoid valves, the 10 mm and 14 mm size sub-bases are compatible with the respective valve sizes (see from page 2.71.1).

Supplied as standard in compliance to Reach and RoHS directives.

Accessories such as screws for external piloting, plugs for unused positions, blanking diaphragm for separating feedings or exhausts to be ordered separately (see from page 2.75.1).



Sub-bases type A5B10..

from page 2.72.10



Sub-bases for valve terminals series A5 size 10 mm, available with set positions from 4 to 24 (4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 20 or 24 stations).

Sub-bases series A5B are equipped with integrated PCB, are compatible with all available interface modules (Fieldbus, Multipolar Sub-D and IO-Link®) and with solenoid valves size 10 mm.

Accessories as screws for external piloting, plugs for unused positions, blanking diaphragm for separating feedings or exhausts to be ordered separately.

Sub-bases type A5B14..

from page 2.72.20



Sub-bases for valve terminals series A5 size 14 mm, available with set positions from 4 to 24 (4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 20 or 24 stations).

Sub-bases series A5B are equipped with integrated PCB, are compatible with all available interface modules (Fieldbus, Multipolar Sub-D and IO-Link®) and with solenoid valves size 14 mm.

Accessories as screws for external piloting, plugs for unused positions, blanking diaphragm for separating feedings or exhausts to be ordered separately.

Sub-bases for valve terminals series A5

Type A5B10, size 10 mm



Main features

Version	Code	Item
Sub-base 10 mm, 4 positions, internal piloting	036136	A5B10I04
Sub-base 10 mm, 5 positions, internal piloting	036137	A5B10I05
Sub-base 10 mm, 6 positions, internal piloting	036138	A5B10I06
Sub-base 10 mm, 7 positions, internal piloting	036139	A5B10I07
Sub-base 10 mm, 8 positions, internal piloting	036140	A5B10I08
Sub-base 10 mm, 9 positions, internal piloting	036141	A5B10I09
Sub-base 10 mm, 10 positions, internal piloting	036142	A5B10I10
Sub-base 10 mm, 12 positions, internal piloting	036143	A5B10I12
Sub-base 10 mm, 14 positions, internal piloting	036200	A5B10I14
Sub-base 10 mm, 16 positions, internal piloting	036144	A5B10I16
Sub-base 10 mm, 20 positions, internal piloting	036145	A5B10I20
Sub-base 10 mm, 24 positions, internal piloting	036146	A5B10I24
Sub-base 10 mm, 4 positions, external piloting	036147	A5B10E04
Sub-base 10 mm, 5 positions, external piloting	036148	A5B10E05
Sub-base 10 mm, 6 positions, external piloting	036149	A5B10E06
Sub-base 10 mm, 7 positions, external piloting	036150	A5B10E07
Sub-base 10 mm, 8 positions, external piloting	036151	A5B10E08
Sub-base 10 mm, 9 positions, external piloting	036152	A5B10E09
Sub-base 10 mm, 10 positions, external piloting	036153	A5B10E10
Sub-base 10 mm, 12 positions, external piloting	036154	A5B10E12
Sub-base 10 mm, 14 positions, external piloting	036201	A5B10E14
Sub-base 10 mm, 16 positions, external piloting	036155	A5B10E16
Sub-base 10 mm, 20 positions, external piloting	036156	A5B10E20
Sub-base 10 mm, 24 positions, external piloting	036157	A5B10E24

Technical data

Item	A5B10..04	A5B10..05	A5B1006	A5B10..07	A5B10..08	A5B10..09	A5B10..10	A5B10..12	A5B10..14	A5B10..16	A5B10..20	A5B10..24
Size	10 mm											
Positions	4	5	6	7	8	9	10	12	14	16	20	24
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.											
Pressure range	Depending on the configuration, see from page 2.70.3											
Temperature range	-5°C ÷ +60°C											
Flow at 6 bar with ΔP 1bar	300 l/min											
Piloting	Internal or external (see page 2.70.6; for item and code please see the table above)											
Sub-base air supply	G 1/4"											
Sub-base exhausts	G 1/4"											
Connection for external piloting ⁽¹⁾	M5											
Sub-base outlets	M7											
Solenoid valves matching ⁽²⁾	A5V10											
Internal data transmission	With integrated PCB											
Materials	Anodized aluminium											

Notes

For valve terminals configurations, please see from page 2.70.3;

For interfaces see from page 2.73.1

For accessories (piloting plugs and screws, plugs for unused positions, diaphragm for separated feeding or exhausts) to be ordered separately, see from page 2.75.20

For fittings, to be ordered separately, see from page 4.3.1; For exhaust silencers, to be ordered separately, see from page 4.150.1

(1) In case of configuration with external piloting only.

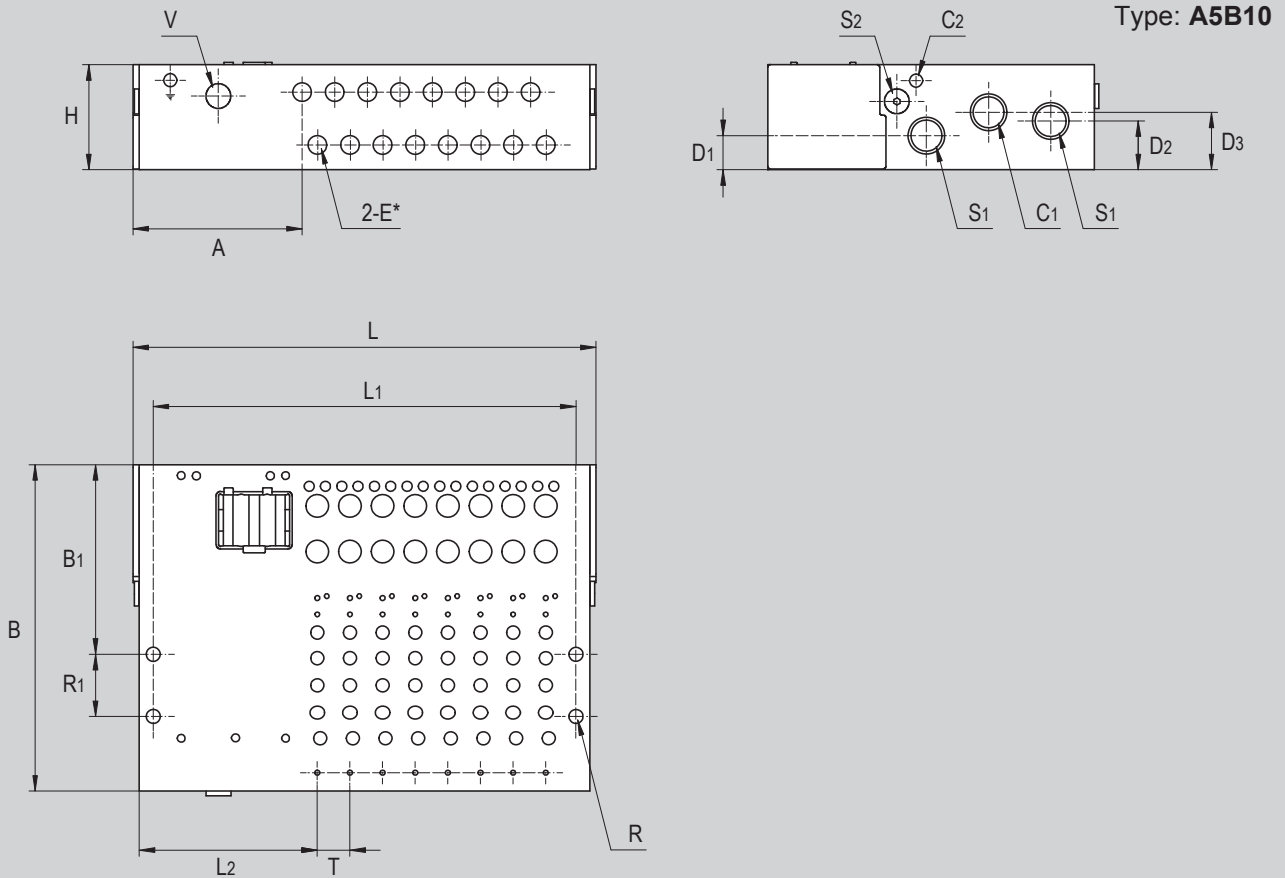
(2) For 10 mm solenoid valves features see from page 2.71.20

Sub-bases for valve terminals series A5

Type A5B10, size 10 mm



Standard dimensions



2 - VALVES

Item	Code	Size	Pos.	A	B	B1	C1	C2	D1	D2	D3	E*	H	L	L1	L2	ØR	R1	S1	S2	T	V
A5B10I04	036136	10 mm	4	54,3	105	61	G1/4"	M5	11	15,7	18,5	M7	33,8	107	94	57,3	4,5	20	G1/4"	M5	10,5	M5
A5B10I05	036137	10 mm	5	54,3	105	61	G1/4"	M5	11	15,7	18,5	M7	33,8	117,5	104,5	57,3	4,5	20	G1/4"	M5	10,5	M5
A5B10I06	036138	10 mm	6	54,3	105	61	G1/4"	M5	11	15,7	18,5	M7	33,8	128	115	57,3	4,5	20	G1/4"	M5	10,5	M5
A5B10I07	036139	10 mm	7	54,3	105	61	G1/4"	M5	11	15,7	18,5	M7	33,8	138,5	125,5	57,3	4,5	20	G1/4"	M5	10,5	M5
A5B10I08	036140	10 mm	8	54,3	105	61	G1/4"	M5	11	15,7	18,5	M7	33,8	149	136	57,3	4,5	20	G1/4"	M5	10,5	M5
A5B10I09	036141	10 mm	9	54,3	105	61	G1/4"	M5	11	15,7	18,5	M7	33,8	159,5	146,5	57,3	4,5	20	G1/4"	M5	10,5	M5
A5B10I10	036142	10 mm	10	54,3	105	61	G1/4"	M5	11	15,7	18,5	M7	33,8	170	157	57,3	4,5	20	G1/4"	M5	10,5	M5
A5B10I12	036143	10 mm	12	54,3	105	61	G1/4"	M5	11	15,7	18,5	M7	33,8	191	178	57,3	4,5	20	G1/4"	M5	10,5	M5
A5B10I14	036200	10 mm	14	54,3	105	61	G1/4"	M5	11	15,7	18,5	M7	33,8	212	199	57,3	4,5	20	G1/4"	M5	10,5	M5
A5B10I16	036144	10 mm	16	54,3	105	61	G1/4"	M5	11	15,7	18,5	M7	33,8	233	222	57,3	4,5	20	G1/4"	M5	10,5	M5
A5B10I20	036145	10 mm	20	54,3	105	61	G1/4"	M5	11	15,7	18,5	M7	33,8	275	262	57,3	4,5	20	G1/4"	M5	10,5	M5
A5B10I24	036146	10 mm	24	54,3	105	61	G1/4"	M5	11	15,7	18,5	M7	33,8	317	304	57,3	4,5	20	G1/4"	M5	10,5	M5
A5B10E04	036147	10 mm	4	54,3	105	61	G1/4"	M5	11	15,7	18,5	M7	33,8	107	94	57,3	4,5	20	G1/4"	M5	10,5	M5
A5B10E05	036148	10 mm	5	54,3	105	61	G1/4"	M5	11	15,7	18,5	M7	33,8	117,5	104,5	57,3	4,5	20	G1/4"	M5	10,5	M5
A5B10E06	036149	10 mm	6	54,3	105	61	G1/4"	M5	11	15,7	18,5	M7	33,8	128	115	57,3	4,5	20	G1/4"	M5	10,5	M5
A5B10E07	036150	10 mm	7	54,3	105	61	G1/4"	M5	11	15,7	18,5	M7	33,8	138,5	125,5	57,3	4,5	20	G1/4"	M5	10,5	M5
A5B10E08	036151	10 mm	8	54,3	105	61	G1/4"	M5	11	15,7	18,5	M7	33,8	149	136	57,3	4,5	20	G1/4"	M5	10,5	M5
A5B10E09	036152	10 mm	9	54,3	105	61	G1/4"	M5	11	15,7	18,5	M7	33,8	159,5	146,5	57,3	4,5	20	G1/4"	M5	10,5	M5
A5B10E10	036153	10 mm	10	54,3	105	61	G1/4"	M5	11	15,7	18,5	M7	33,8	170	157	57,3	4,5	20	G1/4"	M5	10,5	M5
A5B10E12	036154	10 mm	12	54,3	105	61	G1/4"	M5	11	15,7	18,5	M7	33,8	191	178	57,3	4,5	20	G1/4"	M5	10,5	M5
A5B10E14	036201	10 mm	14	54,3	105	61	G1/4"	M5	11	15,7	18,5	M7	33,8	212	199	57,3	4,5	20	G1/4"	M5	10,5	M5
A5B10E16	036155	10 mm	16	54,3	105	61	G1/4"	M5	11	15,7	18,5	M7	33,8	233	222	57,3	4,5	20	G1/4"	M5	10,5	M5
A5B10E20	036156	10 mm	20	54,3	105	61	G1/4"	M5	11	15,7	18,5	M7	33,8	275	262	57,3	4,5	20	G1/4"	M5	10,5	M5
A5B10E24	036157	10 mm	24	54,3	105	61	G1/4"	M5	11	15,7	18,5	M7	33,8	317	304	57,3	4,5	20	G1/4"	M5	10,5	M5

Notes

Fittings, silencers and accessories to be ordered separately.

*There are 2 connections for each position on the sub-base, therefore the overall number of connections depends on the chosen configuration.

Sub-bases for valve terminals series A5

Type A5B14, size 14 mm



Main features

Version	Code	Item
Sub-base 14 mm, 4 positions, internal piloting	036158	A5B14I04
Sub-base 14 mm, 5 positions, internal piloting	036159	A5B14I05
Sub-base 14 mm, 6 positions, internal piloting	036160	A5B14I06
Sub-base 14 mm, 7 positions, internal piloting	036161	A5B14I07
Sub-base 14 mm, 8 positions, internal piloting	036162	A5B14I08
Sub-base 14 mm, 9 positions, internal piloting	036163	A5B14I09
Sub-base 14 mm, 10 positions, internal piloting	036164	A5B14I10
Sub-base 14 mm, 12 positions, internal piloting	036165	A5B14I12
Sub-base 14 mm, 14 positions, internal piloting	036202	A5B14I14
Sub-base 14 mm, 16 positions, internal piloting	036166	A5B14I16
Sub-base 14 mm, 20 positions, internal piloting	036167	A5B14I20
Sub-base 14 mm, 24 positions, internal piloting	036168	A5B14I24
Sub-base 14 mm, 4 positions, external piloting	036169	A5B14E04
Sub-base 14 mm, 5 positions, external piloting	036170	A5B14E05
Sub-base 14 mm, 6 positions, external piloting	036171	A5B14E06
Sub-base 14 mm, 7 positions, external piloting	036172	A5B14E07
Sub-base 14 mm, 8 positions, external piloting	036173	A5B14E08
Sub-base 14 mm, 9 positions, external piloting	036174	A5B14E09
Sub-base 14 mm, 10 positions, external piloting	036175	A5B14E10
Sub-base 14 mm, 12 positions, external piloting	036176	A5B14E12
Sub-base 14 mm, 14 positions, external piloting	036203	A5B14E14
Sub-base 14 mm, 16 positions, external piloting	036177	A5B14E16
Sub-base 14 mm, 20 positions, external piloting	036178	A5B14E20
Sub-base 14 mm, 24 positions, external piloting	036179	A5B14E24



2 - VALVES

Technical data

Item	A5B14..04	A5B14..05	A5B1406	A5B14..07	A5B14..08	A5B14..09	A5B14..10	A5B14..12	A5B14..14	A5B14..16	A5B14..20	A5B14..24
Size	14 mm											
Positions	4	5	6	7	8	9	10	12	14	16	20	24
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.											
Pressure range	Depending on the configuration, see from page 2.70.3											
Temperature range	-5°C ÷ +60°C											
Flow at 6 bar with ΔP 1bar	600 l/min											
Piloting	Internal or external (see page 2.70.6; for item and code please see the table above)											
Sub-base air supply	G 1/4"											
Sub-base exhausts	G 1/4"											
Connection for external piloting ⁽¹⁾	M5											
Sub-base outlets	G 1/8"											
Solenoid valves matching ⁽²⁾	A5V14											
Internal data transmission	With integrated PCB											
Materials	Anodized aluminium											

Notes

For valve terminals configurations, please see from page 2.70.3;

For interfaces see from page 2.73.1

For accessories (piloting plugs and screws, plugs for unused positions, diaphragm for separated feeding or exhausts) to be ordered separately, see from page 2.75.20

For fittings, to be ordered separately, see from page 4.3.1; For exhaust silencers, to be ordered separately, see from page 4.150.1

(1) In case of configuration with external piloting only.

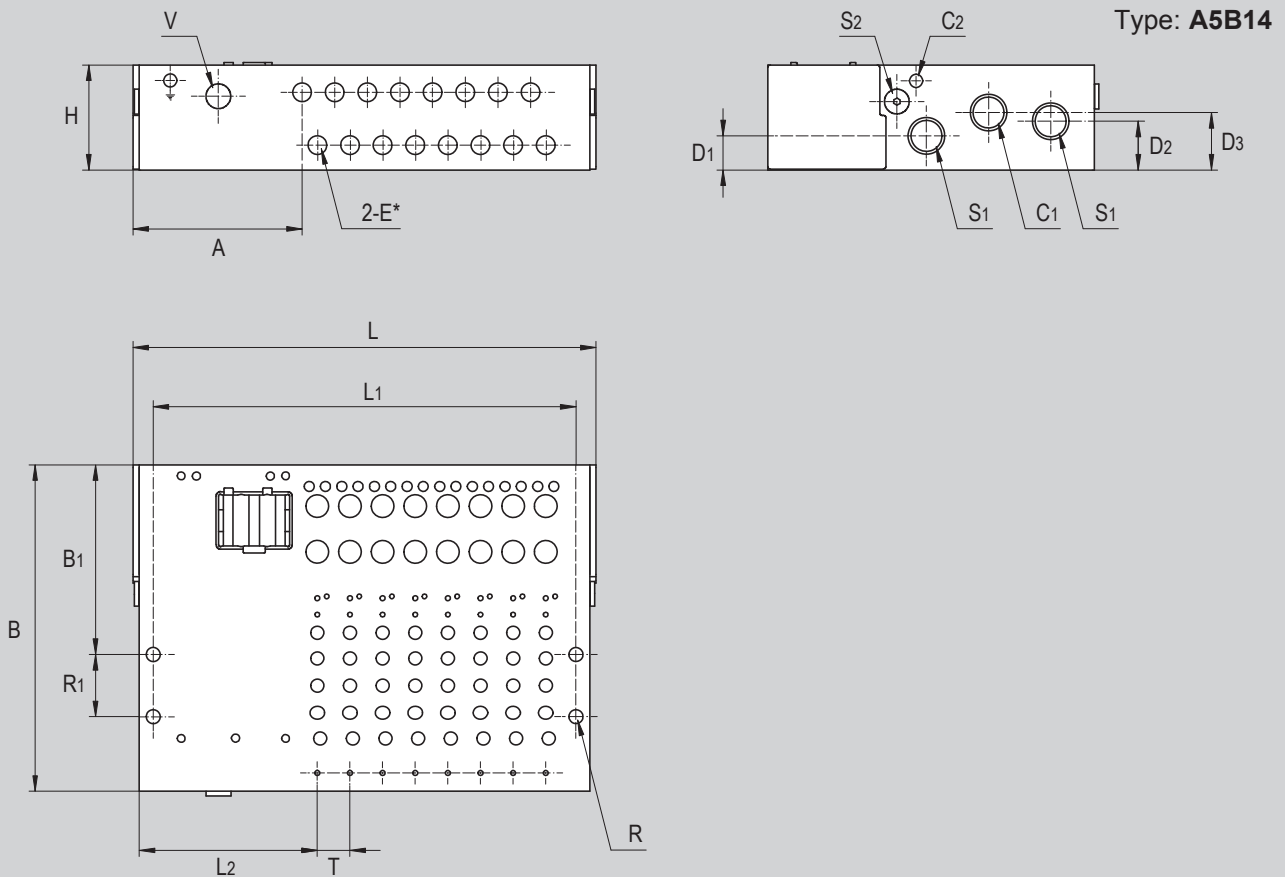
(2) For 10 mm solenoid valves features see from page 2.71.20

Sub-bases for valve terminals series A5

Type A5B14, size 14 mm



Standard dimensions



Item	Code	Size	Pos.	A	B	B1	C1	C2	D1	D2	D3	E*	H	L	L1	L2	ØR	R1	S1	S2	T	V
A5B14I04	036158	14 mm	4	54,3	105	61	G1/4"	M5	11	15,7	18,5	G1/8"	33,8	132	118	60,5	4,5	20	G1/4"	M5	16	M5
A5B14I05	036159	14 mm	5	54,3	105	61	G1/4"	M5	11	15,7	18,5	G1/8"	33,8	148	134	60,5	4,5	20	G1/4"	M5	16	M5
A5B14I06	036160	14 mm	6	54,3	105	61	G1/4"	M5	11	15,7	18,5	G1/8"	33,8	164	150	60,5	4,5	20	G1/4"	M5	16	M5
A5B14I07	036161	14 mm	7	54,3	105	61	G1/4"	M5	11	15,7	18,5	G1/8"	33,8	180	166	60,5	4,5	20	G1/4"	M5	16	M5
A5B14I08	036162	14 mm	8	54,3	105	61	G1/4"	M5	11	15,7	18,5	G1/8"	33,8	196	182	60,5	4,5	20	G1/4"	M5	16	M5
A5B14I09	036163	14 mm	9	54,3	105	61	G1/4"	M5	11	15,7	18,5	G1/8"	33,8	212	198	60,5	4,5	20	G1/4"	M5	16	M5
A5B14I10	036164	14 mm	10	54,3	105	61	G1/4"	M5	11	15,7	18,5	G1/8"	33,8	228	214	60,5	4,5	20	G1/4"	M5	16	M5
A5B14I12	036165	14 mm	12	54,3	105	61	G1/4"	M5	11	15,7	18,5	G1/8"	33,8	260	246	60,5	4,5	20	G1/4"	M5	16	M5
A5B14I14	036202	14 mm	14	54,3	105	61	G1/4"	M5	11	15,7	18,5	G1/8"	33,8	292	278	60,5	4,5	20	G1/4"	M5	16	M5
A5B14I16	036166	14 mm	16	54,3	105	61	G1/4"	M5	11	15,7	18,5	G1/8"	33,8	324	310	60,5	4,5	20	G1/4"	M5	16	M5
A5B14I20	036167	14 mm	20	54,3	105	61	G1/4"	M5	11	15,7	18,5	G1/8"	33,8	388	374	60,5	4,5	20	G1/4"	M5	16	M5
A5B14I24	036168	14 mm	24	56	105	61	G1/4"	M5	11	15,7	18,5	G1/8"	33,8	452	438	60,5	4,5	20	G1/4"	M5	16	M5
A5B14E04	036169	14 mm	4	54,3	105	61	G1/4"	M5	11	15,7	18,5	G1/8"	33,8	132	118	60,5	4,5	20	G1/4"	M5	16	M5
A5B14E05	036170	14 mm	5	54,3	105	61	G1/4"	M5	11	15,7	18,5	G1/8"	33,8	148	134	60,5	4,5	20	G1/4"	M5	16	M5
A5B14E06	036171	14 mm	6	54,3	105	61	G1/4"	M5	11	15,7	18,5	G1/8"	33,8	164	150	60,5	4,5	20	G1/4"	M5	16	M5
A5B14E07	036172	14 mm	7	54,3	105	61	G1/4"	M5	11	15,7	18,5	G1/8"	33,8	180	166	60,5	4,5	20	G1/4"	M5	16	M5
A5B14E08	036173	14 mm	8	54,3	105	61	G1/4"	M5	11	15,7	18,5	G1/8"	33,8	196	182	60,5	4,5	20	G1/4"	M5	16	M5
A5B14E09	036174	14 mm	9	54,3	105	61	G1/4"	M5	11	15,7	18,5	G1/8"	33,8	212	198	60,5	4,5	20	G1/4"	M5	16	M5
A5B14E10	036175	14 mm	10	54,3	105	61	G1/4"	M5	11	15,7	18,5	G1/8"	33,8	228	214	60,5	4,5	20	G1/4"	M5	16	M5
A5B14E12	036176	14 mm	12	54,3	105	61	G1/4"	M5	11	15,7	18,5	G1/8"	33,8	260	246	60,5	4,5	20	G1/4"	M5	16	M5
A5B14E14	036203	14 mm	14	54,3	105	61	G1/4"	M5	11	15,7	18,5	G1/8"	33,8	292	278	60,5	4,5	20	G1/4"	M5	16	M5
A5B14E16	036177	14 mm	16	54,3	105	61	G1/4"	M5	11	15,7	18,5	G1/8"	33,8	324	310	60,5	4,5	20	G1/4"	M5	16	M5
A5B14E20	036178	14 mm	20	54,3	105	61	G1/4"	M5	11	15,7	18,5	G1/8"	33,8	388	375	60,5	4,5	20	G1/4"	M5	16	M5
A5B14E24	036179	14 mm	24	56	105	61	G1/4"	M5	11	15,7	18,5	G1/8"	33,8	452	438	60,5	4,5	20	G1/4"	M5	16	M5

Notes

Fittings, silencers and accessories to be ordered separately.

*There are 2 connections for each position on the sub-base, therefore the overall number of connections depends on the chosen configuration.

INTERFACES

for valve terminals series A5



Features and certifications

Communication modular interfaces for valve terminals series A5.

Three interface types available:

- Fieldbus interface, with communication protocol configurable by choosing between ProfiNET®, EtherCAT®, EtherNET/IP® and CC-Link IE™Field Basic, or with ProfiBUS® protocol;
- Multipole Sub-D connection interface;
- IO-Link® interface, available in version 8, 16 or 24, depending on the maximum number of manageable valves.

All interfaces can be installed on any type of sub-base: both size 10 mm and 14 mm (see from page 2.72.1)

Connection cables to be ordered separately (see from page 2.75.40)

Supplied as standard in compliance to Reach and RoHS directives.



Fieldbus interface series A5

from page 2.70.10



Fieldbus interface with communication protocol configurable by choosing between ProfiNET®, EtherCAT®, EtherNET/IP® and CC-Link IE™Field Basic.

This interface can manage valve terminals from 4 to 24 positions, which allow to control up to 48 cylinders using 2-3/2 solenoid valves.

Connection cables to be ordered separately.

Fieldbus interface series A5

from page 2.70.15



Fieldbus interface with ProfiBUS® communication protocol.

This interface can manage valve terminals from 4 to 24 positions, which allow to control up to 48 cylinders using 2-3/2 solenoid valves.

Connection cables to be ordered separately.

Sub-D interface series A5

from page 2.70.40



Sub-D 25 pin multipole communication interface.

This interface can manage valve terminals from 4 to 24 position, with a maximum of 12 double electric pilot solenoid valves or 24 single electric pilot solenoid valves.

Connection cables to be ordered separately.

IO-Link® interface series A5

from page 2.70.60



IO-Link® communication interface available in three versions, 8, 16 and 24, depending on the maximum number of manageable valves.

This interface, in version IO-Link® 8, can manage valve terminals from 4 to 8 position, which allows to control up to 16 cylinders using 2-3/2 solenoid valves; in version IO-Link® 16 this module can manage valve terminals from 4 to 16, which allows to control up to 32 cylinders using 2-3/2 solenoid valves; interface IO-Link® 24 can manage valve terminals from 4 to 24, which allows to control up to 48 cylinders using 2-3/2 solenoid valves.

Connection cables to be ordered separately.

Main features

Version	Code	Item	Symbol
Fieldbus interface with ProfiNET® protocol	036100	A501	
Fieldbus interface with EtherCAT® protocol	036101	A502	
Fieldbus interface with EtherNET/IP® protocol	036102	A503	
Fieldbus interface with CC-Link IE™ Field Basic protocol	036103	A504	



Technical data

Item	A501	A502	A503	A504
Communication protocol	ProfiNET®	EtherCAT®	EtherNET/IP®	CC-Link IE™ Field Basic
Maximum managed valves	24 solenoid valves (also with double electric pilot)			
Temperature range	-5°C ÷ +60°C			
Voltage	24 VDC			
Electrical consumption	1,2 W			
Power supply port	M12 Male 4 pin connector, A-coded (for configuration see table below)			
Communication port input / output	M12 Female 4 pin connector, D-coded (for configuration see table below)			
Power supply cable*	M12 Female cable type CAVFBFD			
Communication cable*	M12 Male cable type CAVFBMD, CAVFBMM, CAVFBMR			
Control	On integrated dial (see table below)			
Control indicator	LED (see table below)			

*Cables to be ordered separately, see from page 2.75.40

Fieldbus module

N.	Description	Function
1	Control dial	Allows to set the IP address and valve coils
2	Control indicator	Indicates the status and operation of functions via LEDs
3	Communication (output)	Output communication port type M12 Female 4-pin, D-coded
4	Communication (input)	Input communication port type M12 Female 4-pin, D-coded
5	Power supply port	Power supply input port type M12 Male 4-pin, A-coded

Power supply configuration

Pin	Function
1	UA Actuator power supply
2	GND Actuator power supply
3	US Bus power supply
4	GND Bus power supply

Communication configuration (input)

Pin	Function
1	Tx+ Data transfer (+)
2	Rx+ Data receiving (+)
3	Tx- Data transfer (-)
4	Rx- Data receiving (-)

Communication configuration (output)

Pin	Function
1	Tx+ Data transfer (+)
2	Rx+ Data receiving (+)
3	Tx- Data transfer (-)
4	Rx- Data receiving (-)

Main features

Version	Code	Item	Symbol
Fieldbus interface with ProfiBUS® protocol	036205	A509	



Technical data

Item	A509
Communication protocol	ProfiBUS®
Maximum managed valves	24 solenoid valves (also with double electric pilot)
Temperature range	-5°C ÷ +60°C
Voltage	24 VDC
Electrical consumption	1,2 W
Power supply port	M12 Male 4 pin connector, A-coded (for configuration see table below)
Communication port input / output	M12 Male 4 pin connector, D-coded / M12 Female 4 pin connector, D-coded (for configuration see table below)
Power supply cable*	M12 Female cable type CAVFBFD
Communication cable* input / output	M12 Female cable type CAVPBFD / M12 Male cable type CAVFBMD, CAVFBMM, CAVFBMR
Control	On integrated dial (see table below)
Control indicator	LED (see table below)

*Cables to be ordered separately, see from page 2.75.40

Fieldbus module

N.	Description	Function
1	Control dial	Allows to set the IP address and valve coils
2	Control indicator	Indicates the status and operation of functions via LEDs
3	Communication (output)	Output communication port type M12 Female 4-pin, D-coded
4	Communication (input)	Input communication port type M12 Male 4-pin, D-coded
5	Power supply	Power supply input port type M12 Male 4-pin, A-coded

Power supply configuration

Pin	Function
1	UA Actuator power supply
2	GND Actuator power supply
3	US Bus power supply
4	GND Bus power supply

Communication configuration (output)

Pin	Funzione
1	VP (+5V)
2	RxD/TxD-N A line Data transfer (-) Data receiving (-)
3	DGND-
4	RxD/TxD-N B line Data transfer (+) Data receiving (+)

Communication configuration (input)


Pin	Funzione
1	VP (+5V)
2	RxD/TxD-N A line Trasmissione dati (-) Ricezione dati (-)
3	DGND-
4	RxD/TxD-N B line Trasmissione dati (+) Ricezione dati (+)

Interfaces for valve terminals series A5

Sub-D



Main features

Version	Code	Item	Symbol
Sub-D 25 poles interface	036104 	A505	-

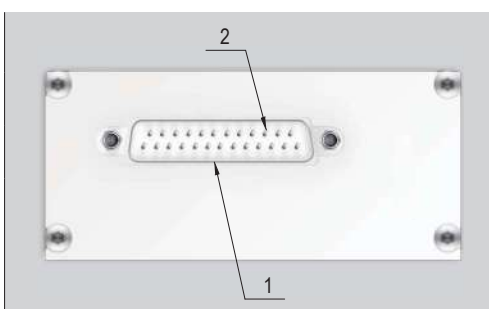


Technical data

Item	A505
Communication protocol	Sub-D 25 pin
Maximum managed valves	24 single electric pilot solenoid valve, 12 double electric pilot solenoid valve
Temperature range	-5°C ÷ +60°C
Voltage	24 VDC
Electrical consumption	1,2 W
Power supply port	Sub-D Male 25 pin connector
Communication port input / output	Sub-D Male 25 pin connector
Power supply cable*	Sub-D Female 25 pin cable type CAVSDFD
Communication cable*	Sub-D Female 25 pin cable type CAVSDFD

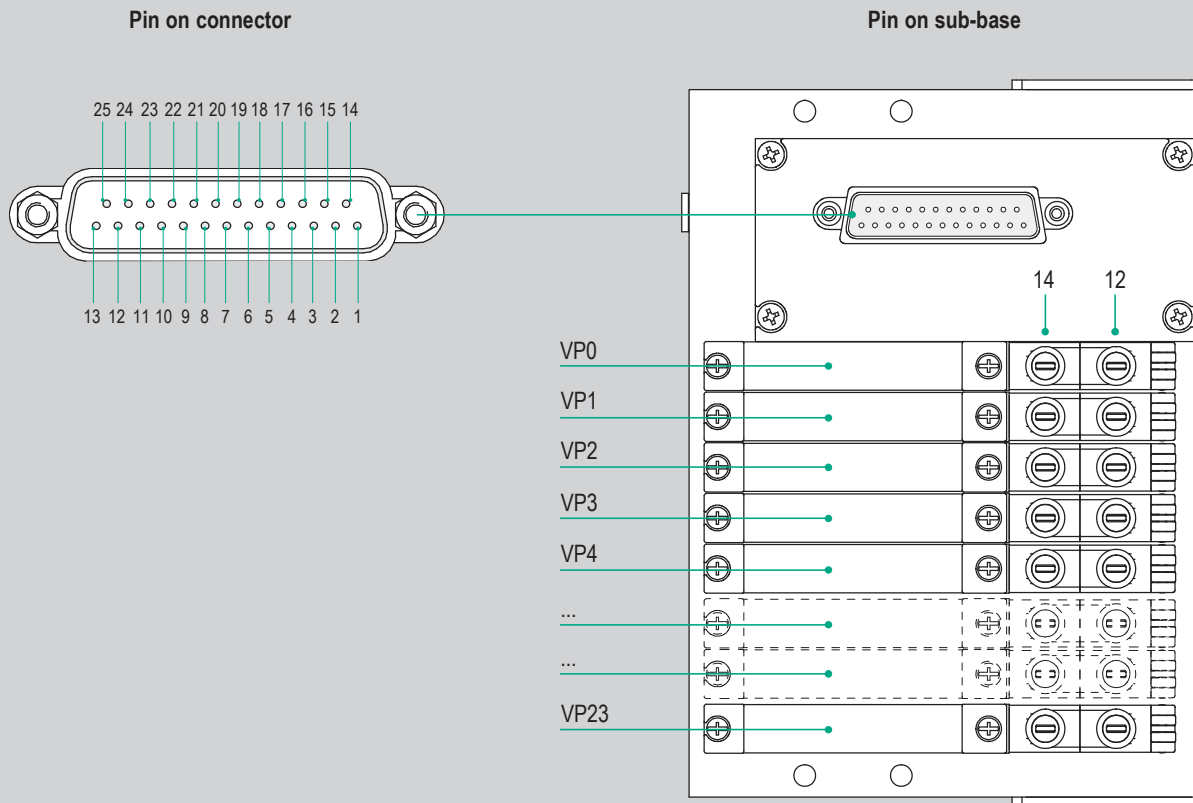
*Cables to be ordered separately, see page 2.75.43

Sub-D module



N.	Description	Function
1	Connector	Sub-D Male 25 pin (see tabel at page 2.73.41)
2	Pin	Each pin controls a function of the valve terminal (see table at page 2.73.41)

Sub-D interface connection diagram



Pin on connector	Wire color	Number of positions on sub-base									
		4 ÷ 12		14		16		20		24	
1	White	VP0	14	VP0	14	VP0	14	VP0	14	VP0	14
2	Brown	VP0	12	VP0	12	VP0	12	VP0	12	VP23	14
3	Green	VP1	14	VP1	14	VP1	14	VP1	14	VP1	14
4	Yellow	VP1	12	VP1	12	VP1	12	VP1	12	VP22	14
5	Grey	VP2	14	VP2	14	VP2	14	VP2	14	VP2	14
6	Pink	VP2	12	VP2	12	VP2	12	VP2	12	VP21	14
7	Blue	VP3	14	VP3	14	VP3	14	VP3	14	VP3	14
8	Red	VP3	12	VP3	12	VP3	12	VP3	12	VP20	14
9	Black	VP4	14	VP4	14	VP4	14	VP4	14	VP4	14
10	Purple	VP4	12	VP4	12	VP4	12	VP19	14	VP19	14
11	Grey-Pink	VP5	14	VP5	14	VP5	14	VP5	14	VP5	14
12	Red-Blue	VP5	12	VP5	12	VP5	12	VP18	14	VP18	14
13	White-Green	VP6	14	VP6	14	VP6	14	VP6	14	VP6	14
14	Brown-Green	VP6	12	VP6	12	VP6	12	VP17	14	VP17	14
15	White-Yellow	VP7	14	VP7	14	VP7	14	VP7	14	VP7	14
16	Yellow-Brown	VP7	12	VP7	12	VP7	12	VP16	14	VP16	14
17	White-Grey	VP8	14	VP8	14	VP8	14	VP8	14	VP8	14
18	Grey-Brown	VP8	12	VP8	12	VP15	14	VP15	14	VP15	14
19	White-Pink	VP9	14	VP9	14	VP9	14	VP9	14	VP9	14
20	Pink-Brown	VP9	12	VP9	12	VP14	14	VP14	14	VP14	14
21	White-Blue	VP10	14	VP10	14	VP10	14	VP10	14	VP10	14
22	Brown-Blue	VP10	12	VP13	14	VP13	14	VP13	14	VP13	14
23	White-Red	VP11	14	VP11	14	VP11	14	VP11	14	VP11	14
24	Brown-Red	VP11	12	VP12	14	VP12	14	VP12	14	VP12	14
25	White-Black	COM		COM		COM		COM		COM	

Note: solenoid valves with double electric pilot can be only mounted in the positions VP corresponding to the grey areas in the table.

Main features

Version	Code	Item	Symbol
IO-Link® interface up to 8 positions	036105	A506	
IO-Link® interface up to 16 positions	036106	A507	
IO-Link® interface up to 24 positions	036107	A508	



Technical data

Item	A506	A507	A508
Communication protocol	IO-Link®		
Maximum managed valves	8 solenoid valves (also double electric pilot)	16 solenoid valves (also double electric pilot)	24 solenoid valves (also double electric pilot)
Temperature range	-5°C ÷ +60°C		
Voltage	24 VDC		
Electrical consumption	1,2 W		
Power supply port	M12 Male 5 pin connector (see table below)		
Communication port input / output	M12 Male 5 pin connector (see table below)		
Power supply cable*	M12 Female cable type CAVILFD		
Communication cable*	M12 Female cable type CAVILFD		
Control indicator	LED (see table below)		

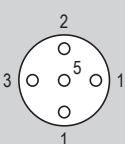
*Cables to be ordered separately, see page 2.75.44

IO-Link® module

N.	Description	Function
1	Connector	M12 Male 5 pin (see table below)
2	Control indicator	Green LED (flashing) = normal operating state
		Red LED (stationary) = no power supply or IO-Link® signal
		Blue LED (stationary) = open or overloaded circuit

IO-Link® connector configuration

Pin	Features	Function
1	24V EL/SEN (PS)	Power supply
2	24V BAL/OUT (PL)	Power supply load
3	0V EL/SEN (PS)	Power supply
3	C/Q	Communication
5	0V VAL/OUT (PL)	Power supply load

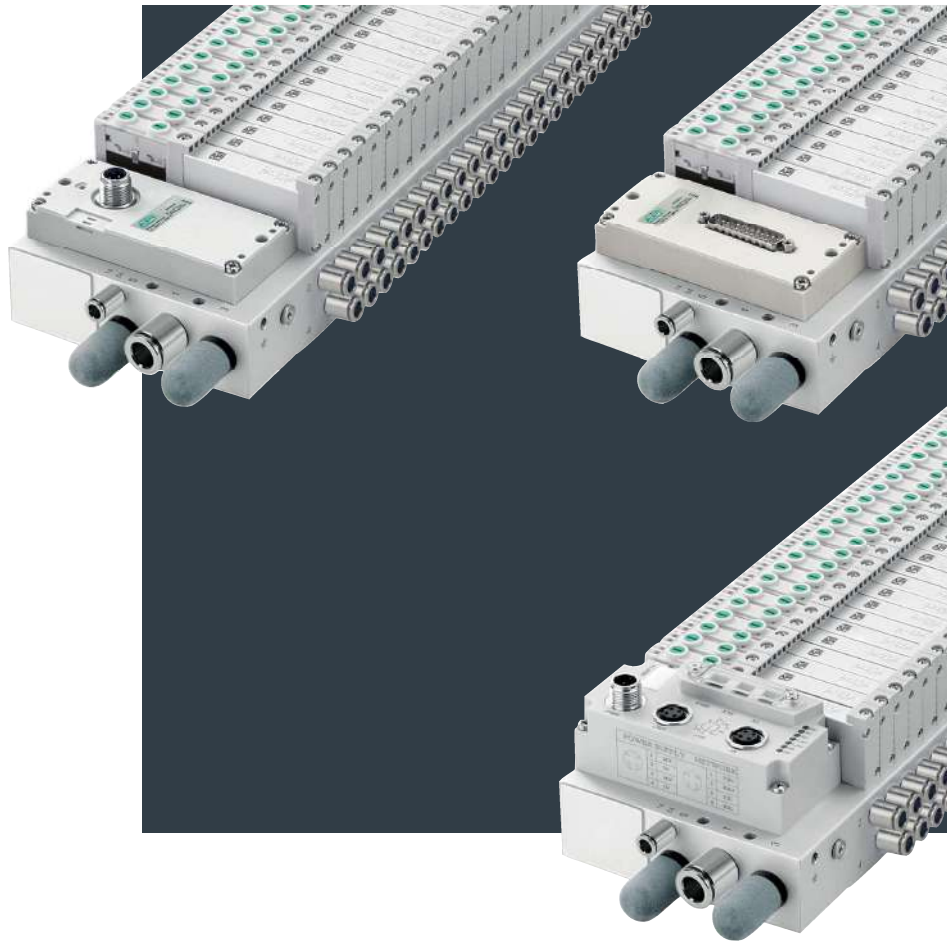


IO-Link® drive file

Description	Specifics
Electrical features	V1.1
Data transmission rate	COM2 (38,4KBit)
Data output	2, 4, 6 bytes

VALVE TERMINALS

Series A5 complete and assembled



Features and certifications

Complete valve terminals available in sizes 10mm and 14mm, composed by

- **sub-bases** with set positions, from 4 to 24 stations, with possibility of internal or external piloting of solenoid valves, simply applying a screw or a plug in the relevant connection;
- **interface** with possibility of three types: Fieldbus interface (with communication protocol configurable by choosing between ProfiNET®, EtherCAT®, EtherNET/IP® and CC-Link IE™Field Basic, or with ProfiBUS® protocol), multipolar Sub-D communication interface and IO-Link® interface.
- **solenoid valves** with possibility of choice between many functions (5/2, 5/3 e 2-3/2), assembled in a simple and practical way. Each valve, even if in an intermediate position, can be easily replaced. The valve coils are low consumption (1.2W), with 360° view LED, equipped with "push" and bistable manual override. Valve terminals are supplied already assembled and tested, and in compliance to Reach and RoHS directives as standard. Fittings, exhaust silencers, interface connection cables, blanking plugs and diaphragms for separated feeding or exhausts are to be ordered separately.



Valve terminals series A5 with Fieldbus interface

from page 2.70.20



Complete valve terminals with Fieldbus communication interface (with protocol configurable by choosing between ProfiNET®, EtherCAT®, EtherNET/IP® and CC-Link IE™Field Basic, or with ProfiBUS® protocol). Available in size 10mm and 14mm, with possibility to choose sub-bases from 4 to 24 positions: that allows to control up to 48 cylinders with 2-3/2 valves. Valve terminals are supplied already assembled and tested. Fittings, exhaust silencers, interface connection cables, blanking plugs and diaphragms for separated feeding or exhausts are to be ordered separately.

Valve terminals series A5 with Sub-D interface

from page 2.70.40



Complete valve terminals with multipole Sub-D 25 poles communication interface. Available in size 10mm and 14mm, with possibility to choose sub-bases from 4 to 24 positions: this allows to allocate a maximum of 12 double pilot solenoid valves or 24 single pilot solenoid valves. Valve terminals are supplied already assembled and tested. Fittings, exhaust silencers, interface connection cables, blanking plugs and diaphragms for separated feeding or exhausts are to be ordered separately.

Valve terminals series A5 with IO-Link® interface

from page 2.70.60



Complete valve terminals with IO-Link® communication interface (in three different versions, 8, 16 and 24, depending on the maximum number of manageable valves). Available in size 10mm and 14mm, with possibility to choose sub-bases from 4 to 24 positions: this allows to control up to 48 cylinders with 2-3/2 valves. Valve terminals are supplied already assembled and tested. Fittings, exhaust silencers, interface connection cables, blanking plugs and diaphragms for separated feeding or exhausts are to be ordered separately.

Valve terminals series A5 complete and assembled

With Fieldbus interface



Main features

Version	Code	Item	Symbol
Valve terminal size 10 mm with Fieldbus interface ProfiNET® protocol	*	A51001..	
Valve terminal size 14 mm with Fieldbus interface ProfiNET® protocol	*	A51401..	
Valve terminal size 10 mm with Fieldbus interface EtherCAT® protocol	*	A51002..	
Valve terminal size 14 mm with Fieldbus interface EtherCAT® protocol	*	A51402..	
Valve terminal size 10 mm with Fieldbus interface EtherNet/IP® protocol	*	A51003..	
Valve terminal size 14 mm with Fieldbus interface EtherNet/IP® protocol	*	A51403..	
Valve terminal size 10 mm with Fieldbus interface CC-Link IE™ Field Basic protocol	*	A51004..	
Valve terminal size 14 mm with Fieldbus interface CC-Link IE™ Field Basic protocol	*	A51404..	
Valve terminal size 10 mm with Fieldbus interface Profibus® protocol	*	A51009..	
Valve terminal size 14 mm with Fieldbus interface Profibus® protocol	*	A51409..	



*For the full article and code please see page 2.70.3

Technical data

Item	A51001..	A51002..	A51003..	A51004..	A51009..	A51401..	A51402..	A51403..	A51404..	A51409..
Size	10 mm					14 mm				
Communication protocol	ProfiNET®	EtherCAT®	EtherNET/IP®	CC-Link IE™ Field Basic	Profibus®	ProfiNET®	EtherCAT®	EtherNET/IP®	CC-Link IE™ Field Basic	Profibus®
Interface module features	See page 2.73.10				p. 2.73.15	See page 2.73.10				p. 2.73.15
Positions on sub-base	4 ÷ 24 (4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 20, 24)									
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.									
Pressure range	Minimum	2 bar (5/2) - 3 bar (5/3) - 2,5 bar (2-3/2)								
	Maximum	8 bar								
Temperature range	-5°C ÷ +60°C									
Flow at 6 bar with ΔP 1bar	300 l/min					600 l/min				
Sub-base air supply	G 1/4"									
Sub-base exhausts	G 1/4"									
Connection for external piloting ⁽¹⁾	M5									
Sub-base outlets	M7					G 1/8"				
Voltage	24 VDC									
Electrical consumption	1,2 W									
Maximum number of valves ⁽²⁾	24 (also with double electric pilot)									
Internal data transmission	With integrated PCB									
Manual override	"Push" and bistable									

Notes

For possible configurations of the valve terminal see from page 2.70.3;
 The configuration does not include fittings, exhaust silencers and connection cables for the communication interface, are to be ordered separately.
 For fittings see from page 4.3.1; For silencers see from page 4.150.1; For diaphragms and plugs see from page 2.75.20; For communication cables see from page 2.75.40

(1) In case of external pilot configuration.

(2) Depending on the number of positions on the sub-base. For valves features, see from page 2.71.1; For sub-bases features, see from page 2.72.1

Valve terminals series A5 complete and assembled

With Sub-D interface



Main features

Version	Code	Item	Symbol
Valve terminal size 10 mm with Sub-D interface	*	A51005..	-
Valve terminal size 14 mm with Sub-D interface	*	A51405..	

*For the full article and code please see page 2.70.3



Technical data

Item	A51005..	A51405..
Size	10 mm	14 mm
Communication protocol	Sub-D 25 poles	
Interface module features	See from page 2.73.20	
Positions on sub-base	4 ÷ 24 (4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 20, 24)	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	Minimum	2 bar (5/2) - 3 bar (5/3) - 2,5 bar (2-3/2)
	Maximum	8 bar
Temperature range	-5°C ÷ +60°C	
Flow at 6 bar with ΔP 1bar	300 l/min	600 l/min
Sub-base air supply	G 1/4"	
Sub-base exhausts	G 1/4"	
Connection for external piloting ⁽¹⁾	M5	
Sub-base outlets	M7	G 1/8"
Voltage	24 VDC	
Electrical consumption	1,2 W	
Maximum number of valves ⁽²⁾	24 with single electric pilot, 12 with double electric pilot	
Internal data transmission	With integrated PCB	
Manual override	"Push" and bistable	

Notes

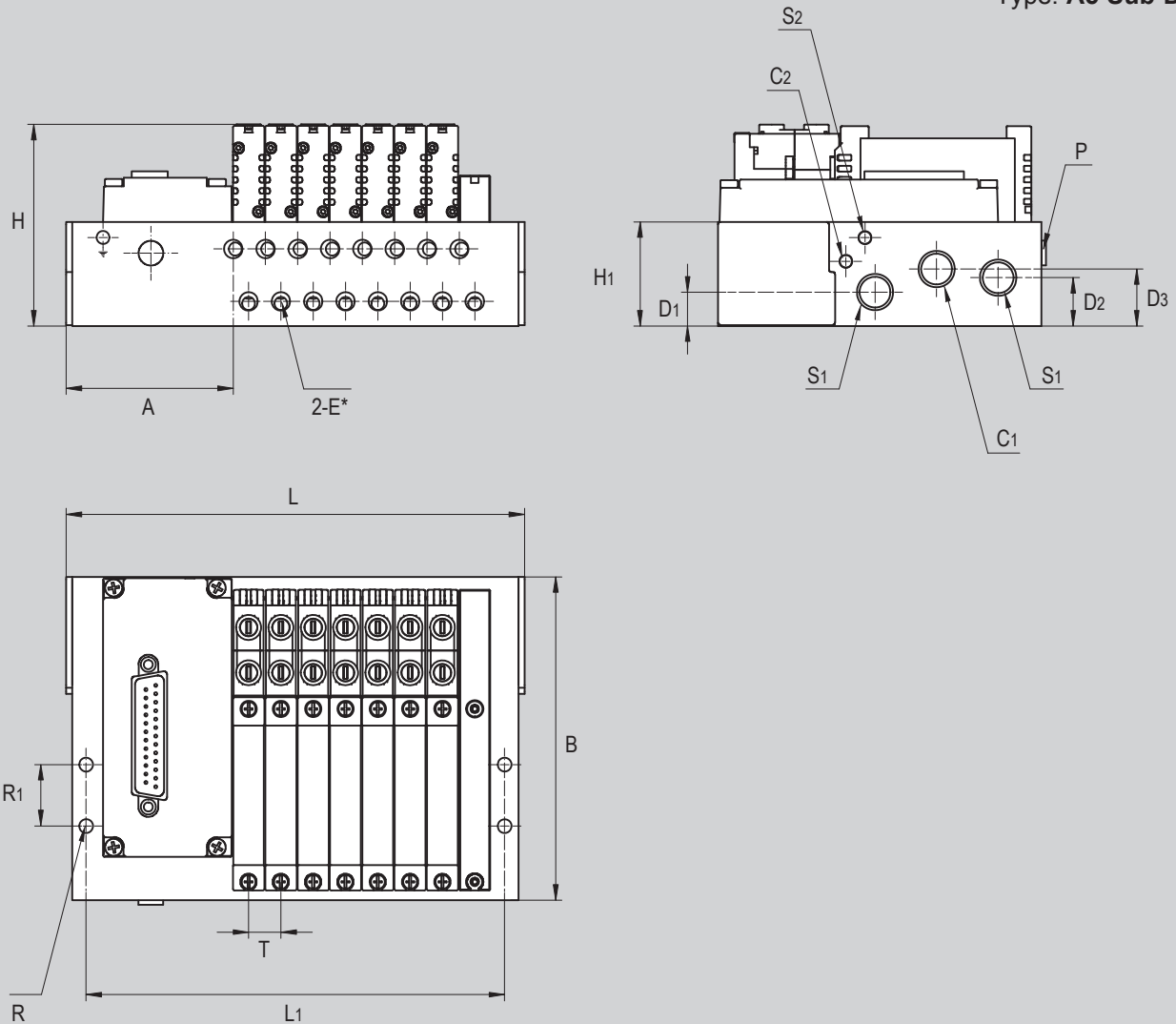
For possible configurations of the valve terminal see from page 2.70.3;
 The configuration does not include fittings, exhaust silencers and connection cables for the communication interface, are to be ordered separately.
 For fittings see from page 4.3.1; For silencers see from page 4.150.1; For diaphragms and plugs see from page 2.75.20; For communication cables see page 2.75.43

(1) In case of external pilot configuration.

(2) Depending on the number of positions on the sub-base. For valves features, see from page 2.71.1; For sub-bases features, see from page 2.72.1

Standard dimensions

Type: A5 Sub-D



2 - VALVES

Item	Size	A	B	C1	C2	D1	D2	D3	E*	H	H1	L**	L1**	P	ØR	R1	S1	S2	T
A51005..	10 mm	54,3	105	G1/4"	M5	11	15,7	18,5	M7	65	33,8	65 + (n×T)	52 + (n×T)	M5	4,5	20	G1/4"	M5	10,5
A51405..	14 mm	56	105	G1/4"	M5	10	15,7	18,5	G1/8"	65	33,8	64 + (n×T)	54 + (n×T)	M5	4,5	20	G1/4"	M5	16

Notes

Valve terminal is supplied complete, already assembled and tested. Fittings, exhaust silencers and interface connection cables to be ordered separately.

*There are 2 connections for each position on the base, therefore overall number of connections depends on the configuration.

**Quotes L and L1 are to be calculated by the number of positions of the sub-base. The letter "n" indicated in the quote must be replaced with the number of positions of the sub-base.

Valve terminals series A5 complete and assembled

With IO-Link® interface



Main features

Version	Code	Item	Symbol
Valve terminal size 10 mm with IO-Link® interface up to 8 positions	*	A51006..	
Valve terminal size 14 mm with IO-Link® interface up to 8 positions	*	A51406..	
Valve terminal size 10 mm with IO-Link® interface up to 16 positions	*	A51007..	
Valve terminal size 14 mm with IO-Link® interface up to 16 positions	*	A51407..	
Valve terminal size 10 mm with IO-Link® interface up to 24 positions	*	A51008..	
Valve terminal size 14 mm with IO-Link® interface up to 24 positions	*	A51408..	



*For the full article and code please see page 2.70.3

Technical data

Item	A51006..	A51007..	A51008..	A51406..	A51407..	A51408..
Size	10 mm			14 mm		
Communication protocol	IO-Link®					
Interface module features	See from page 2.73.30					
Positions on sub-base	4 ÷ 8 (4, 5, 6, 7, 8)	4 ÷ 16 (4, 5, 6, 7, 8, 9, 10, 12, 14, 16)	4 ÷ 24 (4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 20, 24)	4 ÷ 8 (4, 5, 6, 7, 8)	4 ÷ 16 (4, 5, 6, 7, 8, 9, 10, 12, 14, 16)	4 ÷ 24 (4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 20, 24)
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.					
Pressure range	Minimum	2 bar (5/2) - 3 bar (5/3) - 2,5 bar (2-3/2)				
	Maximum	8 bar				
Temperature range	-5°C ÷ +60°C					
Flow at 6 bar with ΔP 1bar	300 l/min			600 l/min		
Sub-base air supply	G 1/4"					
Sub-base exhausts	G 1/4"					
Connection for external piloting ⁽¹⁾	M5					
Sub-base outlets	M7			G 1/8"		
Voltage	24 VDC					
Electrical consumption	1,2 W					
Maximum number of valves ⁽²⁾	8	16	24	8	16	24
Internal data transmission	With integrated PCB					
Manual override	"Push" and bistable					

Notes

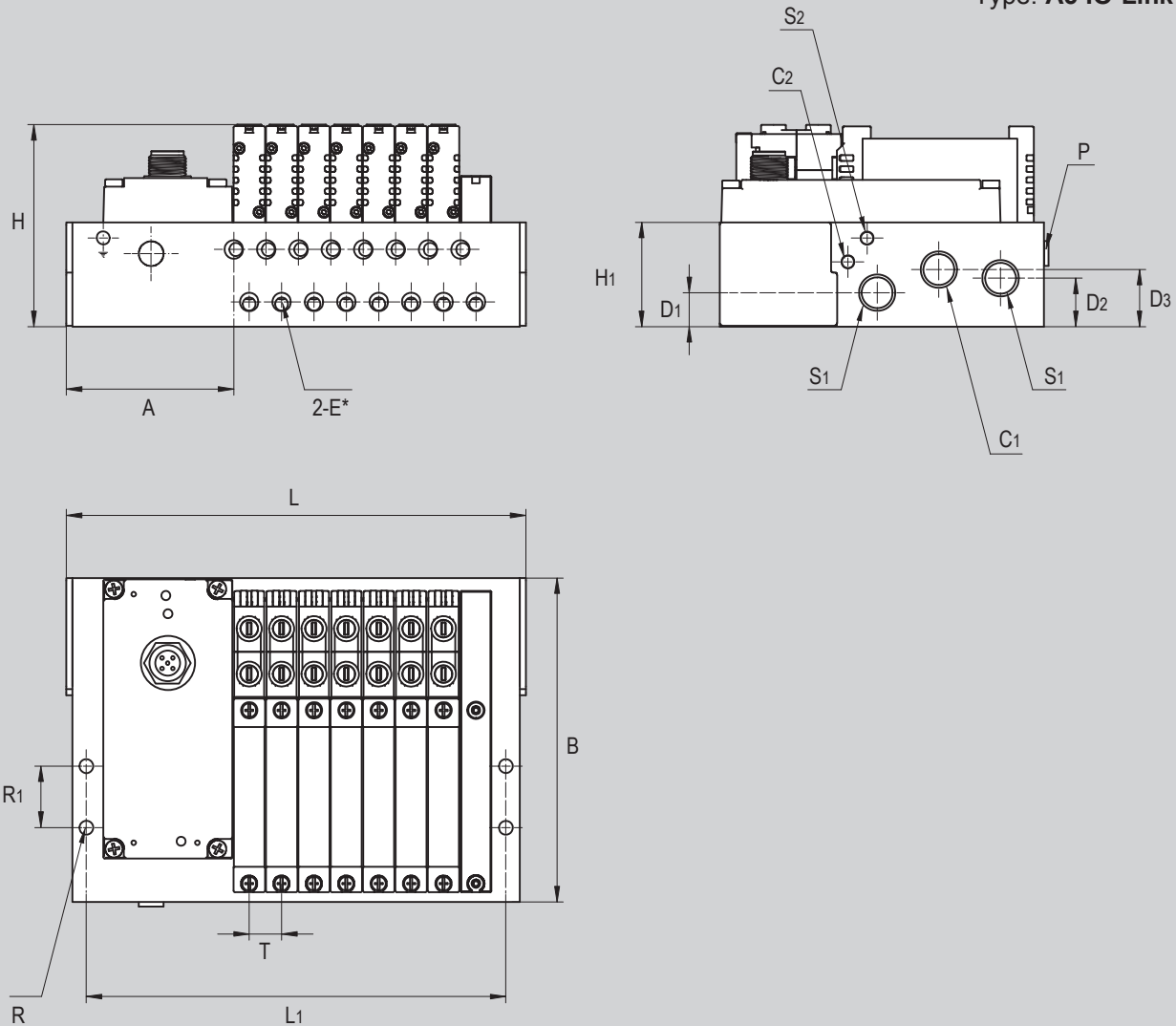
For possible configurations of the valve terminal see from page 2.70.3;
 The configuration does not include fittings, exhaust silencers and connection cables for the communication interface, are to be ordered separately.
 For fittings see from page 4.3.1; For silencers see from page 4.150.1; For diaphragms and plugs see from page 2.75.20; For communication cables see page 2.75.44

(1) In case of external pilot configuration.

(2) Depending on the number of positions on the sub-base. For valves features, see from page 2.71.1; For sub-bases features, see from page 2.72.1

Standard dimensions

Type: A5 IO-Link®



2 - VALVES

Item	Size	A	B	C1	C2	D1	D2	D3	E*	H	H1	L**	L1**	P	ØR	R1	S1	S2	T
A51006..	10 mm	54,3	105	G1/4"	M5	11	15,7	18,5	M7	65	33,8	65 + (n×T)	52 + (n×T)	M5	4,5	20	G1/4"	M5	10,5
A51007..	10 mm	54,3	105	G1/4"	M5	11	15,7	18,5	M7	65	33,8	65 + (n×T)	52 + (n×T)	M5	4,5	20	G1/4"	M5	10,5
A51008..	10 mm	54,3	105	G1/4"	M5	11	15,7	18,5	M7	65	33,8	65 + (n×T)	52 + (n×T)	M5	4,5	20	G1/4"	M5	10,5
A51406..	14 mm	56	105	G1/4"	M5	10	15,7	18,5	G1/8"	65	33,8	64 + (n×T)	54 + (n×T)	M5	4,5	20	G1/4"	M5	16
A51407..	14 mm	56	105	G1/4"	M5	10	15,7	18,5	G1/8"	65	33,8	64 + (n×T)	54 + (n×T)	M5	4,5	20	G1/4"	M5	16
A51408..	14 mm	56	105	G1/4"	M5	10	15,7	18,5	G1/8"	65	33,8	64 + (n×T)	54 + (n×T)	M5	4,5	20	G1/4"	M5	16

Notes

Valve terminal is supplied complete, already assembled and tested. Fittings, exhaust silencers and interface connection cables to be ordered separately.

*There are 2 connections for each position on the base, therefore overall number of connections depends on the configuration.

**Quotes L and L1 are to be calculated by the number of positions of the sub-base. The letter "n" indicated in the quote must be replaced with the number of positions of the sub-base.

ACCESSORIES

for valve terminals series A5



Features and certifications

Accessories for valve terminals serie A5 to use with the sub-bases (plugs and screws for piloting switch, blanking plugs for unused positions, diaphragms for separated feeding and exhausts) and with the interfaces (communication cables), available for all sizes and types. Accessories are supplied conforming to Reach and RoHS directives as standard.



Accessories for sub-bases

da pag. 2.75.20



Accessories for valve terminals series A5.
Accessories for sub-bases.
Plugs and screws for the piloting switch, blanking plugs for unused positions, diaphragms for separated feeding and exhausts.

Cables for interfaces

da pag. 2.75.40



Accessories for valve terminals series A5
Cables compatible with modular communication interfaces type Fieldbus, Sub-D 25 poles and IO-Link®, available in different types and configurations.

Accessories for valve terminals series A5

Accessories for sub-bases. Plugs and screws for piloting switch and diaphragms for separated feeding and exhausts

Main features

Code	Item	Description
022521	A0090505	Plug for the pilot switching connection



Technical data

Item	A0090505	
Code	022521	
Temperature	-5°C ÷ +60°C	
Thread size	M5	
Matching	A5B10	A5B14
Function	For internal piloting configuration (see page 2.70.6)	
Installation	See from page 2.70.4	
Mounting	Allen key	

Materials

Description	Material
Body	Nickel-plated brass
Seals	NBR

Main features

Code	Item	Description
036180	A5BAV	Screw for the pilot switching connection



Technical data

Item	A5BAV	
Code	036180	
Temperature	-5°C ÷ +60°C	
Thread size	M5	
Matching	A5B10	A5B14
Function	For external piloting configuration (see page 2.70.6)	
Installation	See from page 2.70.4	
Mounting	Flat-blade screwdriver	

Materials

Description	Material
Body	Brass
Seals	NBR

Main features

Code	Item	Description
036183	A5BMC	Diaphragm for separating feeding or exhausts



Technical data

Item	A5BMC	
Code	036183	
Temperature	-5°C ÷ +60°C	
Thread size	G 1/4"	
Matching	A5B10	A5B14
Function	For separated feeding or exhausts configuration	
Installation	See page 2.70.6	
Mounting	Flat-blade screwdriver	

Materials

Description	Material
Body	Brass
Seals	NBR

Accessories for valve terminals series A5

Accessories for sub-bases. Blanking plugs



Main features

Code	Item	Description
036181	A5BTC10	Blanking plug for unused positions on 10mm sub-bases
036182	A5BTC14	Blanking plug for unused positions on 14mm sub-bases



Technical data

Item	A5BTC10	A5BTC14
Code	036181	036182
Temperature	-5°C ÷ +60°C	
Size	10 mm	14 mm
Matching	A5B10	A5B14
Function	For blanking any unused position on the sub-base	
Installation	In the unused position on the sub-base	
Mounting screws	Ø 2,55	Ø 3

Materials

Description	Material
Body	Aluminium
Seals	NBR

Main features

Code	Item	Description
022528	A0090707	Blanking plug for connections on 10 mm sub-base
022522	A0091818	Blanking plug for connections on 14 mm sub-base
022521	A0090505	Blanking plug for feeding or exhaust connection
022523	A0091414	Blanking plug for feeding or exhaust connection



Technical data

Item	A0090707	A0091818	A0090505	A0091414
Code	022528	022522	022521	022523
Temperature	-10°C ÷ +60°C			
Thread size	M7	G 1/8"	M5	G 1/4"
Matching	A5B10	A5B14	A5B10 A5B14	A5B10 A5B14
Installation	Connection E (see page 2.72.11 and 2.72.22)		See page 2.70.4	
Mounting	Allen key			

Materials

Description	Material
Body	Nickel-plated brass
Seals	NBR

Accessories for valve terminals series A5

Cables for interfaces. Connection cables for Fieldbus interface

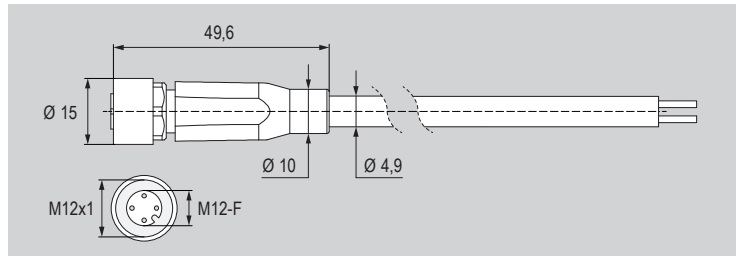


Main features



CAVFBFD

Type



Features

Code	Item	Description
036108	CAVFBFD02	Power cable for Fieldbus interface, with M12 Female connector on input, and direct output with flexible cable. Length 2 m.
036109	CAVFBFD04	Power cable for Fieldbus interface, with M12 Female connector on input, and direct output with flexible cable. Length 4 m.

Technical Data

Type	CAVFBFD02	CAVFBFD04
Cable	4 x 0,34 mm ²	
Cable length	2 mt.	4 mt.
Electrical connection	M12 Female connector / direct flexible cable	
Temperature range	-5°C ÷ +80°C	
Protection grade	IP 65	
Interface matching	A501, A502, A503, A504, A509	

Connector features

Pin	Function
1	UA Actuator power supply
2	GND Actuator power supply
3	US Bus power supply
4	GND Bus power supply

Materials

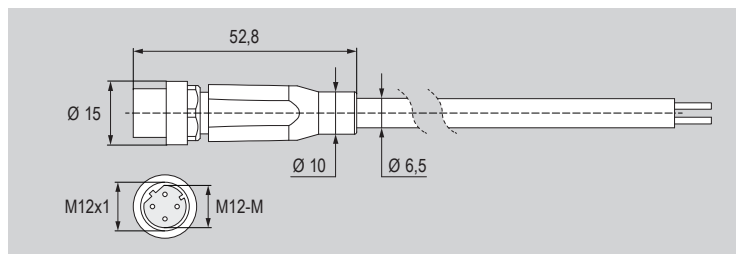
Description	Material
Cable sheathing	Grey PVC
Connector sheath	Black PVC
Connector housing	Brass
Connector contacts	Polypropylene

Main features



CAVFBMD

Type



Features

Code	Item	Description
036110	CAVFBMD02	Communication cable for Fieldbus interface, with M12 Male connector on input, and direct output with flexible cable. Length 2 m.
036111	CAVFBMD04	Communication cable for Fieldbus interface, with M12 Male connector on input, and direct output with flexible cable. Length 4 m.

Technical Data

Type	CAVFBMD02	CAVFBMD04
Cable	AWG22	
Cable length	2 mt.	4 mt.
Electrical connection	M12 Male connector / direct flexible cable	
Temperature range	-5°C ÷ +80°C	
Protection grade	IP 65	
Interface matching	A501, A502, A503, A504 (input & output) A509 (output only)	

Connector features

Pin	Function
1	TD+ Data transfer
2	RD+ Data receiving
3	TD- Data transmission
4	RD- Data receiving

Materials

Description	Material
Cable sheathing	Green PVC
Connector sheath	Black PVC
Connector housing	Brass
Connector contacts	Brass

Accessories for valve terminals series A5

Cables for interfaces. Connection cables for Fieldbus interface

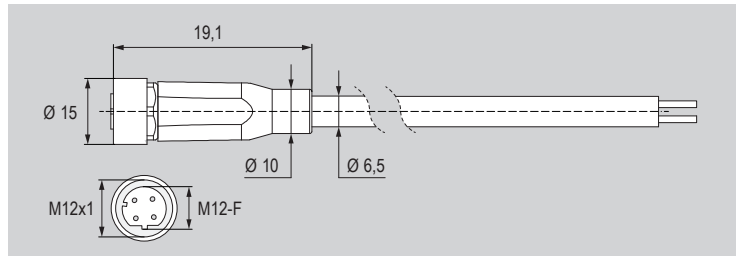


Main features



CAVPBFD

Type



Features

Code	Item	Description
036210	CAVPBFD02	Communication cable for Fieldbus interface, with M12 Female connector on input, and direct output with flexible cable. Length 2 m.
036211	CAVPBFD04	Communication cable for Fieldbus interface, with M12 Female connector on input, and direct output with flexible cable. Length 4 m.

Technical Data

Type	CAVPBMD02	CAVPBMD04
Cable	AWG22	
Cable length	2 mt.	4 mt.
Electrical connection	M12 Female connector / direct flexible cable	
Temperature range	-5°C ÷ +80°C	
Protection grade	IP 65	
Interface matching	A509 (input only)	

Connector features

Pin	Function
1	TD+ Data transfer
2	RD+ Data receiving
3	TD- Data transmission
4	RD- Data receiving

Color coding: Yellow (TD+), White (RD+), Orange (TD-), Blue (RD-), Shielding.

Materials

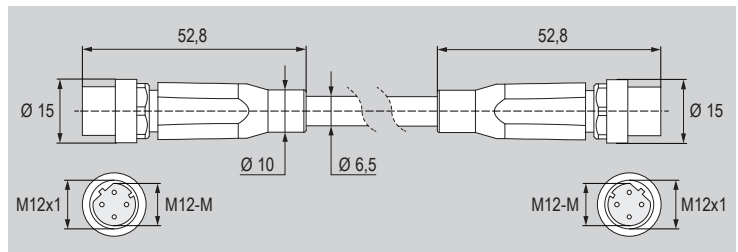
Description	Material
Cable sheathing	Green PVC
Connector sheath	Black PVC
Connector housing	Brass
Connector contacts	Polypropylene

Main features



CAVFBMM

Type



Features

Code	Item	Description
036112	CAVFBMM02	Communication cable for Fieldbus interface, with M12 Male connector on input and output. Length 2 m.
036113	CAVFBMM04	Communication cable for Fieldbus interface, with M12 Male connector on input and output. Length 4 m.

Technical Data

Type	CAVFBMM02	CAVFBMM04
Cable	AWG22	
Cable length	2 mt.	4 mt.
Electrical connection	M12 Male connector / M12 Male connector	
Temperature range	-5°C ÷ +80°C	
Protection grade	IP 65	
Interface matching	A501, A502, A503, A504 (input & output) A509 (output only)	

Connector features

Pin	Function
1	TD+ Data transfer
2	RD+ Data receiving
3	TD- Data transmission
4	RD- Data receiving

Color coding: Yellow (TD+), White (RD+), Orange (TD-), Blue (RD-), Shielding.

Materials

Description	Material
Cable sheathing	Green PVC
Connector sheath	Black PVC
Connector housing	Brass
Connector contacts	Brass

Accessories for valve terminals series A5

Cables for interfaces. Connection cables for Fieldbus interface

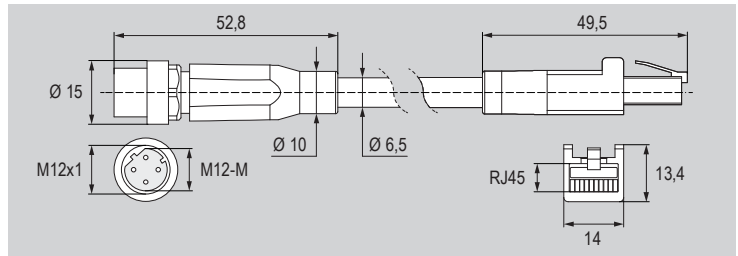


Main features



CAVFBMR

Type



Features

Code	Item	Description
036114	CAVFBMR02	Communication cable for Fieldbus interface, with M12 Male connector input, and RJ45 network connector output. Length 2 m.
036115	CAVFBMR04	Communication cable for Fieldbus interface, with M12 Male connector input, and RJ45 network connector output. Length 4 m.

Technical Data

Type	CAVFBMR02	CAVPBMR02	CAVFBMR04	CAVPBMR04
Cable	AWG22			
Cable length	2 mt.		4 mt.	
Electrical connection	M12 Male connector / RJ45 connector			
Temperature range	-5°C ÷ +80°C			
Protection grade	IP 65			
Interface matching	A501, A502, A503, A504 (input & output) A509 (output only)			

Connector features

Pin	Function	
	Pin	Function
1	TD+	Data transfer
2	RD+	Data receiving
3	TD-	Data transmission
4	RD-	Data receiving

Materials

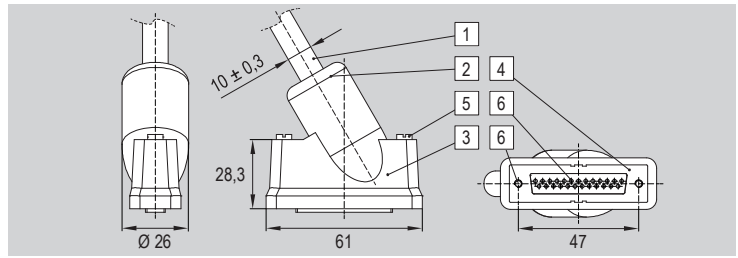
Description	Material
Cable sheathing	Green PVC
Connector sheath	Black PVC
Connector housing	Brass
Connector contacts	Brass

Accessories for valve terminals series A5

Cables for interfaces. Connection cables for Sub-D interface



Main features



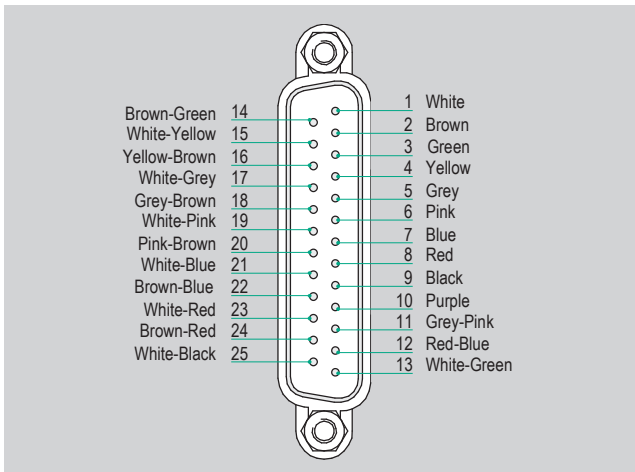
Features

Code	Item	Description
036116	CAVSDFD02	Communication cable for Sub-D multipole interface, with Sub-D 25-pole Female connector on input, and direct output with flexible cable. Length 2 m.
036117	CAVSDFD05	Communication cable for Sub-D multipole interface, with Sub-D 25-pole Female connector on input, and direct output with flexible cable. Length 5 m.
036204	CAVSDFD15	Communication cable for Sub-D multipole interface, with Sub-D 25-pole Female connector on input, and direct output with flexible cable. Length 15 m.

Materials

Position	Description	Material
1	Cable ferrule	Gray PVC (RAL7001)
2	Cable ferrule	Black polypropylene
3	Connector jacket	Black polypropylene
4	Connector housing	Steel
5	Connector screws	Steel
6	Connector contacts	Gold-plated brass
7	Connector nuts	Nickel-plated brass

Connector features



Technical Data

Type	CAVSDFD02	CAVSDFD05	CAVSDFD15
Cable	25 x 0,34 mm ² , flexible, fireproof		
Cable normative	UL758-2464		
Cable length	2 mt.	5 mt.	15 mt.
Electrical connection	M12 female connector		
Temperature range	-5°C ÷ +80°C		
Protection grade	IP 65		
Maximum clamping force of cable ferrule	3 Nm ± 20%		
Maximum tightening force of the connector screws	0,5 Nm ± 50%		

Accessories for valve terminals series A5

Cables for interfaces. Connection cables for IO-Link® interface

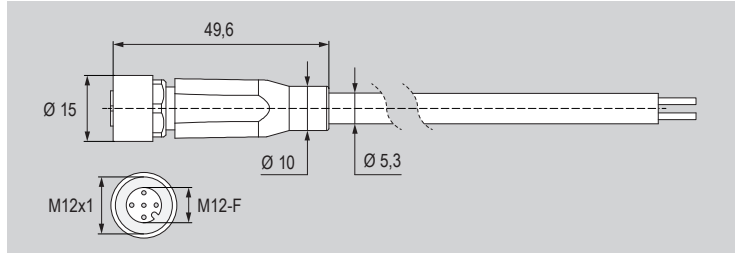


Main features



CAVILFD

Type



Features


Code	Item	Description
036118	CAVILFD02	Communication cable for IO-Link® interface, with M12 Female connector on input, and direct output with flexible cable. Length 2 m.
036119	CAVILFD04	Communication cable for IO-Link® interface, with M12 Female connector on input, and direct output with flexible cable. Length 4 m.

Technical Data

Type	CAVILFD02	CAVILFD04
Cable	5 x 0,34 mm2	
Cable length	2 mt.	4 mt.
Electrical connection	M12 Female connector	
Temperature range	-20°C ÷ +80°C	
Protection grade	IP 65	

Connector features

Pin	Function	
	Pin	Function
1	UA	Actuator power supply
2	GND	Actuator power supply
3	US	Bus power supply
4	GND	Bus power supply



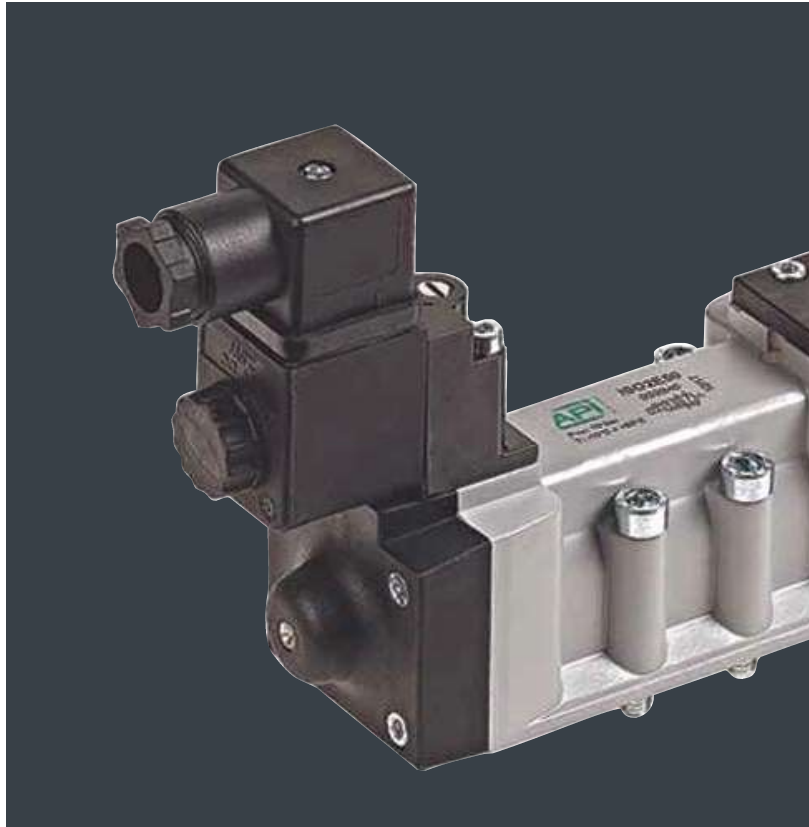
1	Brown (+)
2	White (N.C.)
3	Black (N.A.)
4	Blue (+)
5	Grey (PE)

Materials

Description	Material
Cable sheathing	Grey PVC
Connector sheath	Black PVC
Connector housing	Brass
Connector contacts	Polypropylene

VALVES ISO 5599/1

solenoid operated



Find out our
key products



Solution for most applications



Easy and intuitive choice



Excellent value for money



Wide availability



Fast delivery



Features and certifications

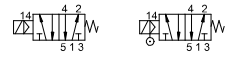
Spool valves conforming to ISO 5599/1 standards, with static seals, high flow, for sub-base mounting only. Available in size ISO1 and ISO2, with CNOMO or In Line pilot (only for size ISO1), solenoid operated, also with external air pilot, 5/2 solenoid/spring, 5/2 solenoid/solenoid, 5/2 solenoid/solenoid differential, 5/3 closed centres, 5/3 open centres and 5/3 pressurized centres. Coils and connectors to be ordered separately. Supplied as standard in compliance to Reach and RoHS directives, and SIL certified. On request the valve body can be supplied according to 2014/34/EU ATEX Directive, classification Ex h, and also complete with ATEX coil and connector, in different classifications (see from page 2.320.1).

Series ISO1 5/2 Solenoid/Spring

from page 2.91.30



Series of spool valves conforming to ISO 5599/1 standards, with static seals, high flow, for sub-base mounting only. Available in size ISO1 with CNOMO pilot, 5/2 solenoid/spring, solenoid operated also with external air pilot. Coils and connectors to be ordered separately.

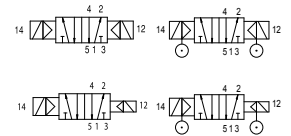


Series ISO1 5/2 Solenoid/Solenoid

from page 2.91.50



Series of spool valves conforming to ISO 5599/1 standards, with static seals, high flow, for sub-base mounting only. Available in size ISO1 with CNOMO pilot, 5/2 solenoid/solenoid and 5/2 solenoid/solenoid differential, solenoid operated also with external air pilot. Coils and connectors to be ordered separately.

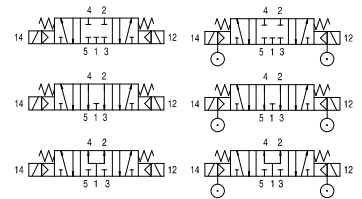


Series ISO1 5/3

from page 2.91.70



Series of spool valves conforming to ISO 5599/1 standards, with static seals, high flow, for sub-base mounting only. Available in size ISO1 with CNOMO pilot, 5/3 closed centres, 5/3 open centres e 5/3 pressurized centres, solenoid operated also with external air pilot. Coils and connectors to be ordered separately.



Series ISO1 5/2 - 5/3 ATEX

from page 2.320.1



Series of spool valves conforming to ISO 5599/1 standards, with static seals, high flow, for sub-base mounting only. Available in size ISO1 with CNOMO pilot, 5/2 solenoid/spring, 5/2 solenoid/solenoid and solenoid/solenoid differential, 5/3 open centres, closed centres and pressurized centres, solenoid operated, available according to 2014/34/EU ATEX Directive in different classifications.





CNOMO

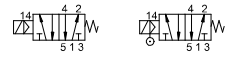


Series ISO1..L 5/2 Solenoid/Spring

from page 2.92.30



Series of spool valves conforming to ISO 5599/1 standards, with static seals, high flow, for sub-base mounting only. Available in size ISO1 with In Line pilot, 5/2 solenoid/spring, solenoid operated also with external air pilot. Coils and connectors to be ordered separately.

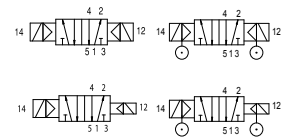


Series ISO1..L 5/2 Solenoid/Solenoid

from page 2.92.50



Series of spool valves conforming to ISO 5599/1 standards, with static seals, high flow, for sub-base mounting only. Available in size ISO1 with In Line pilot, 5/2 solenoid/solenoid and 5/2 solenoid/solenoid differential, solenoid operated also with external air pilot. Coils and connectors to be ordered separately.

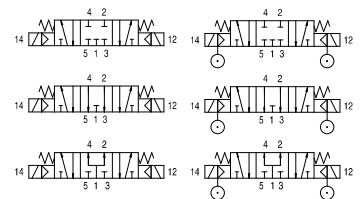


Series ISO1..L 5/3

from page 2.92.70



Series of spool valves conforming to ISO 5599/1 standards, with static seals, high flow, for sub-base mounting only. Available in size ISO1 with In Line pilot, 5/3 closed centres, 5/3 open centres e 5/3 pressurized centres, solenoid operated also with external air pilot. Coils and connectors to be ordered separately.



Series ISO1..L 5/2 - 5/3 ATEX

from page 2.320.1



Series of spool valves conforming to ISO 5599/1 standards, with static seals, high flow, for sub-base mounting only. Available in size ISO1 with In Line pilot, 5/2 solenoid/spring, 5/2 solenoid/solenoid and solenoid/solenoid differential, 5/3 open centres, closed centres and pressurized centres, solenoid operated, available according to 2014/34/EU ATEX Directive in different classifications.

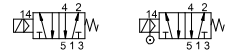


Series ISO2 5/2 Solenoid/Spring

from page 2.94.30



Series of spool valves conforming to ISO 5599/1 standards, with static seals, high flow, for sub-base mounting only. Available in size ISO2 with CNOMO pilot, 5/2 solenoid/spring, solenoid operated also with external air pilot. Coils and connectors to be ordered separately.

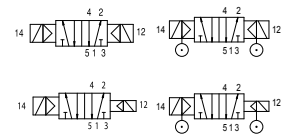


Series ISO2 5/2 Solenoid/Solenoid

from page 2.94.50



Series of spool valves conforming to ISO 5599/1 standards, with static seals, high flow, for sub-base mounting only. Available in size ISO2 with CNOMO pilot, 5/2 solenoid/solenoid and 5/2 solenoid/solenoid differential, solenoid operated also with external air pilot. Coils and connectors to be ordered separately.

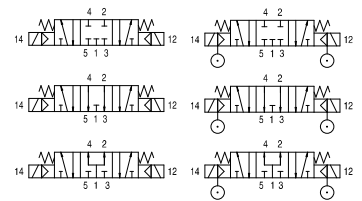


Series ISO2 5/3

from page 2.94.70



Series of spool valves conforming to ISO 5599/1 standards, with static seals, high flow, for sub-base mounting only. Available in size ISO2 with CNOMO pilot, 5/3 closed centres, 5/3 open centres e 5/3 pressurized centres, solenoid operated also with external air pilot. Coils and connectors to be ordered separately.




Series ISO2 5/2 - 5/3 ATEX

from page 2.320.1



Series of spool valves conforming to ISO 5599/1 standards, with static seals, high flow, for sub-base mounting only. Available in size ISO2 with CNOMO pilot, 5/2 solenoid/spring, 5/2 solenoid/solenoid and solenoid/solenoid differential, 5/3 open centres, closed centres and pressurized centres, solenoid operated, available according to 2014/34/EU ATEX Directive in different classifications.



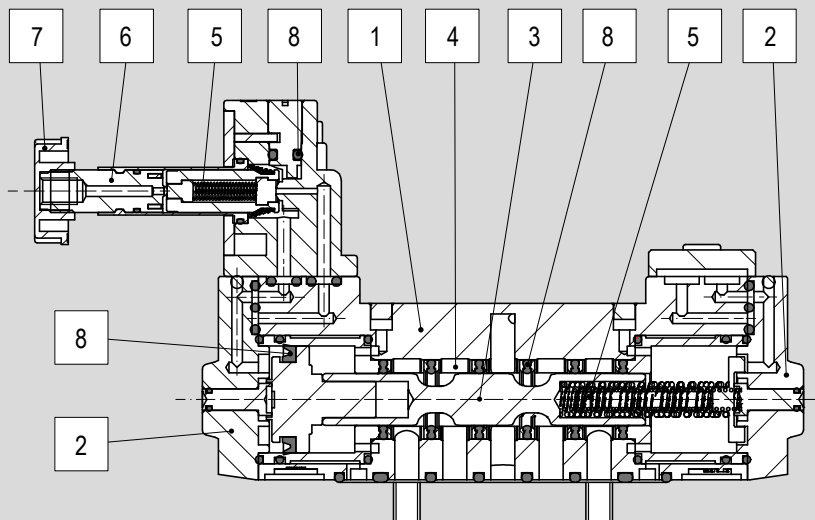
Options		
Description	Symbol	Suffix
ATEX valve body*		/ATEX
Special versions on request		/S

The options, when this is possible, can be combined with each other. For code key see from page 2.90.7

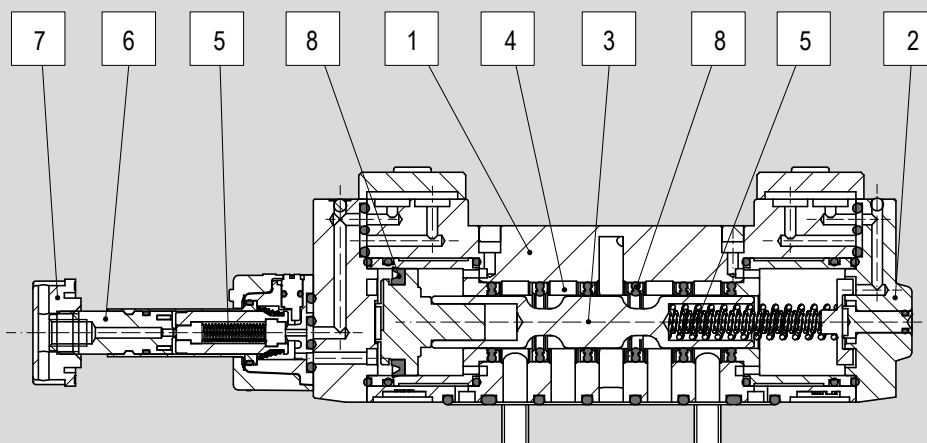
*For valves with ATEX coil and connector, in different classifications, see page 2.320.1.

Standard materials

Size: ISO1
ISO2



Size: ISO1..L



Position	Description	Material		
		ISO1	ISO1..L	ISO2
1	Body	Die-cast painted aluminium		
2	Covers	PBT		
3	Spool	Hard anodized aluminium		
4	Distancers	Aluminium		
5	Springs	Spring steel		
6	Plunger	Brass		
7	Locking nut	Plastic		
8	Seals	HNBR		

For coils materials see page 2.315.1.

For connectors materials see page 2.318.1

Code key

Series	Size	Actuation	Pilot	Function	/	ATEX valve body
ISO	1	E		50	/	

ISO	1 = size 1 2 = size 2	E = Electric K = Electric with external air pilot	= Cnomo L ⁽¹⁾ = In Line	50 = 5/2 Solenoid/Spring 51 = 5/2 Solenoid/Solenoid 52 = 5/2 Solenoid/Solenoid differential 70 = 5/3 Closed Centres 71 = 5/3 Open Centres 72 = 5/3 Pressurized Centres		
-----	--------------------------	--	---------------------------------------	---	--	--

ATEX note



For ATEX coils and connectors choice, classification, features, dimensions and matching, see page 2.320.1

ATEX



II 2G Ex h IIB T5 Gb
II 2D Ex h IIIC T100°C Db

How to order

Series	Size	Actuation	Pilot	Function
ISO	1	E		50

Notes

Options in the same grid are alternative to each others.

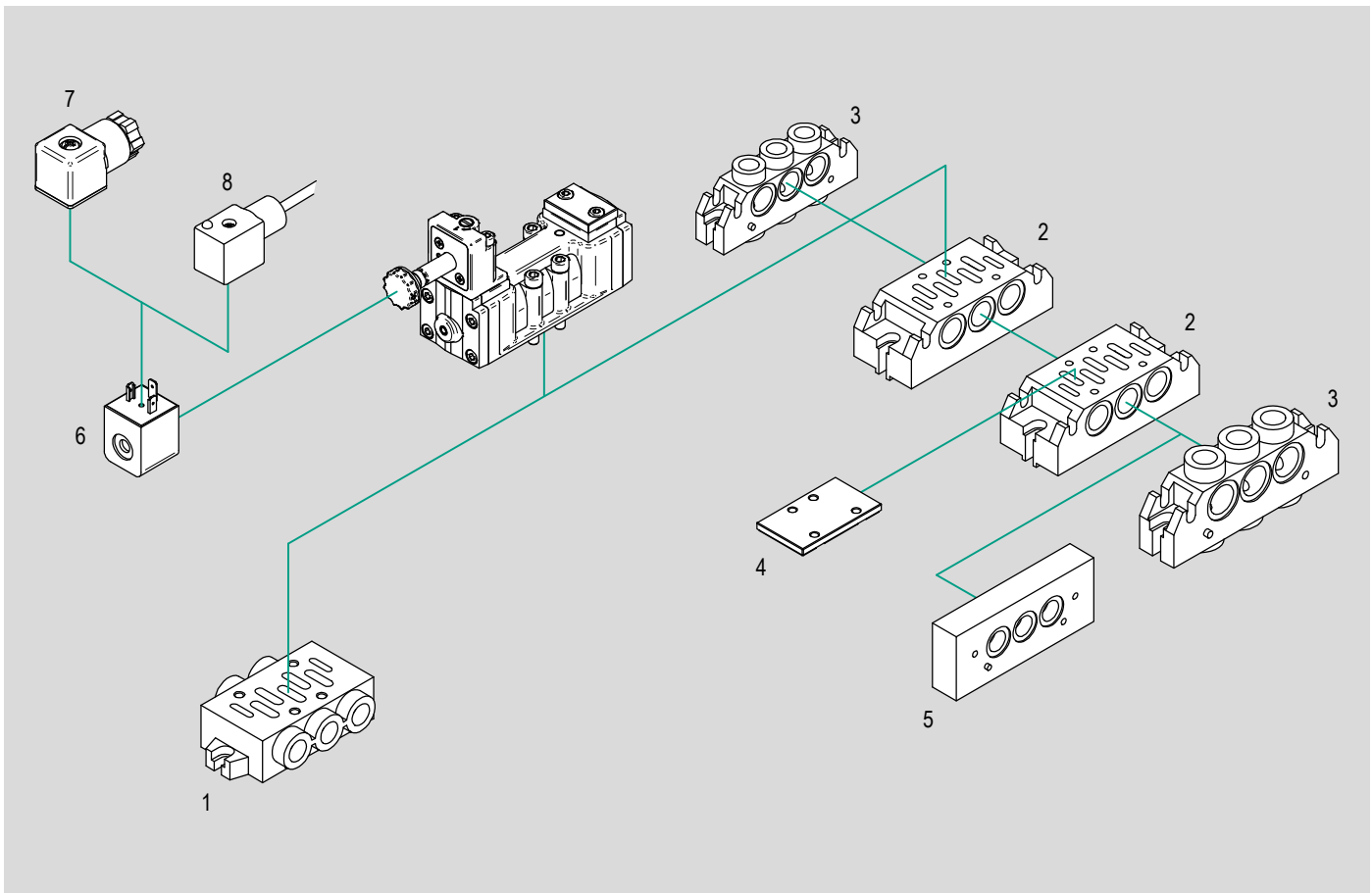
(1) In line pilot (L) available only for size 1.

For standard materials see page 2.90.6

Coils and connectors to be ordered separately, see page 2.97.1

For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

Accessories



2 - VALVES

N.	Item	Description	Compliance	Matching			Code key page	Data sheet page
				ISO1	ISO1..L	ISO2		
1	SBA1S	Single sub-base	ISO 5599/1	●	●	-	2.97.1	2.107.10
	SBA2S			-	-	●		2.107.30
2	SBA1M	Manifold sub-base	ISO 5599/1	●	●	-		2.107.20
	SBA2M			-	-	●		2.107.40
3	SBA1A SBA1C	End plates (for manifold)	ISO 5599/1	●	●	-		2.107.51
	SBA2A SBA2C			-	-	●		
4	SBA1T	Blanking plate (for manifold)	ISO 5599/1	●	●	-		2.107.50
	SBA2T			-	-	●		
5	SBA1A2	Interface ISO1/ISO2 (for manifold)	ISO 5599/1	●	●	●		
6	ASA12..	Coil	EN60204 VDE0580	●	●	●	2.315.10	
	ASA2..		EN60204.1 VDE0580	●	●	●	2.315.11	
7	A12209..	Connector	VDE 0110 - 1/89	●	●	●	2.318.12	
	A18209..			●	●	●	2.318.14	
8	A12209..K	Cabled connector	VDE 0110 - 1/89	●	●	●	2.318.12	
	A18209..K			●	●	●	2.318.14	

Key


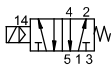
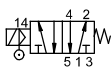
● matching accessory; - not matching accessory

Valves ISO 5599/1 solenoid operated

ISO1, CNOMO pilot, 5/2 solenoid/spring



Main features

Version	Code	Item	Symbol
5/2 solenoid/spring	032020 	ISO1E50	
5/2 solenoid/spring with external air pilot	032021	ISO1K50	



Technical data

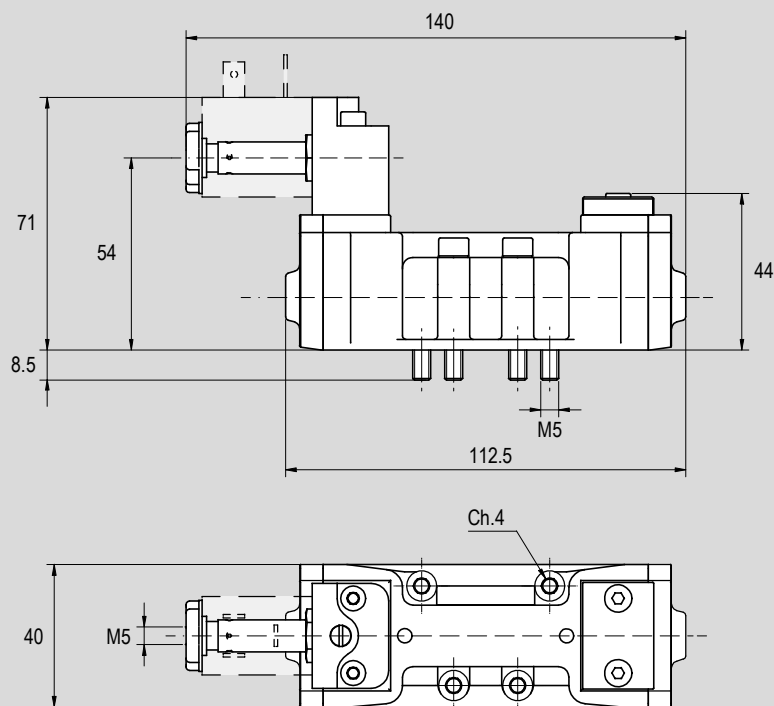
Version	5/2 solenoid/spring	5/2 solenoid/spring with external air pilot
Code	032020	032021
Item	ISO1E50	ISO1K50
Size	ISO1	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pilot	CNOMO	
Piloting	Internal	With external air pilot
Pressure range	2,5 ÷ 10 bar	0 ÷ 10 bar
Minimum external air pressure	-	2,5 bar
Temperature range	-10°C ÷ +60°C	
Plunger Ø	9 mm	
Orifice Ø	8,5 mm	
Flow at 6 bar with ΔP 1 bar	1.100 NI/min.	
Mounting	In every position	
Manual override	Bistable	

Notes

Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Standard dimensions

Type: 5/2 solenoid/spring



Version	Symbol	Code	Item
ISO1 CNOMO pilot 5/2 solenoid/spring		032020	ISO1E50
ISO1 CNOMO pilot 5/2 solenoid/spring with external air pilot		032021	ISO1K50

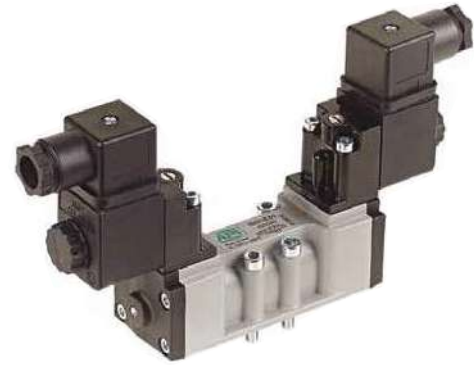
Valves ISO 5599/1 solenoid operated

ISO1, CNOMO pilot, 5/2 solenoid/solenoid



Main features

Version	Code	Item	Symbol
5/2 solenoid/solenoid	032030	ISO1E51	
5/2 solenoid/solenoid differential	032037	ISO1E52	
5/2 solenoid/solenoid with external air pilot	032044	ISO1K51	
5/2 solenoid/solenoid differential with external air pilot	032048	ISO1K52	



Technical data

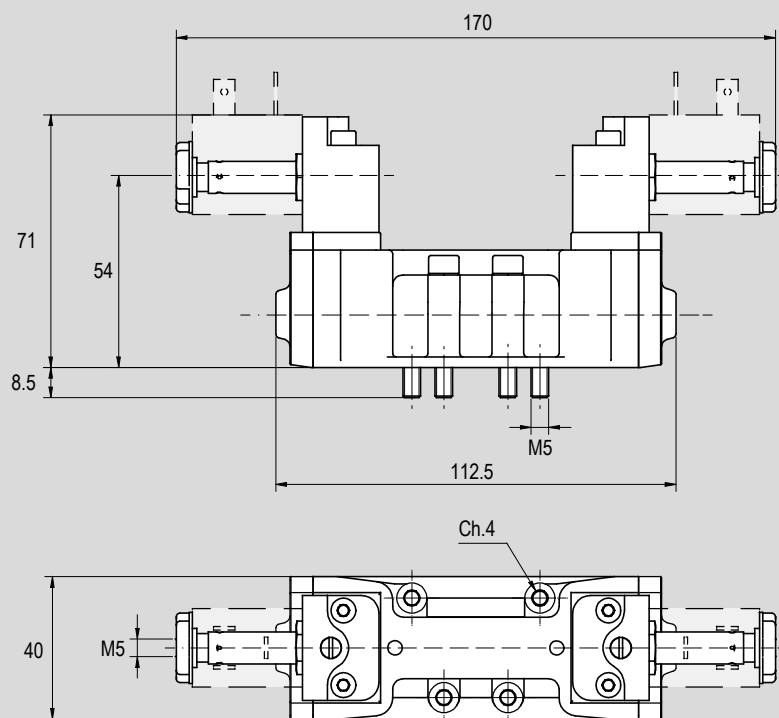
Version	5/2 solenoid/solenoid	5/2 solenoid/solenoid differential	5/2 solenoid/solenoid with external air pilot	5/2 solenoid/solenoid differential with external air pilot
Code	032030	032037	032044	032048
Item	ISO1E51	ISO1E52	ISO1K51	ISO1K52
Size	ISO1			
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.			
Pilot	CNOMO			
Piloting	Internal		With external air pilot	
Pressure range	1 ÷ 10 bar		0 ÷ 10 bar	
Minimum external air pressure	-		1 bar	
Temperature range	-10°C ÷ +60°C			
Plunger Ø	9 mm			
Orifice Ø	8,5 mm			
Flow at 6 bar with ΔP 1 bar	1.100 NI/min.			
Mounting	In every position			
Manual override	Bistable			

Notes

Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Standard dimensions

Type: **5/2 solenoid/solenoid**



Version	Symbol	Code	Item
ISO1 CNOMO pilot 5/2 solenoid/solenoid		032030	ISO1E51
ISO1 CNOMO pilot 5/2 solenoid/solenoid differential		032037	ISO1E52
ISO1 CNOMO pilot 5/2 solenoid/solenoid with external air pilot		032044	ISO1K51
ISO1 CNOMO pilot 5/2 solenoid/solenoid differential with external air pilot		032048	ISO1K52

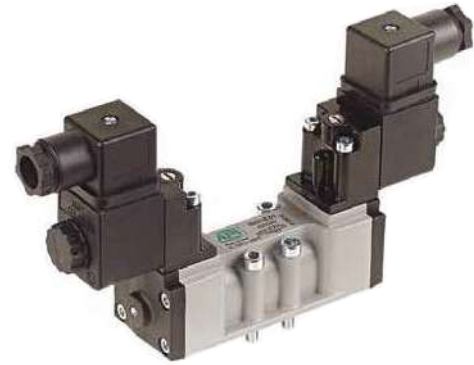
Valves ISO 5599/1 solenoid operated

ISO1, CNOMO pilot, 5/3



Main features

Version	Code	Item	Symbol
5/3 closed centres	032031	ISO1E70	
5/3 open centres	032032	ISO1E71	
5/3 pressurized centres	032043	ISO1E72	
5/3 closed centres with external air pilot	032049	ISO1K70	
5/3 open centres with external air pilot	032053	ISO1K71	
5/3 pressurized centres with external air pilot	032054	ISO1K72	



Technical data

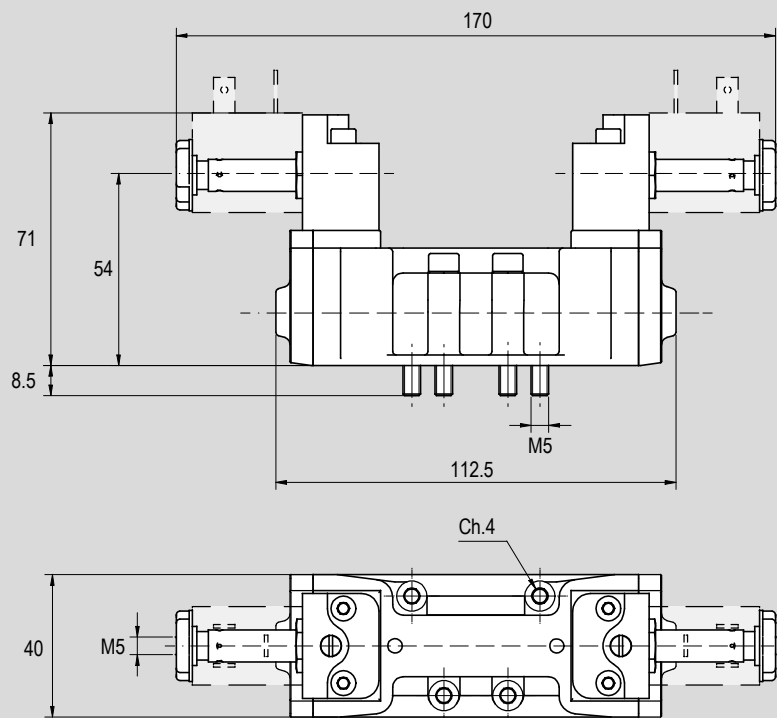
Version	5/3 closed centres	5/3 open centres	5/3 pressurized centres	5/3 closed centres with external air pilot	5/3 open centres with external air pilot	5/3 pressurized centres with external air pilot
Code	032031	032032	032043	032049	032053	032054
Item	ISO1E70	ISO1E71	ISO1E72	ISO1K70	ISO1K71	ISO1K72
Size	ISO1					
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.					
Pilot	CNOMO					
Piloting	Internal			With external air pilot		
Pressure range	2,5 ÷ 10 bar			0 ÷ 10 bar		
Minimum external air pressure	-			2,5 bar		
Temperature range	-10°C ÷ +60°C					
Plunger Ø	9 mm					
Orifice Ø	8,5 mm					
Flow at 6 bar with ΔP 1 bar	1.100 NI/min.					
Mounting	In every position					
Manual override	Bistable					

Notes

Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Standard dimensions

Type: 5/3 C.C.
5/3 O.C.
5/3 P.C.



2 - VALVES

Version	Symbol	Code	Item
ISO1 CNOMO pilot 5/3 closed centres		032031	ISO1E70
ISO1 CNOMO pilot 5/3 open centres		032032	ISO1E71
ISO1 CNOMO pilot 5/3 pressurized centres		032043	ISO1E72
ISO1 CNOMO pilot 5/3 closed centres with external air pilot		032049	ISO1K70
ISO1 CNOMO pilot 5/3 open centres with external air pilot		032053	ISO1K71
ISO1 CNOMO pilot 5/3 pressurized centres with external air pilot		032054	ISO1K72

Valves ISO 5599/1 solenoid operated

ISO1, IN LINE pilot, 5/2 solenoid/spring



Main features

Version	Code	Item	Symbol
5/2 solenoid/spring	032060	ISO1EL50	
5/2 solenoid/spring with external air pilot	032063	ISO1KL50	



Technical data

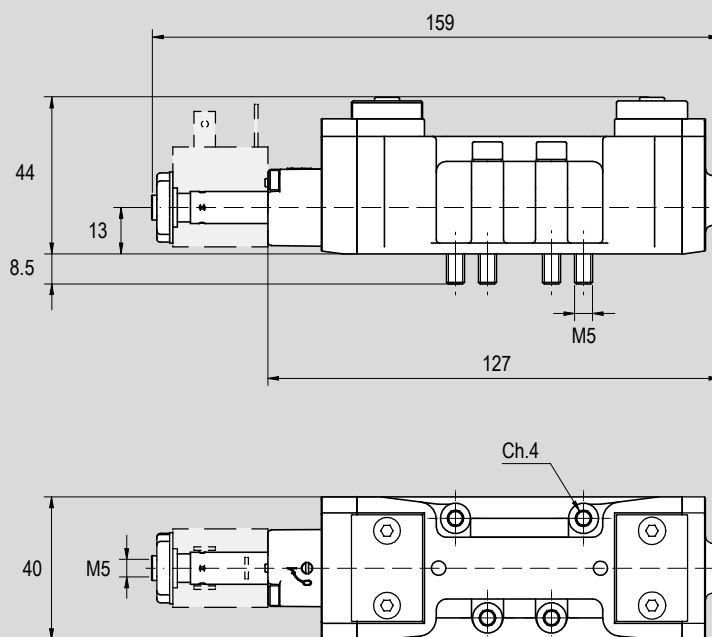
Version	5/2 solenoid/spring	5/2 solenoid/spring with external air pilot
Code	032060	032063
Item	ISO1EL50	ISO1KL50
Size	ISO1	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pilot	In Line	
Piloting	Internal	With external air pilot
Pressure range	2,5 ÷ 10 bar	0 ÷ 10 bar
Minimum external air pressure	-	2,5 bar
Temperature range	-10°C ÷ +60°C	
Plunger Ø	9 mm	
Orifice Ø	8,5 mm	
Flow at 6 bar with ΔP 1 bar	1.100 NI/min.	
Mounting	In every position	
Manual override	Bistable	

Notes

Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Standard dimensions

Type: 5/2 solenoid/spring



Version	Symbol	Code	Item
ISO1 In Line pilot 5/2 solenoid/spring		032060	ISO1EL50
ISO1 In Line pilot 5/2 solenoid/spring with external air pilot		032063	ISO1KL50

Valves ISO 5599/1 solenoid operated

ISO1, IN LINE pilot, 5/2 solenoid/solenoid



Main features

Version	Code	Item	Symbol
5/2 solenoid/solenoid	032070	ISO1EL51	
5/2 solenoid/solenoid differential	032061	ISO1EL52	
5/2 solenoid/solenoid with external air pilot	032064	ISO1KL51	
5/2 solenoid/solenoid differential with external air pilot	032065	ISO1KL52	



Technical data

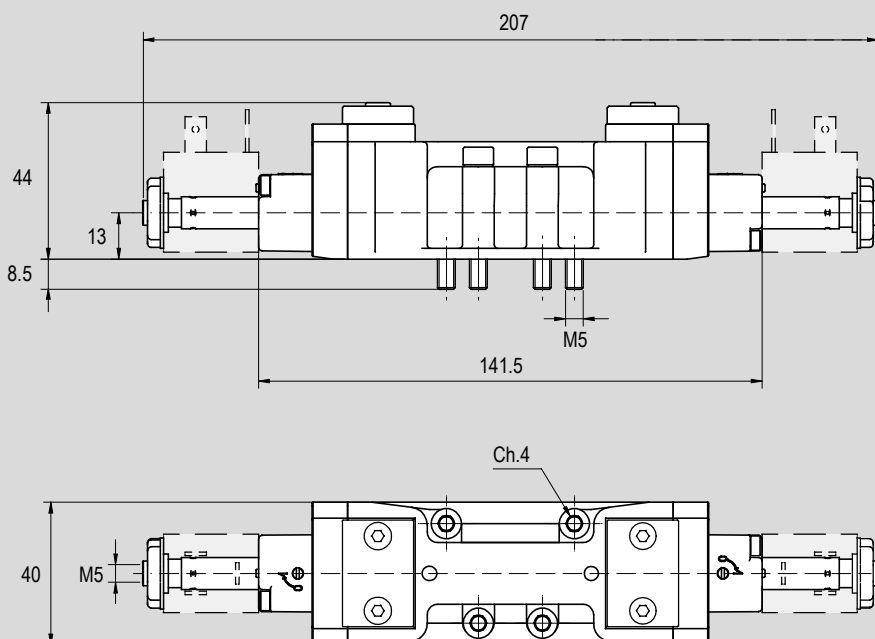
Version	5/2 solenoid/solenoid	5/2 solenoid/solenoid differential	5/2 solenoid/solenoid with external air pilot	5/2 solenoid/solenoid differential with external air pilot
Code	032070	032061	032064	032065
Item	ISO1EL51	ISO1EL52	ISO1KL51	ISO1KL52
Size	ISO1			
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.			
Pilot	In Line			
Piloting	Internal		With external air pilot	
Pressure range	1 ÷ 10 bar		0 ÷ 10 bar	
Minimum external air pressure	-		1 bar	
Temperature range	-10°C ÷ +60°C			
Plunger Ø	9 mm			
Orifice Ø	8,5 mm			
Flow at 6 bar with ΔP 1 bar	1.100 NI/min.			
Mounting	In every position			
Manual override	Bistable			

Notes

Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Standard dimensions

Type: 5/2 solenoid/solenoid



Version	Symbol	Code	Item
ISO1 In Line pilot 5/2 Solenoid/solenoid		032070	ISO1EL51
ISO1 In Line pilot 5/2 Solenoid/solenoid differential		032061	ISO1EL52
ISO1 In Line pilot 5/2 Solenoid/solenoid with external air pilot		032064	ISO1KL51
ISO1 In Line pilot 5/2 Solenoid/solenoid differential with external air pilot		032065	ISO1KL52

Valves ISO 5599/1 solenoid operated

ISO1, IN LINE pilot, 5/3



Main features

Version	Code	Item	Symbol
5/3 closed centres	032071	ISO1EL70	
5/3 open centres	032072	ISO1EL71	
5/3 pressurized centres	032066	ISO1EL72	
5/3 closed centres with external air pilot	032067	ISO1KL70	
5/3 open centres with external air pilot	032068	ISO1KL71	
5/3 pressurized centres with external air pilot	032069	ISO1KL72	



Technical data

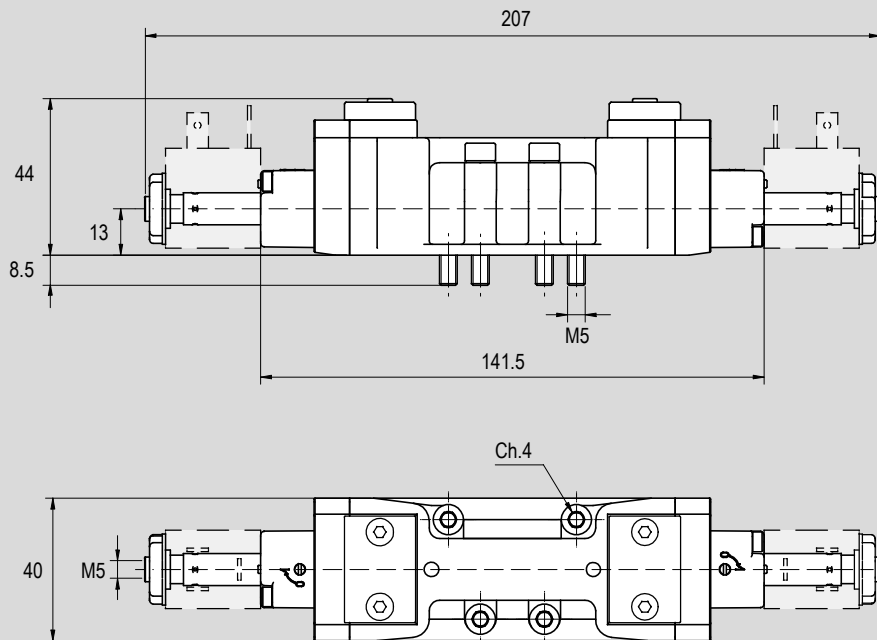
Version	5/3 closed centres	5/3 open centres	5/3 pressurized centres	5/3 closed centres with external air pilot	5/3 open centres with external air pilot	5/3 pressurized centres with external air pilot
Code	032071	032072	032066	032067	032068	032069
Item	ISO1EL70	ISO1EL71	ISO1EL72	ISO1KL70	ISO1KL71	ISO1KL72
Size	ISO1					
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.					
Pilot	In Line					
Piloting	Internal			With external air pilot		
Pressure range	2,5 ÷ 10 bar			0 ÷ 10 bar		
Minimum external air pressure	-			2,5 bar		
Temperature range	-10°C ÷ +60°C					
Plunger Ø	9 mm					
Orifice Ø	8,5 mm					
Flow at 6 bar with ΔP 1 bar	1.100 NI/min.					
Mounting	In every position					
Manual override	Bistable					

Notes

Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Standard dimensions

Type: **5/3 C.C.**
5/3 O.C.
5/3 P.C.



2 - VALVES


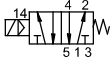
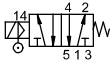
Version	Symbol	Code	Item
ISO1 In Line pilot 5/3 closed centres		032071	ISO1EL70
ISO1 In Line pilot 5/3 open centres		032072	ISO1EL71
ISO1 In Line pilot 5/3 pressurized centres		032066	ISO1EL72
ISO1 In Line pilot 5/3 closed centres with external air pilot		032067	ISO1KL70
ISO1 In Line pilot 5/3 open centres with external air pilot		032068	ISO1KL71
ISO1 In Line pilot 5/3 pressurized centres with external air pilot		032069	ISO1KL72

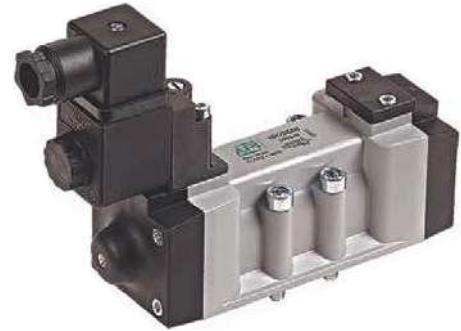
Valves ISO 5599/1 solenoid operated

ISO2, CNOMO pilot, 5/2 solenoid/spring



Main features

Version	Code	Item	Symbol
5/2 solenoid/spring	032040 	ISO2E50	
5/2 solenoid/spring with external air pilot	032039	ISO2K50	



Technical data

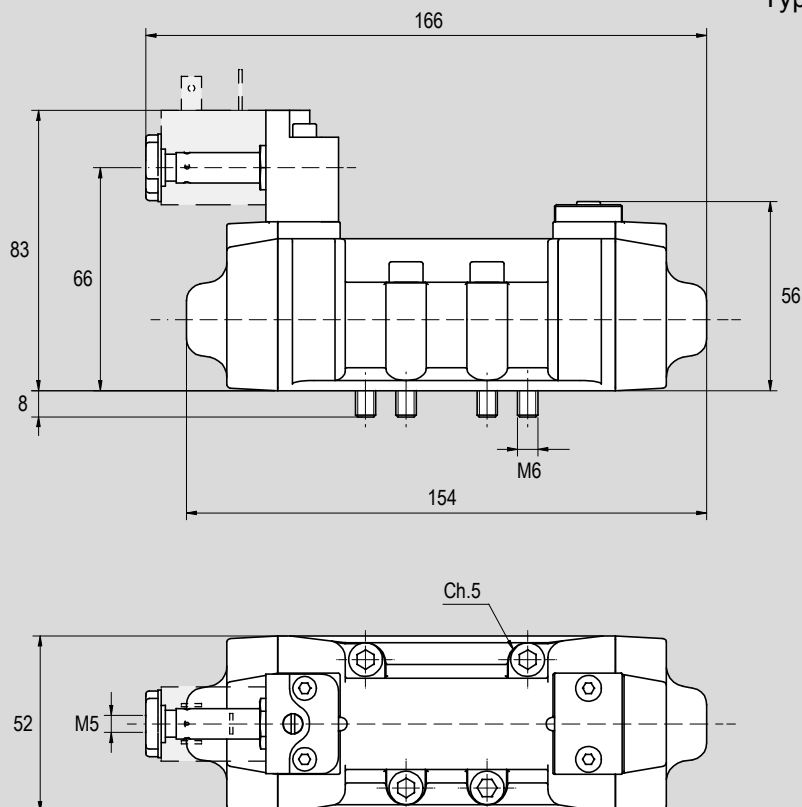
Version	5/2 solenoid/spring	5/2 solenoid/spring with external air pilot
Code	032040	032039
Item	ISO2E50	ISO2K50
Size	ISO2	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pilot	CNOMO	
Piloting	Internal	With external air pilot
Pressure range	2,5 ÷ 10 bar	0 ÷ 10 bar
Minimum external air pressure	-	2,5 bar
Temperature range	-10°C ÷ +60°C	
Plunger Ø	9 mm	
Orifice Ø	15 mm	
Flow at 6 bar with ΔP 1 bar	2.900 NI/min.	
Mounting	In every position	
Manual override	Bistable	

Notes

Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Standard dimensions

Type: **5/2 solenoid/spring**



Version	Symbol	Code	Item
ISO2 CNOMO pilot 5/2 solenoid/spring		032040	ISO2E50
ISO2 CNOMO pilot 5/2 solenoid/spring with external air pilot		032039	ISO2K50

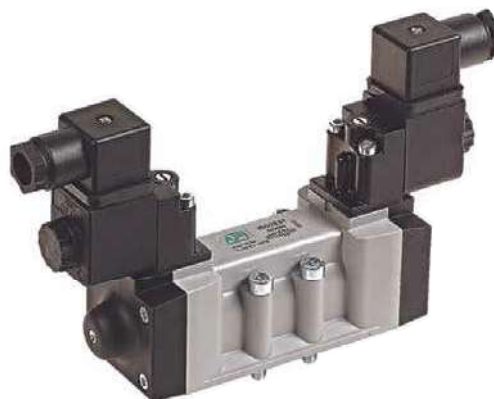
Valves ISO 5599/1 solenoid operated

ISO2, CNOMO pilot, 5/2 solenoid/solenoid



Main features

Version	Code	Item	Symbol
5/2 solenoid/solenoid	032050	ISO2E51	
5/2 solenoid/solenoid differential	032042	ISO2E52	
5/2 solenoid/solenoid with external air pilot	032056	ISO2K51	
5/2 solenoid/solenoid differential with external air pilot	032057	ISO2K52	



Technical data

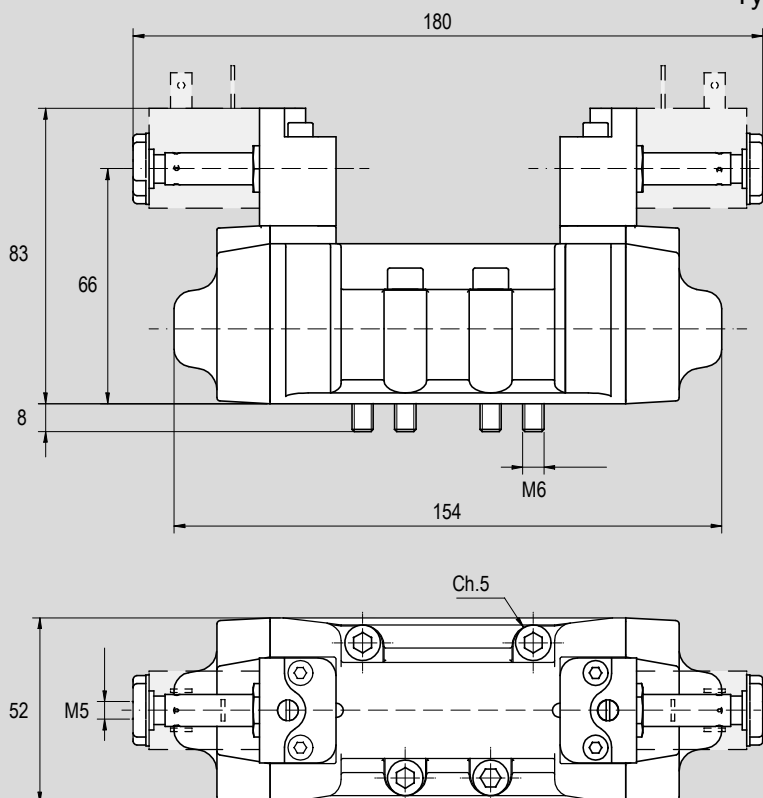
Version	5/2 solenoid/solenoid	5/2 solenoid/solenoid differential	5/2 solenoid/solenoid with external air pilot	5/2 solenoid/solenoid differential with external air pilot
Code	032050	032042	032056	032057
Item	ISO2E51	ISO2E52	ISO2K51	ISO2K52
Size	ISO2			
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.			
Pilot	CNOMO			
Piloting	Internal		With external air pilot	
Pressure range	1 ÷ 10 bar		0 ÷ 10 bar	
Minimum external air pressure	-		1 bar	
Temperature range	-10°C ÷ +60°C			
Plunger Ø	9 mm			
Orifice Ø	15 mm			
Flow at 6 bar with ΔP 1 bar	2.900 Nl/min.			
Mounting	In every position			
Manual override	Bistable			

Notes

Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Standard dimensions

Type: **5/2 solenoid/solenoid**



Version	Symbol	Code	Item
ISO2 CNOMO pilot 5/2 solenoid/solenoid		032050	ISO2E51
ISO2 CNOMO pilot 5/2 solenoid/solenoid differential		032042	ISO2E52
ISO2 CNOMO pilot 5/2 solenoid/solenoid with external air pilot		032056	ISO2K51
ISO2 CNOMO pilot 5/2 solenoid/solenoid differential with external air pilot		032057	ISO2K52

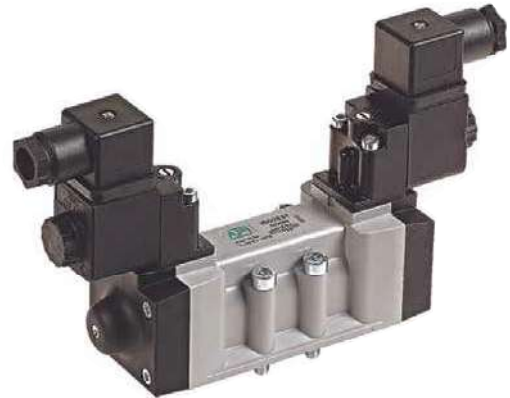
Valves ISO 5599/1 solenoid operated

ISO2, CNOMO pilot, 5/3



Main features

Version	Code	Item	Symbol
5/3 closed centres	032051	ISO2E70	
5/3 open centres	032052	ISO2E71	
5/3 pressurized centres	032055	ISO2E72	
5/3 closed centres with external air pilot	032058	ISO2K70	
5/3 open centres with external air pilot	032059	ISO2K71	
5/3 pressurized centres with external air pilot	032062	ISO2K72	



Technical data

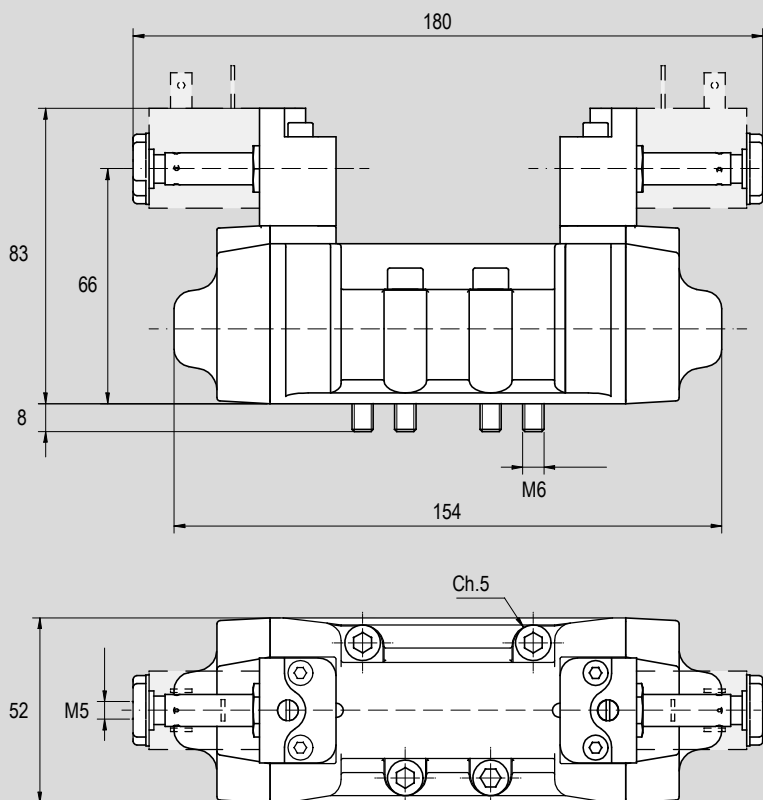
Version	5/3 closed centres	5/3 open centres	5/3 pressurized centres	5/3 closed centres with external air pilot	5/3 open centres with external air pilot	5/3 pressurized centres with external air pilot
Code	032051	032052	032055	032058	032059	032062
Item	ISO2E70	ISO2E71	ISO2E72	ISO2K70	ISO2K71	ISO2K72
Size	ISO2					
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.					
Pilot	CNOMO					
Piloting	Internal			With external air pilot		
Pressure range	2,5 ÷ 10 bar			0 ÷ 10 bar		
Minimum external air pressure	-			2,5 bar		
Temperature range	-10°C ÷ +60°C					
Plunger Ø	9 mm					
Orifice Ø	15 mm					
Flow at 6 bar with ΔP 1 bar	2.900 NI/min.					
Mounting	In every position					
Manual override	Bistable					

Notes

Coils and connectors for standard versions to be ordered separately.
 For coils type ASA12 and ASA2 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1
 For valves complete with ATEX coil and connector, in different classifications, see page 2.320.1

Standard dimensions

Type: **5/3 C.C.**
5/3 O.C.
5/3 P.C.



Version	Symbol	Code	Item
ISO2 CNOMO pilot 5/3 closed centres		032051	ISO2E70
ISO2 CNOMO pilot 5/3 open centres		032052	ISO2E71
ISO2 CNOMO pilot 5/3 pressurized centres		032055	ISO2E72
ISO2 CNOMO pilot 5/3 closed centres with external air pilot		032058	ISO2K70
ISO2 CNOMO pilot 5/3 open centres with external air pilot		032059	ISO2K71
ISO2 CNOMO pilot 5/3 pressurized centres with external air pilot		032062	ISO2K72

Single sub-bases SBA1S

	Code	Item	Matching
	032190	SBA1S	ISO1

Single sub-bases SBA2S

	Code	Item	Matching
	032200	SBA2S	ISO2

Manifold sub-bases SBA1M

	Code	Item	Matching
	032120	SBA1M	ISO1

Manifold sub-bases SBA2M

	Code	Item	Matching
	032130	SBA2M	ISO2

Blank manifold end plates, SBA..C

	Code	Item	Matching
	032140	SBA1C	ISO1
	032150	SBA2C	ISO2

Ported manifold end plates, SBA..A

	Code	Item	Matching
	032141	SBA1A	ISO1
	032151	SBA2A	ISO2

Manifold blanking plate, SBA..T

	Code	Item	Matching
	032170	SBA1T	ISO1
	032180	SBA2T	ISO2

Interface for sub-bases from size ISO1 to ISO2, SBA1A2

	Code	Item	Matching
	032160	SBA1A2	ISO1 / ISO2

Coils ASA12..

	Voltage	Code	Item	Matching
	12V DC	032100	ASA1201200	ISO1 ISO2
	12V AC	032101	ASA1201250	
	24V DC	032102	ASA1202400	
	24V AC	032103	ASA1202450	
	48V AC	032104	ASA1204850	
	110V AC	032105	ASA1211050	
	230V AC	032106	ASA1223050	

Coils ASA2..

	Voltage	Code	Item	Matching
	12V DC	032109	ASA201200	ISO1 ISO2
	12V AC	032110	ASA201250	
	24V DC	032111	ASA202400	
	24V AC	032112	ASA202450	
	48V AC	032113	ASA204850	
	110V AC	032114	ASA211050	
	230V AC	032115	ASA223050	

Connectors A122..*

	Code	Item	Description
	032118	A12209N	Black standard
	033521	A12209NK	Black standard cabled
	032204	A12209T1	LED+VDR transparent 24VAC-DC
	032205	A12209T2	LED+VDR transparent 115VAC-DC
	032206	A12209T3	LED+VDR transparent 230VAC-DC
	033522	A12209N1K	LED+VDR black cabled 24VAC-DC
	033523	A12209N2K	LED+VDR black cabled 115VAC-DC
	033524	A12209N3K	LED+VDR black cabled 230VAC-DC

Connectors A182..**

	Code	Item	Description
	032119	A18209N	Black standard
	033531	A18209NK	Black standard cabled
	032207	A18209T1	LED+VDR transparent 24VAC-DC
	032208	A18209T2	LED+VDR transparent 115VAC-DC
	032209	A18209T3	LED+VDR transparent 230VAC-DC
	033532	A18209N1K	LED+VDR black cabled 24VAC-DC
	033533	A18209N2K	LED+VDR black cabled 115VAC-DC
	033534	A18209N3K	LED+VDR black cabled 230VAC-DC

* For coils type ASA12

** For coils type ASA2

VALVES ISO 5599/1

air operated



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Easy and intuitive choice



Excellent value for money



Wide availability



Fast delivery



Features and certifications

Spool valves conforming to ISO 5599/1 standards, with static seals, high flow, for sub-base mounting only.
 Available in size ISO1 and ISO2, air operated, 5/2 pilot/spring, 5/2 pilot/pilot and 5/2 pilot/pilot differential, 5/3 closed centres, 5/3 open centres and 5/3 pressurized centres.
 Supplied as standard in compliance to Reach and RoHS directives, and SIL certified. On request the valve body can be supplied according to 2014/34/EU ATEX Directive, classification Ex h.

Series ISO1 5/2 Pilot/Spring

from page 2.101.30



Series of spool valves conforming to ISO 5599/1 standard, with static seals, high flow, for sub-base mounting only.
 Available in size ISO1, air operated, 5/2 pilot/spring.



Series ISO1 5/2 Pilot/Pilot

from page 2.101.50



Series of spool valves conforming to ISO 5599/1 standard, with static seals, high flow, for sub-base mounting only.
 Available in size ISO1, air operated, 5/2 pilot/pilot and 5/2 pilot/pilot differential.

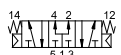
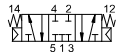


Series ISO1 5/3

from page 2.101.70



Series of spool valves conforming to ISO 5599/1 standard, with static seals, high flow, for sub-base mounting only.
 Available in size ISO1, air operated, 5/3 closed centres, 5/3 open centres e 5/3 pressurized centres.





CNOMO



Series ISO2 5/2 Pilot/Spring

from page 2.103.30



Series of spool valves conforming to ISO 5599/1 standard, with static seals, high flow, for sub-base mounting only.
Available in size ISO2, air operated, 5/2 pilot/spring.



Series ISO2 5/2 Pilot/Pilot

from page 2.103.50



Series of spool valves conforming to ISO 5599/1 standard, with static seals, high flow, for sub-base mounting only.
Available in size ISO2, air operated, 5/2 pilot/pilot and 5/2 pilot/pilot differential.

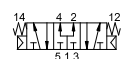
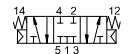


Series ISO2 5/3

from page 2.103.70



Series of spool valves conforming to ISO 5599/1 standard, with static seals, high flow, for sub-base mounting only.
Available in size ISO2, air operated, 5/3 closed centres, 5/3 open centres e 5/3 pressurized centres.



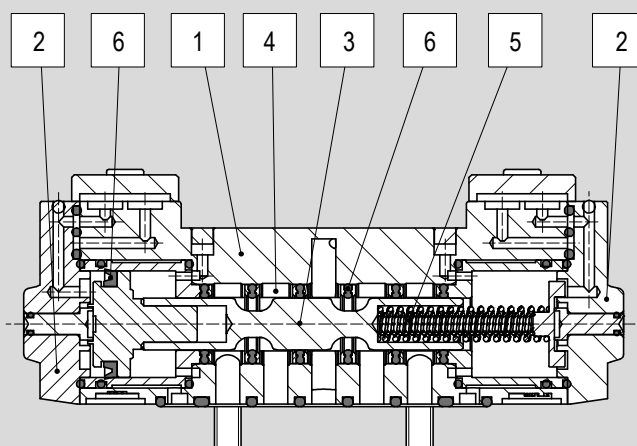
Options

Description	Symbol	Suffix
ATEX valve body*		/ATEX
Special versions on request		/S

The options, when this is possible, can be combined with each other. For code key see from page 2.100.5

Standard materials

Size: **ISO1**
ISO2



Position	Description	Material	
		ISO1	ISO2
1	Body	Die-cast painted aluminium	
2	Covers	PBT	
3	Spool	Hard anodized aluminium	
4	Distancers	Aluminium	
5	Spring	Spring steel	
6	Seals	HNBR	

Code key

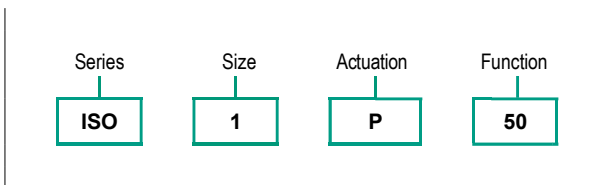
Series	Size	Actuation	Function	/	ATEX valve body
ISO	1	P	50	/	

ISO	1 = ISO1 2 = ISO2	P = Pneumatic	50 = 5/2 Pilot/Spring 51 = 5/2 Pilot/Pilot 52 = 5/2 Pilot/Pilot differential 70 = 5/3 Closed Centres 71 = 5/3 Open Centres 72 = 5/3 Pressurized Centres		
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ATEX	II 2G Ex h IIB T5 Gb II 2D Ex h IIIC T100°C Db
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2 - VALVES

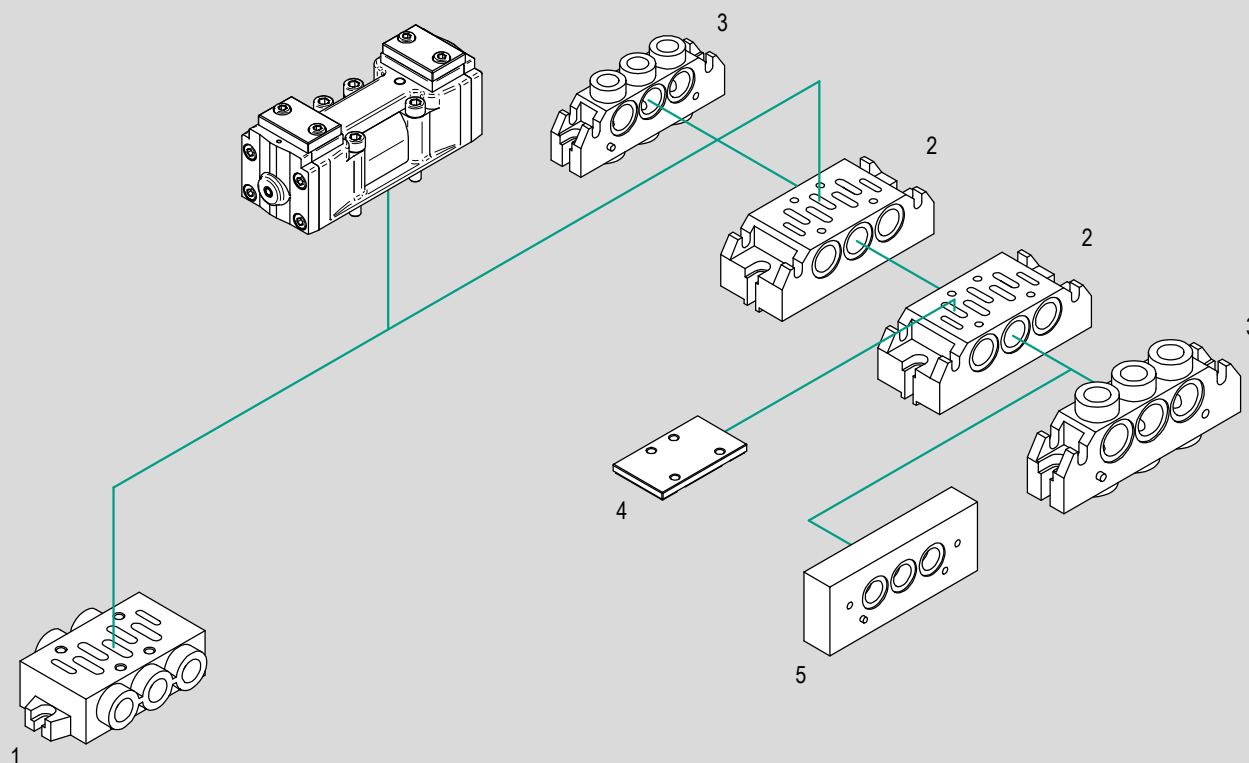
How to order



Notes

Options in the same grid are alternative to each others.
 For standard materials see page 2.100.4.
 For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

Accessories



2 - VALVES

N.	Item	Description	Compliance	Matching		Code key page	Data sheet page
				ISO1	ISO2		
1	SBA1S	Single sub-base	ISO 5599/1	●	-	2.97.1	2.107.10
	SBA2S			-	●		2.107.30
2	SBA1M	Manifold sub-base	ISO 5599/1	●	-		2.107.20
	SBA2M			-	●		2.107.40
3	SBA1A SBA1C	End plates (for manifold)	ISO 5599/1	●	-		2.107.51
	SBA2A SBA2C			-	●		
	SBA1T SBA2T			Blanking plate (for manifold)	ISO 5599/1		
SBA2T	-	●					
5	SBA1A2	Interface ISO1/ISO2 (for manifold)	ISO 5599/1	●	●		

Key

● matching accessory; - not matching accessory

Valves ISO 5599/1 air operated

ISO1, 5/2 pilot/spring



Main features

Version	Code	Item	Symbol
5/2 pilot/spring	032000	ISO1P50	

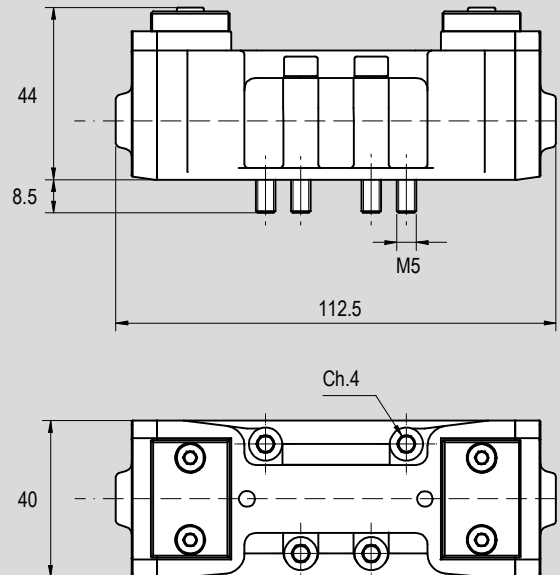


Technical data

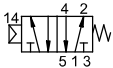
Version	5/2 pilot/spring
Code	032000
Item	ISO1P50
Size	ISO1
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.
Pressure range	2,5 ÷ 10 bar
Temperature range	-10°C ÷ +60°C
Orifice Ø	8,5 mm
Flow at 6 bar with ΔP 1 bar	1.100 Nl/min.
Mounting	In every position

Standard dimensions

Type: **5/2 pilot/spring**



2 - VALVES

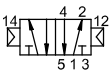
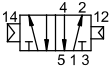
Version	Symbol	Code	Item
ISO1 5/2 pilot/spring		032000	ISO1P50

Valves ISO 5599/1 air operated

ISO1, 5/2 pilot/pilot



Main features

Version	Code	Item	Symbol
5/2 pilot/pilot	032001	ISO1P51	
5/2 pilot/pilot differential	032002	ISO1P52	

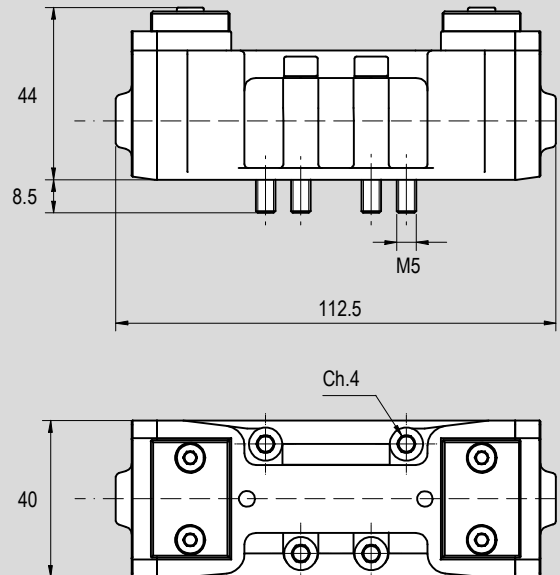


Technical data

Version	5/2 pilot/pilot	5/2 pilot/pilot differential
Code	032001	032002
Item	ISO1P51	ISO1P52
Size	ISO1	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C	
Orifice Ø	8,5 mm	
Flow at 6 bar with ΔP 1 bar	1.100 Nl/min.	
Mounting	In every position	

Standard dimensions

Type: 5/2 pilot/pilot



2 - VALVES

Version	Symbol	Code	Item
ISO1 5/2 pilot/pilot		032001	ISO1P51
ISO1 5/2 pilot/pilot differential		032002	ISO1P52

Valves ISO 5599/1 air operated

ISO1, 5/3



Main features

Version	Code	Item	Symbol
5/3 closed centres	032003	ISO1P70	
5/3 open centres	032004	ISO1P71	
5/3 pressurized centres	032019	ISO1P72	

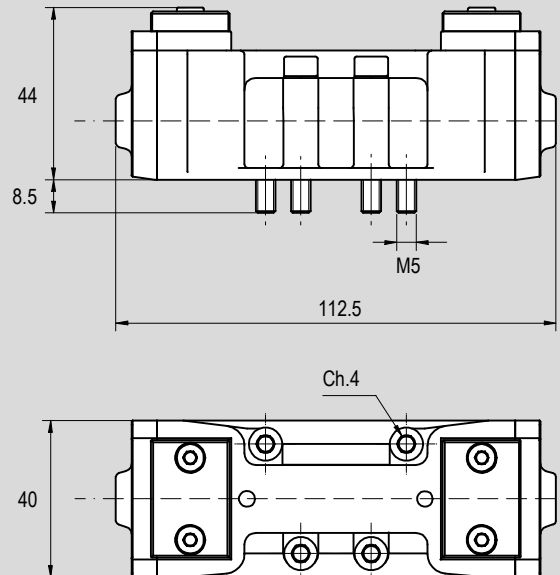


Technical data

Version	5/3 closed centres	5/3 open centres	5/3 pressurized centres
Code	032003	032004	032019
Item	ISO1P70	ISO1P71	ISO1P72
Size	ISO1		
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	2,5 ÷ 10 bar		
Temperature range	-10°C ÷ +60°C		
Orifice Ø	8,5 mm		
Flow at 6 bar with ΔP 1 bar	1.100 NI/min.		
Mounting	In every position		

Standard dimensions

Type: 5/3 C.C.
5/3 O.C.
5/3 P.C.



2 - VALVES

Version	Symbol	Code	Item
ISO1 5/3 closed centres		032003	ISO1P70
ISO1 5/3 open centres		032004	ISO1P71
ISO1 pressurized centres		032019	ISO1P72

Valves ISO 5599/1 air operated

ISO2, 5/2 pilot/spring



Main features

Version	Code	Item	Symbol
5/2 pilot/spring	032005	ISO2P50	

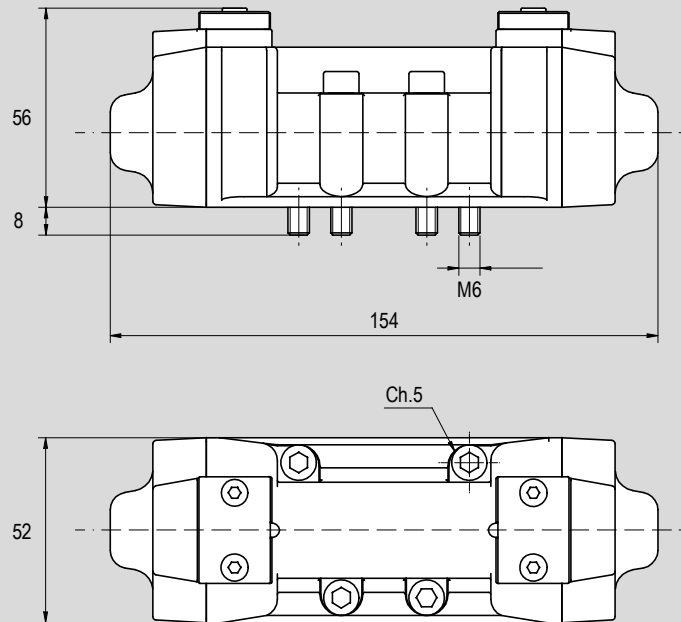


Technical data

Version	5/2 pilot/spring
Code	032005
Item	ISO2P50
Size	ISO2
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.
Pressure range	2,5 ÷ 10 bar
Temperature range	-10°C ÷ +60°C
Orifice Ø	15 mm
Flow at 6 bar with ΔP 1 bar	2.900 NI/min.
Mounting	In every position

Standard dimensions

Type: **5/2 pilot/spring**



2 - VALVES

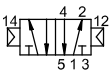
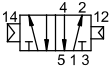
Version	Symbol	Code	Item
ISO2 5/2 pilot/spring		032005	ISO2P50

Valves ISO 5599/1 air operated

ISO2, 5/2 pilot/pilot



Main features

Version	Code	Item	Symbol
5/2 pilot/pilot	032011	ISO2P51	
5/2 pilot/pilot differential	032012	ISO2P52	

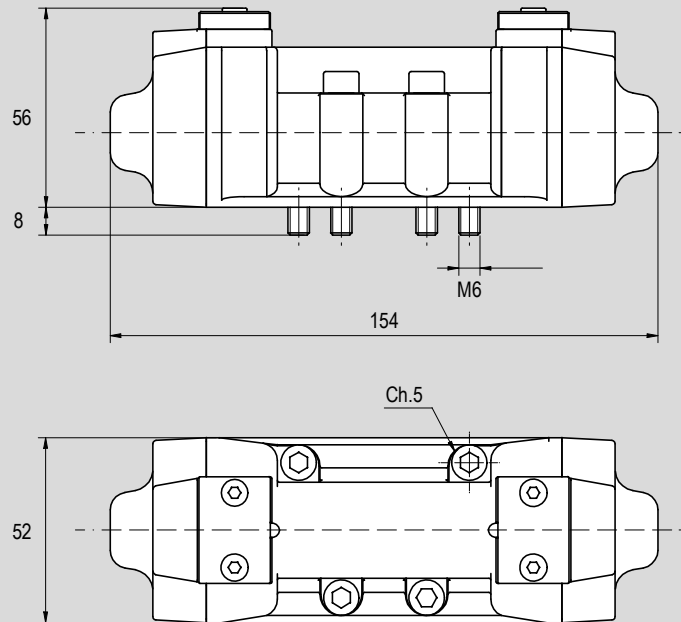


Technical data

Version	5/2 pilot/pilot	5/2 pilot/pilot differential
Code	032011	032012
Item	ISO2P51	ISO2P52
Size	ISO2	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C	
Orifice Ø	15 mm	
Flow at 6 bar with ΔP 1 bar	2.900 NI/min.	
Mounting	In every position	

Standard dimensions

Type: 5/2 pilot/pilot



2 - VALVES

Version	Symbol	Code	Item
ISO2 5/2 pilot/pilot		032011	ISO2P51
ISO2 5/2 pilot/pilot differential		032012	ISO2P52

Valves ISO 5599/1 air operated

ISO2, 5/3



Main features

Version	Code	Item	Symbol
5/3 closed centres	032013	ISO2P70	
5/3 open centres	032014	ISO2P71	
5/3 pressurized centres	032038	ISO2P72	

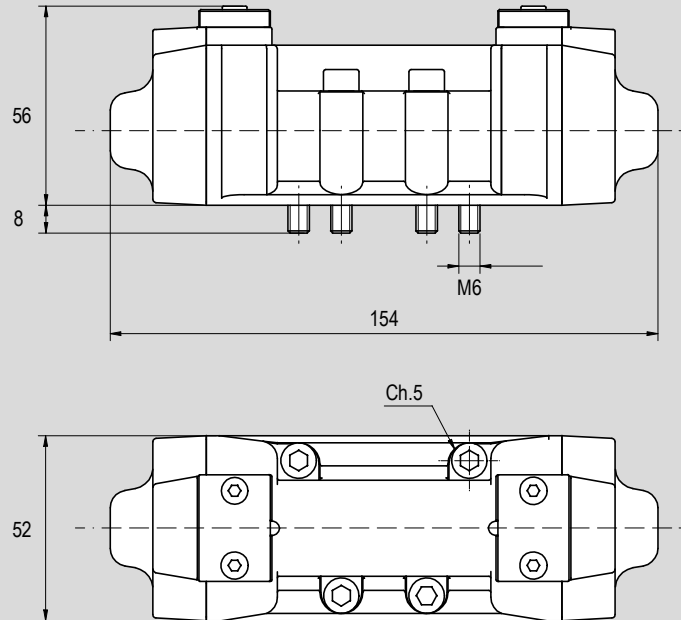


Technical data

Version	5/3 closed centres	5/3 open centres	5/3 pressurized centres
Code	032013	032014	032038
Item	ISO2P70	ISO2P71	ISO2P72
Size	ISO2		
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	2,5 ÷ 10 bar		
Temperature range	-10°C ÷ +60°C		
Orifice Ø	15 mm		
Flow at 6 bar with ΔP 1 bar	2.900 NI/min.		
Mounting	In every position		

Standard dimensions



Type: 5/3 C.C.
5/3 O.C.
5/3 P.C.





2 - VALVES

Version	Symbol	Code	Item
ISO2 5/3 closed centres		032013	ISO2P70
ISO2 5/3 open centres		032014	ISO2P71
ISO2 5/3 pressurized centres		032038	ISO2P72



Single sub-bases SBA1S

	Code	Item	Matching
	032190 	SBA1S	ISO1



Single sub-bases SBA2S

	Code	Item	Matching
	032200 	SBA2S	ISO2




Manifold sub-bases SBA1M

	Code	Item	Matching
	032120 	SBA1M	ISO1


Manifold sub-bases SBA2M

	Code	Item	Matching
	032130 	SBA2M	ISO2


Blank manifold end plates, SBA..C

	Code	Item	Matching
	032140 	SBA1C	ISO1
	032150 	SBA2C	ISO2


Ported manifold end plates, SBA..A

	Code	Item	Matching
	032141	SBA1A	ISO1
	032151	SBA2A	ISO2

Manifold blanking plate, SBA..T

	Code	Item	Matching
	032170	SBA1T	ISO1
	032180	SBA2T	ISO2

Interface for sub-bases from size ISO1 to ISO2, SBA1A2

	Code	Item	Matching
	032160	SBA1A2	ISO1 / ISO2

SUB-BASES

for valves ISO 5599/1



Find out our
key products



Solution for most applications



Easy and intuitive choice



Excellent value for money



Wide availability



Fast delivery



Features and certifications

Single sub-bases and manifold for valves conforming to ISO 5599/1 standards. Available for sizes ISO1 and ISO2, solenoid operate or air operated, functions 5/2 (pilot/spring or pilot/pilot) and 5/3. The manifold kit include mounting screws and seals. Supplied as standard in compliance to Reach and RoHS directives, and SIL certified.



Series SBA1S

from page 2.107.10



Single sub-bases for valves series ISO 5599/1 size 1, solenoid or air operated.

Series SBA1M..

from page 2.107.20



Manifold sub-bases for valves series ISO 5599/1 size 1, solenoid or air operated.

Series SBA2S

from page 2.107.30



Single sub-bases for valves series ISO 5599/1 size 2, solenoid or air operated.

Series SBA2M..

from page 2.107.40



Manifold sub-bases for valves series ISO 5599/1 size 2, solenoid or air operated.

Code key for sub-bases

Series	Size	Type
SBA	2	M

SBA	1 = ISO1 2 = ISO2	S = Single M = Manifold
-----	----------------------	----------------------------

How to order

Series	Size	Type
SBA	2	M

Notes

Options in the same grid are alternative to each others.

Code key for sub-bases accessories

Series	Size*	Type
SBA	2	A

SBA	1 = ISO1 2 = ISO2	A = Ported manifold end plate C = Blank manifold end plate T = Manifold blanking plate A2 = Intergace ISO1/ISO2
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How to order

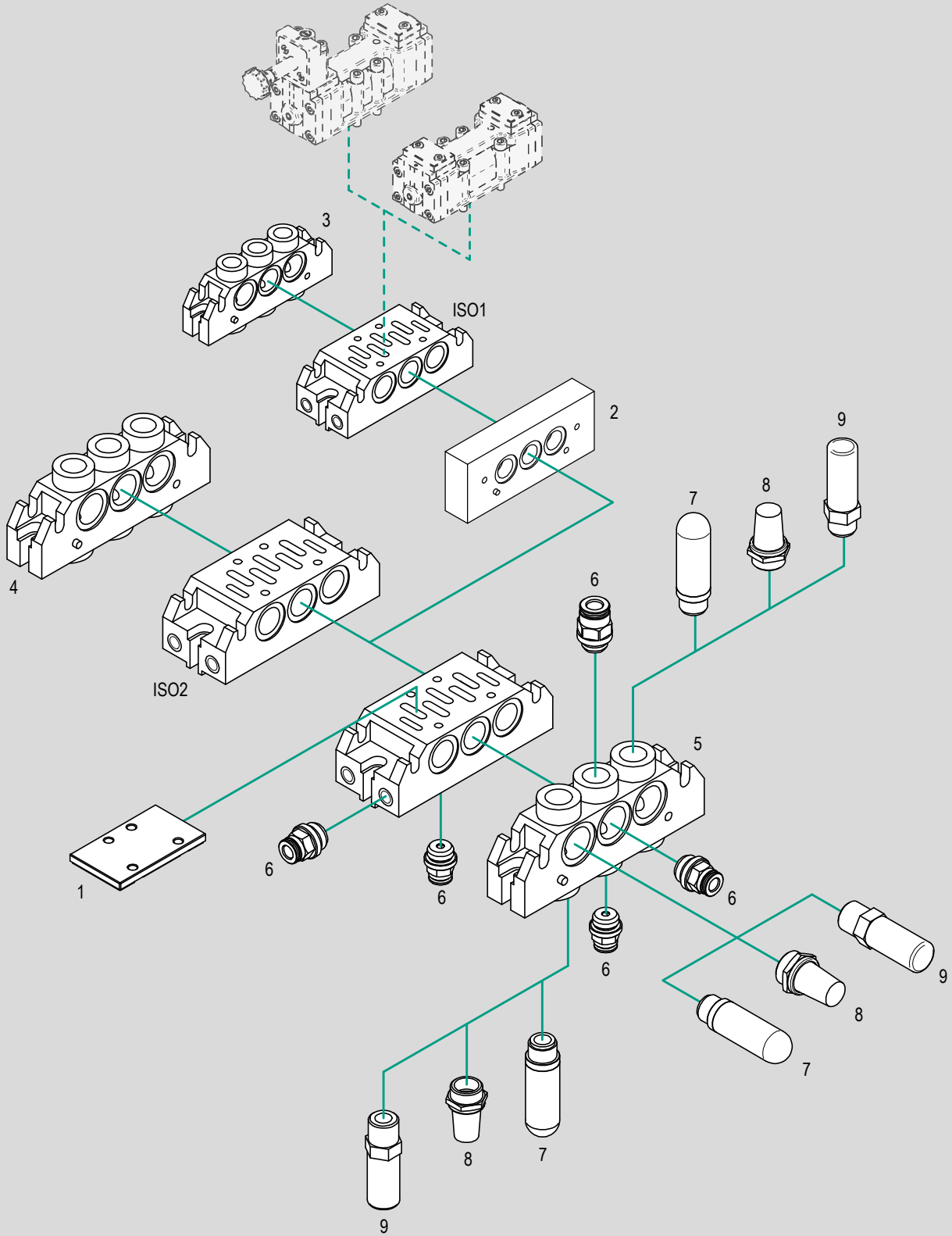
Series	Size	Type
SBA	2	A

Notes

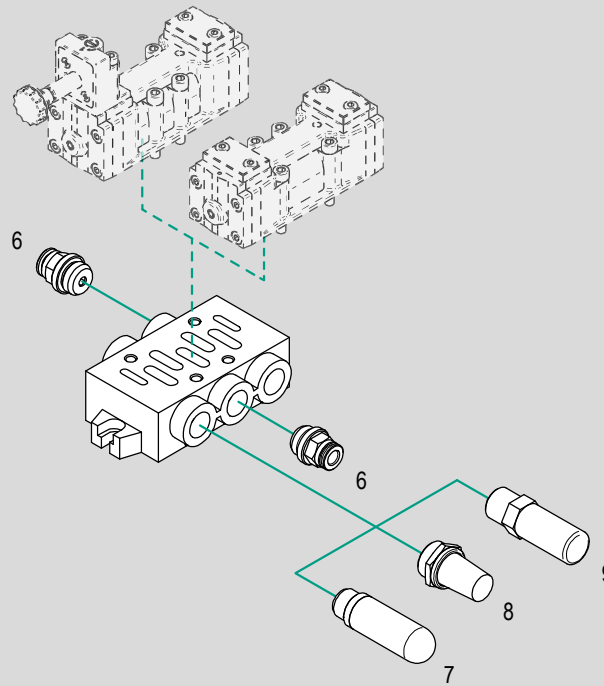
Options in the same grid are alternative to each others.

* For interface ISO1/ISO2 indicate size ISO1 only.

Type: **SBA1M..**
SBA2M..



Type: **SBA1S**
SBA2S



N.	Item	Description	Compliance	Matching				Code key and data sheet page
				SBA1S	SBA2S	SBA1M	SBA2M	
1	SBA1T	Manifold blanking plate for ISO1 sub bases	ISO 5599/1	-	-	●	-	2.107.50
	SBA2T	Manifold blanking plate for ISO2 sub bases	ISO 5599/1	-	-	-	●	
2	SBA1A2	Interface from size ISO1 to ISO2	ISO 5599/1	-	-	●	●	2.107.51
3	SBA1C	Blank manifold end plate for ISO1 sub bases	ISO 5599/1	-	-	●	-	
4	SBA2C	Blank manifold end plate for ISO2 sub bases	ISO 5599/1	-	-	-	●	
5	SBA1A	Ported manifold end plate for ISO1 sub bases	ISO 5599/1	-	-	●	-	2.107.51
	SBA2A	Ported manifold end plate for ISO2 sub bases	ISO 5599/1	-	-	-	●	
6	R..	Push-in fittings	UNI ISO 228/1 UNI ISO7/1 ISO R/232	●	●	●	●	4.2.1
7	AS..	Plastic silencers	-	●	●	●	●	4.151.10
	SP..			●	●	●	●	4.151.20
8	A..	Sintered silencers	-	●	●	●	●	4.153.10
9	M..	Metal silencers	-	●	●	●	●	4.155.10

Key
● matching accessory; - not matching accessory

Main features

Version	Code	Item
Single sub-base	032190	SBA1S



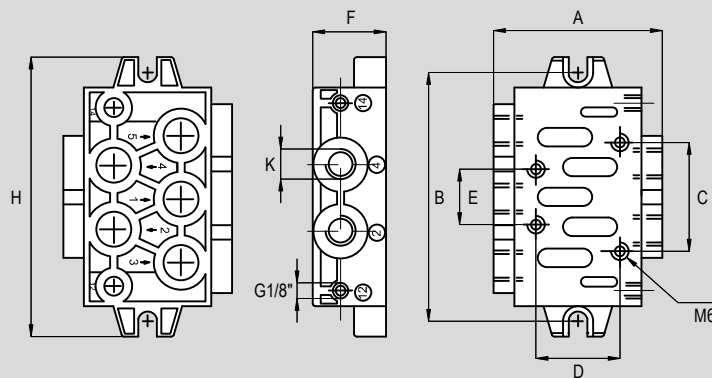
Technical data

Version	Single base
Code	032190
Item	SBA1S
Size	1
Function	Single
Positions	1
Ports	G1/4"
Matching valves	Series ISO 5599/1

Standard materials

Description	Material
Body	Die-cast aluminium

Standard dimensions



Item	Code	Positions	A	B	C	D	E	F	K	H
SBA1S	032190	1	56	82,5	36	28	18	24	1/4"	92,5

Sub-bases for valves series ISO 5599/1
Series SBA1M, ISO1



Main features

Version	Code	Item
Manifold sub-base	032120	SBA1M



Technical data

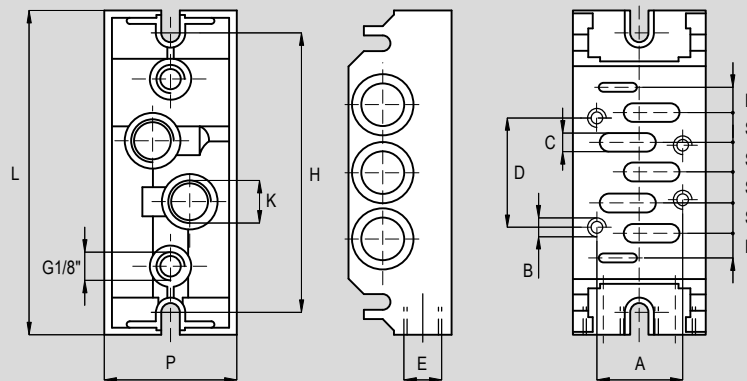
Version	Manifold sub-base
Code	032120
Item	SBA1M
Size	1
Function	Modular
Positions	1
Ports	G1/4"
Matching valves	Series ISO 5599/1

Standard materials

Description	Material
Body	Die-cast aluminium
Seals*	NBR
Screws*	Zinc-plated steel

* The kit include 2 screws and 3 seals

Standard dimensions



Item	Code	Positions	A	B	C	D	R	S	E	H	P	K	L
SBA1M	032120	1	28	M5	4,5	36	8,5	9	1/4"	92	43	1/4"	106

Main features

Version	Code	Item
Single sub-base	032200	SBA2S



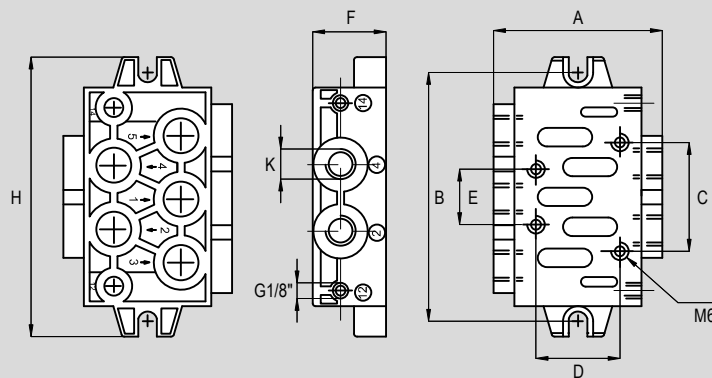
Technical data

Version	Single base
Code	032200
Item	SBA2S
Size	2
Function	Single
Positions	1
Ports	G3/8"
Matching valves	Series ISO 5599/1

Standard materials

Description	Material
Body	Die-cast aluminium

Standard dimensions



Item	Code	Positions	A	B	C	D	E	F	K	H
SBA2S	032200	1	65	100,5	48	38	24	30	3/8"	112,5

Main features

Version	Code	Item
Manifold sub-base	032130	SBA2M



Technical data

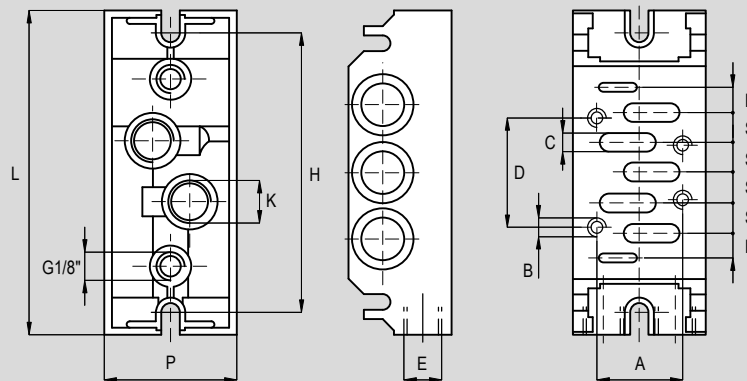
Version	Single base
Code	032130
Item	SBA2M
Size	2
Function	Modular
Positions	1
Ports	G3/8"
Matching valves	Series ISO 5599/1

Standard materials

Description	Material
Body	Die-cast aluminium
Seals*	NBR
Screws*	Zinc-plated steel

* The kit include 2 screws and 3 seals

Standard dimensions



Item	Code	Positions	A	B	C	D	R	S	E	H	P	K	L
SBA2M	032130	1	38	M6	7	48	10	12	3/8"	102	56	3/8"	120

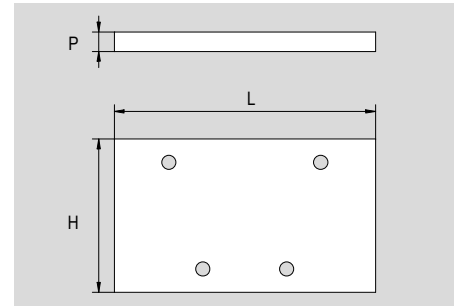
Sub-bases for valves series ISO 5599/1

Accessories for sub-bases



Main features

Version	Code	Item
Manifold blanking plate for unused positions SBA1M	032170	SBA1T
Manifold blanking plate for unused positions SBA2M	032180	SBA2T



Technical data

Version	Manifold blanking plate for unused positions SBA..T	
Code	032170	032180
Item	SBA1T	SBA2T
Size	ISO1	ISO2
Material	Body	Aluminium
	Seals*	NBR
	Screws*	Zinc-plated steel
Matching	Manifold sub-base series SBA1M	Manifold sub-base series SBA2M

* The kit include 4 screws and 1 seal

Dimensions

Item	Code	Size	L	H	P
SBA1T	032170	ISO1	68	40	6
SBA2T	032180	ISO2	80	54	6

Main features

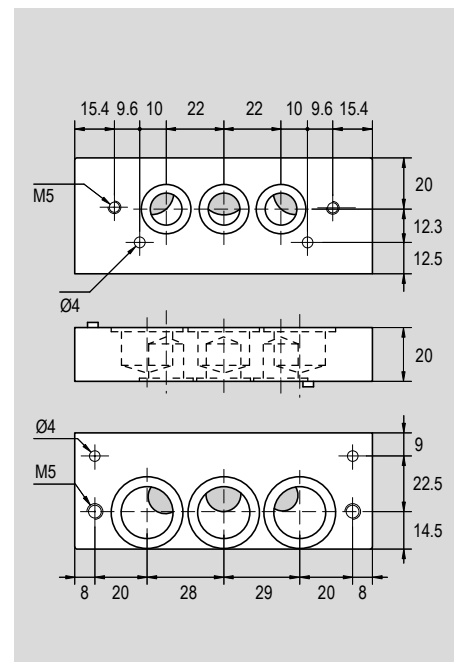
Version	Code	Item
Interfaccia ISO1-ISO2 per sub-bases modulari SBA..M	032160	SBA1A2



Technical data

Version	Interface from size ISO1 to ISO2 for manifold sub-bases SBA..M	
Code	032160	
Item	SBA1A2	
Size	ISO1-ISO2	
Material	Body	Aluminium
	Seals*	NBR
	Screws*	Zinc-plated steel
Matching	Manifold sub-base series SBA1M-SBA2M	

* The kit include 4 screws and 6 seals



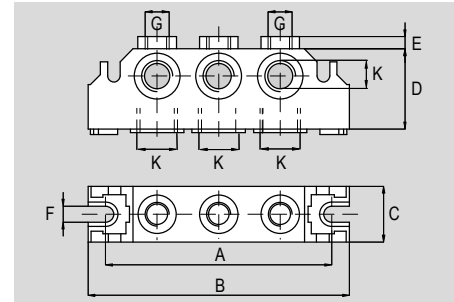
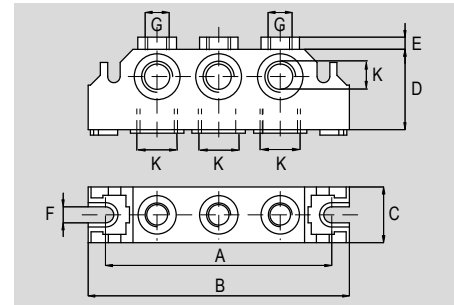
Sub-bases for valves series ISO 5599/1

Accessories for sub-bases



Main features

Version	Code	Item
Blank manifold end plates SBA1M	032140	SBA1C
Blank manifold end plates SBA2M	032150	SBA2C
Ported manifold end plates SBA1M	032141	SBA1A
Ported manifold end plates SBA2M	032151	SBA2A



Technical data

Version	Manifold end plates SBA..M			
Code	032140	032150	032141	032151
Item	SBA1C	SBA2C	SBA1A	SBA2A
Size	ISO1	ISO2	ISO1	ISO2
Material	Body	Aluminium		
	Seals*	NBR		
	Screws*	Zinc-plated steel		
Function	Blank manifold end plates		Ported manifold end plates	
Matching	Manifold sub-base SBA1M	Manifold sub-base SBA2M	Manifold sub-base SBA1M	Manifold sub-base SBA2M

* The kit include 2 screws and 3 seals

Dimensions

Item	Code	Size	A	B	C	D	E	F	G	K
SBA1C	032140	ISO1	92	106	22	36	8	5,5	1/4"	3/8"
SBA2C	032150	ISO2	102	120	29	43	7	6,5	1/4"	1/2"
SBA1A	032141	ISO1	92	106	22	36	8	5,5	1/4"	3/8"
SBA2A	032151	ISO2	102	120	29	43	7	6,5	1/4"	1/2"

INDIRECTLY OPERATED

solenoid valves for water and steam



Find out our
key products



Solution for most applications



Easy and intuitive choice



Excellent value for money



Wide availability



Fast delivery



Features and certifications

Indirectly operated solenoid valves for fluids and compressed air, servo-assisted with diaphragm. Available in sizes from 1/4" to 2", 2/2 normally closed, in three seals versions.

Coils and connectors to be ordered separately.

Supplied as standard in compliance to Reach and RoHS directives.

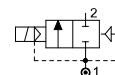


Series AEN 2/2 Normally closed

from page 2.120.10



Series of indirectly operated solenoid valves for fluids and compressed air, servo-assisted with diaphragm, NBR seals, for operating temperatures from -10°C up to +90°C. Available in sizes from 1/4" to 2", 2/2 normally closed. Coils and connectors to be ordered separately.

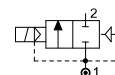


Series AEV 2/2 Normally closed

from page 2.120.10



Series of indirectly operated solenoid valves for fluids and compressed air, servo-assisted with diaphragm, FKM seals, for operating temperatures from -10°C up to +130°C. Available in sizes from 1/4" to 2", 2/2 normally closed. Coils and connectors to be ordered separately.

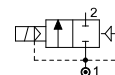


Series AEP 2/2 Normally closed

from page 2.120.10



Series of indirectly operated solenoid valves for fluids and compressed air, servo-assisted with diaphragm, EPDM seals, for operating temperatures up to +140°C. Available in sizes from 1/4" to 2", 2/2 normally closed. Coils and connectors to be ordered separately.



Options		
Description	Symbol	Suffix
Nickel plated		N
Normally open		NA
Two positions manual override		M

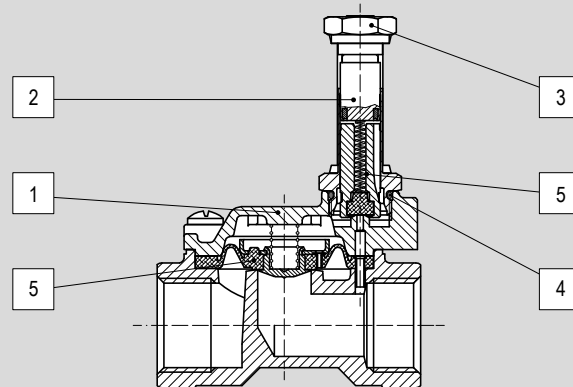
The options, when this is possible, can be combined with each other. For options matching see the table below; For code key see from page 2.120.4

Options matching					
Series	Size	Function	Standard options matching		
			N	NA	M
AEN22	1/4" ÷ 2"	2/2	●	●	●
AEV22			●	●	●
AEP22			●	●	●

Key

● allowed matching; - not allowed matching

Standard materials



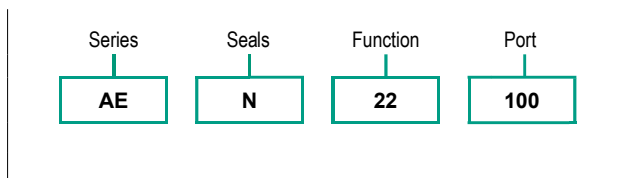
Position	Description	Material		
		AEN22	AEV22	AEP22
1	Body	Brass		
2	Plunger	Brass		
3	Locking nut	Brass		
4	Seals	NBR	FKM	EPDM
5	Internal parts	Stainless Steel		

Code key

Series	Seals	Function	Port	Options		
AE	N	22	100	●	●	●
AE	N = NBR seals (-10°C ÷ +90°C) V = FKM seals (-10°C ÷ +130°C) P = EPDM seals (-10°C ÷ +140°C)	22 = 2/2 normally closed	100 = 1"	N = Nickel-plated	NA = Normally open	
			014 = 1/4"			
			038 = 3/8"			
			012 = 1/2"			
			034 = 3/4"			
			100 = 1"			
			114 = 1 1/4"			
			112 = 1 1/2"			
			200 = 2"			

2 - VALVES

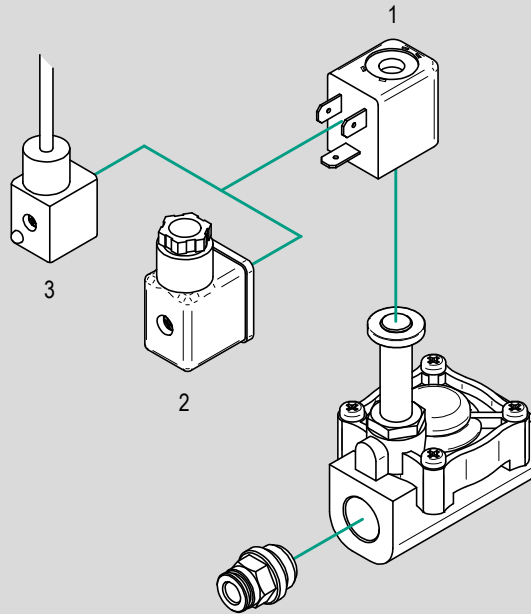
How to order



Notes

Options in the same grid are alternative to each others.
 For further information on options and their matching, see page 2.120.3
 Coils and connectors to be ordered separately, see page 2.120.50

Accessories



2 - VALVES

N.	Item	Description	Compliance	Matching						Code key page	Data sheet page
				AEN22		AEV22		AEP22			
				1/4"÷1"	1 1/4"÷2"	1/4"÷1"	1 1/4"÷2"	1/4"÷1"	1 1/4"÷2"		
1	ASA33..	Coil	DIN 43650	●	-	●	-	●	-	2.120.50	2.315.12
	ASA32..		DIN 43650/A	-	●	-	●	-	●		2.315.13
2	A12209	Connector	VDE 0110 - 1/89	●	-	●	-	●	-		2.318.12
	A18209			-	●	-	●	-	●		2.318.14
3	A12209..K	Cabled connector	VDE 0110 - 1/89	●	-	●	-	●	-		2.318.12
	A18209..K			-	●	-	●	-	●		2.318.14
4	R..	Push-in fittings	UNI ISO 228/1 UNI ISO7/1 ISO R/232	●	●	●	●	●	●	4.2.1	


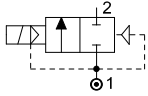
Key
 ● matching accessory; - not matching accessory

Indirectly operated solenoid valves for water and steam

1/4" ÷ 2", 2/2 N.C.








Main features

Version	Series	Symbol
2/2 Normally closed with NBR seals	AEN22 	
2/2 Normally closed with FKM seals	AEV22	
2/2 Normally closed with EPDM seals	AEP22	



Technical data

Version		1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	
Code	AEN22	035501 	035502 	035503 	035504 	035505 	035506	035507	035508	
	AEV22	035511	035512	035513	035514	035515	035516	035517	035518	
	AEP22	035521	035522	035523	035524	035525	035526	035527	035528	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.									
Pressure range	25 bar									
Temperature range	AEN22	-10°C ÷ +90°C								
	AEV22	-10°C ÷ +130°C								
	AEP22	-10°C ÷ +140°C								
Fluid maximum viscosity	25 cSt mm²/s									
Mounting	Preferably with coil upward									
Plunger	10 mm						13 mm			
Orifice	10 mm	12 mm		18 mm	24 mm	37 mm		50 mm		
Flow	1,5 m³/h	2 m³/h	2,2 m³/h	5,2 m³/h	10,2 m³/h	18 m³/h	21 m³/h	36 m³/h		
Differential pressure	Minimum	0,15 bar								
	Maximum (AC / DC)	15 bar			13 bar	10 bar				
Nominal power (AC)	Inrush	12 V					20 V			
	Rating	8 V					15 V			
Nominal power (DC)	6,5 Watt						10 Watt			
Coils matching*	ASA33..						ASA32..			
Connectors matching*	A122..						A182..			

*Notes

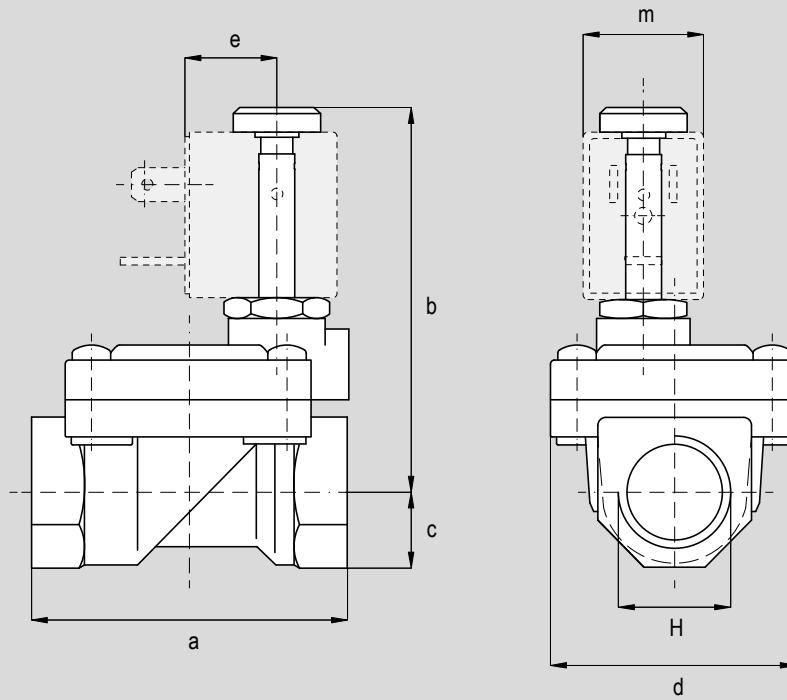
Coils and connectors to be ordered separately. For coils type ASA33 e ASA32 see from page 2.315.1. For connectors type A122 e A182 see from page 2.318.1

Indirectly operated solenoid valves for water and steam
 1/4" ÷ 2", 2/2 N.C.



Standard dimensions





Type: **AEN22**
AEV22
AEP22




2 - VALVES

Code			Port (H)	a	b	c	d	e	m	Weight (g)
AEN22	AEV22	AEP22								
035501	035511	035521	1/4"	49	65	11	32	16	22	230
035502	035512	035522	3/8"	59	70	14	45	16	22	420
035503	035513	035523	1/2"	59	70	14	45	16	22	390
035504	035514	035524	3/4"	79	76	18	55	16	22	650
035505	035515	035525	1"	96	85	20	72	16	22	1050
035506	035516	035526	1" 1/4	142	105	28	102	21	30	3000
035507	035517	035527	1" 1/2	142	105	28	102	21	30	2850
035508	035518	035528	2"	158	115	35	119	21	30	4300



Coils ASA33..

	Voltage	Code	Item	Matching
	12V DC	034311	ASA3301200	1/4"÷1"
	12V AC	034312	ASA3301250	
	24V DC	034313 	ASA3302400	
	24V AC	034314 	ASA3302450	
	48V AC	034315	ASA3304850	
	110V AC	034316	ASA3311050	
	230V AC	034317 	ASA3323050	

Coils ASA32..



	Voltage	Code	Item	Matching
	12V DC	034321	ASA3201200	1 1/4"÷2"
	12V AC	034322	ASA3201250	
	24V DC	034323	ASA3202400	
	24V AC	034324	ASA3202450	
	48V AC	034325	ASA3204850	
	110V AC	034326	ASA3211050	
	230V AC	034327	ASA3223050	

Connectors A122..*

	Code	Item	Description
	032118 	A12209N	Black standard
	033521	A12209NK	Black standard cabled
	032204	A12209T1	LED+VDR transparent 24VAC-DC
	032205	A12209T2	LED+VDR transparent 115VAC-DC
	032206	A12209T3	LED+VDR transparent 230VAC-DC
	033522	A12209N1K	LED+VDR black cabled 24VAC-DC
	033523	A12209N2K	LED+VDR black cabled 115VAC-DC
	033524	A12209N3K	LED+VDR black cabled 230VAC-DC

* For coils type ASA33

Connectors A182..**

	Code	Item	Description
	032119 	A18209N	Black standard
	033531	A18209NK	Black standard cabled
	032207	A18209T1	LED+VDR transparent 24VAC-DC
	032208	A18209T2	LED+VDR transparent 115VAC-DC
	032209	A18209T3	LED+VDR transparent 230VAC-DC
	033532	A18209N1K	LED+VDR black cabled 24VAC-DC
	033533	A18209N2K	LED+VDR black cabled 115VAC-DC
	033534	A18209N3K	LED+VDR black cabled 230VAC-DC

* For coils type ASA32

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Features and certifications

Integrated circuits "flip-flop", solenoid operated or air operated, and "continuous cycling", solenoid operated or air operated. For the solenoid operated, coils and connectors have to be ordered separately.

Supplied as standard in compliance to Reach and RoHS directives. On request the "flip-flop" body can be supplied according to 2014/34/EU ATEX Directive, classification Ex h, and also complete with ATEX coil and connector, in different classifications (see from page 2.320.1)..

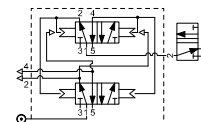


Series AEF

from page 2.130.20



Series of integrated circuits "flip-flop", solenoid operated. Circuit composed by 1/4" 5/2 two stable position power valve. With the same signal applied twice at different times the cylinder carries out a complete cycle. Coils and connectors to be ordered separately.

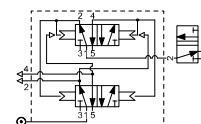


Series APF

from page 2.130.20



Series of integrated circuits "flip-flop", air operated. Circuit composed by 1/4" 5/2 two stable position power valve. With the same signal applied twice at different times the cylinder carries out a complete cycle.

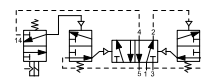


Series AEC

from page 2.130.40



Series of integrated circuits "continuous cycling", solenoid operated. Circuit composed by 1/8" 5/2 solenoid/spring power valve. Keeping the signal the cylinder carries out continuous cycling until the signal is not interrupted. Coils and connectors to be ordered separately.

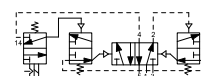


Series APC

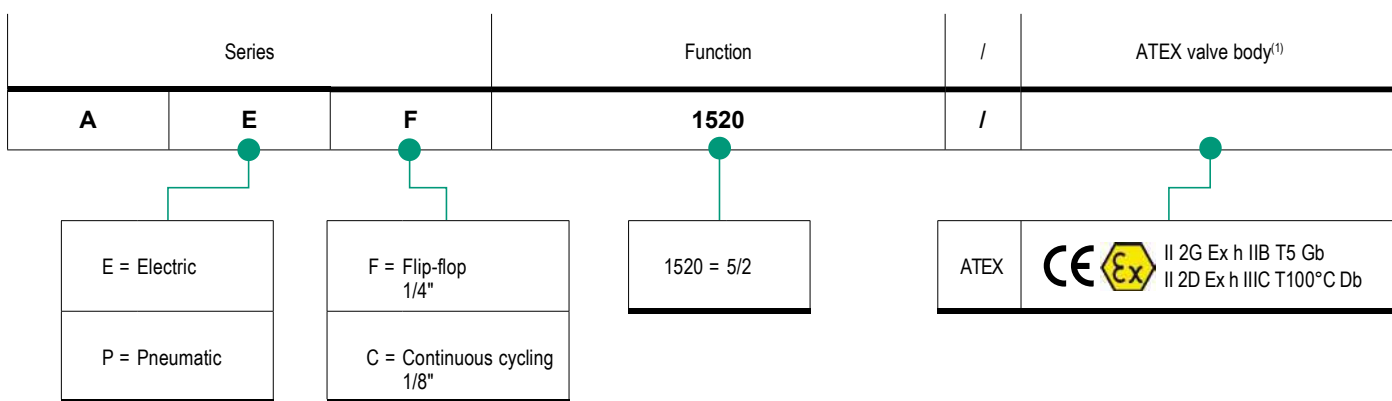
from page 2.130.40



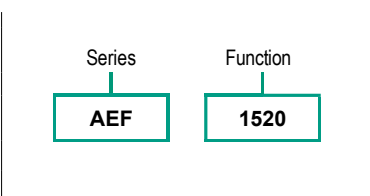
Series of integrated circuits "continuous cycling", air operated. Circuit composed by 1/8" 5/2 pilot/spring power valve. Keeping the signal the cylinder carries out continuous cycling until the signal is not interrupted.



Code key



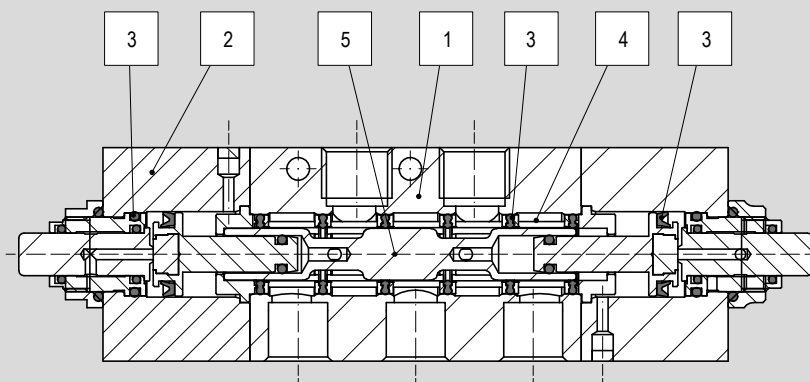
How to order Notes ATEX note



For standard materials see the table below.
Options in the same grid are alternative to each others.
Coils and connectors to be ordered separately, see page 2.130.4

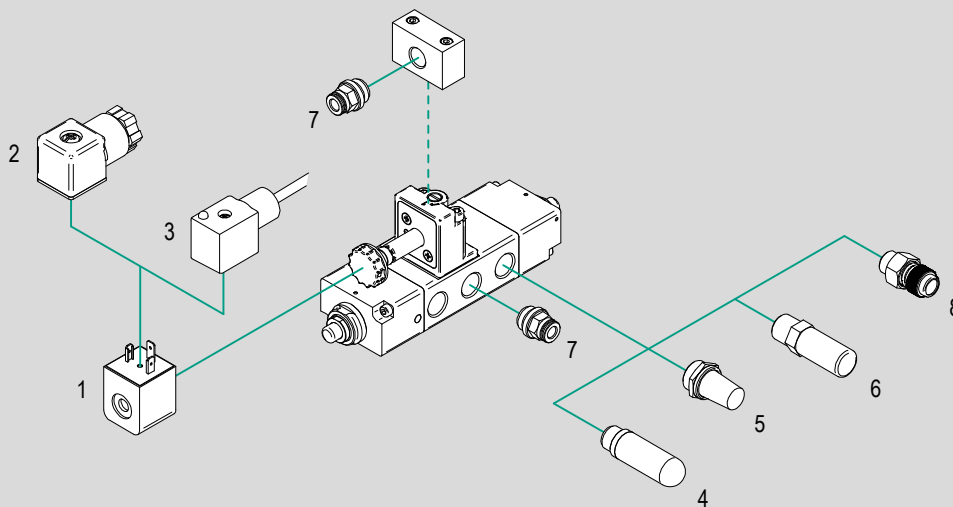
(1) Only for series AEF and APF.
For ATEX coils and connectors choice, classification, features, dimensions and matching, see page 2.320.1
For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

Standard materials

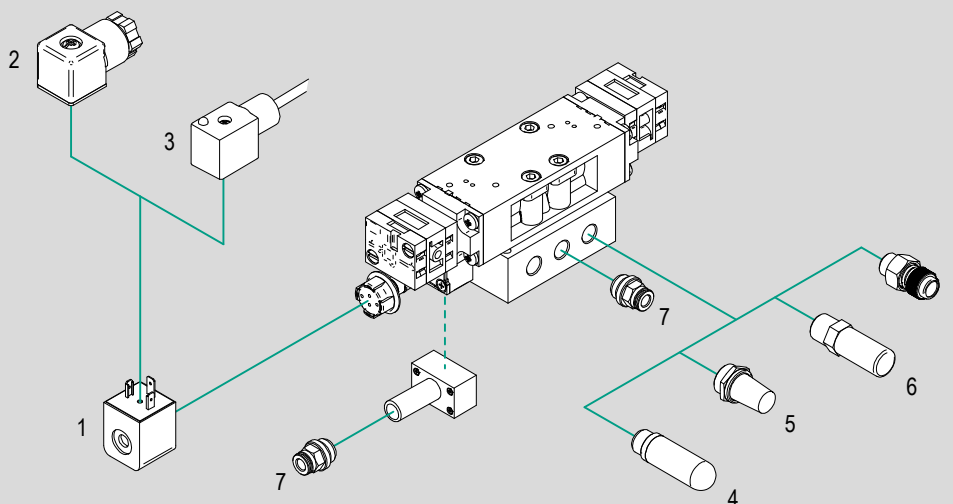


Position	Description	Material			
		AEF	APF	AEC	APC
1	Body	Anodized aluminium			
2	Base	Anodized aluminium			
3	Seals	HNBR			
4	Distancers	Tecopolymer			
5	Spool	Hard anodized aluminium			

Accessories



Type: AEF
APF



Type: AEC
APC

N.	Item	Description	Compliance	Matching				Code key page	Data sheet page
				AEF1520	APF1520	AEC1520	APC1520		
1	ASA12..	Coil	EN60204 VDE0580	●	-	●	-	2.130.90	2.315.10
2	A12209..	Connector	VDE 0110 - 1/89	●	-	●	-		2.318.12
3	A12209..K	Cabled connector	VDE 0110 - 1/89	●	-	●	-		
4	AS..	Plastic silencers	-	●	●	●	●	4.151.10	
	SP..		-	●	●	●	●	4.151.20	
5	A..	Sintered silencers	-	●	●	●	●	4.153.10	
6	M.	Metal silencers	-	●	●	●	●	4.155.10	
7	R..	Push-in fittings	UNI ISO 228/1 UNI ISO7/1 ISO R/232	●	●	●	●	4.2.1	
8	A..	Silenced exhaust restrictors	-	●	●	●	●	4.97.1	

Key
● matching accessory; - not matching accessory

Integrated circuits

1/4" Flip-flop solenoid and air operated



Main features

Version	Code	Item	Symbol
1/4" Flip-flop solenoid operated	033170	AEF1520	
1/4" Flip-flop air operated	033160	APF1520	



Technical data

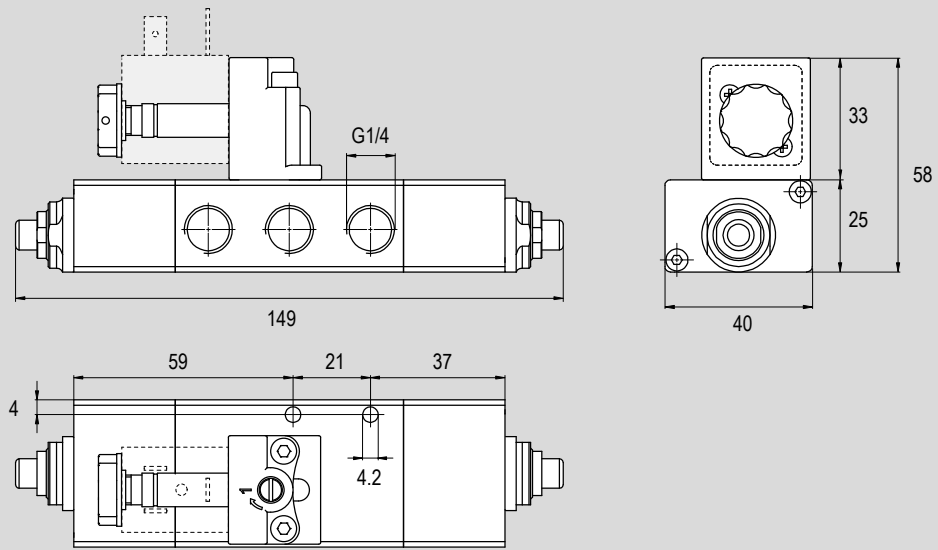
Version	Flip-Flop solenoid operated	Flip-Flop air operated
Code	033170	033160
Item	AEF1520	APF1520
Fluid	Filtered compressed air with or without lubrication. Lubrication, if started, must be continued.	
Operator	Solenoid operated	Air operated
Plunger	9 mm	-
Ports	1/4"	
Function	5/2	
Pressure range	2,5 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C	
Orifice	8 mm	
Flow	1.200 NI/min.	
Manual override	Two stable position, flat	-
Mounting	In every position	
Response time	Energizing	20 ms.
	De-energizing	38 ms.
Coils matching	ASA12..	-
Connectors matching	A122..	-

Notes

Coils and connectors for electric integrated circuits to be ordered separately. For coils type ASA12 see from page 2.315.1. For connectors type A122 see from page 2.318.1
 For electric integrated circuit complete with coils and connectors ATEX version, see from page 2.320.1

Standard dimensions type AEF

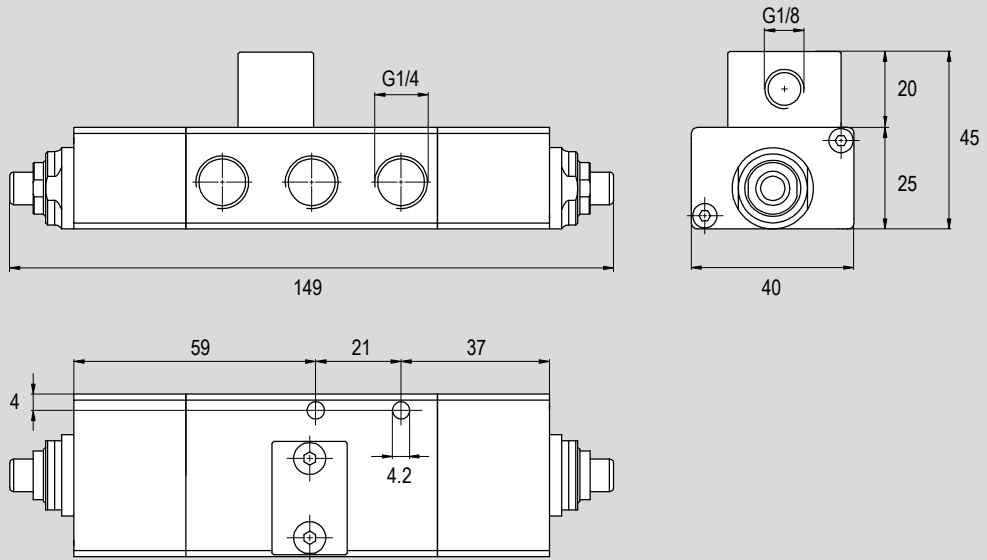
Type: **AEF**



Version	Symbol	Code	Item
1/4" 5/2 Flip-flop solenoid operated		033170	AEF1520

Standard dimensions type APF

Type: **APF**



Version	Symbol	Code	Item
1/4" 5/2 Flip-flop air operated		033160	APF1520

Integrated circuits

1/8" Continuous cycling solenoid and air operated



Main features

Version	Code	Item	Symbol
1/8" Continuous cycling solenoid operated	033172	AEC1520	
1/8" Continuous cycling air operated	033171	APC1520	



Technical data

Version	Continuous cycling solenoid operated		Continuous cycling air operated
Code	033172		033171
Item	AEC1520		APC1520
Fluid	Filtered compressed air with or without lubrication. Lubrication, if started, must be continued.		
Operator	Solenoid operated		Air operated
Plunger	9 mm		-
Ports	1/8"		
Function	5/2		
Pressure range	2,5 ÷ 8 bar		
Temperature range	-10°C ÷ +60°C		
Orifice	6 mm		
Flow	800 NI/min.		
Manual override	Two stable position, flat		-
Mounting	In every position		
Response time	Energizing	20 ms.	-
	De-energizing	38 ms.	-
Coils matching	ASA12..		-
Connectors matching	A122..		-

Notes

Coils and connectors for electric integrated circuits to be ordered separately. For coils type ASA12 see from page 2.315.1. For connectors type A122 see from page 2.318.1

2 - VALVES

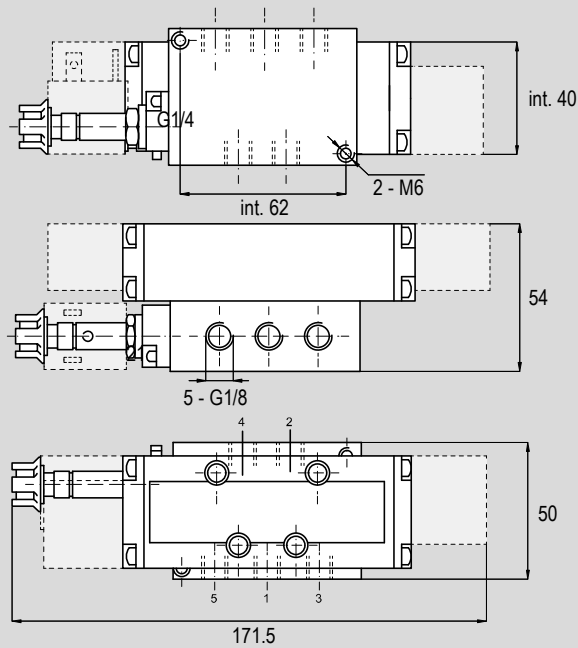
Integrated circuits

1/8" Continuous cycling solenoid and air operated



Standard dimensions type AEC

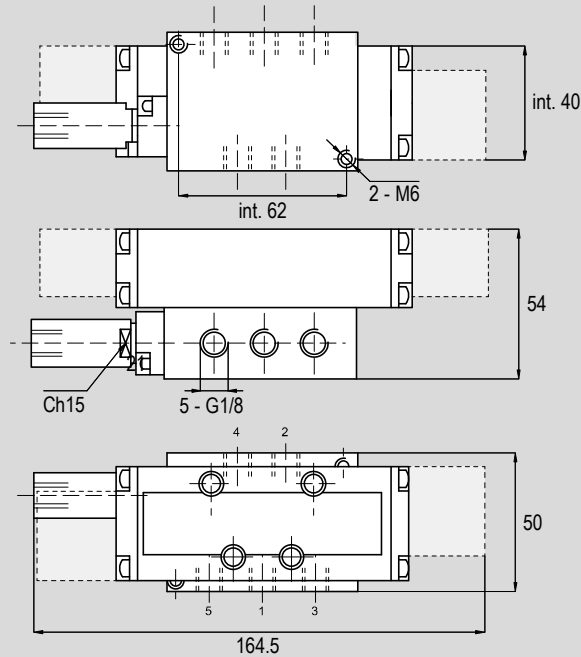
Type: AEC



Version	Symbol	Code	Item
1/8" 5/2 Continuous cycling solenoid operated		033172	AEC1520

Standard dimensions type APC

Type: APC



Version	Symbol	Code	Item
1/4" 5/2 Continuous cycling air operated		033171	APC1520

Coils ASA12..

	Voltage	Code	Item	Matching
	12V DC	032100	ASA1201200	AEF.. AEC..
	12V AC	032101	ASA1201250	
	24V DC	032102	ASA1202400	
	24V AC	032103	ASA1202450	
	48V AC	032104	ASA1204850	
	110V AC	032105	ASA1211050	
	230V AC	032106	ASA1223050	

Connectors A122..*

	Code	Item	Description
	032118	A12209N	Black standard
	033521	A12209NK	Black standard cabled
	032204	A12209T1	LED+VDR transparent 24VAC-DC
	032205	A12209T2	LED+VDR transparent 115VAC-DC
	032206	A12209T3	LED+VDR transparent 230VAC-DC
	033522	A12209N1K	LED+VDR black cabled 24VAC-DC
	033523	A12209N2K	LED+VDR black cabled 115VAC-DC
	033524	A12209N3K	LED+VDR black cabled 230VAC-DC

* For coils type ASA12

MANUAL

lever operated valves Series A1



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Excellent value for money



Wide availability



Fast delivery



Features and certifications

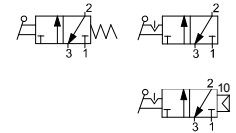
Spool valves, with static seals, high flow. Available in 1/8" and 1/4", manual lever operated, in many versions, functions and configurations. Supplied as standard in compliance to Reach and RoHS directives, and SIL certified. On request the valve body can be supplied according to 2014/34/EU ATEX Directive, classification Ex h.

Series A1 1/8" 3/2 side lever

from page 2.151.20



Series of spool valves, with static seals, high flow. Available in size 1/8", manual lever operated (side lever configuration), 3/2 lever/spring normally closed and 3/2 lever/lever detent.



Series A1 1/8" 3/2 top lever

from page 2.151.30



Series of spool valves, with static seals, high flow. Available in size 1/8", manual lever operated (top lever configuration), 3/2 lever/lever detent.

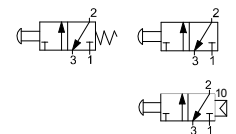


Series A1 1/8" 3/2 push-pull

from page 2.151.40



Series of spool valves, with static seals, high flow. Available in size 1/8", manual lever operated (push-pull configuration), 3/2 spring return normally closed and 3/2 two positions detent.

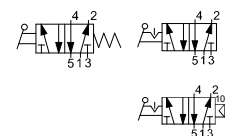


Series A1 1/8" 5/2 side lever

from page 2.151.60



Series of spool valves, with static seals, high flow. Available in size 1/8", manual lever operated (side lever configuration), 5/2 lever/spring and 5/2 lever/lever detent.



Series A1 1/8" 5/2 top lever

from page 2.151.70



Series of spool valves, with static seals, high flow. Available in size 1/8", manual lever/spring (top lever configuration), 5/2 lever/lever detent.

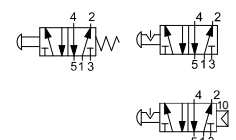


Series A1 1/8" 5/2 push-pull

from page 2.151.80



Series of spool valves, with static seals, high flow. Available in size 1/8", manual lever operated (push-pull configuration), 5/2 spring return and 5/2 two positions detent.



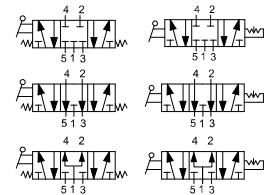


Series A1 1/8" 5/3 side lever

from page 2.151.100



Series of spool valves, with static seals, high flow. Available in size 1/8", manual lever operated (side lever configuration), 5/3 lever/spring closed centres, open centres and pressurized centres, or 5/3 3 positions detent closed centres, open centres and pressurized centres.

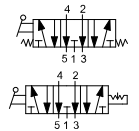


Series A1 1/8" 5/3 top lever

from page 2.151.110



Series of spool valves, with static seals, high flow. Available in size 1/8", manual lever operated (top lever configuration), 5/3 lever/spring open centres or 5/3 3 positions detent open centres.

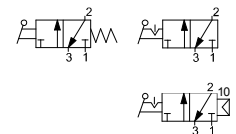


Series A1 1/4" 3/2 side lever

from page 2.152.20



Series of spool valves, with static seals, high flow. Available in size 1/4", manual lever operated (side lever configuration), 3/2 lever/spring normally closed and 3/2 lever/lever detent.



Series A1 1/4" 3/2 top lever

from page 2.152.30



Series of spool valves, with static seals, high flow. Available in size 1/4", manual lever operated (top lever configuration), 3/2 lever/lever detent.

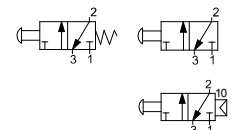


Series A1 1/4" 3/2 push-pull

from page 2.152.40



Series of spool valves, with static seals, high flow. Available in size 1/4", manual lever operated (push-pull configuration), 3/2 spring return normally closed and 3/2 two positions detent.

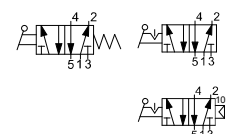


Series A1 1/4" 5/2 side lever

from page 2.152.60



Series of spool valves, with static seals, high flow. Available in size 1/4", manual lever operated (side lever configuration), 5/2 lever/spring and 5/2 lever/lever detent.



Series A1 1/4" 5/2 top lever

from page 2.152.70



Series of spool valves, with static seals, high flow. Available in size 1/4", manual lever operated (top lever configuration), 5/2 lever/lever detent.

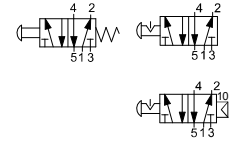


Series A1 1/4" 5/2 push-pull

from page 2.152.80



Series of spool valves, with static seals, high flow. Available in size 1/4", manual lever operated (push-pull configuration), 5/2 spring return and 5/2 two positions detent.

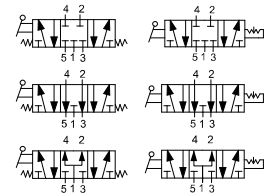


Series A1 1/4" 5/3 side lever

from page 2.152.100



Series of spool valves, with static seals, high flow. Available in size 1/4", manual lever operated (side lever configuration), 5/3 lever/spring closed centres, open centres and pressurized centres, or 5/3 3 positions detent closed centres, open centres and pressurized centres.



Options		
Description	Symbol	Suffix
Low temperatures seals -25°C ÷ +60°C		BT
ATEX valve body*		/ATEX
Special versions on request		/S

The options, when this is possible, can be combined with each other. For options matching see the table below; For code key see from page 2.150.6

Options matching				
Series	Size	Function	Standard options matching	
			BT	/ATEX
A1	1/8"	3/2	●	●
		5/2	●	●
		5/3	●	●
	1/4"	3/2	●	●
		5/2	●	●
		5/3	●	●

Key

● allowed matching; - not allowed matching

Code key

Series	Actuation	Size	Function	Configurations	Options	/	ATEX valve body
A1	MA	2	50	LL	P	/	

A1	MA = Manual	1 = 1/8"	30 = 3/2 Lever/Spring Normally closed	LL = Side lever LT ⁽¹⁾ = Top lever TT ⁽²⁾ = Push-pull	P ⁽³⁾ = Lever/Pilot	BT = Low temperatures seals
		2 = 1/4"	32 = 3/2 Lever/Lever detent			
			50 = 5/2 Lever/Spring			
			51 = 5/2 Lever/Lever detent			
			70 = 5/3 Lever/Spring Closed Centres			
			71 = 5/3 Lever/Spring Open Centres			
			72 = 5/3 Lever/Spring Pressurized Centres			
			73 = 5/3 Closed Centres 3 positions detent			
			74 = 5/3 Open Centres 3 positions detent			
			75 = 5/3 Pressurized Centres 3 positions detent			

ATEX			II 2G Ex h IIB T5 Gb II 2D Ex h IIIC T100°C Db
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How to order

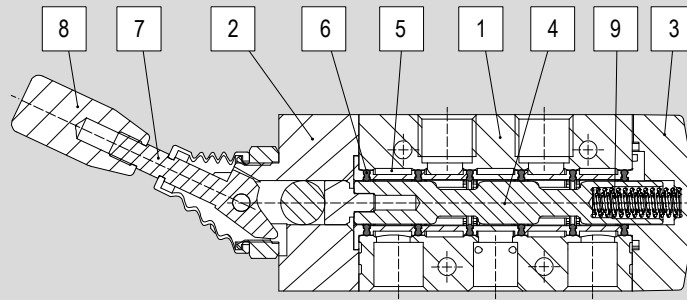
Series	Actuation	Size	Function	Configuration	Options
A1	MA	2	50	LL	P

Notes

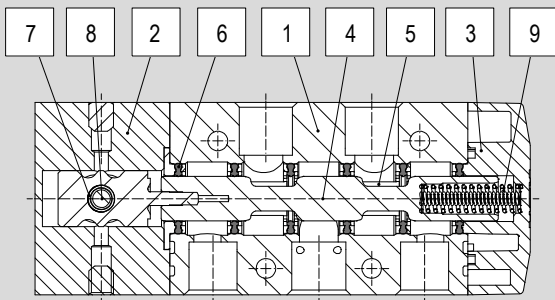
- Options in the same grid are alternative to each others.
- For further information on options and their matching, see page 2.20.5.
- (1) Configuration top lever (LT) available for 3/2 lever/spring N.C., 3/2 lever/lever detent, 5/2 lever/spring, size 1/8" and 1/4", and 5/3 O.C. lever/spring, 5/3 O.C. 3 positions detent, size 1/8".
- (2) Configuration push-pull (TT) available for 3/2 lever/spring N.C., 3/2 lever/lever detent, 5/2 lever/spring and 5/2 lever/lever detent.
- (3) Option lever/pilot (P) available for 3/2 lever/lever detent and 5/2 lever/lever detent in configuration side lever and push-pull only.
- For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

Standard materials

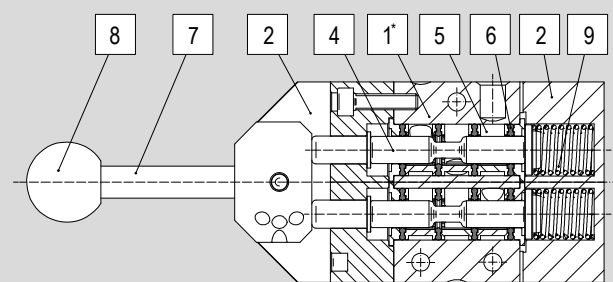
Type: top lever



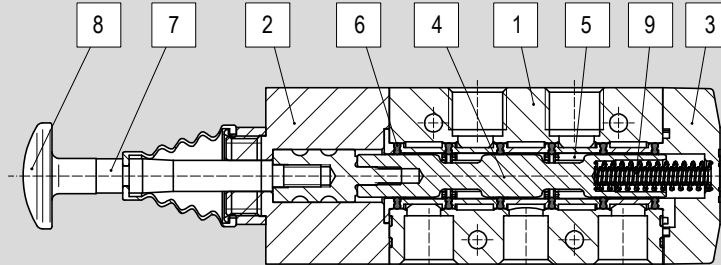
Type: side lever



Type: top lever 5/3 1/8"



Type: push-pull

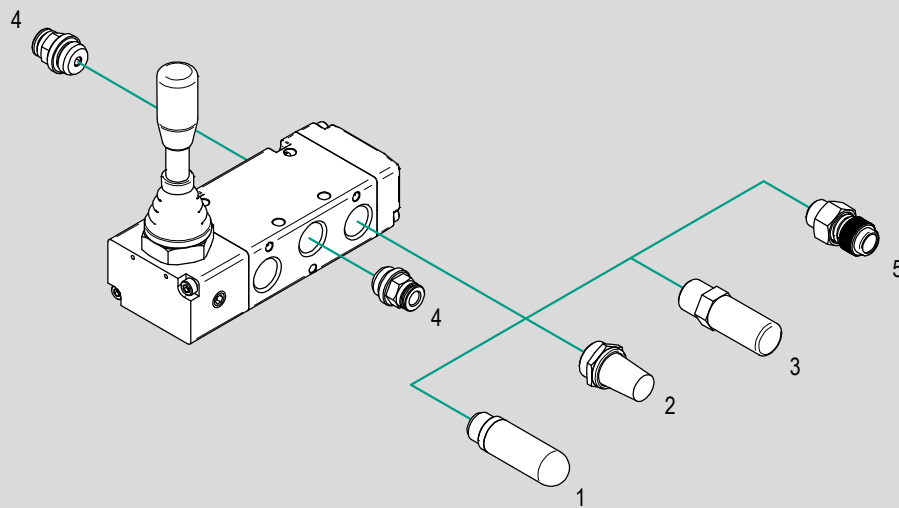


2 - VALVES

Position	Description	Material	
		1/8"	1/4"
1	Body	Die-cast painted aluminium*	
2	Front cover	Anodized aluminium	
3	Rear cover	Tecopolymer	
4	Spool	Hard anodized aluminium	
5	Distancers	Tecopolymer	
6	Seals	HNBR	
7	Lever	Steel	
8	Lever knob	Plastic	
9	Spring	Spring steel	

* Anodized aluminium for type A1MA171LT and type A1MA174LT

Accessories



2 - VALVES

N.	Item	Description	Compliance	Matching		Code key page	Data sheet page
				1/8"	1/4"		
1	AS..	Plastic silencers	-	●	●	4.151.10	
	SP..			●	●	4.151.20	
2	A..	Sintered silencers	-	●	●	4.153.10	
3	M..	Metal silencers	-	●	●	4.155.10	
4	R..	Push-in fittings	UNI ISO 228/1 UNI ISO7/1 ISO R/232	●	●	4.2.1	
5	A..	Silenced exhaust restrictors	-	●	●	4.97.1	

Key

● matching accessory; - not matching accessory

Manual lever operated valves series A1

1/8", 3/2 side lever



Main features

Version	Code	Item	Symbol
3/2 lever/spring N.C. side lever	034071	A1MA130LL	
3/2 lever/lever detent side lever	034070	A1MA132LL	
3/2 lever/pilot side lever	034294	A1MA132LLP	



Technical data

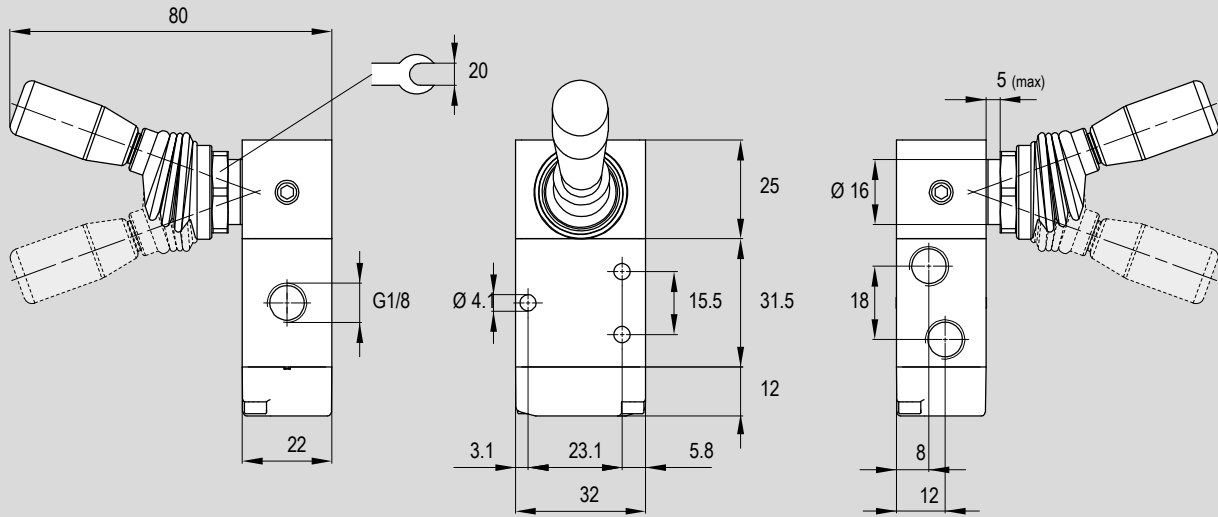
Version	3/2 normally closed lever/spring	3/2 lever/lever detent	3/2 lever/pilot
Code	034071	034070	034294
Item	A1MA130LL	A1MA132LL	A1MA132LLP
Size	1/8"		
Orifice	6.5 mm		
Configuration	Side lever		
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	0 ÷ 10 bar		
Temperature range	-10°C ÷ +80°C (standard)	-25°C ÷ +60°C (BT)	
Flow at 6 bar with ΔP 1 bar	650 NI/min.		
Mounting	In every position		

Manual lever operated valves series A1
1/8", 3/2 side lever

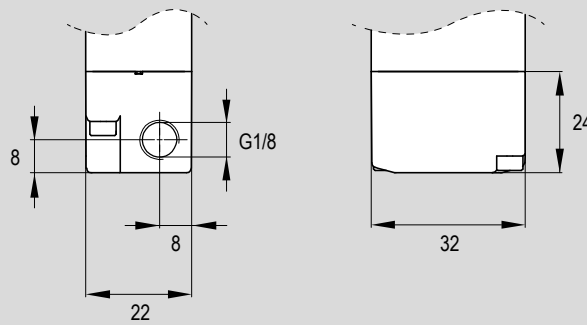


Standard dimensions

Type: **3/2 lever/spring N.C.**
3/2 lever/lever detent



Type: **3/2 lever/pilot**




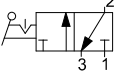
Version	Symbol	Code	Item
1/8" 3/2 lever/spring normally closed side lever		034071	A1MA130LL
1/8" 3/2 lever/lever detent side lever		034070	A1MA132LL
1/8" 3/2 lever/pilot side lever		034294	A1MA132LLP

Manual lever operated valves series A1

1/8", 3/2 top lever



Main features

Version	Code	Item	Symbol
3/2 lever/lever detent top lever	034082 	A1MA132LT	



Technical data

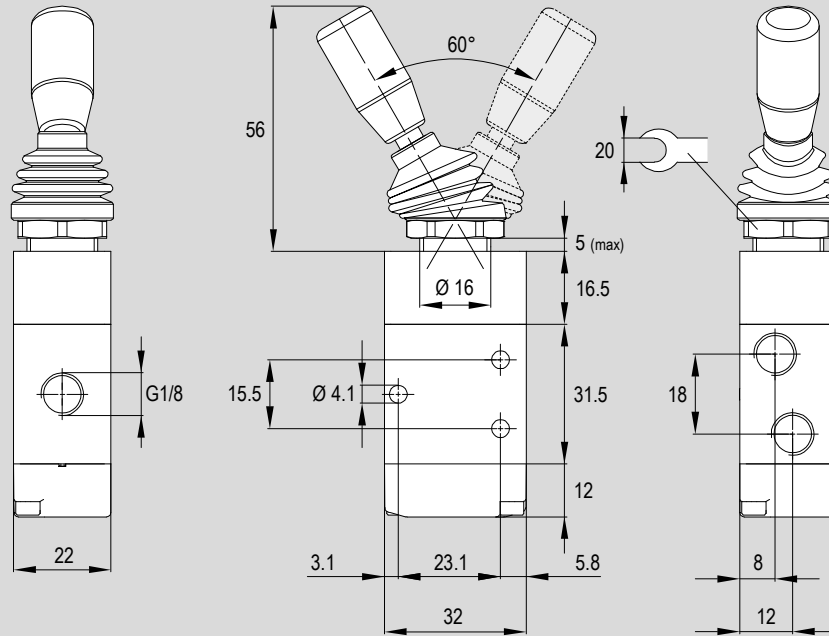
Version	3/2 lever/lever detent	
Code	034082	
Item	A1MA132LT	
Size	1/8"	
Orifice	6.5 mm	
Configuration	Top lever	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	0 ÷ 10 bar	
Temperature range	-10°C ÷ +80°C (standard) -25°C ÷ +60°C (BT)	
Flow at 6 bar with ΔP 1 bar	650 NI/min.	
Mounting	In every position	

Manual lever operated valves series A1
1/8", 3/2 top lever



Standard dimensions

Type: 3/2 lever/lever detent



2 - VALVES


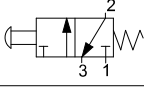

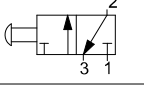
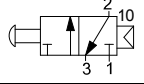
Version	Symbol	Code	Item
1/8" 3/2 lever/lever detent top lever		034082	A1MA132LT

Manual lever operated valves series A1

1/8", 3/2 push-pull



Main features

Version	Code	Item	Symbol
3/2 N.C. spring return	034083 	A1MA130TT	
3/2 two positions detent	034084 	A1MA132TT	
3/2 pilot return	034360	A1MA132TTP	

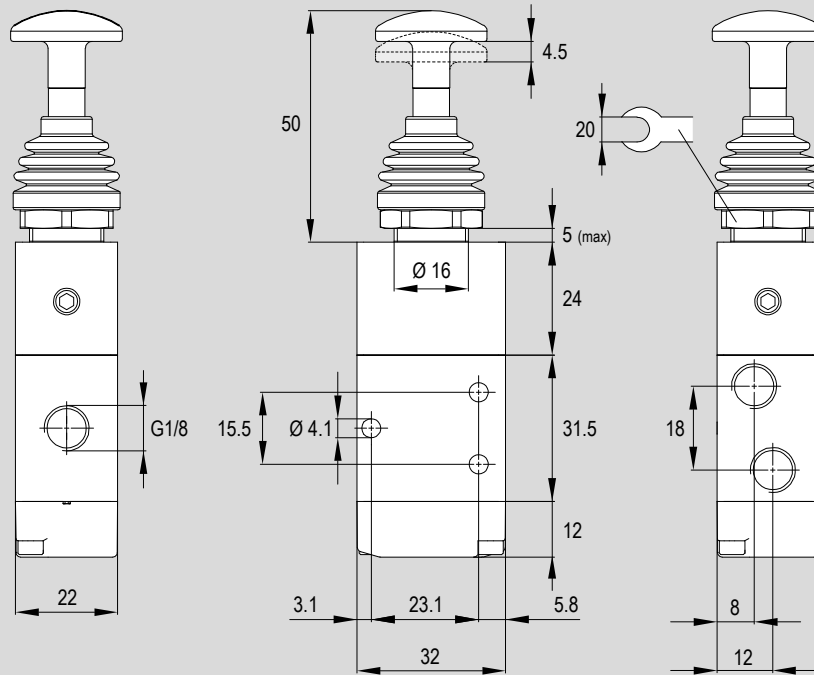


Technical data

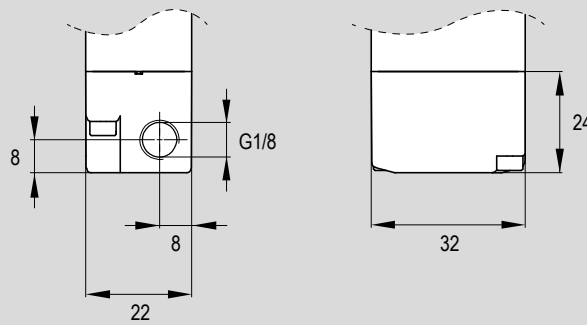
Version	3/2 normally closed spring return	3/2 two positions detent	3/2 pilot return
Code	034083	034084	034360
Item	A1MA130TT	A1MA132TT	A1MA132TTP
Size	1/8"		
Orifice	6.5 mm		
Configuration	Push-pull		
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	0 ÷ 10 bar		
Temperature range	-10°C ÷ +80°C (standard)	-25°C ÷ +60°C (BT)	
Flow at 6 bar with ΔP 1 bar	650 NI/min.		
Mounting	In every position		

Standard dimensions

Type: 3/2 N.C. spring return
3/2 two positions detent



Type: 3/2 pilot return



Version	Symbol	Code	Item
1/8" 3/2 normally closed spring return		034083	A1MA130TT
1/8" 3/2 two positions detent		034084	A1MA132TT
1/8" 3/2 pilot return		034360	A1MA132TTP

Manual lever operated valves series A1

1/8", 5/2 side lever



Main features

Version	Code	Item	Symbol
5/2 lever/spring side lever	034064	A1MA150LL	
5/2 lever/lever detent side lever	034063	A1MA151LL	
5/2 lever/pilot side lever	034169	A1MA151LLP	

Technical data

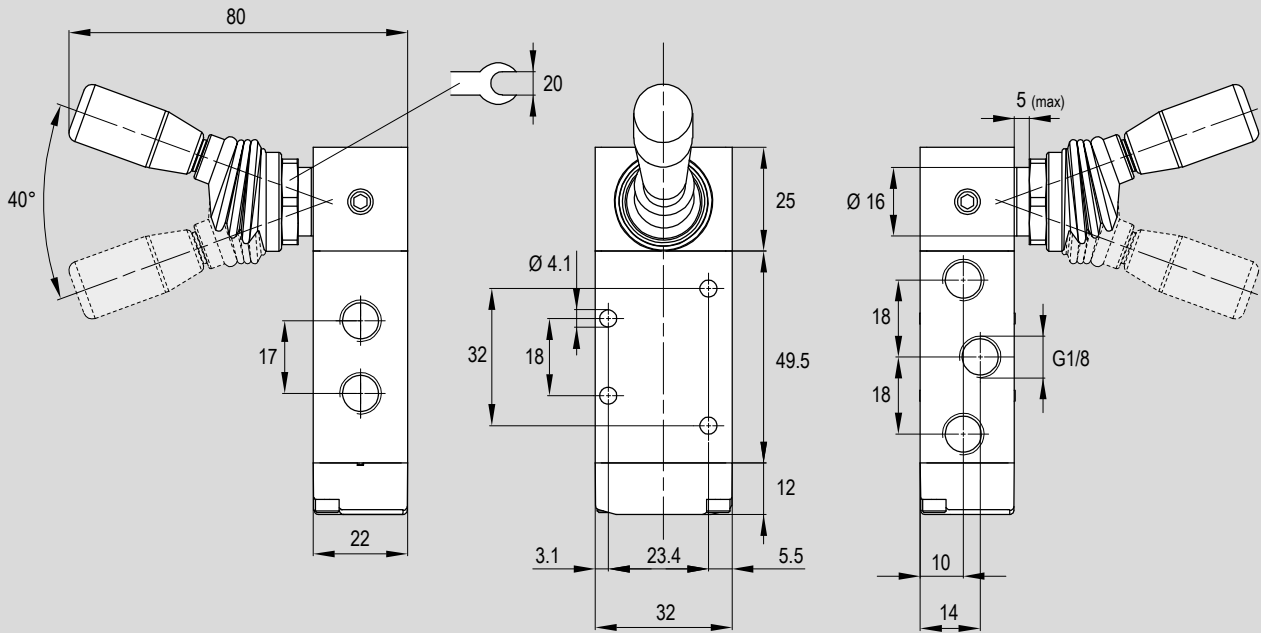
Version	5/2 lever/spring	5/2 lever/lever detent	5/2 lever/pilot
Code	034063	034063	034169
Item	A1MA150LL	A1MA151LL	A1MA151LLP
Size	1/8"		
Orifice	6.5 mm		
Configuration	Side lever		
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	0 ÷ 10 bar		
Temperature range	-10°C ÷ +80°C (standard)	-25°C ÷ +60°C (BT)	
Flow at 6 bar with ΔP 1 bar	650 NI/min.		
Mounting	In every position		

Manual lever operated valves series A1
1/8", 5/2 side lever

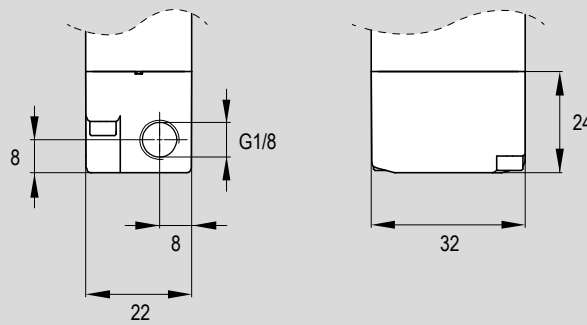


Standard dimensions

Type: 5/2 lever/spring
5/2 lever/lever detent



Type: 5/2 lever/pilot




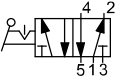
Version	Symbol	Code	Item
1/8" 5/2 lever/spring side lever		034064	A1MA150LL
1/8" 5/2 lever/lever detent side lever		034063	A1MA151LL
1/8" 5/2 lever/pilot side lever		034169	A1MA151LLP

Manual lever operated valves series A1

1/8", 5/2 top lever



Main features

Version	Code	Item	Symbol
5/2 lever/lever detent top lever	034091 	A1MA151LT	



Technical data

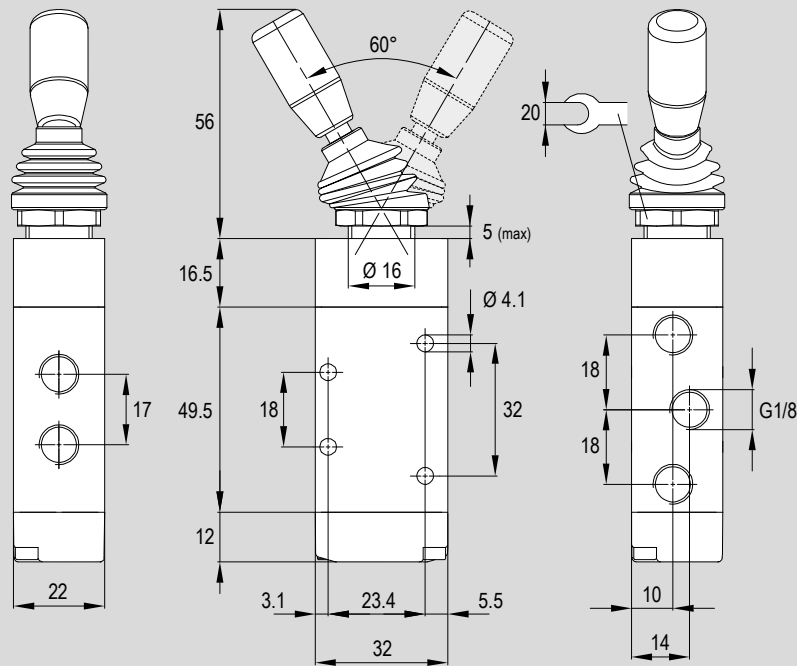
Version	5/2 lever/lever detent
Code	034091
Item	A1MA151LT
Size	1/8"
Orifice	6.5 mm
Configuration	Top lever
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.
Pressure range	0 ÷ 10 bar
Temperature range	-10°C ÷ +80°C (standard) -25°C ÷ +60°C (BT)
Flow at 6 bar with ΔP 1 bar	650 NI/min.
Mounting	In every position

Manual lever operated valves series A1
1/8", 5/2 top lever



Standard dimensions

Type: 5/2 lever/lever detent



2 - VALVES


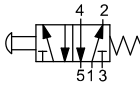

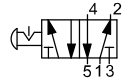
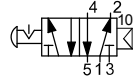
Version	Symbol	Code	Item
1/8" 5/2 lever/lever detent top lever		034091	A1MA151LT

Manual lever operated valves series A1

1/8", 5/2 push-pull



Main features

Version	Code	Item	Symbol
5/2 spring return	034092 	A1MA150TT	
5/2 two positions detent	034093 	A1MA151TT	
5/2 pilot return	034361	A1MA151TTP	

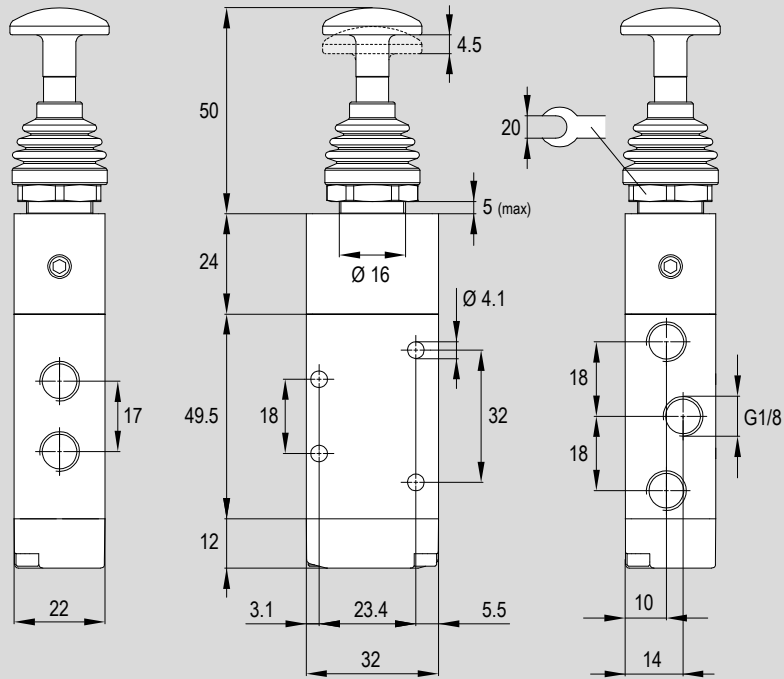


Technical data

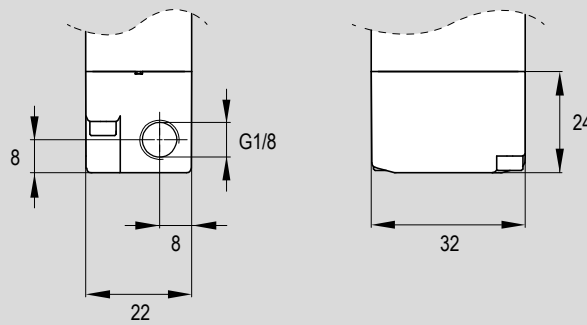
Version	5/2 spring return	5/2 two positions detent	5/2 pilot return
Code	034092	034093	034361
Item	A1MA150TT	A1MA151TT	A1MA151TTP
Size	1/8"		
Orifice	6.5 mm		
Configuration	Push-pull		
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	0 ÷ 10 bar		
Temperature range	-10°C ÷ +80°C (standard)	-25°C ÷ +60°C (BT)	
Flow at 6 bar with ΔP 1 bar	650 NI/min.		
Mounting	In every position		

Standard dimensions

Type: 5/2 spring return
5/2 two positions detent



Type: 5/2 pilot return



2 - VALVES

Version	Symbol	Code	Item
1/8" 5/2 spring return		034092	A1MA150TT
1/8" 5/2 two positions detent		034093	A1MA151TT
1/8" 5/2 pilot return		034361	A1MA151TTP

Manual lever operated valves series A1

1/8", 5/3 side lever



Main features

Version	Code	Item	Symbol
5/3 lever/spring C.C. side lever	034062	A1MA170LL	
5/3 lever/spring O.C. side lever	034066	A1MA171LL	
5/3 lever/spring P.C. side lever	034065	A1MA172LL	
5/3 3 positions detent C.C. side lever	034068	A1MA173LL	
5/3 3 positions detent O.C. side lever	034067	A1MA174LL	
5/3 3 positions detent P.C. side lever	034069	A1MA175LL	



Technical data

Version	5/3 lever/spring closed centres	5/3 lever/spring open centres	5/3 lever/spring pressurized centres	5/3 3 positions detent closed centres	5/3 3 positions detent open centres	5/3 3 positions detent pressurized centres
Code	034062	034066	034065	034068	034067	034069
Item	A1MA170LL	A1MA171LL	A1MA172LL	A1MA173LL	A1MA174LL	A1MA175LL
Size	1/8"					
Orifice	6.5 mm					
Configuration	Side lever					
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.					
Pressure range	0 ÷ 10 bar					
Temperature range	-10°C ÷ +80°C (standard)		-25°C ÷ +60°C (BT)			
Flow at 6 bar with ΔP 1 bar	650 NI/min.					
Mounting	In every position					

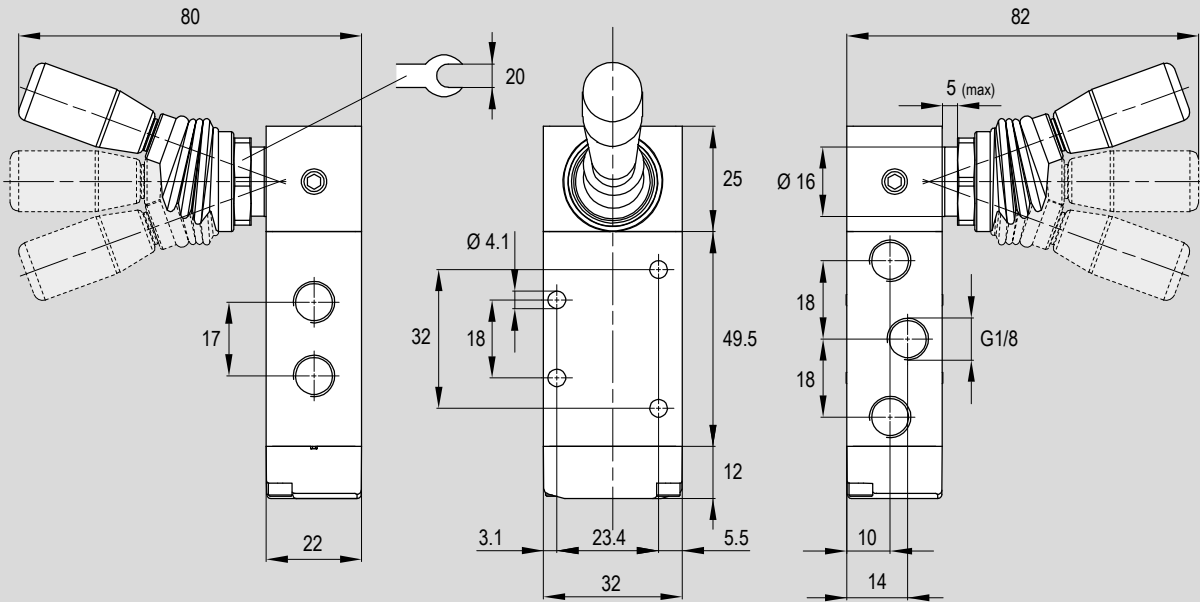
Manual lever operated valves series A1

1/8", 5/3 side lever



Standard dimensions

Type: **5/3 3 positions detent C.C.**
5/3 3 positions detent O.C.
5/3 3 positions detent P.C.



2 - VALVES


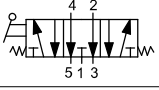
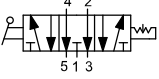
Version	Symbol	Code	Item
1/8" 5/3 3 positions detent closed centres side lever		034068	A1MA173LL
1/8" 5/3 3 positions detent open centres side lever		034067	A1MA174LL
1/8" 5/3 3 positions detent pressurized centres side lever		034069	A1MA175LL

Manual lever operated valves series A1

1/8", 5/3 top lever



Main features

Version	Code	Item	Symbol
5/3 lever/spring O.C. top lever	034662 	A1MA171LT	
5/3 3 positions detent O.C. top lever	034663	A1MA174LT	

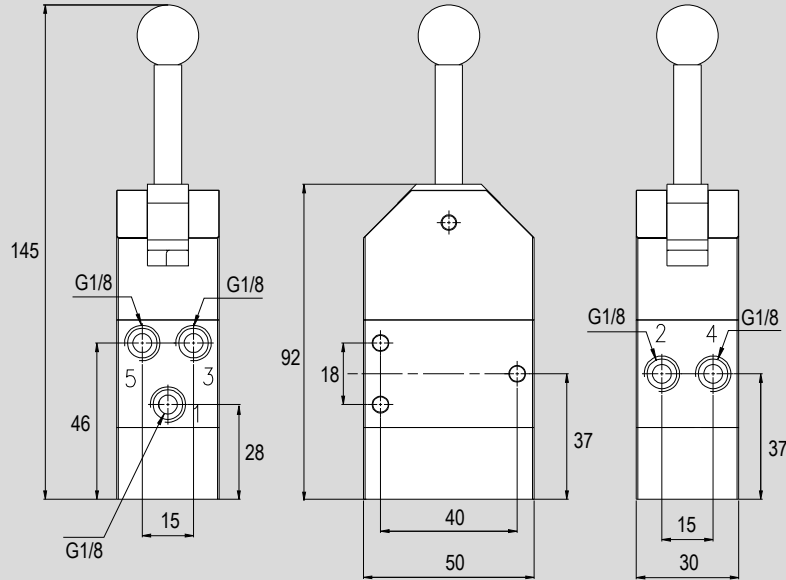


Technical data

Version	5/3 lever/spring open centres	5/3 3 positions detent open centres
Code	034662	034663
Item	A1MA171LT	A1MA174LT
Size	1/8"	
Orifice	6.5 mm	
Configuration	Top lever	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	0 ÷ 10 bar	
Temperature range	-10°C ÷ +80°C (standard)	-25°C ÷ +60°C (BT)
Flow at 6 bar with ΔP 1 bar	650 NI/min.	
Mounting	In every position	

Standard dimensions

Type: **5/3 lever/spring O.C.**
5/3 3 positions detent O.C.



2 - VALVES

Version	Symbol	Code	Item
1/8" 5/3 lever/spring open centres top lever		034662	A1MA171LT
1/8" 5/3 3 positions detent open centres top lever		034663	A1MA174LT

Manual lever operated valves series A1

1/4", 3/2 side lever



Main features

Version	Code	Item	Symbol
3/2 N.C. lever/spring side lever	034077	A1MA230LL	
3/2 lever/lever detent side lever	034076	A1MA232LL	
3/2 lever/pilot side lever	034295	A1MA232LLP	



Technical data

Version	3/2 normally closed lever/spring	3/2 lever/lever detent	3/2 lever/pilot
Code	034077	034076	034295
Item	A1MA230LL	A1MA232LL	A1MA232LLP
Size	1/4"		
Orifice	8 mm		
Configuration	Side lever		
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	0 ÷ 10 bar		
Temperature range	-10°C ÷ +80°C (standard)	-25°C ÷ +60°C (BT)	
Flow at 6 bar with ΔP 1 bar	1.100 NI/min.		
Mounting	In every position		

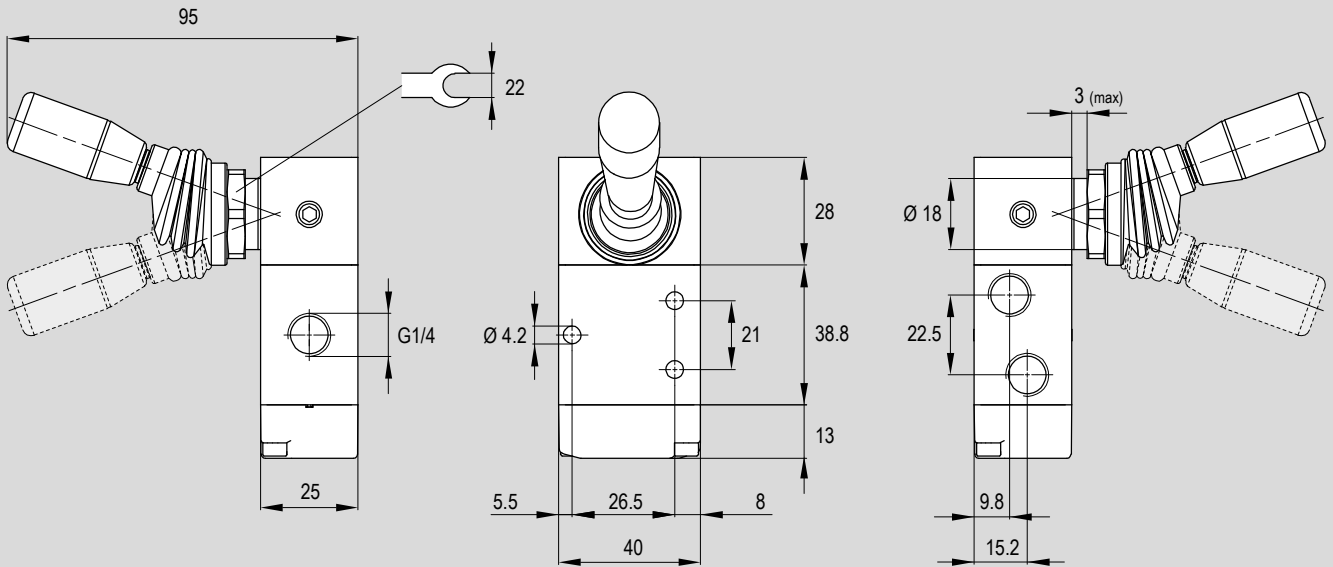
Manual lever operated valves series A1

1/4", 3/2 side lever

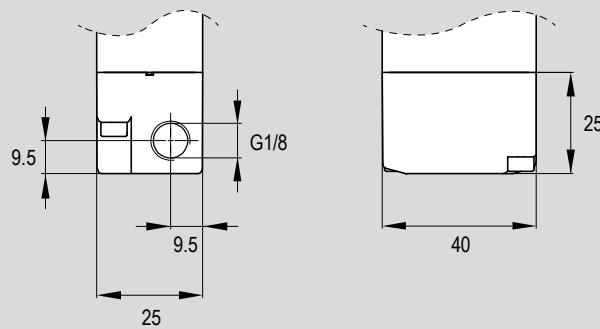


Standard dimensions

Type: **3/2 lever/spring N.C.**
3/2 lever/lever detent



Type: **3/2 lever/pilot**




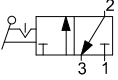
Version	Symbol	Code	Item
1/4" 3/2 lever/spring normally closed side lever		034077	A1MA230LL
1/4" 3/2 lever/lever detent side lever		034076	A1MA232LL
1/4" 3/2 lever/pilot side lever		034295	A1MA232LLP

Manual lever operated valves series A1

1/4", 3/2 top lever



Main features

Version	Code	Item	Symbol
3/2 lever/lever detent top lever	034100 	A1MA232LT	



Technical data

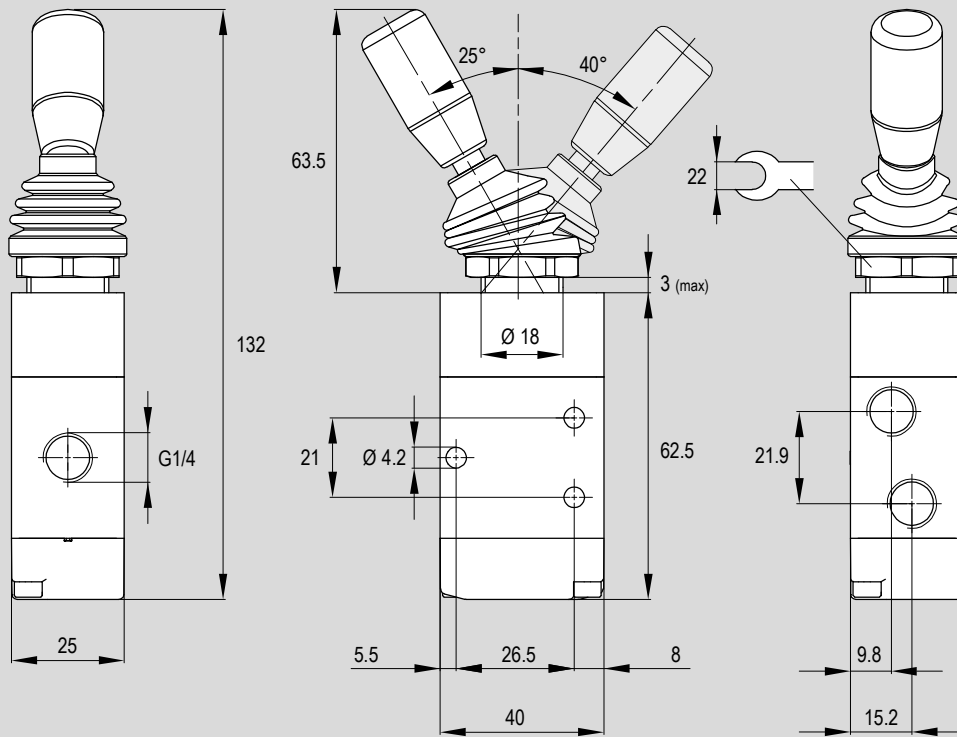
Version	3/2 lever/lever detent
Code	034100
Item	A1MA232LT
Size	1/4"
Orifice	8 mm
Configuration	Top lever
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.
Pressure range	0 ÷ 10 bar
Temperature range	-10°C ÷ +80°C (standard) -25°C ÷ +60°C (BT)
Flow at 6 bar with ΔP 1 bar	1.100 NI/min.
Mounting	In every position

Manual lever operated valves series A1
1/4", 3/2 top lever

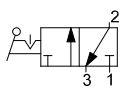



Standard dimensions

Type: 3/2 lever/lever detent



2 - VALVES


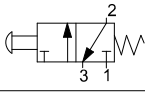

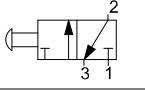
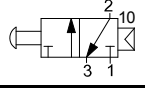
Version	Symbol	Code	Item
1/4" 3/2 lever/lever detent top lever		034100 	A1MA232LT

Manual lever operated valves series A1

1/4", 3/2 push-pull



Main features

Version	Code	Item	Symbol
3/2 N.C. spring return	034103 	A1MA230TT	
3/2 two positions detent	034104 	A1MA232TT	
3/2 pilot return	034359	A1MA232TTP	



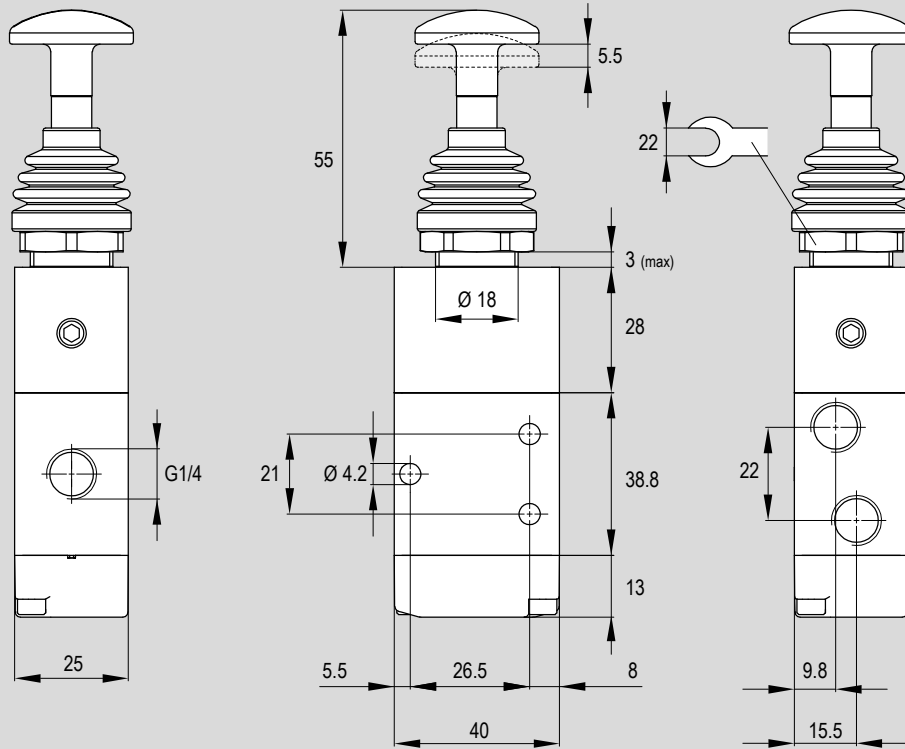
Technical data

Version	3/2 normally closed spring return	3/2 two positions detent	3/2 pilot return
Code	034103	034104	034359
Item	A1MA230TT	A1MA232TT	A1MA232TTP
Size	1/4"		
Orifice	8 mm		
Configuration	Push-pull		
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	0 ÷ 10 bar		
Temperature range	-10°C ÷ +80°C (standard)	-25°C ÷ +60°C (BT)	
Flow at 6 bar with ΔP 1 bar	1.100 Nl/min.		
Mounting	In every position		

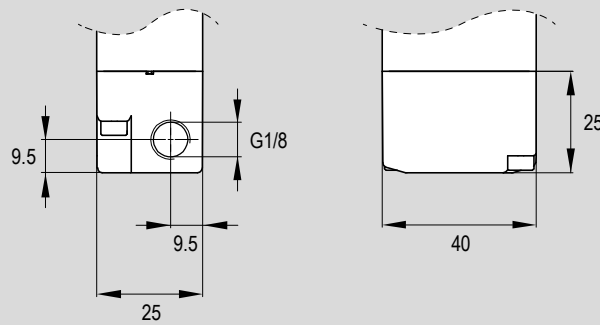
Standard dimensions

2 - VALVES

Type: 3/2 N.C. spring return
3/2 two positions detent



Type: 3/2 pilot return




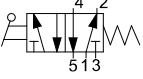

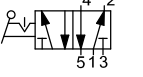
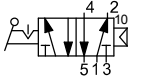
Version	Symbol	Code	Item
1/4" 3/2 normally closed spring return		034103	A1MA230TT
1/4" 3/2 two positions detent		034104	A1MA232TT
1/4" 3/2 pilot return		034359	A1MA232TTP

Manual lever operated valves series A1

1/4", 5/2 side lever



Main features

Version	Code	Item	Symbol
5/2 lever/spring side lever	034078 	A1MA250LL	
5/2 lever/lever detent side lever	034079 	A1MA251LL	
5/2 lever/pilot side lever	034176	A1MA251LLP	



Technical data

Version	5/2 lever/spring	5/2 lever/lever detent	5/2 lever/pilot
Code	034078	034079	034176
Item	A1MA250LL	A1MA251LL	A1MA251LLP
Size	1/4"		
Orifice	8 mm		
Configuration	Side lever		
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	0 ÷ 10 bar		
Temperature range	-10°C ÷ +80°C (standard)	-25°C ÷ +60°C (BT)	
Flow at 6 bar with ΔP 1 bar	1.100 NI/min.		
Mounting	In every position		

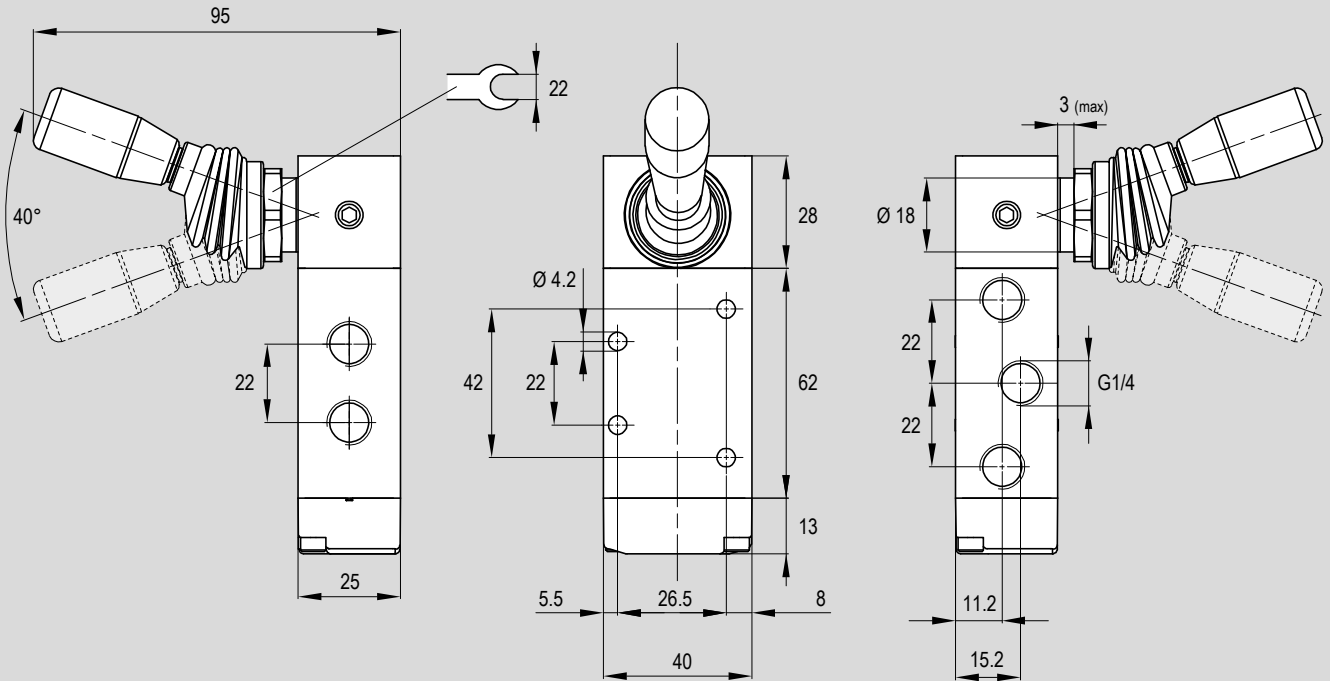
Manual lever operated valves series A1

1/4", 5/2 side lever

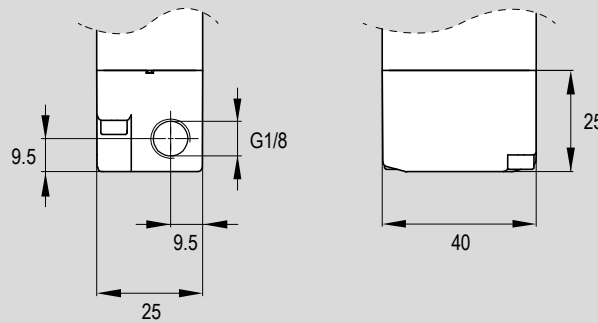


Standard dimensions

Type: 5/2 lever/spring
5/2 lever/lever detent



Type: 5/2 lever/pilot




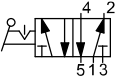
Version	Symbol	Code	Item
1/4" 5/2 lever/spring side lever		034078	A1MA250LL
1/4" 5/2 lever/lever detent side lever		034079	A1MA251LL
1/4" 5/2 lever/pilot side lever		034176	A1MA251LLP

Manual lever operated valves series A1

1/4", 5/2 top lever



Main features

Version	Code	Item	Symbol
5/2 lever/lever detent top lever	034105 	A1MA251LT	



Technical data

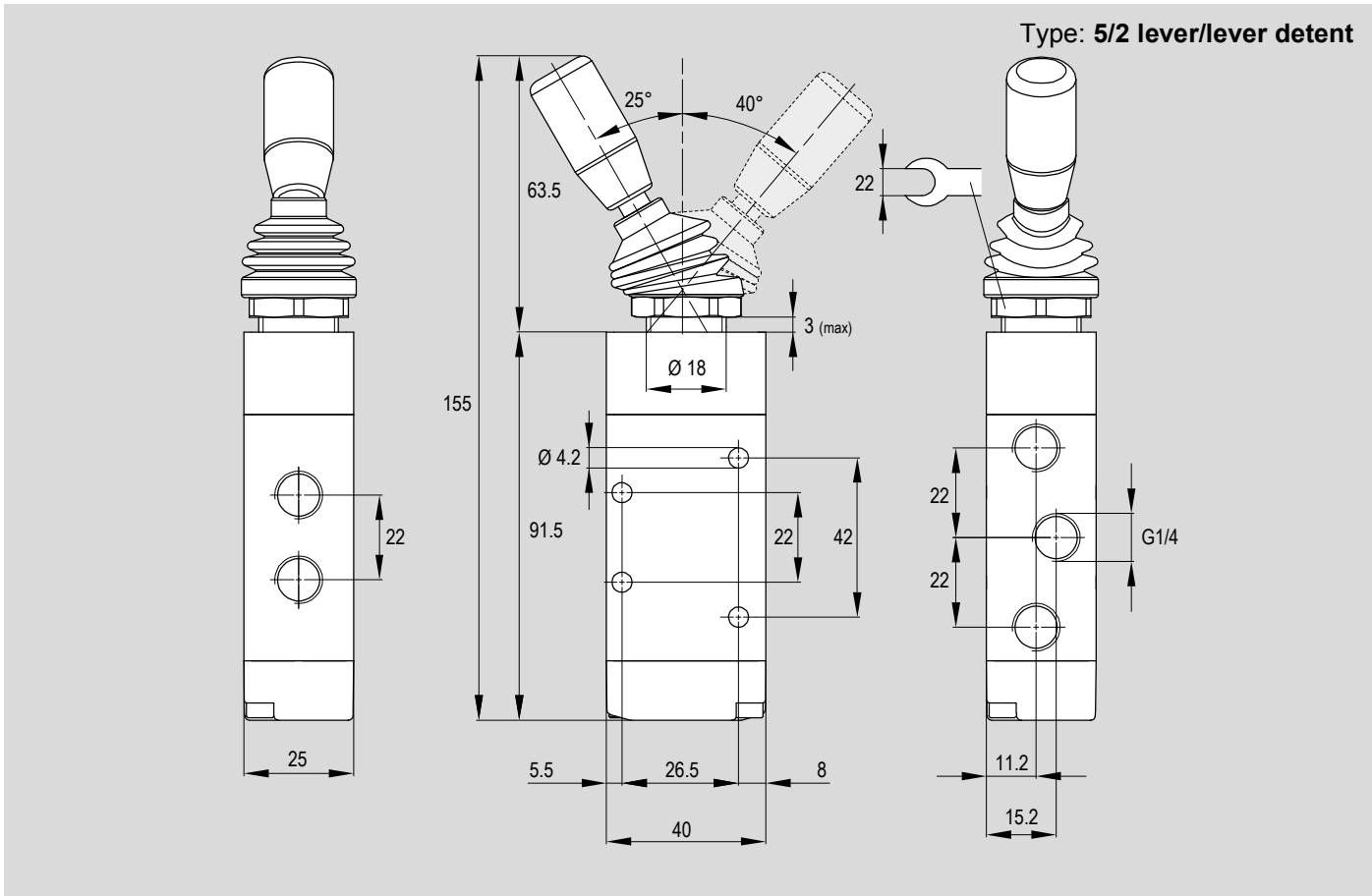
Version	5/2 lever/lever detent
Code	034105
Item	A1MA251LT
Size	1/4"
Orifice	8 mm
Configuration	Top lever
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.
Pressure range	0 ÷ 10 bar
Temperature range	-10°C ÷ +80°C (standard) -25°C ÷ +60°C (BT)
Flow at 6 bar with ΔP 1 bar	1.100 NI/min.
Mounting	In every position

Manual lever operated valves series A1
1/4", 5/2 top lever



Standard dimensions

2 - VALVES



Version	Symbol	Code	Item
1/4" 5/2 lever/lever detent top lever		034105	A1MA251LT

Manual lever operated valves series A1

1/4", 5/2 push-pull



Main features

Version	Code	Item	Symbol
5/2 spring return	034106	A1MA250TT	
5/2 two positions detent	034107	A1MA251TT	
5/2 pilot return	024221	A1MA251TTP	



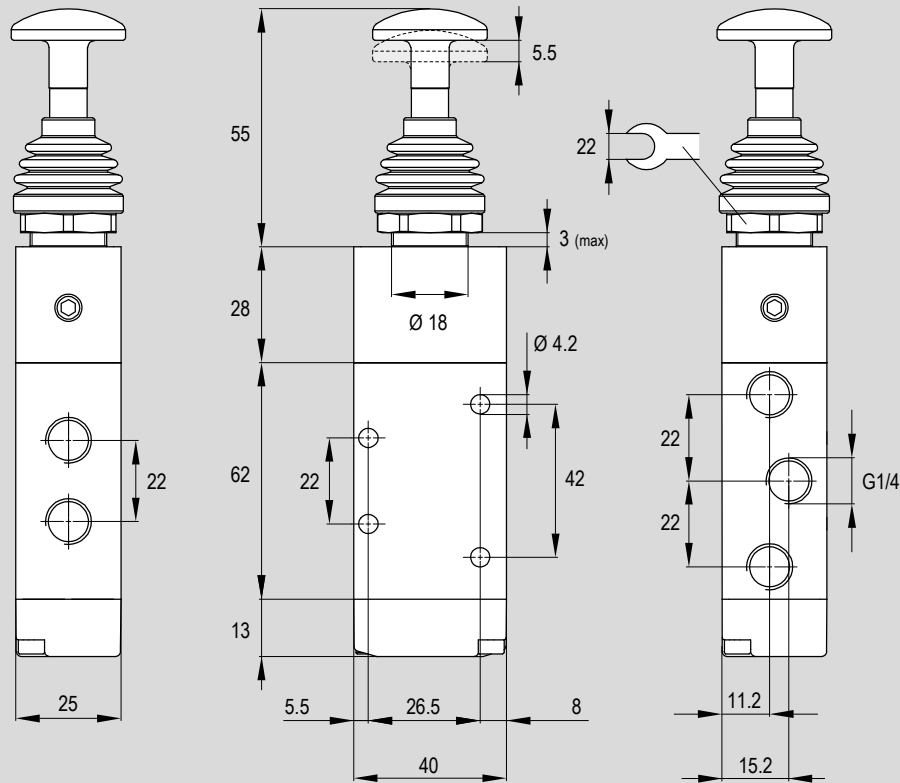
Technical data

Version	5/2 spring return	5/2 two positions detent	5/2 pilot return
Code	034106	034107	024221
Item	A1MA250TT	A1MA251TT	A1MA251TTP
Size	1/4"		
Orifice	8 mm		
Configuration	Push-pull		
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	0 ÷ 10 bar		
Temperature range	-10°C ÷ +80°C (standard)	-25°C ÷ +60°C (BT)	
Flow at 6 bar with ΔP 1 bar	1.100 NI/min.		
Mounting	In every position		

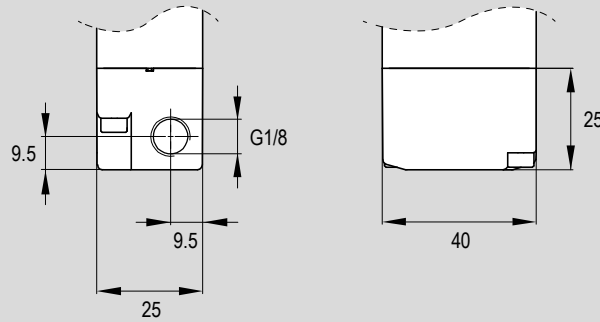
Standard dimensions

2 - VALVES

Type: 5/2 spring return
5/2 two positions detent



Type: 5/2 pilot return



Version	Symbol	Code	Item
1/4" 5/2 spring return		034106	A1MA250TT
1/4" 5/2 two positions detent		034107	A1MA251TT
1/4" 5/2 pilot return		024221	A1MA251TTP

Manual lever operated valves series A1

1/4", 5/3 side lever



Main features

Version	Code	Item	Symbol
5/3 lever/spring C.C. side lever	034072	A1MA270LL	
5/3 lever/spring O.C. side lever	034081	A1MA271LL	
5/3 lever/spring P.C. side lever	034080	A1MA272LL	
5/3 3 positions detent C.C. side lever	034075	A1MA273LL	
5/3 3 positions detent O.C. side lever	034073	A1MA274LL	
5/3 3 positions detent P.C. side lever	034074	A1MA275LL	



Technical data

Version	5/3 lever/spring closed centres	5/3 lever/spring open centres	5/3 lever/spring pressurized centres	5/3 3 positions detent closed centres	5/3 3 positions detent open centres	5/3 3 positions detent pressurized centres
Code	034072	034081	034080	034075	034073	034074
Item	A1MA270LL	A1MA271LL	A1MA272LL	A1MA273LL	A1MA274LL	A1MA275LL
Size	1/4"					
Orifice	8 mm					
Configuration	Side lever					
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.					
Pressure range	0 ÷ 10 bar					
Temperature range	-10°C ÷ +80°C (standard)		-25°C ÷ +60°C (BT)			
Flow at 6 bar with ΔP 1 bar	1.100 Nl/min.					
Mounting	In every position					

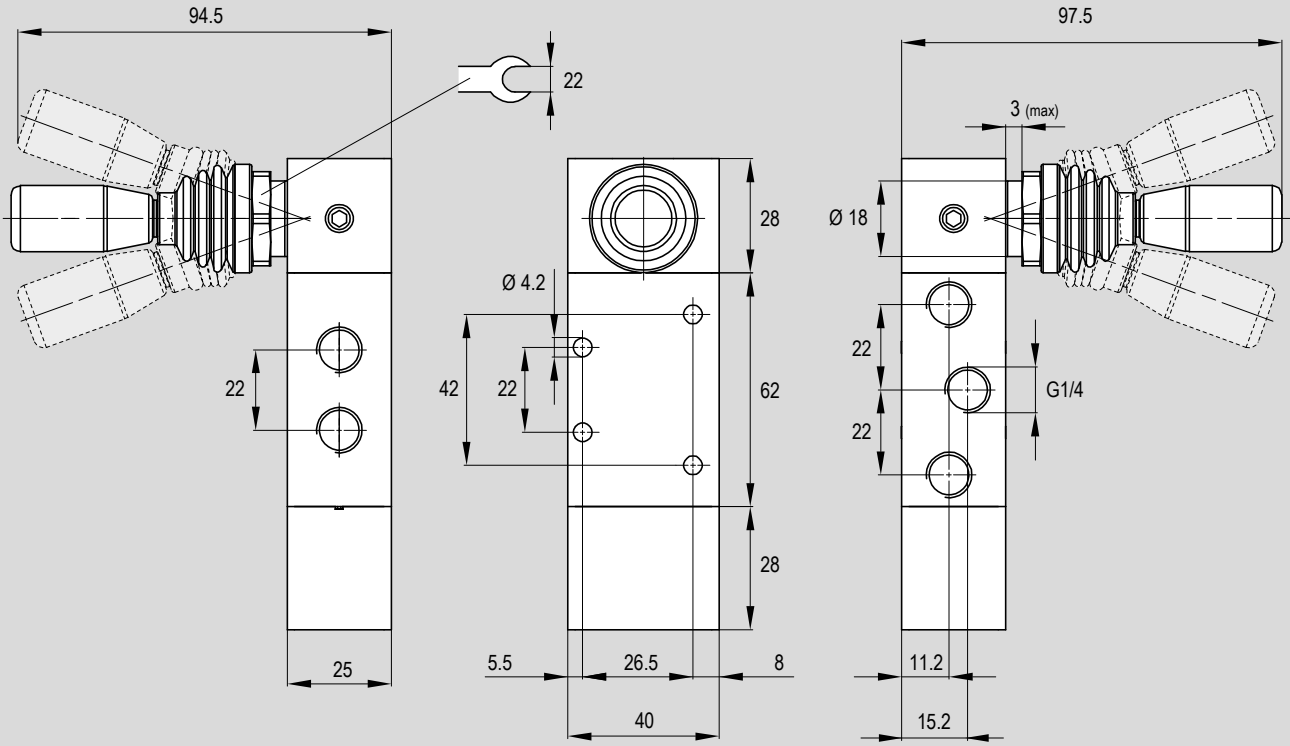
Manual lever operated valves series A1

1/4", 5/3 side lever



Standard dimensions

Type: **5/3 lever/spring C.C.**
5/3 lever/spring O.C.
5/3 lever/spring P.C.



2 - VALVES

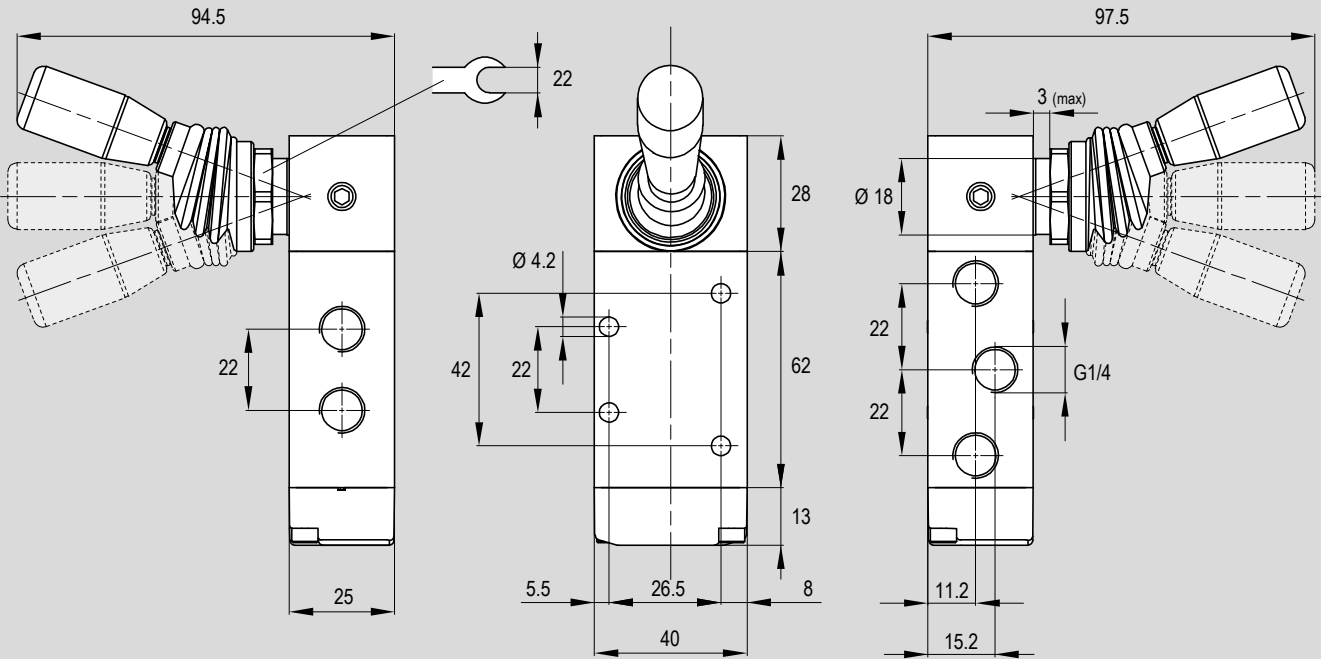
Version	Symbol	Code	Item
1/4" 5/3 lever/spring closed centres side lever		034072	A1MA270LL
1/4" 5/3 lever/spring open centres side lever		034081	A1MA271LL
1/4" 5/3 lever/spring pressurized centres side lever		034080	A1MA272LL

Manual lever operated valves series A1
1/4", 5/3 side lever



Standard dimensions

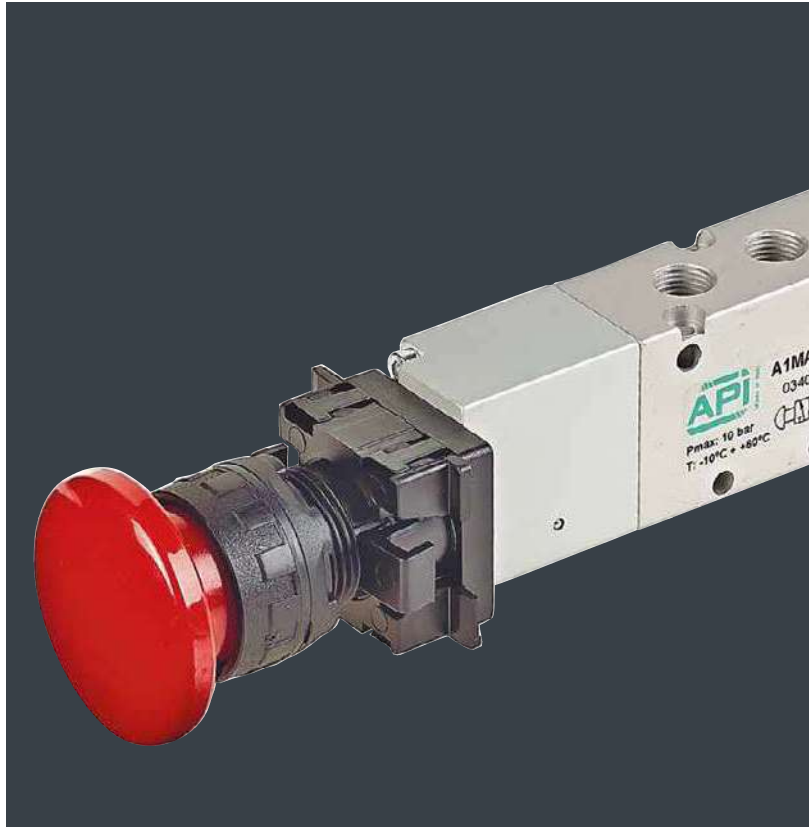
Type: **5/3 3 positions detent C.C.**
5/3 3 positions detent O.C.
5/3 3 positions detent P.C.



Version	Symbol	Code	Item
1/4" 5/3 3 positions detent closed centres side lever		034075	A1MA273LL
1/4" 5/3 3 positions detent open centres side lever		034073	A1MA274LL
1/4" 5/3 3 positions detent pressurized centres side lever		034074	A1MA275LL

MANUAL

button operated valves Series A1



Find out our
key products



Solution for most applications



Easy and intuitive choice



Excellent value for money



Wide availability



Fast delivery



Features and certifications

Spool valves, with static seals, high flow. Available in size 1/8", manual button operated, spring return with air assist, in many versions, functions and configurations (button, button 90° or selector).

Supplied as standard in compliance to Reach and RoHS directives, and SIL certified.

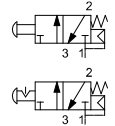
On request the valve body can be supplied according to 2014/34/EU ATEX Directive, classification Ex h.

Series A1 1/8" 3/2 head push button

from page 2.161.20



Series of spool valves, with static seals, high flow. Available in size 1/8", manual button operated, 3/2 spring return, head push button configuration (available colors: red, green or black), and 3/2 two positions detent, head push button configuration (available colors: red only).

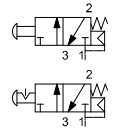


Series A1 1/8" 3/2 90° head push button

from page 2.161.30



Series of spool valves, with static seals, high flow. Available in size 1/8", manual button operated, 3/2 spring return 90° head push button configuration (available colors: red, green or black), and 3/2 two positions detent 90° head push button configuration (available colors: red only).

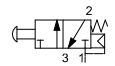


Series A1 1/8" 3/2 recessed button

from page 2.161.50



Series of spool valves, with static seals, high flow. Available in size 1/8", manual button operated, 3/2 spring return recessed button (available colors: red, green or black).

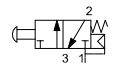


Series A1 1/8" 3/2 90° recessed button

from page 2.161.60



Series of spool valves, with static seals, high flow. Available in size 1/8", manual button operated, 3/2 spring return 90° recessed button configuration (available colors: red, green or black).

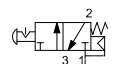


Series A1 1/8" 3/2 90° selector

from page 2.161.80



Series of spool valves, with static seals, high flow. Available in size 1/8", manual button operated, 3/2 two positions detent, 90° selector configuration (available colors: black only).



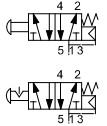


Series A1 1/8" 5/2 head push button

from page 2.161.120



Series of spool valves, with static seals, high flow. Available in size 1/8", manual button operated, 5/2 spring return, head push button configuration (available colors: red, green or black), and 5/2 two positions detent head push button configuration (available colors: red only).

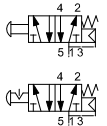


Series A1 1/8" 5/2 90° head push button

from page 2.161.130



Series of spool valves, with static seals, high flow. Available in size 1/8", manual button operated, 5/2 spring return 90° head push button configuration (available colors: red, green or black), and 5/2 two positions detent 90° head push button configuration (available colors: red only).

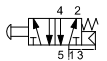


Series A1 1/8" 5/2 recessed button

from page 2.161.150



Series of spool valves, with static seals, high flow. Available in size 1/8", manual button operated, 5/2 spring return recessed button configuration (available colors: red, green or black).

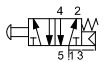


Series A1 1/8" 5/2 90° recessed button

from page 2.161.160



Series of spool valves, with static seals, high flow. Available in size 1/8", manual button operated, 5/2 spring return 90° recessed button configuration (available colors: red, green or black).

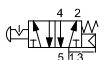


Series A1 1/8" 5/2 90° selector

from page 2.161.180



Series of spool valves, with static seals, high flow. Available in size 1/8", manual button operated, 5/2 two positions detent 90° selector configuration (available colors: black only).



Options

Description	Symbol	Suffix
Low temperatures seals -25°C + +60°C		BT
ATEX valve body*		/ATEX
Special versions on request		/S

The options, when this is possible, can be combined with each other. For options matching see the table below; For code key see from page 2.160.5

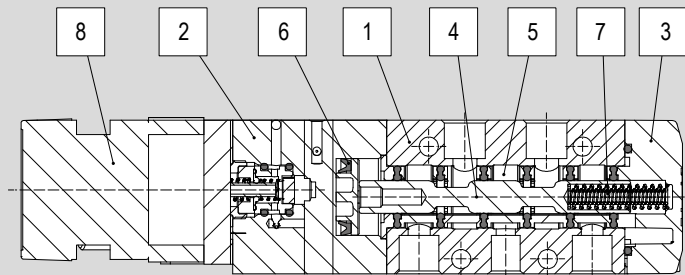
Options matching

Series	Size	Function	Standard options matching	
			BT	/ATEX
A1	1/8"	3/2	●	●
		5/2	●	●

Key

● allowed matching; - not allowed matching

Standard materials



Position	Description	Material
		1/8"
1	Body	Die-cast painted aluminium
2	Front cover	Anodized aluminium
3	Rear cover	Tecnopolymer
4	Spool	Hard anodized aluminium
5	Distancers	Tecnopolymer
6	Seals	HNBR
7	Springs	Spring steel
8	Button/Selector	Plastic

Code key

Series	Actuation	Size	Function	Button type ⁽²⁾			Options	/	ATEX valve body
A1	MA	1	50	F	R	90		/	

A1	MA = Manual	1 = 1/8"	30 = 3/2 Spring return 32 ⁽¹⁾ = 3/2 Two positions detent 50 = 5/2 Spring return 51 ⁽¹⁾ = 5/2 Two positions detent	F = Head push B = Recessed S = Selector	R = Red V = Green N = Black	90 = 90°	BT = Low temperatures seals	ATEX	II 2G Ex h IIB T5 Gb II 2D Ex h IIIC T100°C Db
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2 - VALVES

How to order

Series	Actuation	Size	Function	Button type	Option
A1	MA	1	50	FR90	

Notes

Options in the same grid are alternative to each others.

For further information on options and their matching, see page 2.160.4.

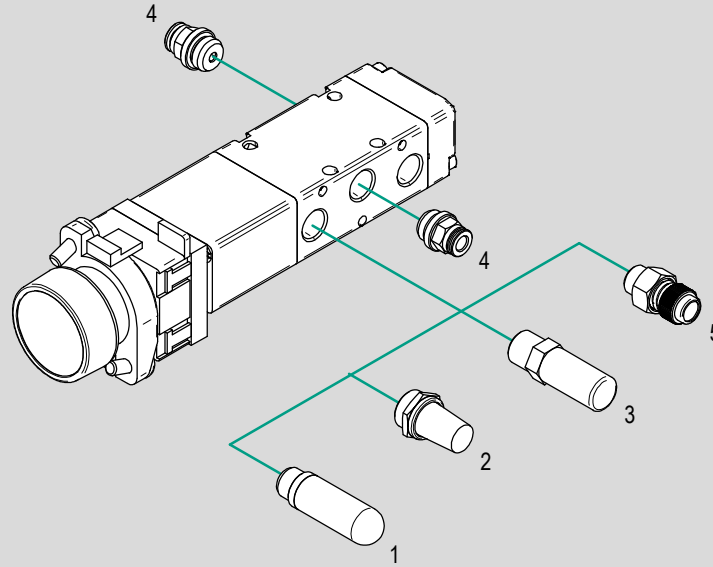
(1) 3/2 two positions detent (32) and 5/2 two positions detent (51) available only for configurations: red head push button (FR), 90° red head push button (FR90) and 90° black selector (SB90).

(2) Selector (S) available only in combination with 90° configuration (90) in black color (N).

For buttons and selectors spare parts, see page 2.185.1

For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

Accessories



2 - VALVES

N.	Item	Description	Compliance	Matching	Code key page	Data sheet page
				1/8"		
1	AS..	Plastic silencers	-	●	4.151.10	
	SP..			●	4.151.20	
2	A..	Sintered silencers	-	●	4.153.10	
3	M..	Metal silencers	-	●	4.155.10	
4	R..	Push-in fittings	UNI ISO 228/1 UNI ISO7/1 ISO R/232	●	4.2.1	
5	A..	Silenced exhaust restrictors	-	●	4.97.1	

Key

● matching accessory; - not matching accessory

Manual button operated valves series A1

1/8", 3/2 head push button



Main features

Version	Code	Item	Symbol
3/2 spring return red head push button	034085	A1MA130FR	
3/2 spring return green head push button	034086	A1MA130FV	
3/2 spring return black head push button	034087	A1MA130FN	
3/2 two positions detent red head push button	034182	A1MA132FR	



Technical data

Version	3/2 spring return			3/2 two positions detent
	Code	034085	034086	034087
Item	A1MA130FR	A1MA130FV	A1MA130FN	A1MA132FR
Size	1/8"			
Orifice	6.5 mm			
Button type	Head push			
Button color	Red	Green	Black	Red
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.			
Pressure range	0 ÷ 10 bar			
Temperature range	-10°C ÷ +80°C (standard)		-25°C ÷ +60°C (BT)	
Flow at 6 bar with ΔP 1 bar	650 NI/min.			
Mounting	In every position			

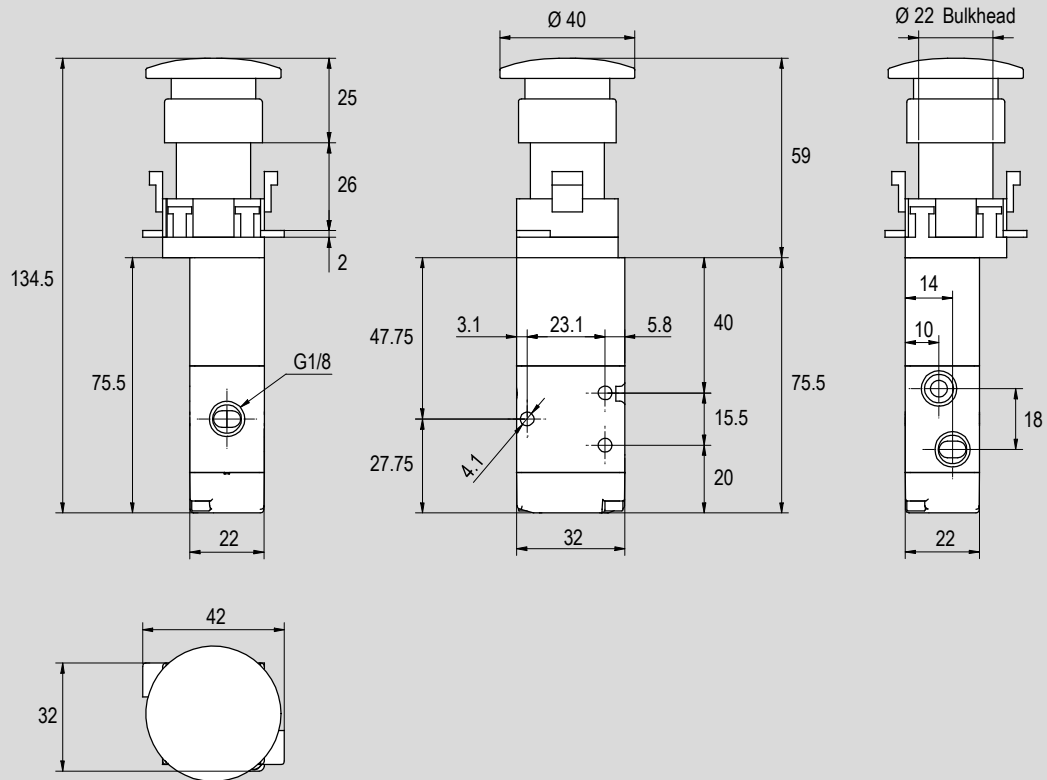
Manual button operated valves series A1

1/8", 3/2 head push button



Standard dimensions

Type: **3/2 spring return**
3/2 two positions detent



2 - VALVES

Version	Symbol	Code	Item
1/8" 3/2 spring return red head push button		034085	A1MA130FR
1/8" 3/2 spring return green head push button		034086	A1MA130FV
1/8" 3/2 spring return black head push button		034087	A1MA130FN
1/8" 3/2 two positions detent red head push button		034182	A1MA132FR

Manual button operated valves series A1

1/8", 3/2 90° head push button



Main features

Version	Code	Item	Symbol
3/2 spring return 90° red head push button	036045	A1MA130FR90	
3/2 spring return 90° green head push button	036046	A1MA130FV90	
3/2 spring return 90° black head push button	036047	A1MA130FN90	
3/2 two positions detent 90° red head push button	036048	A1MA132FR90	



Technical data

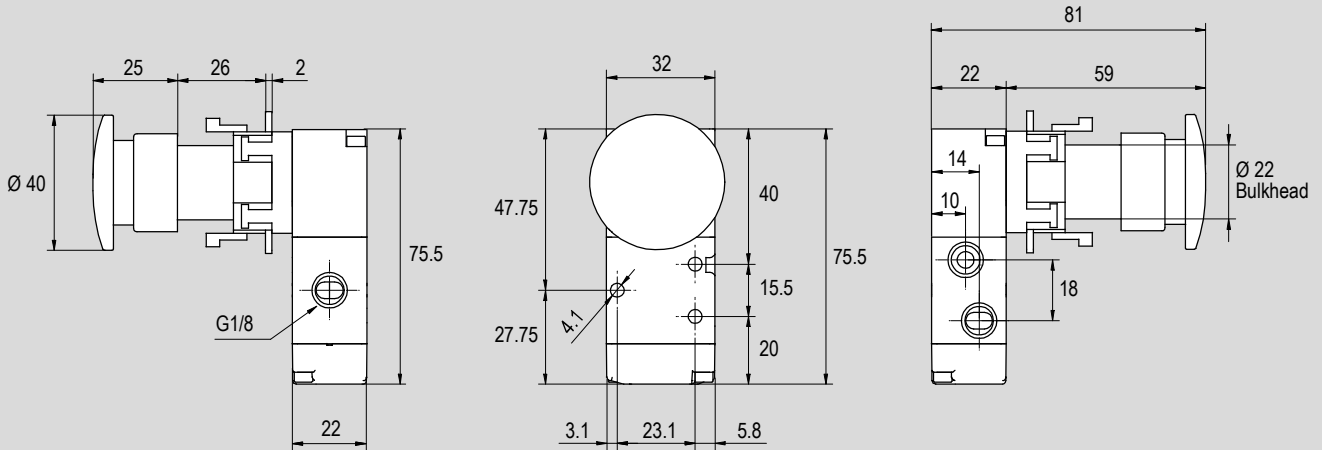
Version	3/2 spring return			3/2 two positions detent
	Code	036045	036046	036047
Item	A1MA130FR90	A1MA130FV90	A1MA130FN90	A1MA132FR90
Size	1/8"			
Orifice	6.5 mm			
Button type	90° head push			
Button color	Red	Green	Black	Red
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.			
Pressure range	0 ÷ 10 bar			
Temperature range	-10°C ÷ +80°C (standard)		-25°C ÷ +60°C (BT)	
Flow at 6 bar with ΔP 1 bar	650 NI/min.			
Mounting	In every position			

Manual button operated valves series A1
 1/8", 3/2 90° head push button



Standard dimensions

Type: **3/2 spring return**
3/2 two positions detent



2 - VALVES

Version	Symbol	Code	Item
1/8" 3/2 spring return 90° red head push button		036045	A1MA130FR90
1/8" 3/2 spring return 90° green head push button		036046	A1MA130FV90
1/8" 3/2 spring return 90° black head push button		036047	A1MA130FN90
1/8" 3/2 two positions detent 90° red head push button		036048	A1MA132FR90

Manual button operated valves series A1

1/8", 3/2 recessed button



Main features

Version	Code	Item	Symbol
3/2 spring return red recessed button	034088	A1MA130BR	
3/2 spring return green recessed button	034089	A1MA130BV	
3/2 spring return black recessed button	034090	A1MA130BN	



Technical data

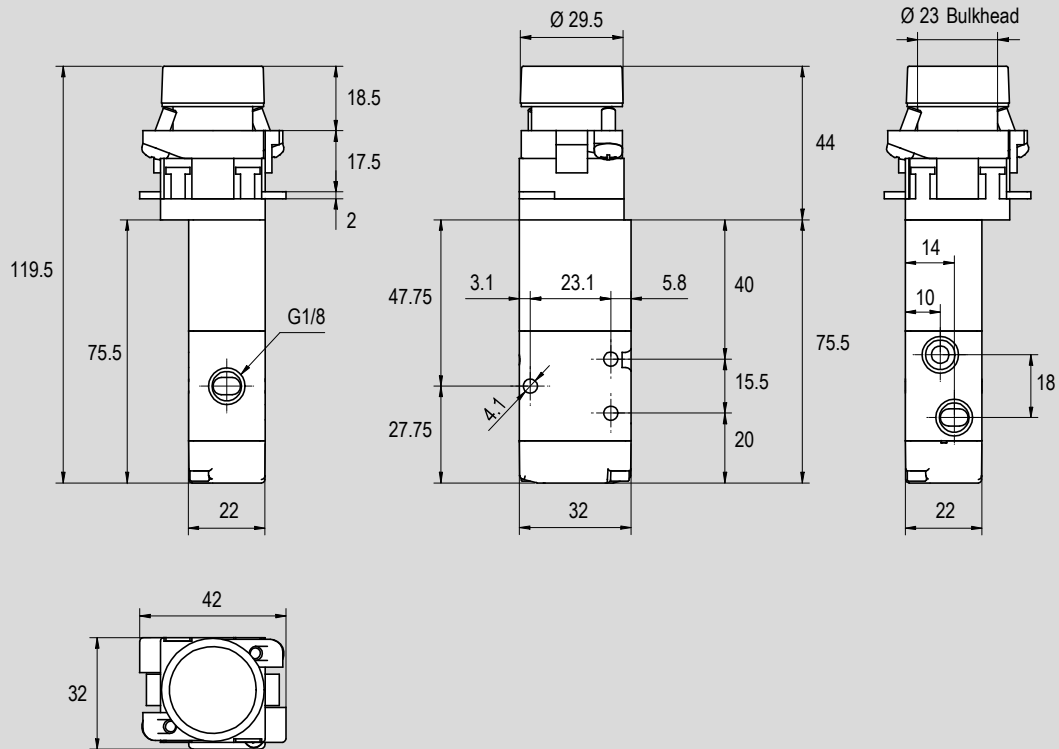
Version	3/2 spring return		
Code	034088	034089	034090
Item	A1MA130BR	A1MA130BV	A1MA130BN
Size	1/8"		
Orifice	6.5 mm		
Button type	Recessed		
Button color	Red	Green	Black
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	0 ÷ 10 bar		
Temperature range	-10°C ÷ +80°C (standard)	-25°C ÷ +60°C (BT)	
Flow at 6 bar with ΔP 1 bar	650 NI/min.		
Mounting	In every position		

Manual button operated valves series A1
1/8", 3/2 recessed button



Standard dimensions

Type: 3/2 spring return



2 - VALVES

Version	Symbol	Code	Item
1/8" 3/2 spring return red recessed button		034088	A1MA130BR
1/8" 3/2 spring return green recessed button		034089	A1MA130BV
1/8" 3/2 spring return black recessed button		034090	A1MA130BN

Manual button operated valves series A1

1/8", 3/2 90° recessed button



Main features

Version	Code	Item	Symbol
3/2 spring return 90° red recessed button	036049	A1MA130BR90	
3/2 spring return 90° green recessed button	036050	A1MA130BV90	
3/2 spring return 90° black recessed button	036051	A1MA130BN90	



Technical data

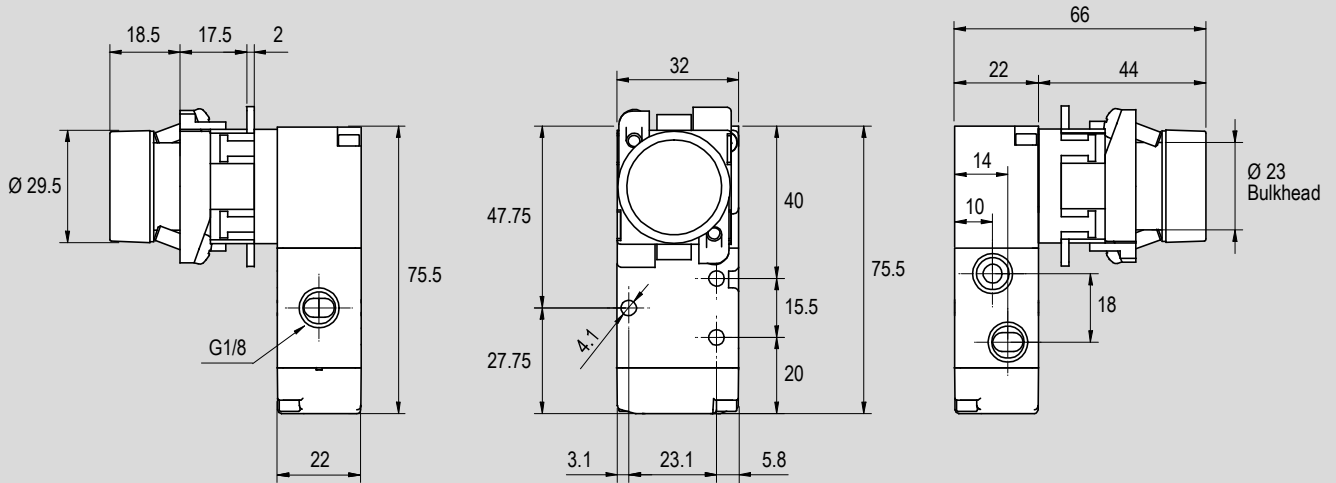
Version	3/2 spring return		
Code	036049	036050	036051
Item	A1MA130BR90	A1MA130BV90	A1MA130BN90
Size	1/8"		
Orifice	6.5 mm		
Button type	90° recessed		
Button color	Red	Green	Black
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	0 ÷ 10 bar		
Temperature range	-10°C ÷ +80°C (standard)	-25°C ÷ +60°C (BT)	
Flow at 6 bar with ΔP 1 bar	650 NI/min.		
Mounting	In every position		

Manual button operated valves series A1
 1/8", 3/2 90° recessed button



Standard dimensions

Type: 3/2 spring return



2 - VALVES

Version	Symbol	Code	Item
1/8" 3/2 spring return 90° red recessed button		036049	A1MA130BR90
1/8" 3/2 spring return 90° green recessed button		036050	A1MA130BV90
1/8" 3/2 spring return 90° black recessed button		036051	A1MA130BN90

Manual button operated valves series A1

1/8", 3/2 90° selector



Main features

Version	Code	Item	Symbol
3/2 two positions detent 90° black selector	036052	A1MA132SB90	

Technical data

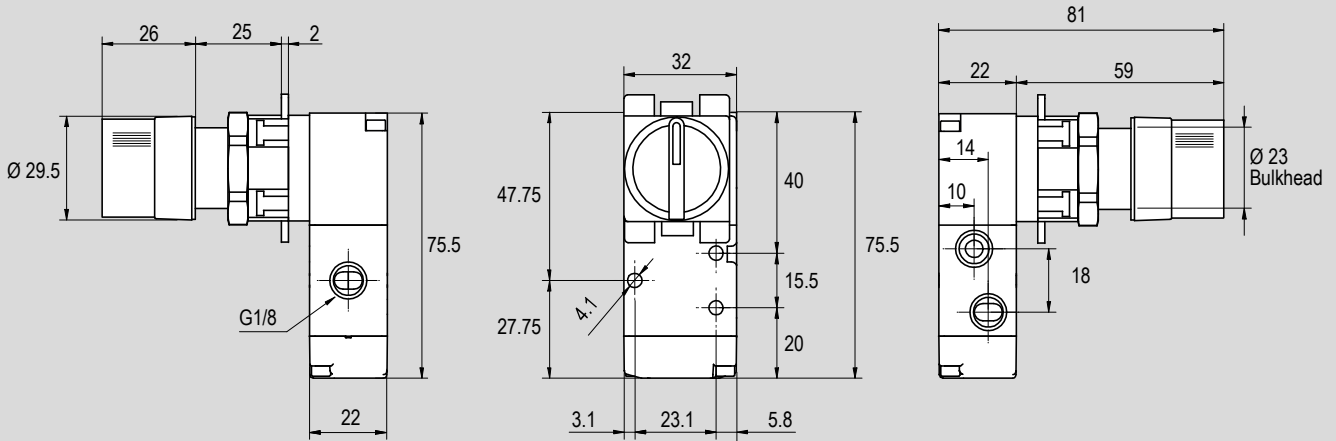
Version	3/2 two positions detent	
Code	036052	
Item	A1MA132SB90	
Size	1/8"	
Orifice	6.5 mm	
Button type	90° black selector	
Button color	Black	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	0 ÷ 10 bar	
Temperature range	-10°C ÷ +80°C (standard)	-25°C ÷ +60°C (BT)
Flow at 6 bar with ΔP 1 bar	650 NI/min.	
Mounting	In every position	

Manual button operated valves series A1
 1/8", 3/2 90° selector



Standard dimensions

Type: 3/2 two positions detent



2 - VALVES

Version	Symbol	Code	Item
1/8" 3/2 two positions detent 90° black selector		036052	A1MA132SB90

Manual button operated valves series A1

1/8", 5/2 head push button



Main features

Version	Code	Item	Symbol
5/2 spring return red head push button	034094	A1MA150FR	
5/2 spring return green head push button	034095	A1MA150FV	
5/2 spring return black head push button	034096	A1MA150FN	
5/2 two positions detent red head push button	034183	A1MA151FR	



Technical data

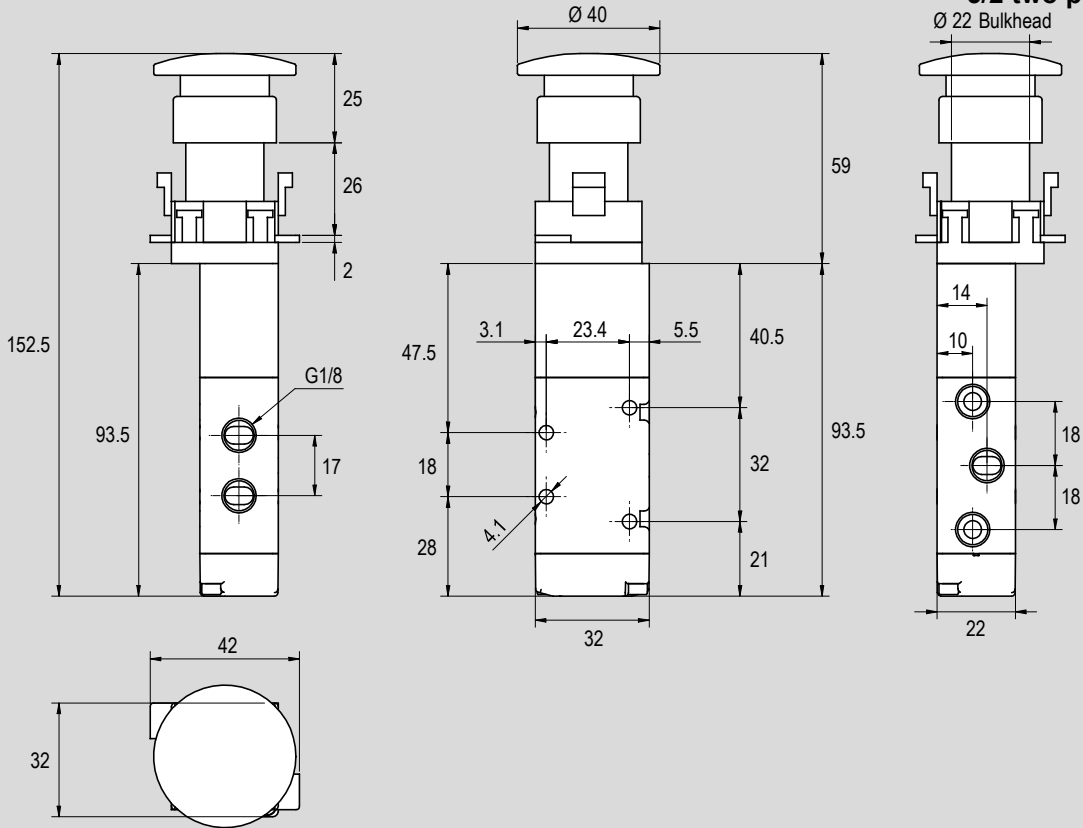
Version	5/2 spring return			5/2 two positions detent
Code	034094	034095	034096	034183
Item	A1MA150FR	A1MA150FV	A1MA150FN	A1MA151FR
Size	1/8"			
Orifice	6.5 mm			
Button type	Head push			
Button color	Red	Green	Black	Red
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.			
Pressure range	0 ÷ 10 bar			
Temperature range	-10°C ÷ +80°C (standard)		-25°C ÷ +60°C (BT)	
Flow at 6 bar with ΔP 1 bar	650 NI/min.			
Mounting	In every position			

Manual button operated valves series A1
1/8", 5/2 head push button



Standard dimensions

Type: **5/2 spring return**
5/2 two positions detent



2 - VALVES

Version	Symbol	Code	Item
1/8" 5/2 spring return red head push button		034094	A1MA150FR
1/8" 5/2 spring return green head push button		034095	A1MA150FV
1/8" 5/2 spring return black head push button		034096	A1MA150FN
1/8" 5/2 two positions detent red head push button		034183	A1MA151FR

Manual button operated valves series A1

1/8", 5/2 90° head push button



Main features

Version	Code	Item	Symbol
5/2 spring return 90° red head push button	036053	A1MA150FR90	
5/2 spring return 90° green head push button	036054	A1MA150FV90	
5/2 spring return 90° black head push button	036055	A1MA150FN90	
5/2 two positions detent 90° red head push button	036057	A1MA151FR90	



Technical data

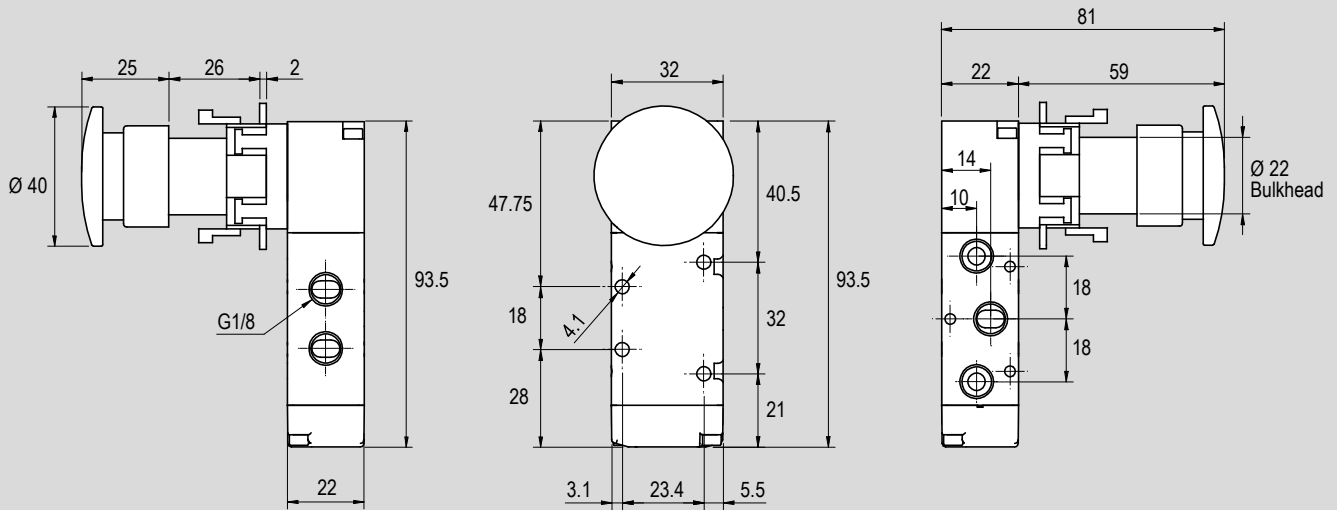
Version	5/2 spring return			5/2 two positions detent
	Code	036053	036054	036055
Item	A1MA150FR90	A1MA150FV90	A1MA150FN90	A1MA151FR90
Size	1/8"			
Orifice	6.5 mm			
Button type	90° head push			
Button color	Red	Green	Black	Red
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.			
Pressure range	0 ÷ 10 bar			
Temperature range	-10°C ÷ +80°C (standard)		-25°C ÷ +60°C (BT)	
Flow at 6 bar with ΔP 1 bar	650 NI/min.			
Mounting	In every position			

Manual button operated valves series A1
 1/8", 5/2 90° head push button



Standard dimensions

Type: **5/2 spring return**
5/2 two positions detent



2 - VALVES

Version	Symbol	Code	Item
1/8" 5/2 spring return 90° red head push button		036053	A1MA150FR90
1/8" 5/2 spring return 90° green head push button		036054	A1MA150FV90
1/8" 5/2 spring return 90° black head push button		036055	A1MA150FN90
1/8" 5/2 two positions detent 90° red head push button		036057	A1MA151FR90

Manual button operated valves series A1

1/8", 5/2 recessed button



Main features

Version	Code	Item	Symbol
5/2 spring return red recessed button	034097	A1MA150BR	
5/2 spring return green recessed button	034098	A1MA150BV	
5/2 spring return black recessed button	034099	A1MA150BN	



Technical data

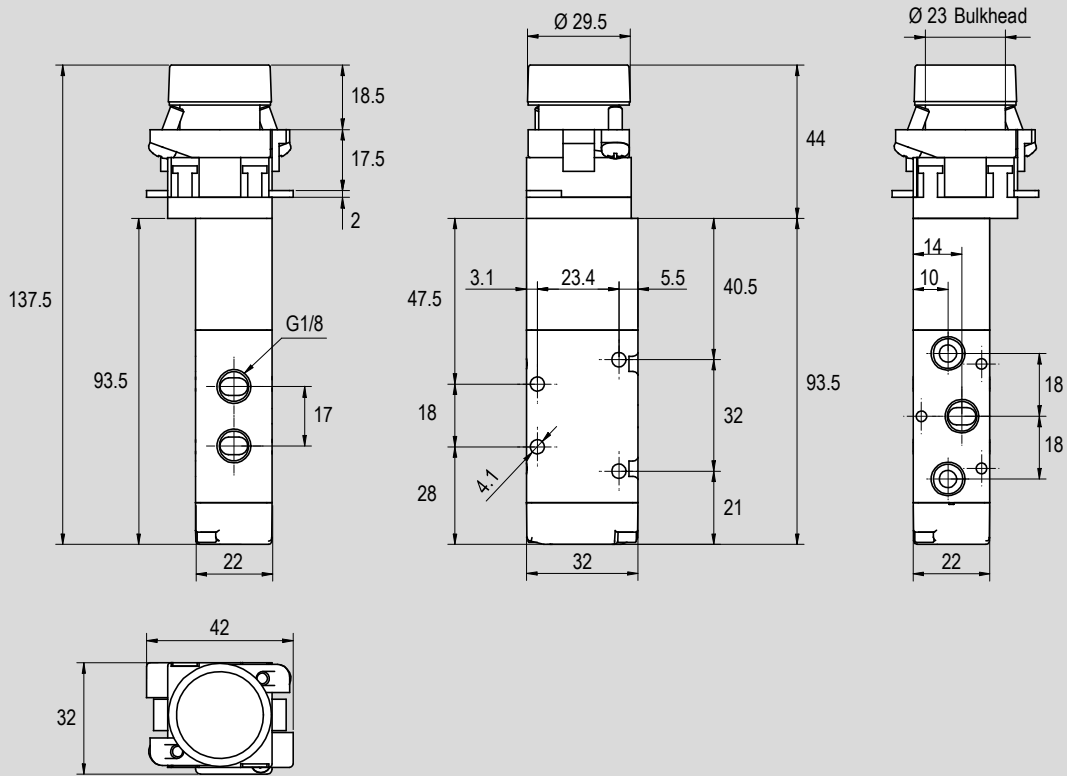
Version	5/2 spring return		
Code	034097	034098	034099
Item	A1MA150BR	A1MA150BV	A1MA150BN
Size	1/8"		
Orifice	6.5 mm		
Button type	Recessed		
Button color	Red	Green	Black
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	0 ÷ 10 bar		
Temperature range	-10°C ÷ +80°C (standard)	-25°C ÷ +60°C (BT)	
Flow at 6 bar with ΔP 1 bar	650 NI/min.		
Mounting	In every position		

Manual button operated valves series A1
1/8", 5/2 recessed button



Standard dimensions

Type: 5/2 spring return



2 - VALVES

Version	Symbol	Code	Item
1/8" 5/2 spring return red recessed button		034097	A1MA150BR
1/8" 5/2 spring return green recessed button		034098	A1MA150BV
1/8" 5/2 spring return black recessed button		034099	A1MA150BN

Manual button operated valves series A1

1/8", 5/2 90° recessed button



Main features

Version	Code	Item	Symbol
5/2 spring return 90° red recessed button	036058	A1MA150BR90	
5/2 spring return 90° green recessed button	036059	A1MA150BV90	
5/2 spring return 90° black recessed button	036060	A1MA150BN90	



Technical data

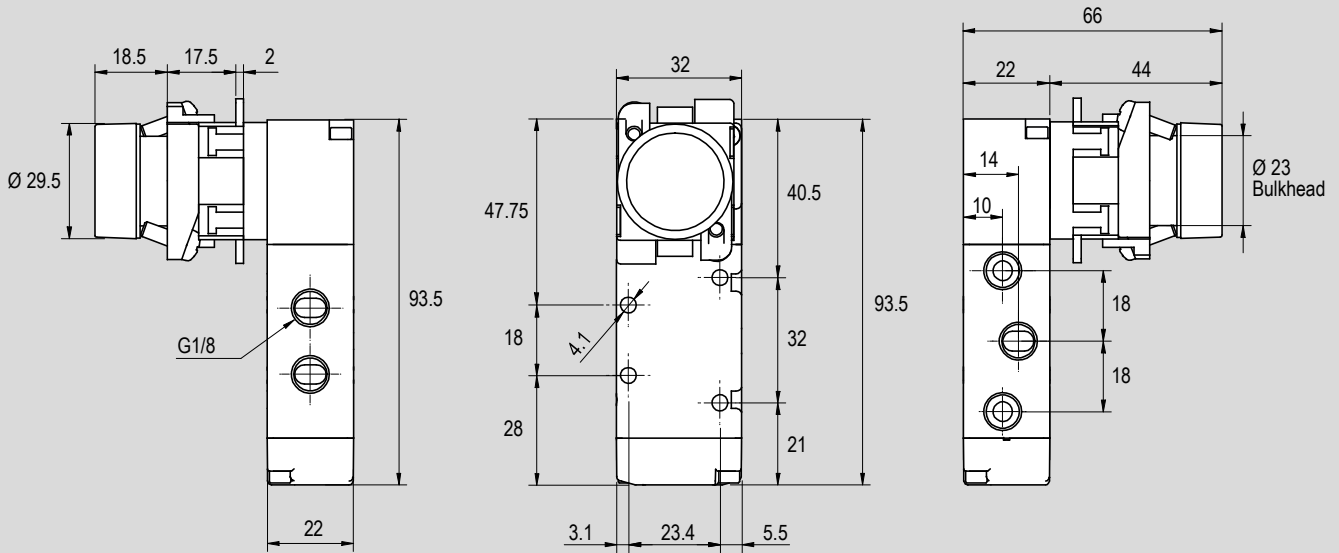
Version	5/2 spring return		
Code	036058	036059	036060
Item	A1MA150BR90	A1MA150BV90	A1MA150BN90
Size	1/8"		
Orifice	6.5 mm		
Button type	90° recessed		
Button color	Red	Green	Black
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	0 ÷ 10 bar		
Temperature range	-10°C ÷ +80°C (standard)	-25°C ÷ +60°C (BT)	
Flow at 6 bar with ΔP 1 bar	650 NI/min.		
Mounting	In every position		

Manual button operated valves series A1
 1/8", 5/2 90° recessed button



Standard dimensions

Type: 5/2 spring return



2 - VALVES

Version	Symbol	Code	Item
1/8" 5/2 spring return 90° red recessed button		036058	A1MA150BR90
1/8" 5/2 spring return 90° green recessed button		036059	A1MA150BV90
1/8" 5/2 spring return 90° black recessed button		036060	A1MA150BN90

Manual button operated valves series A1

1/8", 5/2 90° selector



Main features

Version	Code	Item	Symbol
5/2 two positions detent 90° black selector	036061	A1MA151SB90	

Technical data

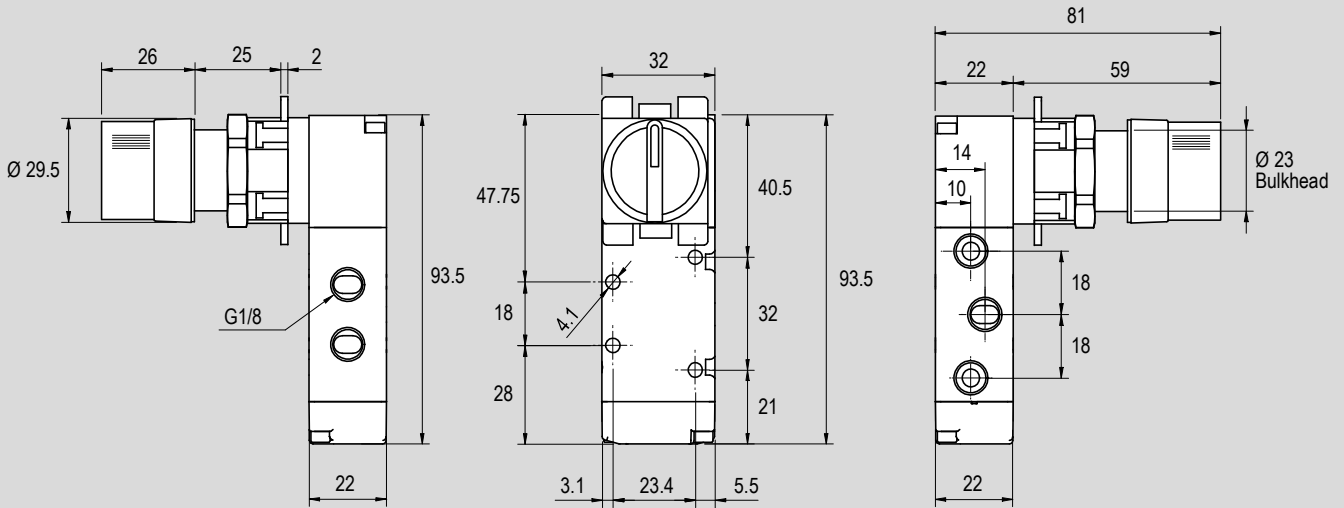
Version	5/2 two positions detent	
Code	036061	
Item	A1MA151SB90	
Size	1/8"	
Orifice	6.5 mm	
Button type	90° black selector	
Button color	Black	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	0 ÷ 10 bar	
Temperature range	-10°C ÷ +80°C (standard) -25°C ÷ +60°C (BT)	
Flow at 6 bar with ΔP 1 bar	650 NI/min.	
Mounting	In every position	

Manual button operated valves series A1
 1/8", 5/2 90° selector



Standard dimensions

Type: 5/2 two positions detent



2 - VALVES

Version	Symbol	Code	Item
1/8" 5/2 two positions detent 90° black selector		036061	A1MA151SB90

FOOT operated valves



Find out our
key products



Solution for most applications



Easy and intuitive choice



Excellent value for money



Wide availability



Fast delivery



Features and certifications

Foot operated valves available in size 1/4", 3/2 or 5/2, spring return or two positions detent. Provided as standard with spool valve and yellow shock-resistant protection in acetal resin, and safety device to avoid improper actuation. Supplied as standard in compliance to Reach and RoHS directives.

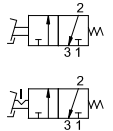


Series AVP 1/4" 3/2

from page 2.170.20



Series of spool valves foot operated available in size 1/4", 3/2 normally closed, spring return or two positions detent, with safety device.

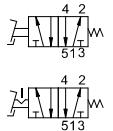


Series AVP 1/4" 5/2

from page 2.170.20



Series of spool valves foot operated available in size 1/4", 5/2, spring return or two positions detent, with safety device.



Code key

Series	Size	Function
AVP	2	50
AVP	2 = 1/4"	30 = 3/2 Normally closed spring return with safety device 32 = 3/2 Normally closed two positions detent with safety device 50 = 5/2 Spring return with safety device 51 = 5/2 Two positions detent with safety device

How to order

Series	Size	Function
AVP	2	50

Notes

Options in the same grid are alternative to each others.
 For standard materials see the product data sheet.

Foot operated valves

1/4", 3/2 N.C. and 5/2



Main features

Version	Code	Item	Symbol
3/2 N.C. spring return with safety device	033127	AVP230	
3/2 N.C. two positions detent with safety device	033128	AVP232	
5/2 spring return with safety device	033129	AVP250	
5/2 two positions detent with safety device	033133	AVP251	



Technical data

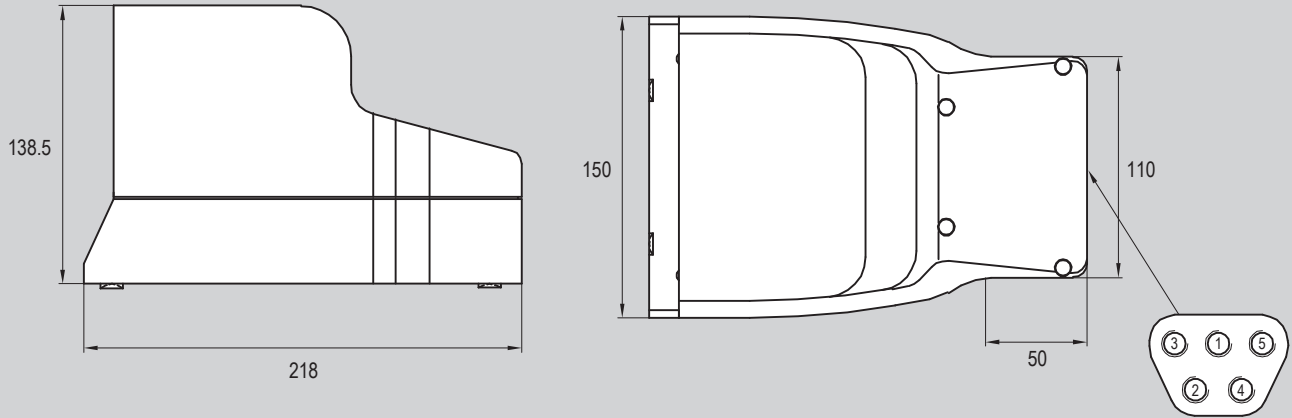
Version	3/2 N.C. spring return with safety device	3/2 N.C. two positions detent with safety device	5/2 spring return with safety device	5/2 two positions detent with safety device
Code	033127	033128	033129	033133
Item	AVP230	AVP232	AVP250	AVP251
Fluid	Filtered compressed air with or without lubrication. Lubrication, if started, must be continued.			
Actuation	Foot operated			
Ports	1/4"			
Pressure range	2,5 ÷ 10 bar			
Temperature range	0°C ÷ +50°C			
Orifice	6.5 mm			
Flow	1.000 NI/min.			

Standard materials

Description	Material
Housing	Shock-resistant acetal resin
Body	Profiled anodized aluminium
Valve internal parts	Nickel-plated brass / Nickel-plated aluminium / Stainless Steel
Seals	NBR
Protection cover	Shock-resistant acetal resin

Standard dimensions

Type: AVP



2 - VALVES

Version	Symbol	Code	Item
1/4" 3/2 N.C. spring return with safety device		033127	AVP230
1/4" 3/2 N.C. two positions detent with safety device		033128	AVP232
1/4" 5/2 spring return with safety device		033129	AVP250
1/4" 5/2 two positions detent with safety device		033133	AVP251

MICROVALVES Ø 4

and manual operating devices



Find out our
key products



Solution for most applications



Easy and intuitive choice



Excellent value for money



Wide availability



Fast delivery

Features and certifications

Microvalves and manual operating devices.

Poppet microvalves Ø 4 mm arranged for application of manual operators. Connections with push-in fittings integrated for tube with external diameter 4 mm. According to the application, you can choose between the bottom connections and the side connections version. Supplied as standard in compliance to Reach and RoHS directives. Manual operating devices available in many shapes, colors, configurations and functions. Supplied as standard in compliance to Reach and RoHS directives, as well.

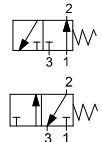


Series AM Ø 4 3/2

from page 2.181.20



Series of microvalves Ø 4 mm, 3/2 normally open and 3/2 normally closed, arranged for application of manual operators. Available with bottom or side connections.

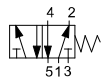


Series AM Ø 4 5/2

from page 2.181.50



Series of microvalves Ø 4 mm, 5/2 spring return, arranged for application of manual operators. Available with bottom or side connections.



Series AP1..

from page 2.185.10



Series of manual operating devices with recessed button. Available spring return, in red, green or black.

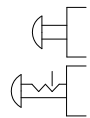


Series AP2..

from page 2.185.20



Series of manual operating devices with head push button. Available spring return, in red, green or black, and two positions detent "twist and release", only in red.

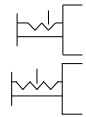


Series AP3..

from page 2.185.50



Manual selector. Available only in black, with function two and three positions detent.



Series AP4..

from page 2.185.60



Key selector. Available only in black, with function two positions detent.



Series AP5..

from page 2.185.80



Lever. Available only in black, with function three positions detent.



Options microvalves Ø 4

Description	Symbol	Suffix
Side connections		L
Special versions on request		/S

The options, when this is possible, can be combined with each other. For options matching see the table below; For code key see from page 2.180.4

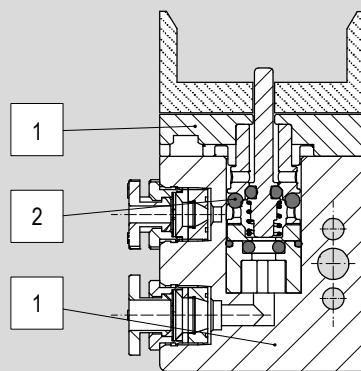
Options matching microvalves Ø 4

Series	Size	Function	Standard options matching
			L
AM	Ø 4	3/2 Normally Open	●
		3/2 Normally Closed	●
		5/2 Spring return	●

Key

● allowed matching; - not allowed matching

Standard materials microvalves Ø 4

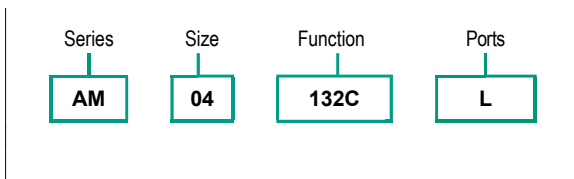


Position	Description	Material
		Ø 4
1	Body	Acetal resin
2	Seals	NBR

Code key microvalves Ø 4

Series	Size	Function	Ports
AM	04	132C	L
AM	04 = Ø 4	132A = 3/2 Normally Open 132C = 3/2 Normally Closed 1520 = 5/2 Spring return	= Bottom L = Side

How to order



Notes

Options in the same grid are alternative to each others.
 For further information on options and their matching, see page 2.180.3
 For selecting the device for the microvalve, see page 2.180.5

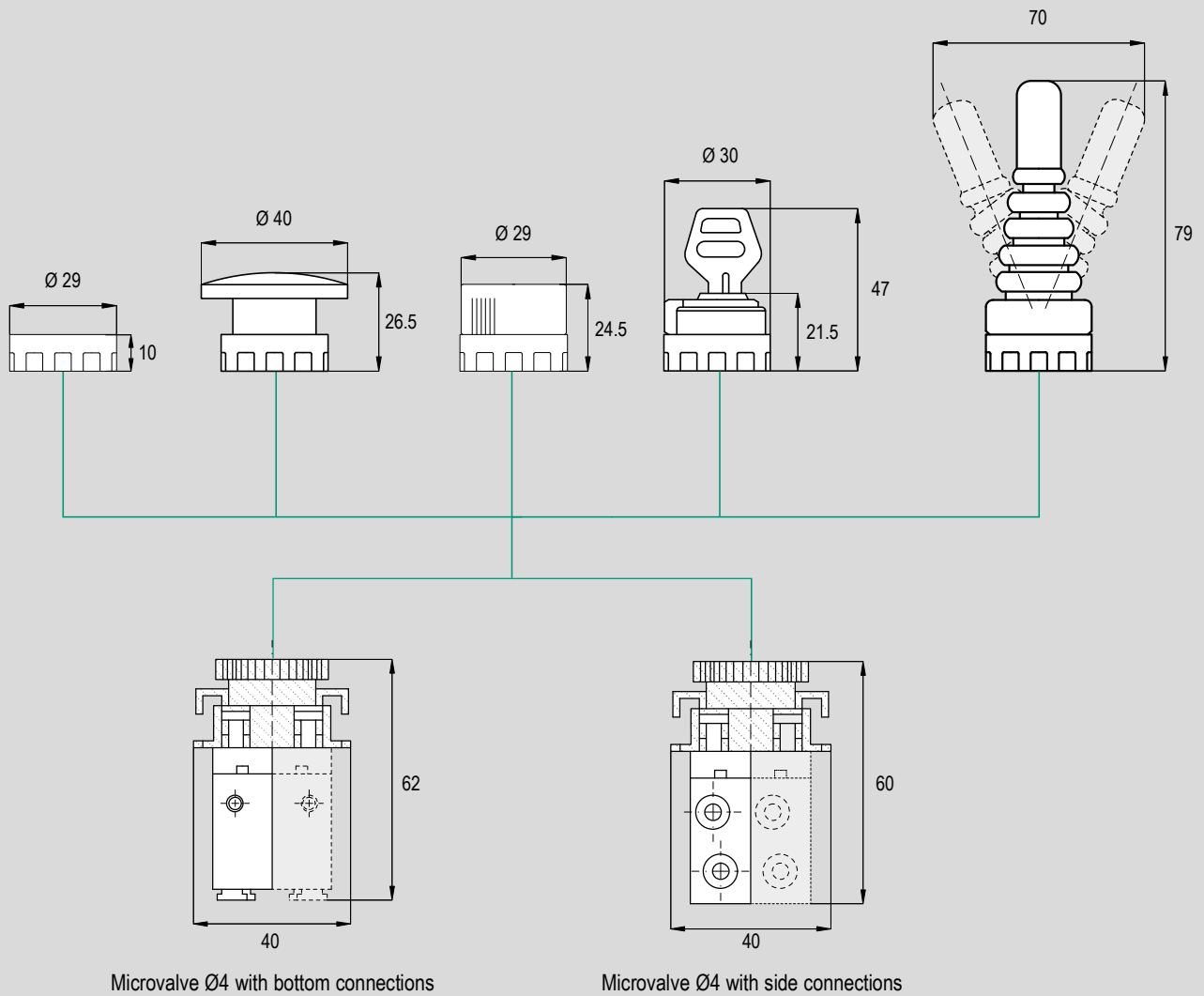
Matching microvalve Ø4 / manual operating device

Microvalve Ø4			3/2 N.O. AM04132A	3/2 N.C. AM04132C	3/2 N.O. AM04132AL	3/2 N.C. AM04132CL	5/2 Spring return AM041520	5/2 Spring return AM041520L	Data sheet & code key page
Manual operating device									
Red recessed button spring return AP11R			•	•	•	•	•	•	2.185.10
Green recessed button spring return AP11V			•	•	•	•	•	•	
Black recessed button spring return AP11N			•	•	•	•	•	•	
Red head push button spring return AP21R			•	•	•	•	•	•	2.185.20
Green head push button spring return AP21V			•	•	•	•	•	•	
Black head push button spring return AP21N			•	•	•	•	•	•	
Red head push button two positions detent "twist and release" AP22R			•	•	•	•	•	•	
Black manual selector two positions detent AP32N			•	•	•	•	•	•	2.185.50
Black manual selector 3 positions detent AP33N			-	-	-	-	•	•	
Black key selector two positions detent AP42C			•	•	•	•	•	•	2.185.60
Black Lever 3 positions detent AP53N			-	-	-	-	•	•	2.185.80

Key

• allowed matching; - not allowed matching;

Microvalve with manual operating device mounted* overall dimensions

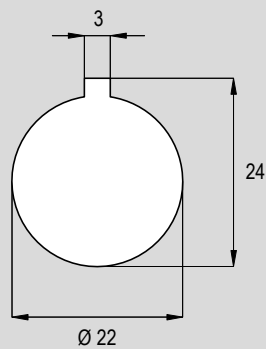


Microvalve Ø4 with bottom connections

Microvalve Ø4 with side connections

* For matching between microvalve Ø 4 and manual operating device, see page 2.180.5

Panel mounting



Dimensions of hole for panel mounting the microvalve Ø 4 with operating device mounted.

The panel should not exceed 6 mm.

Microvalves Ø 4 and manual operating devices

Microvalves Ø 4, 3/2 normally closed and 3/2 normally open



Main features

Version	Code	Item	Symbol
3/2 normally open	030251	AM04132A	
3/2 normally closed	030252	AM04132C	
3/2 normally open side connections	030253	AM04132AL	
3/2 normally closed side connections	030254	AM04132CL	



Technical data

Version	3/2 normally open	3/2 normally closed	3/2 normally open with side connections	3/2 normally closed with side connections
Code	030251	030252	030253	030254
Item	AM04132A	AM04132C	AM04132AL	AM04132CL
Size	Ø 4			
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.			
Pressure range	0 ÷ 8 bar			
Temperature range	-20°C ÷ +80°C			
Flow at 6 bar with ΔP 1 bar	80 NI/min.			
Operating force	5 N			
Connections	Push-in fittings for tube ext. Ø 4 mm, bottom		Push-in fittings for tube ext. Ø 4 mm, side	
Fastening	Through 2 holes Ø 4 mm on the body, or through 1 hole Ø 22 mm on panel* with manual operating device mounted			
Mounting	In every position			

* For panel mounting hole dimensions see page 2.180.9

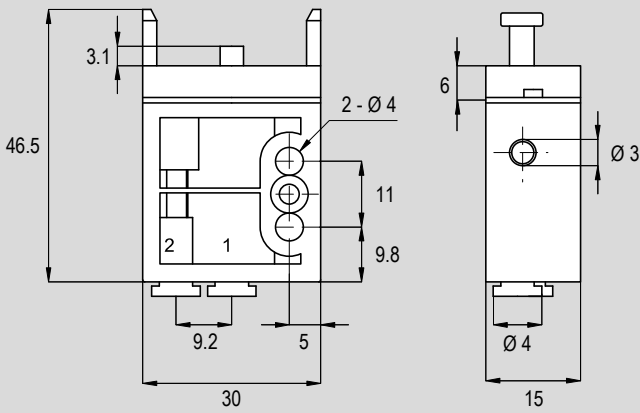
Notes

Manual operating device to be ordered separately, for matching see page 2.180.5.

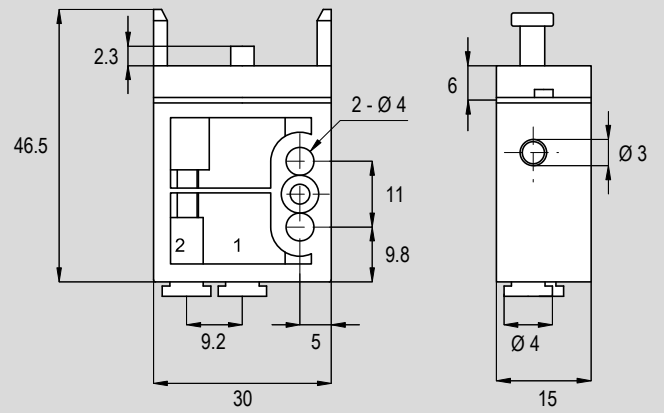
For dimensions and features see from page 2.185.10

Dimensions* with standard connections

Type: **AM04132A**



Type: **AM04132C**



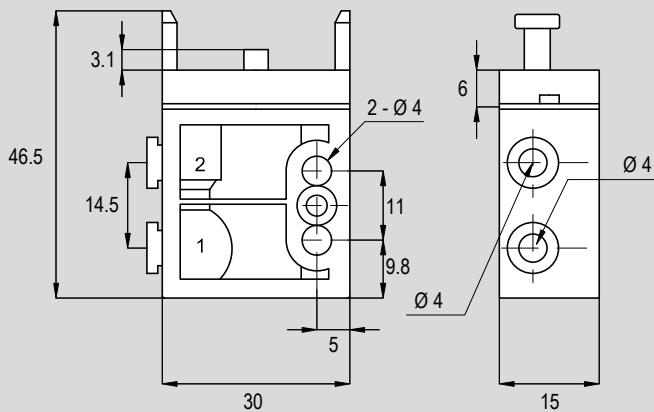
Version	Symbol	Code	Item
3/2 normally open with bottom connections		030251	AM04132A

Version	Symbol	Code	Item
3/2 normally closed with bottom connections		030252	AM04132C

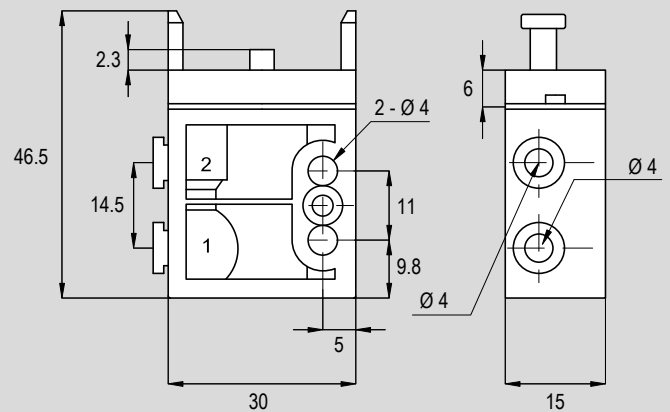
* For overall dimension with manual operating device mounted, see page 2.180.6

Dimensions* with side connection option (L)

Type: **AM04132AL**



Type: **AM04132CL**



Version	Symbol	Code	Item
3/2 normally open with side connections		030253	AM04132AL

Version	Symbol	Code	Item
3/2 normally closed with side connections		030254	AM04132CL

* For overall dimension with manual operating device mounted, see page 2.180.6

Microvalves Ø 4 and manual operating devices

Microvalves Ø 4, 5/2 spring return



Main features

Version	Code	Item	Symbol
5/2 spring return	030261	AM041520	
5/2 spring return with side connections	030262	AM041520L	



Technical data

Version	5/2 spring return	5/2 spring return with side connections
Code	030261	030262
Item	AM041520	AM041520L
Size	Ø 4	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	0 ÷ 8 bar	
Temperature range	-20°C ÷ +80°C	
Flow at 6 bar with ΔP 1 bar	80 Nl/min.	
Operating force	5 N	
Connections	Push-in fittings for tube ext. Ø 4 mm, bottom	Push-in fittings for tube ext. Ø 4 mm, side
Fastening	Through 2 holes Ø 4 mm on the body, or through 1 hole Ø 22 mm on panel* with manual operating device mounted	
Mounting	In every position	

* For panel mounting hole dimensions see page 2.180.9

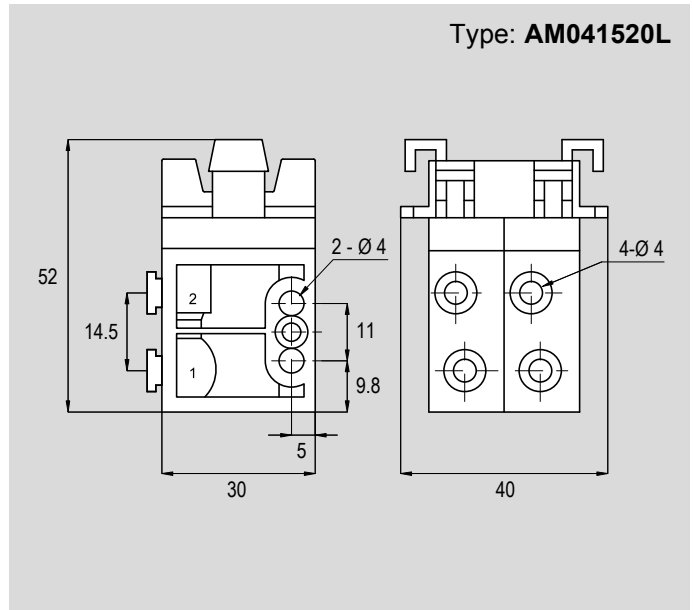
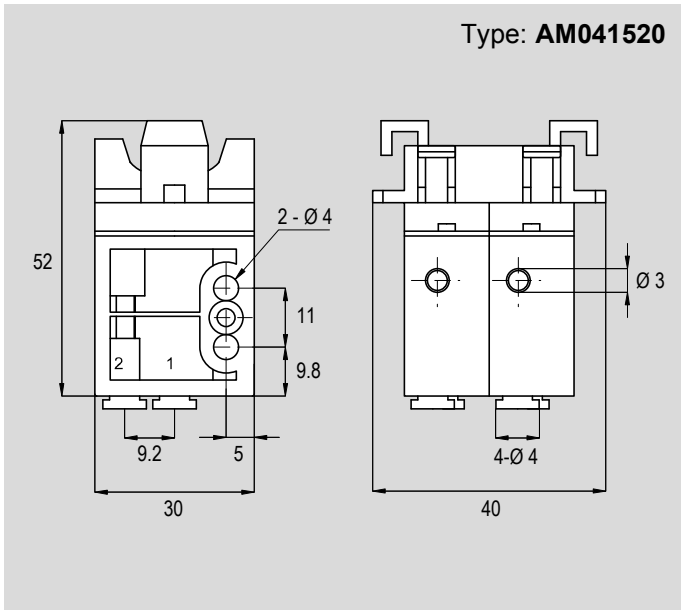
Notes

Manual operating device to be ordered separately, for matching see page 2.180.5.

For dimensions and features see from page 2.185.10

Dimensions* with standard connections

Dimensions* with side connection option (L)



Version	Symbol	Code	Item
5/2 spring return with bottom connections		030261	AM041520

Version	Symbol	Code	Item
5/2 spring return with side connections		030262	AM041520L

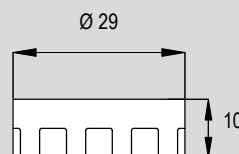
* For overall dimension with manual operating device mounted, see page 2.180.6

Main features			
Version	Symbol	Code	Item
Red recessed button spring return		030271	AP11R
Green recessed button spring return		030273	AP11V
Black recessed button spring return		030272	AP11N



Technical data			
Version	AP11		
Code	030271	030273	030272
Item	AP11R	AP11V	AP11N
Device type	Recessed button		
Function	Spring return		
Button color	Red	Green	Black
Temperature range	-20°C ÷ +80°C		
Microvalves matching	See page 2.180.5		

Dimensions*



* For overall dimension of manual operating device mounted on the microvalve, see page 2.180.6

Main features

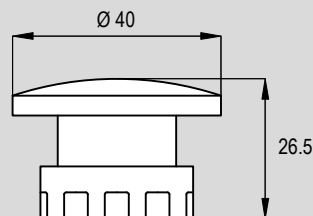
Version	Symbol	Code	Item
Red push head button spring return		030274	AP21R
Green push head button spring return		030280	AP21V
Black push head button spring return		030281	AP21N
Red push head button two positions detent "twist and release"		030275	AP22R



Technical data

Version	AP2			
Code	030274	030280	030281	030275
Item	AP21R	AP21V	AP21N	AP22R
Device type	Push head			
Function	Spring return			Two positions detent
Button color	Red	Green	Black	Red
Temperature range	-20°C ÷ +80°C			
Microvalves matching	See page 2.180.5			

Dimensions*



* For overall dimension of manual operating device mounted on the microvalve, see page 2.180.6

Main features

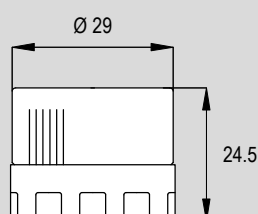
Version	Symbol	Code	Item
Black manual selector Two positions detent		030276	AP32N
Black manual selector Three positions detent		030277	AP33N



Technical data

Version	AP3	
Code	030276	030277
Item	AP32N	AP33N
Device type	Manual selector	
Function	Two positions detent	Three positions detent
Button color	Black	
Temperature range	-20°C ÷ +80°C	
Microvalves matching	See page 2.180.5	

Dimensions*



* For overall dimension of manual operating device mounted on the microvalve, see page 2.180.6

Main features

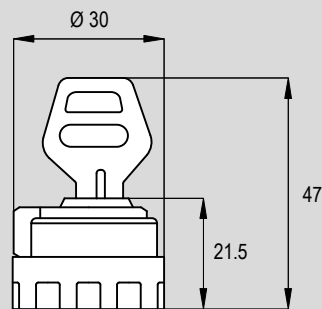
Version	Symbol	Code	Item
Black key selector Two positions detent		030278	AP42C



Technical data

Version	AP42C
Code	030278
Item	AP42C
Device type	Key selector
Function	Two positions detent
Button color	Black
Temperature range	-20°C ÷ +80°C
Microvalves matching	See page 2.180.5

Dimensions*



* For overall dimension of manual operating device mounted on the microvalve, see page 2.180.6

Main features

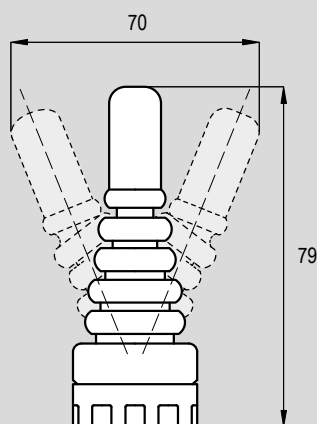
Version	Symbol	Code	Item
Black lever Three positions detent		030279	AP53N



Technical data

Version	AP53C
Code	030279
Item	AP53C
Device type	Lever
Function	Three positions detent
Lever color	Black
Temperature range	-20°C ÷ +80°C
Microvalves matching	See page 2.180.5

Dimensions*



* For overall dimension of manual operating device mounted on the microvalve, see page 2.180.6

MECHANICAL

operated valves



Find out our
key products



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Easy and intuitive choice



Excellent value for money



Wide availability



Fast delivery



Features and certifications

Valves and microvalves mechanical operated.

Series AC valve are available in size Ø 4 mm and 1/8", in different functions and configurations (with plunger, bidirectional or unidirectional lever and roller), with standard or side connections.

Series A1 valves are available in size 1/8" only, in different functions and configurations (with sensitive aerial or side lever and roller).

Supplied as standard in compliance to Reach and RoHS directives, while additionally, series A1 valve are SIL certified.

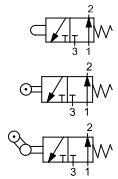


Series AC Ø 4 3/2 Normally Open

from page 2.201.10



Poppet microvalves series AC size Ø 4 mm mechanical operated, 3/2 normally open, available with plunger, with bi-directional lever and roller or with uni-directional lever. Bottom or side connections available.

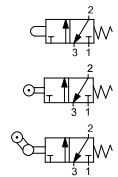


Series AC Ø 4 3/2 Normally Closed

from page 2.201.30



Poppet microvalves series AC size Ø 4 mm mechanical operated, 3/2 normally closed, available with plunger, with bi-directional lever and roller or with uni-directional lever. Bottom or side connections available.

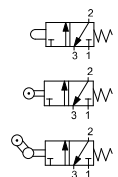


Series AC 1/8" 3/2 Normally Closed

from page 2.203.10



Poppet valves series AC size 1/8" mm mechanical operated, 3/2 normally closed, available with plunger, with bi-directional lever and roller or with uni-directional lever and roller.

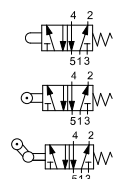


Series AC 1/8" 5/2 Spring return

from page 2.203.30



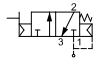
Poppet valves series AC size 1/8" mm mechanical operated, 5/2 spring return, available with plunger, with bi-directional lever and roller or with uni-directional lever and roller.



Series A1 1/8" 3/2 Normally Closed Spring return from page 2.206.10



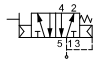
Spool valves, servo-assisted, mechanical operated, with static seals and high flow, series A1. Available in size 1/8", 3/2 normally closed spring return, with sensitive aerial.



Series A1 1/8" 5/2 Spring return from page 2.206.30



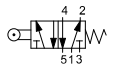
Spool valves, servo-assisted, mechanical operated, with static seals and high flow, series A1. Available in size 1/8", 5/2 spring return, with sensitive aerial.



Series A1 1/8" 5/2 Spring return from page 2.208.10



Spool valves, servo-assisted, mechanical operated, with static seals and high flow, series A1. Available in size 1/8", 5/2 spring return, with side lever and roller or adjustable side lever and roller.



Mechanical operated valves

Series AC, Ø 4 and 1/8"



Code key valves series AC

Series	Configuration	Size	Function	Connections ⁽³⁾
AC	1	18	132C	L
AC	1 = Plunger 2 = Bi-directional lever and roller 3 = Uni-directional lever ⁽⁴⁾	04 = Ø 4 18 = 1/8"	132A ⁽¹⁾ = 3/2 Normally Open 132C = 3/2 Normally Closed 1520 ⁽²⁾ = 5/2 Spring return	= Bottom L = Side

How to order

Series	Configuration	Size	Function	Connections
AC	1	18	132C	L

Notes

Options in the same grid are alternative to each others.

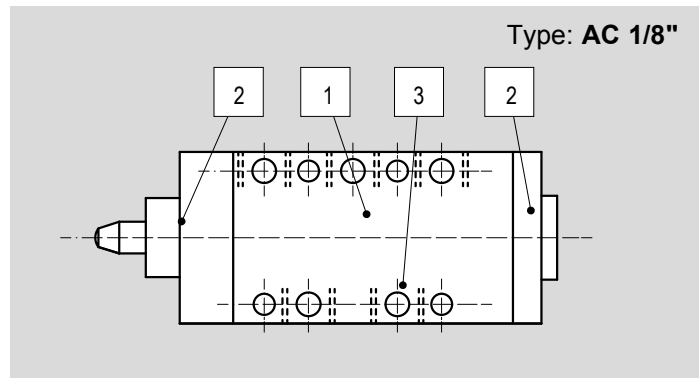
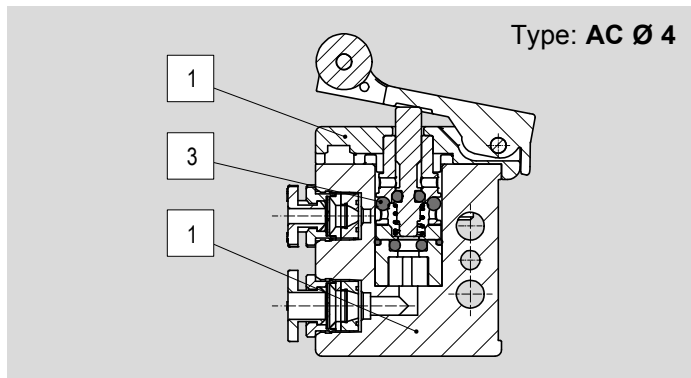
(1) Function 3/2 Normally Open (132A) available only for size Ø 4 (04).

(2) Function 5/2 (1520) available only for size 1/8" (18).

(3) Option "connections" available only for size Ø 4 (04). For size 1/8" (18) available side connections only, specification not required in code key.

(4) Lever and roller for size 1/8".

Standard materials microvalves Ø 4 e valves 1/8"

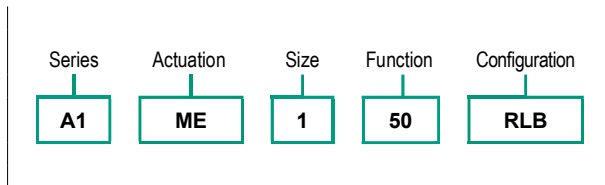


Position	Description	Material			
		AC Ø 4 3/2 N.O.	Ø 4 3/2 N.C.	1/8" 3/2 N.C.	1/8" 5/2
1	Body	Acetal resin		Die-cast painted aluminium	
2	Heads	-		Tecopolymer	
3	Seals	NBR			

Code key valves series A1ME

Series	Actuation	Size	Function	Configuration
A1	ME	1	50	RLB
A1	ME = Mechanic	1 = 1/8"	30 = 3/2 Normally Closed 50 = 5/2 Spring return	ANT = Sensitive aerial RLB ⁽¹⁾ = Side lever and roller RLBR ⁽¹⁾ = Adjustable side lever and roller

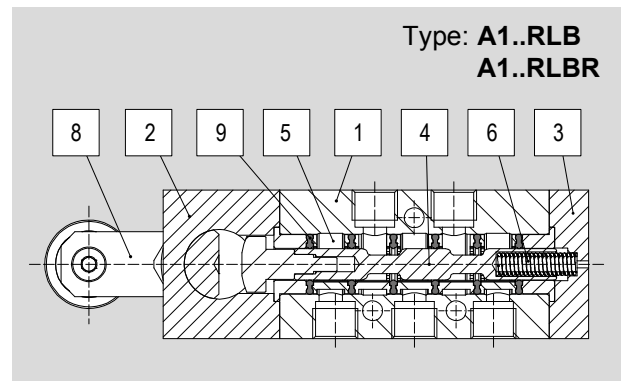
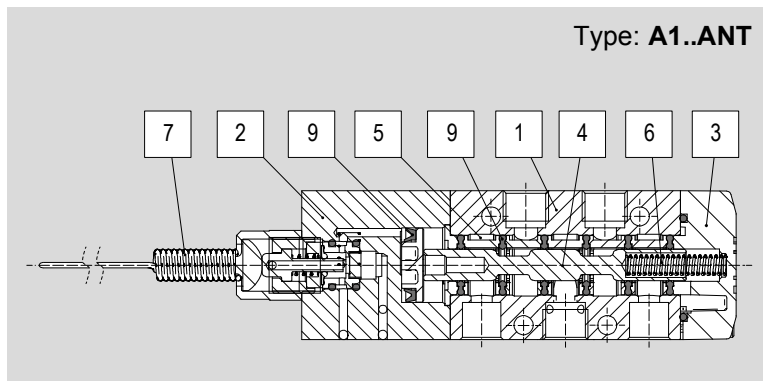
How to order



Notes

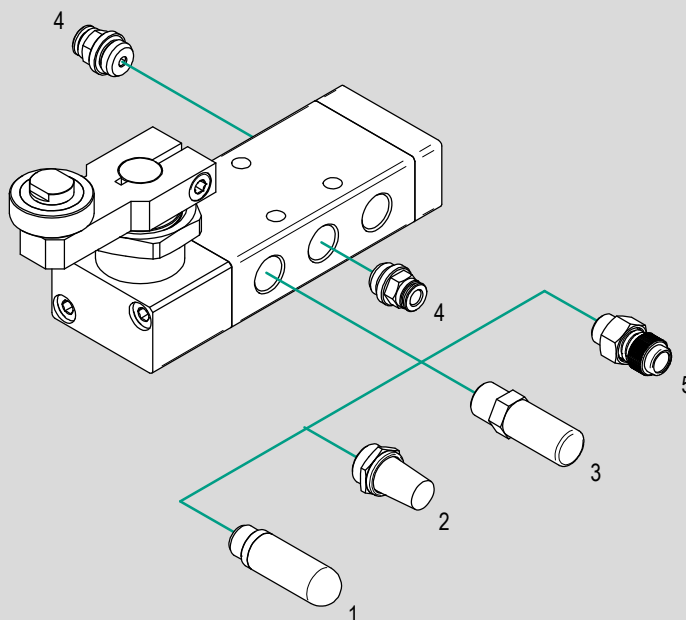
Options in the same grid are alternative to each others.
(1) Side lever and roller (RLB) and adjustable side lever and roller (RLBR) available only for function 5/2 (50).

Standard materials valves A1



Position	Description	Material		
		A1..ANT	A1..RLB	A1..RLBR
1	Body	Anodized aluminium		
2	Front cover	Anodized aluminium		
3	Rear cover	Tecnopolymer	Anodized aluminium	
4	Spool	Hard anodized aluminium		
5	Distancers	Tecnopolymer		
6	Spring	Spring steel		
7	Aerial spring	Stainless Steel AISI 304	-	
8	Lever	-	Anodized aluminium	
9	Seals	HNBR		

Accessories



N.	Item	Description	Compliance	Matching			Code key page	Data sheet page
				AC04..	AC18..	A1ME..		
1	AS..	Plastic silencers	-	-	●	●	4.151.10	
	SP..			-	●	●	4.151.20	
2	A..	Sintered silencers	-	-	●	●	4.153.10	
3	M..	Metal silencers	-	-	●	●	4.155.10	
4	R..	Push-in fittings	UNI ISO 228/1 UNI ISO7/1 ISO R/232	-	●	●	4.2.1	
5	A..	Silenced exhaust restrictors	-	-	●	●	4.97.1	

Key

● matching accessory; - not matching accessory

Mechanical operated valves series AC

Ø 4, 3/2 Normally open



Main features

Version	Code	Item	Symbol
3/2 normally open with plunger with bottom connections	032291	AC104132A	
3/2 normally open with plunger with side connections	032293	AC104132AL	
3/2 normally open with bi-directional lever and roller with bottom connections	032295	AC204132A	
3/2 normally open with bi-directional lever and roller with side connections	032297	AC204132AL	
3/2 normally open with uni-directional lever with bottom connections	032299	AC304132A	
3/2 normally open with uni-directional lever with side connections	032301	AC304132AL	

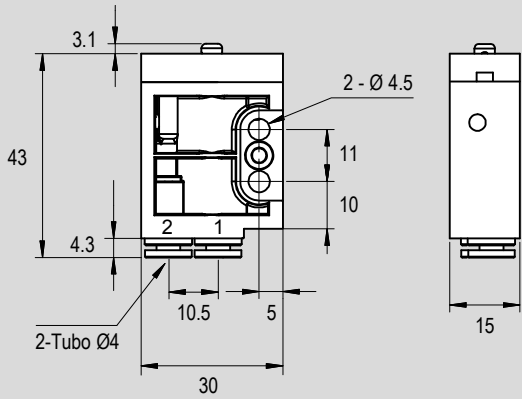


Technical data

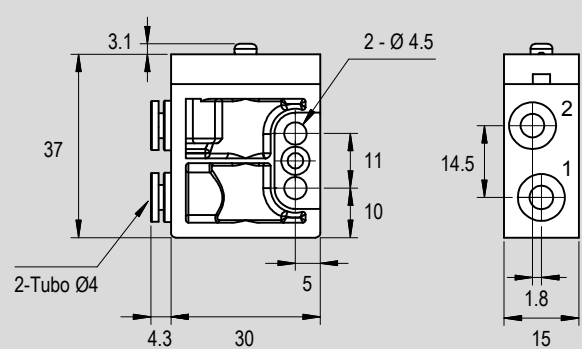
Version	3/2 N.O. plunger bottom connections	3/2 N.O. bidirectional lever and roller bottom connections	3/2 N.O. unidirectional lever bottom connections	3/2 N.O. with plunger side connections	3/2 N.O. bidirectional lever and roller side connections	3/2 N.O. unidirectional lever side connections
Code	032291	032295	032299	032293	032297	032301
Item	AC104132A	AC204132A	AC304132A	AC104132AL	AC204132AL	AC304132AL
Size	Ø 4					
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.					
Pressure range	0 ÷ 8 bar					
Temperature range	-10°C ÷ +60°C					
Flow at 6 bar with ΔP 1 bar	60 NI/min.					
Operating force	5 N					
Connections	Push-in fittings for Ø ext. 4 mm tube, on bottom			Push-in fittings for Ø ext. 4 mm tube, on side		
Fastening	Through holes Ø 4 mm on the body (screws not included)					
Mounting	In every position					

Dimensions

Type: **AC104132A**



Type: **AC104132AL**

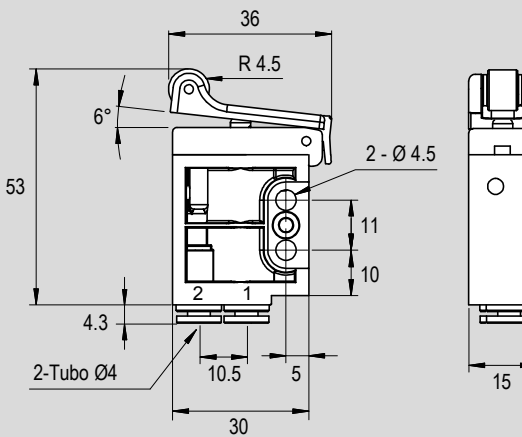


Version	Symbol	Code	Item
3/2 normally open with plunger with bottom connections		032291	AC104132A

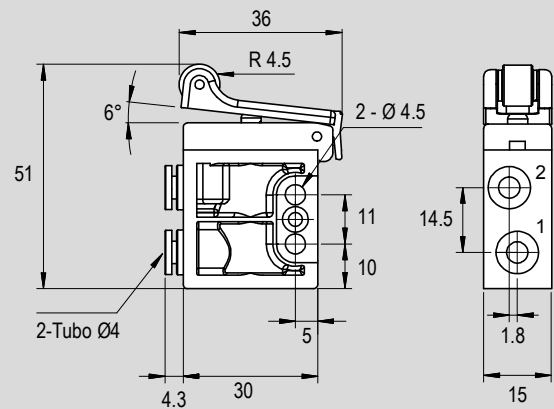
Version	Symbol	Code	Item
3/2 normally open with plunger with side connections		032293	AC104132AL

Dimensions

Type: **AC204132A**



Type: **AC204132AL**

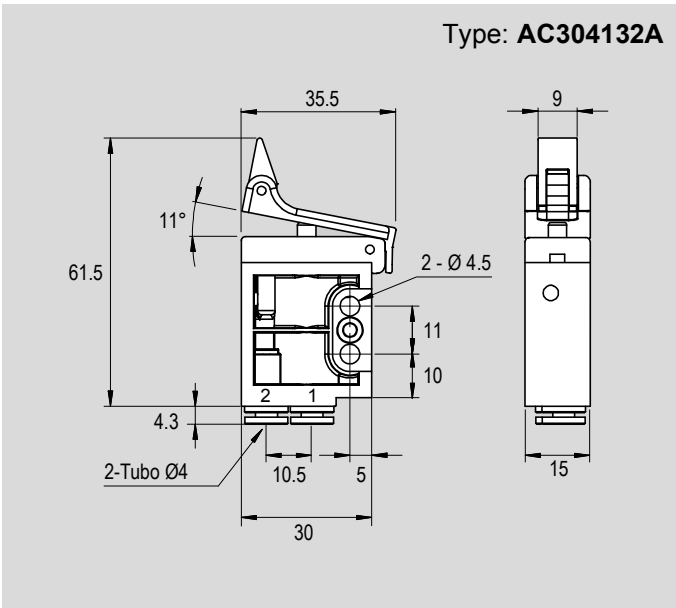


Version	Symbol	Code	Item
3/2 normally open with bi-directional lever and roller with bottom connections		032295	AC204132A

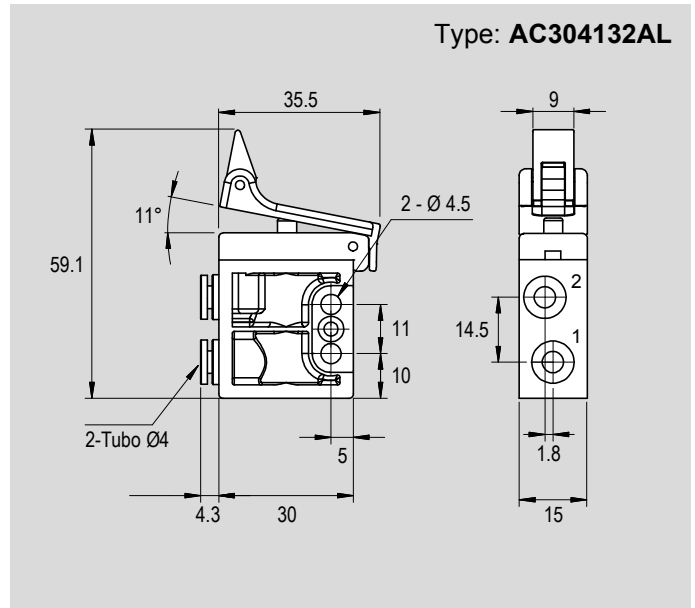
Version	Symbol	Code	Item
3/2 normally open with bi-directional lever and roller with side connections		032297	AC204132AL

Dimensions

Type: **AC304132A**



Type: **AC304132AL**



Version	Symbol	Code	Item
3/2 normally open with uni-directional lever with bottom connections		032299	AC304132A

Version	Symbol	Code	Item
3/2 normally open with uni-directional lever with side connections		032301	AC304132AL

Mechanical operated valves series AC

Ø 4, 3/2 Normally closed



2 - VALVES

Main features

Version	Code	Item	Symbol
3/2 normally closed with plunger with bottom connections	032292	AC104132C	
3/2 normally closed with plunger with side connections	032294	AC104132CL	
3/2 normally closed with bi-directional lever and roller with bottom connections	032296	AC204132C	
3/2 normally closed with bi-directional lever and roller with side connections	032298	AC204132CL	
3/2 normally closed with uni-directional lever with bottom connections	032303	AC304132C	
3/2 normally closed with uni-directional lever with side connections	032302	AC304132CL	

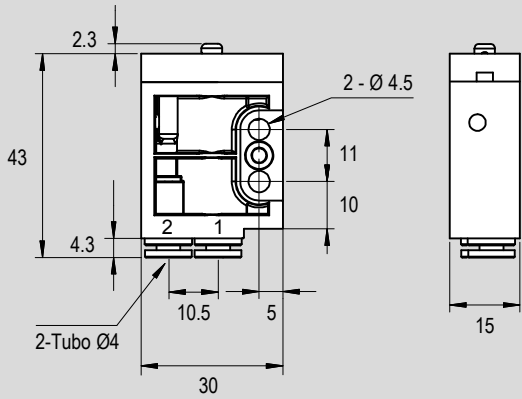


Technical data

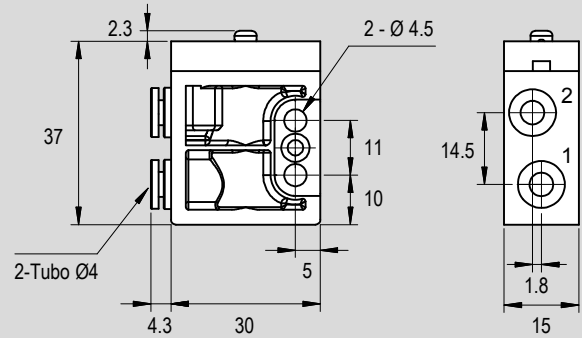
Version	3/2 N.C. plunger bottom connections	3/2 N.C. bidirectional lever and roller bottom connections	3/2 N.C. unidirectional lever bottom connections	3/2 N.C. with plunger side connections	3/2 N.C. bidirectional lever and roller side connections	3/2 N.C. unidirectional lever side connections
Code	032292	032296	032303	032294	032298	032302
Item	AC104132C	AC204132C	AC304132C	AC104132CL	AC204132CL	AC304132CL
Size	Ø 4					
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.					
Pressure range	0 ÷ 8 bar					
Temperature range	-10°C ÷ +60°C					
Flow at 6 bar with ΔP 1 bar	60 NI/min.					
Operating force	5 N					
Connections	Push-in fittings for Ø ext. 4 mm tube, on bottom			Push-in fittings for Ø ext. 4 mm tube, on side		
Fastening	Through holes Ø 4 mm on the body (screws not included)					
Mounting	In every position					

Dimensions

Type: **AC104132C**



Type: **AC104132CL**

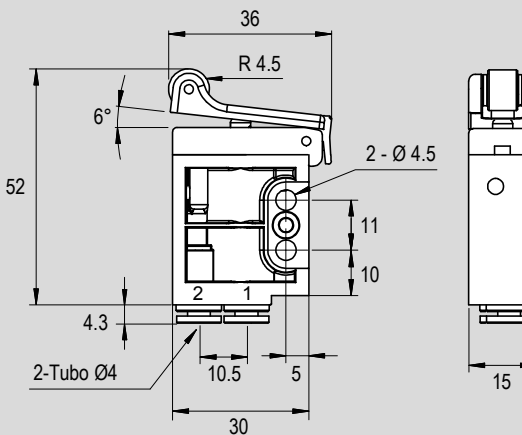


Version	Symbol	Code	Item
3/2 normally closed with plunger with bottom connections		032292	AC104132C

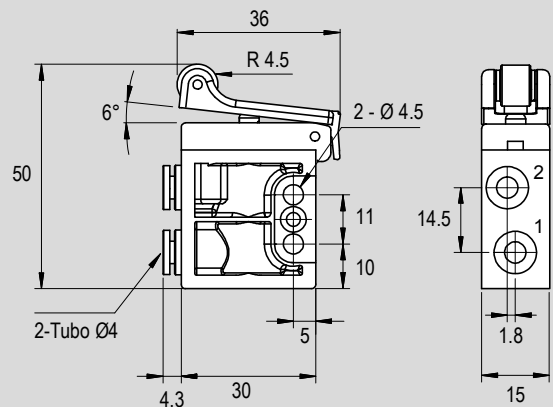
Version	Symbol	Code	Item
3/2 normally closed with plunger with side connections		032294	AC104132CL

Dimensions

Type: **AC204132C**



Type: **AC204132CL**



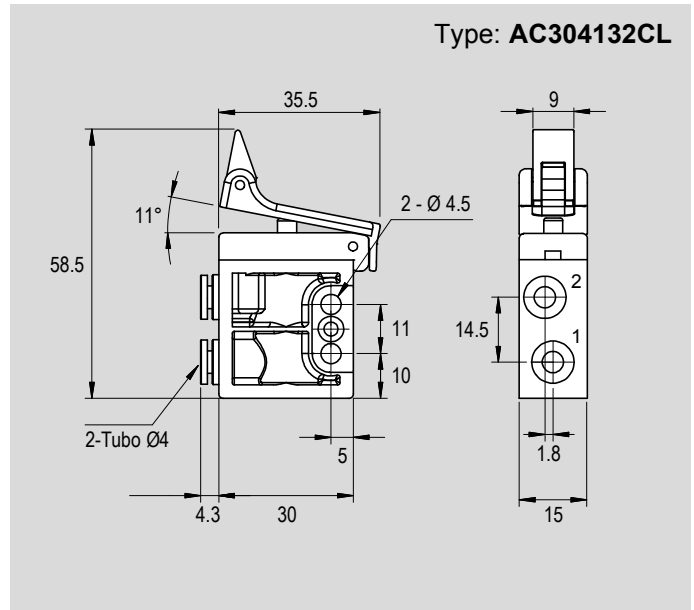
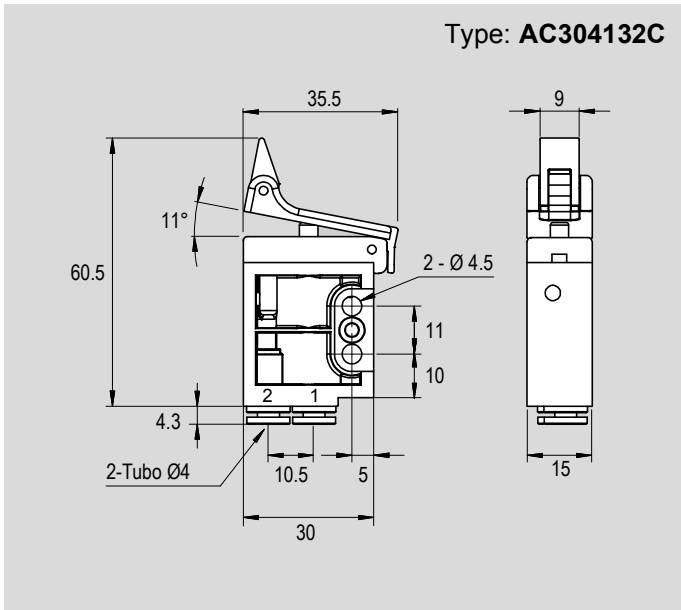
Version	Symbol	Code	Item
3/2 normally closed with bi-directional lever and roller with bottom connections		032296	AC204132C

Version	Symbol	Code	Item
3/2 normally closed with bi-directional lever and roller with side connections		032298	AC204132CL

Mechanical operated valves series AC
 Ø 4, 3/2 Normally closed



Dimensions



Version	Symbol	Code	Item
3/2 normally closed with uni-directional lever with bottom connections		032303	AC304132C

Version	Symbol	Code	Item
3/2 normally closed with uni-directional lever with side connections		032302	AC304132CL

2 - VALVES

Mechanical operated valves series AC

1/8", 3/2 Normally closed



Main features

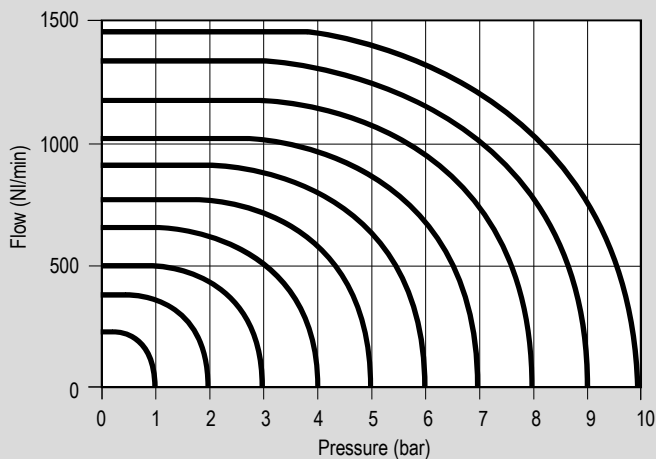
Version	Code	Item	Symbol
3/2 Normally closed with plunger	032600	AC118132C	
3/2 Normally closed with bi-directional lever and roller	032680	AC218132C	
3/2 Normally closed with uni-directional lever and roller	032700	AC318132C	



Technical data

Version	3/2 Normally closed with plunger	3/2 Normally closed with bi-directional lever and roller	3/2 Normally closed with uni-directional lever and roller
Code	032600	032680	032700
Item	AC118132C	AC218132C	AC318132C
Size	1/8"		
Function	3/2		
Configuration	With plunger	with bi-directional lever and roller	with uni-directional lever and roller
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	0 ÷ 8 bar		
Temperature range	-20°C ÷ +80°C		
Orifice Ø	6 mm		
Flow at 6 bar with ΔP 1 bar	900 NI/min.		
Connections	G1/8"		
Fastening	Through holes on the body (screws not included)		
Mounting	In every position		

Flow chart

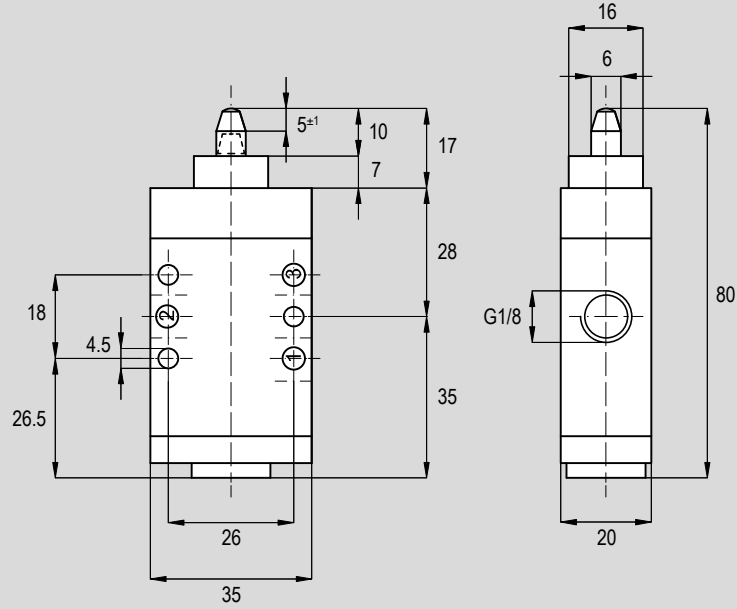


Mechanical operated valves series AC
 1/8", 3/2 Normally closed, with plunger

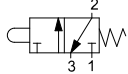


Standard dimensions

Type: **AC118132C**



2 - VALVES

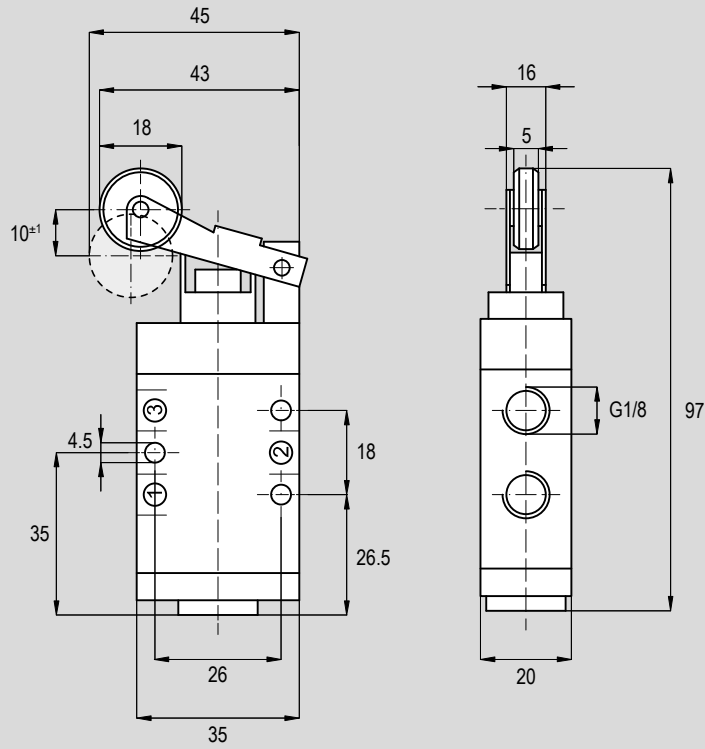
Version	Symbol	Code	Item
1/8" 3/2 Normally closed with plunger		032600	AC118132C

Mechanical operated valves series AC
 1/8", 3/2 Normally closed, with bi-directional lever and roller



Standard dimensions

Type: **AC218132C**



Version	Symbol	Code	Item
1/8" 3/2 Normally closed with bi-directional lever and roller		032680	AC218132C

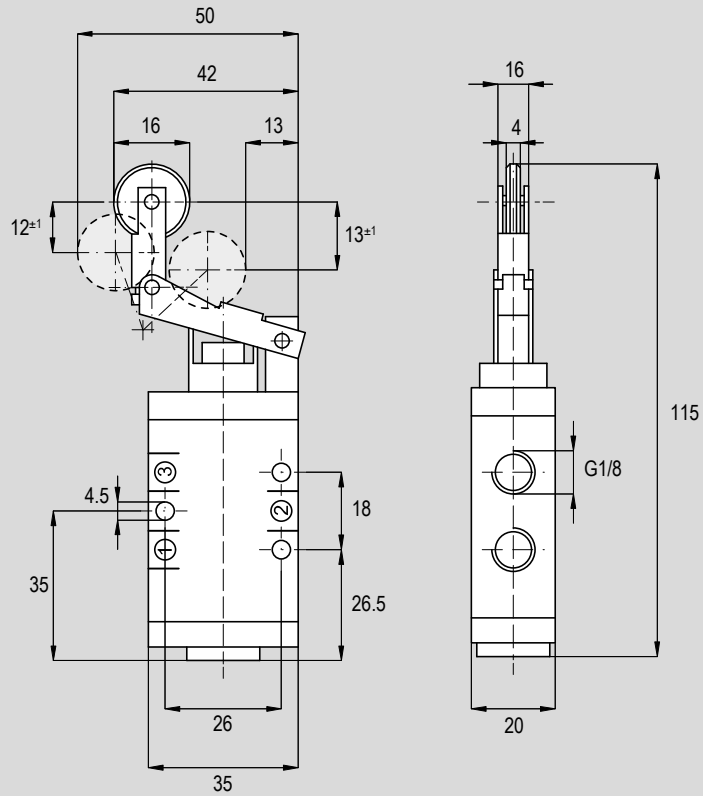
2 - VALVES

Mechanical operated valves series AC
 1/8", 3/2 Normally closed, with uni-directional lever and roller



Standard dimensions

Type: **AC318132C**



2 - VALVES

Version	Symbol	Code	Item
1/8" 3/2 Normally closed with uni-directional lever and roller		032700	AC318132C

Mechanical operated valves series AC

1/8", 5/2 Spring return



Main features

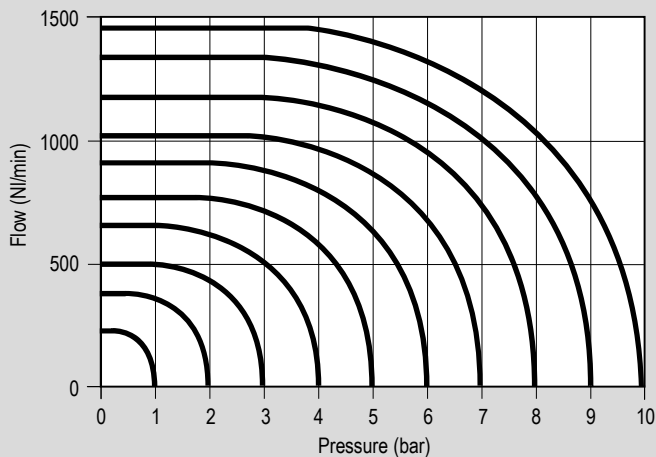
Version	Code	Item	Symbol
5/2 Spring return with plunger	032640	AC1181520	
5/2 Spring return with bi-directional lever and roller	032720	AC2181520	
5/2 Spring return with uni-directional lever and roller	032740	AC3181520	



Technical data

Version	5/2 Spring return with plunger	5/2 Spring return with bi-directional lever and roller	5/2 Spring return with uni-directional lever and roller
Code	032640	032720	032740
Item	AC1181520	AC2181520	AC3181520
Size	1/8"		
Function	5/2		
Configuration	With plunger	with bi-directional lever and roller	with uni-directional lever and roller
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.		
Pressure range	0 ÷ 8 bar		
Temperature range	-20°C ÷ +80°C		
Orifice Ø	6 mm		
Flow at 6 bar with ΔP 1 bar	900 NI/min.		
Connections	G1/8"		
Fastening	Through holes on the body (screws not included)		
Mounting	In every position		

Flow chart

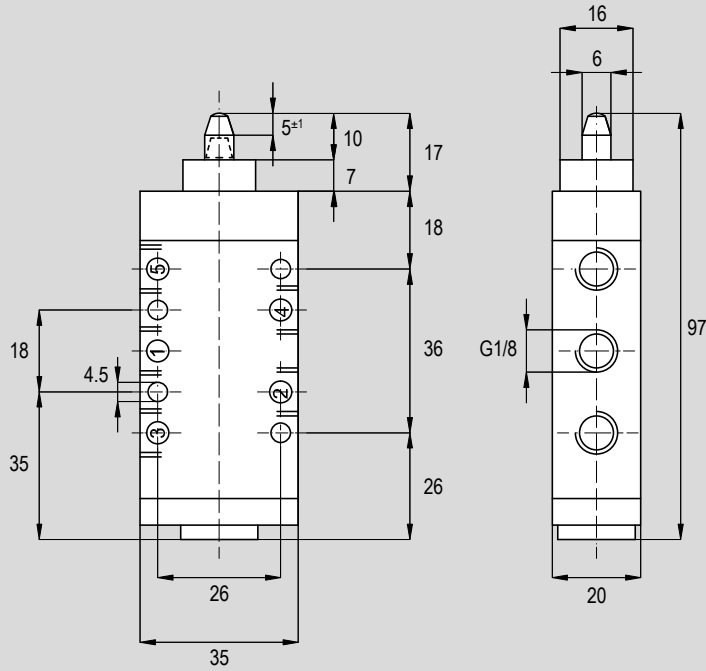


Mechanical operated valves series AC
 1/8", 5/2 Spring return, with plunger



Standard dimensions

Type: **AC1181520**



2 - VALVES

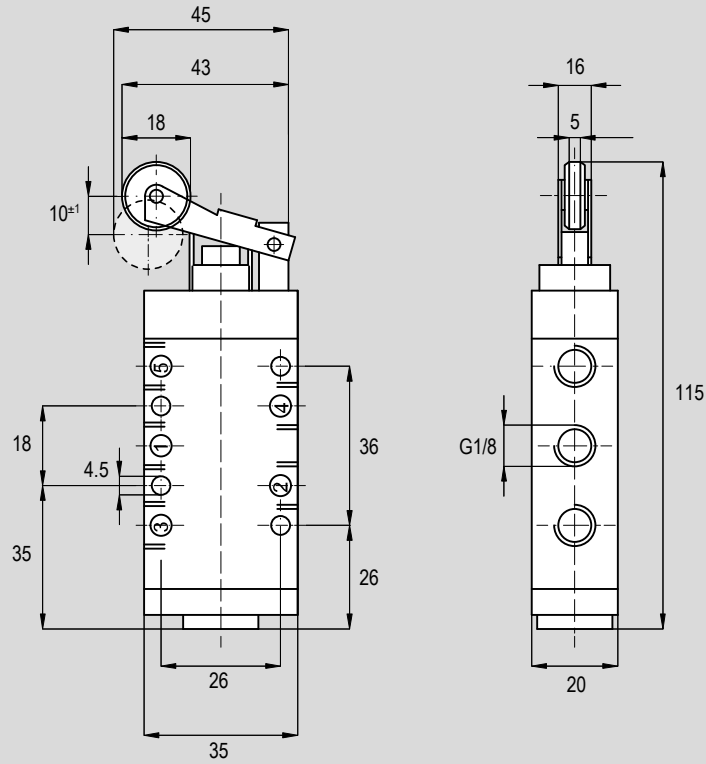
Version	Symbol	Code	Item
1/8" 5/2 Spring return with plunger		032640	AC1181520

Mechanical operated valves series AC
 1/8", 5/2 Spring return, with bi-directional lever and roller



Standard dimensions

Type: **AC2181520**



2 - VALVES

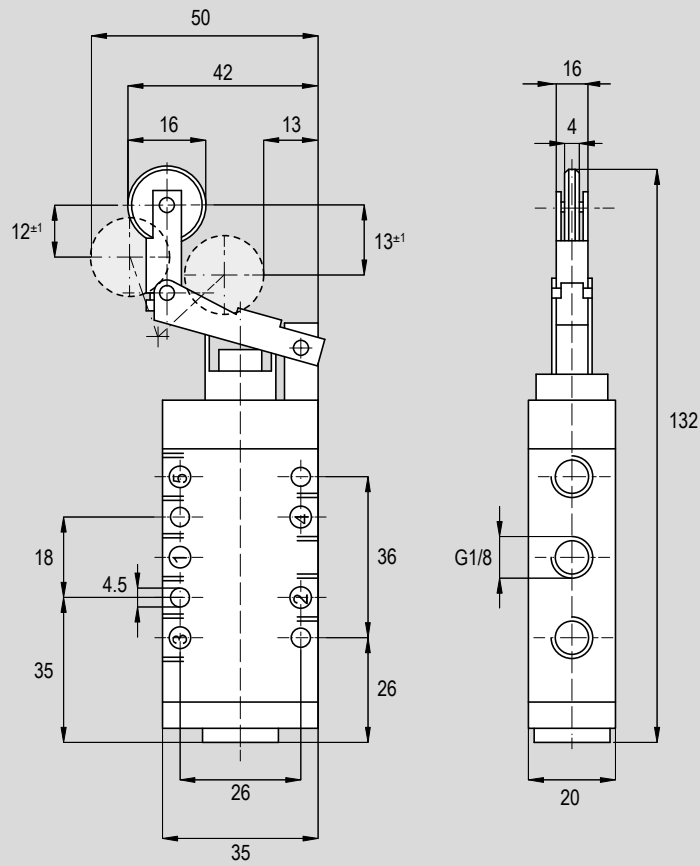
Version	Symbol	Code	Item
1/8" 5/2 Spring return with bi-directional lever and roller		032720	AC2181520

Mechanical operated valves series AC
 1/8", 5/2 Spring return, with uni-directional lever and roller



Standard dimensions

Type: **AC3181520**



2 - VALVES

Version	Symbol	Code	Item
1/8" 5/2 Spring return with uni-directional lever and roller		032740	AC3181520

Mechanical operated valves series A1

1/8", 3/2 Normally closed, with sensitive aerial



Main features

Version	Code	Item	Symbol
3/2 Normally closed with sensitive aerial	034201	A1ME130ANT	



Technical data

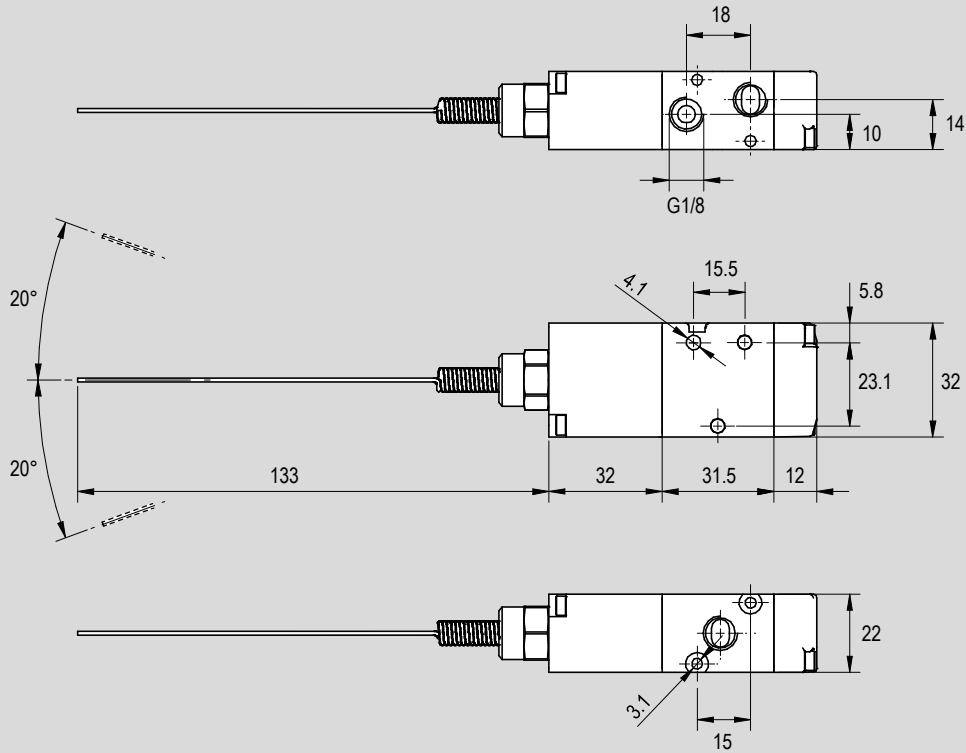
Version	3/2 Normally closed with sensitive aerial
Code	034201
Item	A1ME130ANT
Size	1/8"
Function	3/2
Configuration	With sensitive aerial
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.
Pressure range	1 ÷ 10 bar
Temperature range	-10°C ÷ +60°C
Orifice Ø	6.5 mm
Flow at 6 bar with ΔP 1 bar	650 Nl/min.
Connections	G1/8"
Fastening	Through holes on the body (screws not included)
Mounting	In every position

Mechanical operated valves series A1
 1/8", 3/2 Normally closed, with sensitive aerial



Standard dimensions

Type: **A1ME130ANT**



2 - VALVES

Version	Symbol	Code	Item
1/8" 3/2 Normally closed with sensitive aerial		034201	A1ME130ANT

Mechanical operated valves series A1

1/8", 5/2 Spring return, with sensitive aerial



Main features

Version	Code	Item	Symbol
5/2 Spring return with sensitive aerial	034202	A1ME150ANT	



Technical data

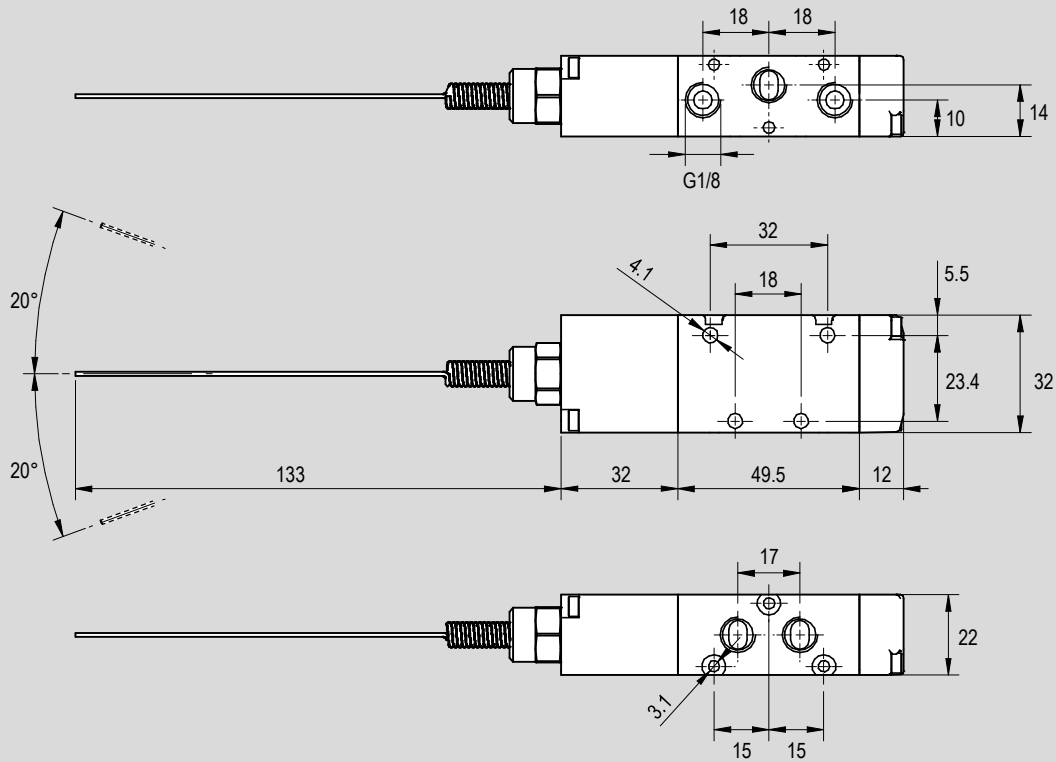
Version	5/2 spring return with sensitive aerial
Code	034202
Item	A1ME150ANT
Size	1/8"
Function	5/2
Configuration	With sensitive aerial
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.
Pressure range	1 ÷ 10 bar
Temperature range	-10°C ÷ +60°C
Orifice Ø	6.5 mm
Flow at 6 bar with ΔP 1 bar	650 Nl/min.
Connections	G1/8"
Fastening	Through holes on the body (screws not included)
Mounting	In every position

Mechanical operated valves series A1
 1/8", 5/2 Spring return, with sensitive aerial



Standard dimensions

Type: **A1ME150ANT**



2 - VALVES

Version	Symbol	Code	Item
1/8" 5/2 Spring return with sensitive aerial		034202	A1ME150ANT

Mechanical operated valves series A1

1/8", 5/2 Spring return, with side lever and roller



Main features

Version	Code	Item	Symbol
5/2 Spring return with side lever and roller	034156	A1ME150RLB	
5/2 Spring return with adjustable side lever and roller	034157	A1ME150RLBR	



Technical data

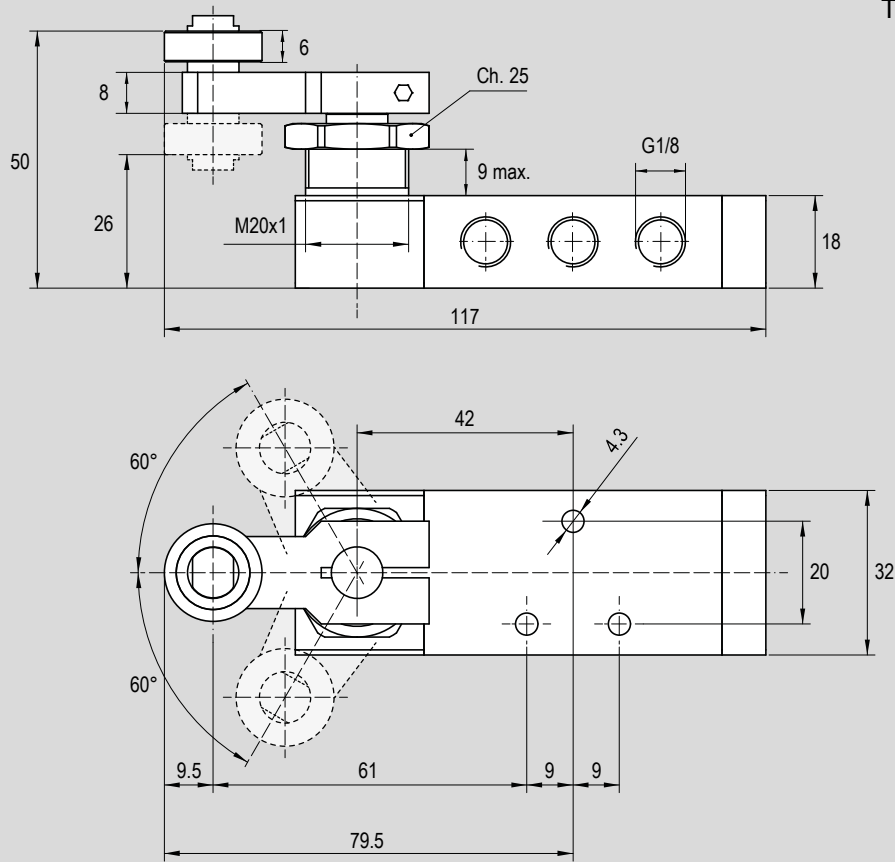
Version	5/2 spring return with side lever and roller	5/2 spring return with adjustable side lever and roller
Code	034156	034157
Item	A1ME150RLB	A1ME150RLBR
Size	1/8"	
Function	5/2	
Configuration	With side lever and roller	With adjustable side lever and roller
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	1 ÷ 10 bar	
Temperature range	-10°C ÷ +60°C	
Orifice Ø	6.5 mm	
Flow at 6 bar with ΔP 1 bar	650 NI/min.	
Connections	G1/8"	
Fastening	Through holes on the body (screws not included)	
Mounting	In every position	

Mechanical operated valves series A1
 1/8", 5/2 Spring return, with side lever and roller



Standard dimensions

Type: **A1ME150RLB**



2 - VALVES

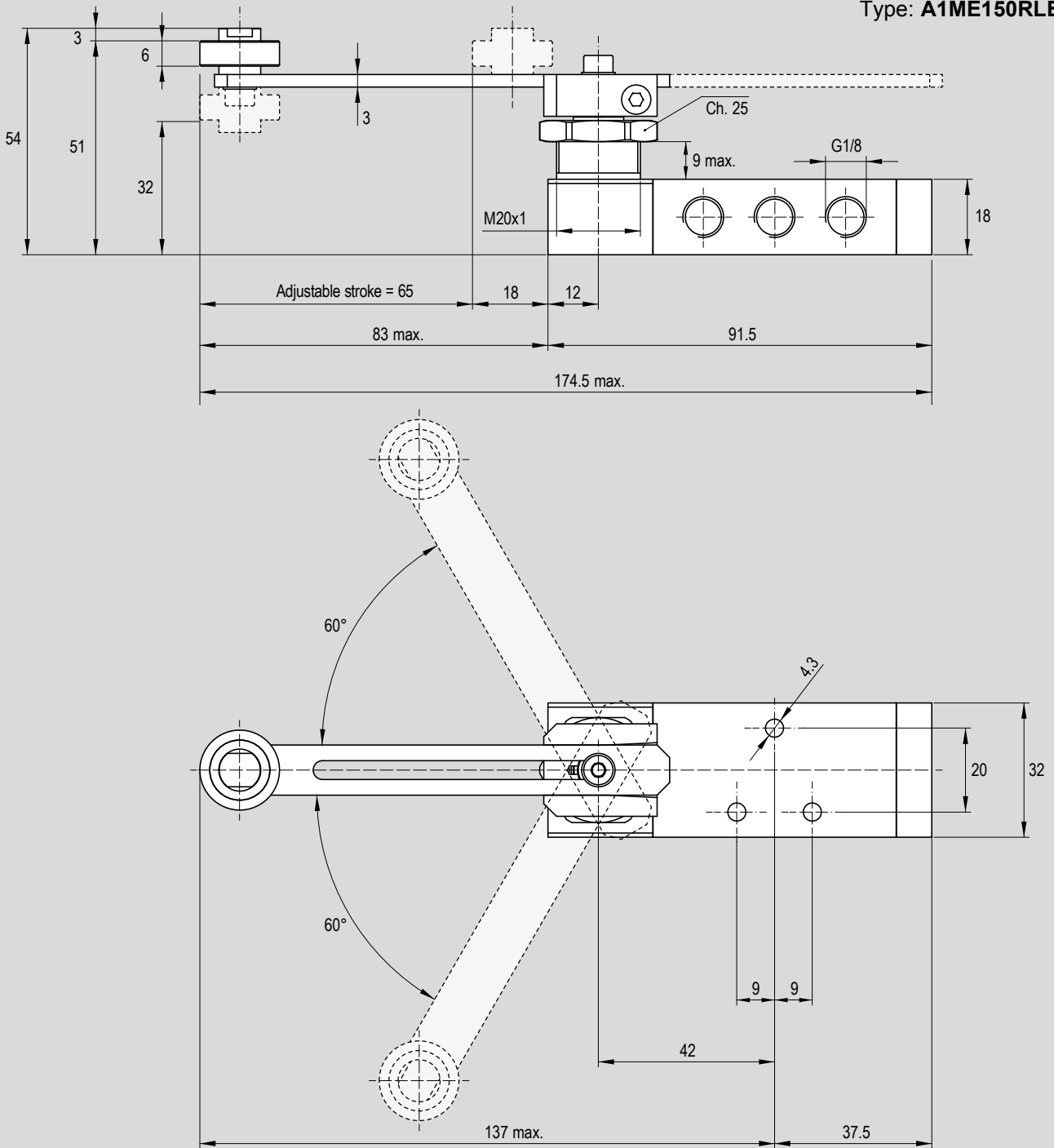
Version	Symbol	Code	Item
1/8" 5/2 spring return with side lever and roller		034156	A1ME150RLB

Mechanical operated valves series A1
 1/8", 5/2 Spring return, with adjustable side lever and roller

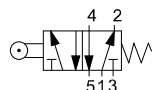


Standard dimensions

Type: **A1ME150RLBR**



2 - VALVES

Version	Symbol	Code	Item
1/8" 5/2 spring return with adjustable side lever and roller		034157	A1ME150RLBR

ANCILLARY

valves



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Fast delivery



Features and certifications

Ancillary valves.
Series of ancillary valves in different functions, sizes and configurations.
Supplied as standard in compliance to Reach and RoHS directives.

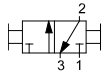


Slide valves

from page 2.251.1



Series of slide valves, manual operated. In line mounting, to close the supply and at the same time exhaust the downstream circuit air. Available in size from M5 to 3/4". NBR seals and blue slide as standard.



Miniature ball valves from brass hexagonal bar

from page 2.253.1



Series of miniature ball valves from brass hexagonal bar, manual operated. In line mounting, to close or open the flow in both directions. Available in size from 1/8" to 3/4", female-female or male-female. With black lever.



Miniature ball valves with cast body

from page 2.254.1



Series of miniature ball valves with cast body, manual operated, reduced dimension. In line mounting, to close or open the flow in both directions. Available in size from 1/8" to 1/4" female-female and from 1/8" to 3/8" male-female. With black lever.



Ball valve "full bore"

from page 2.256.1



Series of full bore ball valves, manual operated with long lever. In line mounting, to close or open the flow in both directions. Available in size from 1/4" to 2" in configuration female-female. With black lever.

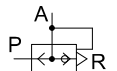


Quick exhaust valves

from page 2.260.1



Series of quick exhaust valves, to increase the speed of a cylinder. Available in size from M5 to 1" (for size 3/4" and 1" also available the "Maxi" version). PU seals as standard (NBR seals as standard for size M5).

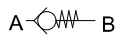


Unidirectional valves

from page 2.263.1



Series of unidirectional valves, from hexagonal bar, female threads. In line mounting, allow the compressed air to flow in one direction only; therefore they are suitable for those applications where no return of compressed air to the feeding is allowed. Available from size from M5 to 3/4" in configuration female-female. NBR seals as standard (FKM seals as standard for size 3/8" and size 1/2").

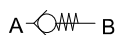


Safety valves

from page 2.265.1



Series of adjustable safety valves, with pressure range from 3 to 7 bar. For mounting on air reservoirs or in all these applications requiring the pressure never exceed the fixed value. Available in sizes from 1/8" to 1". Fixed calibration for different pressures with certificate according 97/23/EC Directive (ISPESL on request) available as option.



Main features

Version	Code	Item	Symbol
M5 blue	030701	V260005	
1/8" blue	030702	V260018	
1/4" blue	030703	V260014	
3/8" blue	030704	V260038	
1/2" blue	030705	V260012	
3/4" blue	030713	V260034	



Technical data

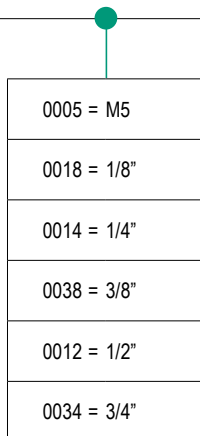
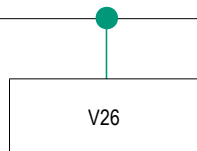
Version	Slide valves V26					
Code	030701	030702	030703	030704	030705	030713
Item	V260005	V260018	V260014	V260038	V260012	V260034
Size	M5	1/8"	1/4"	3/8"	1/2"	3/4"
Fluid	Filtered compressed air with or without lubrication					
Pressure range	0 ÷ 16 bar					
Temperature range	-10°C ÷ +80°C					
Orifice	2,5 mm	4 mm	7 mm	10 mm	14 mm	17 mm
Flow	100 NI/min.	680 NI/min.	1.300 NI/min.	2.100 NI/min.	3.800 NI/min.	5.700 NI/min.
Mounting	In-line					

Standard materials

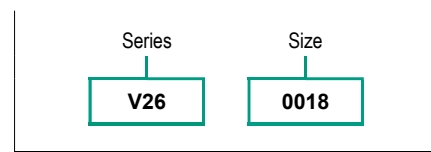
Description	Material
Body	Nickel-plated and ground brass
Slide	Anodized aluminium (blue)
Seals	NBR

Code key

Series	Size
V26	0018



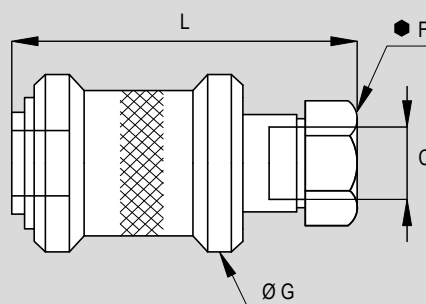
How to order



2 - VALVES

Standard dimensions

Type: **V26**



Code	Item	C (size)	● F	Ø G	L
030701	V260005	M5	10	14	31
030702	V260018	1/8"	14	25	48
030703	V260014	1/4"	19	30	58
030704	V260038	3/8"	22	35	70
030705	V260012	1/2"	27	40	75
030713	V260034	3/4"	32	50	83

Ancillary valves

Miniature ball valves from brass hexagonal bar



Main features

Version	Code	Item	Symbol
Thread 1/8" female-female black lever	030501	1MVSFF	
Thread 1/4" female-female black lever	030502	2MVSFF	
Thread 3/8" female-female black lever	030503	3MVSFF	
Thread 1/2" female-female black lever	030504	4MVSFF	
Thread 3/4" female-female black lever	030505	5MVSFF	
Thread 1/8" male-female black lever	030601	1MVSMF	
Thread 1/4" male-female black lever	030602	2MVSMF	
Thread 3/8" male-female black lever	030603	3MVSMF	
Thread 1/2" male-female black lever	030604	4MVSMF	
Thread 3/4" male-female black lever	030605	5MVSMF	



Technical data

Version	Miniature ball valves from brass hexagonal bar series MVS									
Code	030501	030502	030503	030504	030505	030601	030602	030603	030604	030605
Item	1MVSFF	2MVSFF	3MVSFF	4MVSFF	5MVSFF	1MVSMF	2MVSMF	3MVSMF	4MVSMF	5MVSMF
Size	1/8"	1/4"	3/8"	1/2"	3/4"	1/8"	1/4"	3/8"	1/2"	3/4"
Fluid	Filtered compressed air with or without lubrication.									
Pressure range	0 ÷ 10 bar									
Temperature range	-10°C ÷ +90°C									
Orifice	8 mm			10 mm	13,5 mm	8 mm			10 mm	13,5 mm
Lever color	Black									
Mounting	In-line									

Standard materials

Description	Material
Body	Nickel-plated brass
Lever	Nylon 66 reinforced glass
Ball	Nickel-plated brass
Seals	PTFE - NBR

Ancillary valves

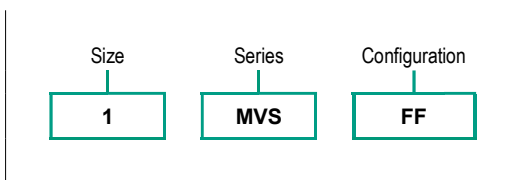
Miniature ball valves from brass hexagonal bar



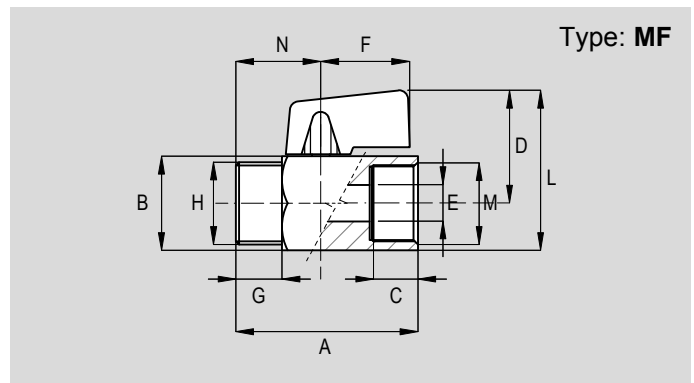
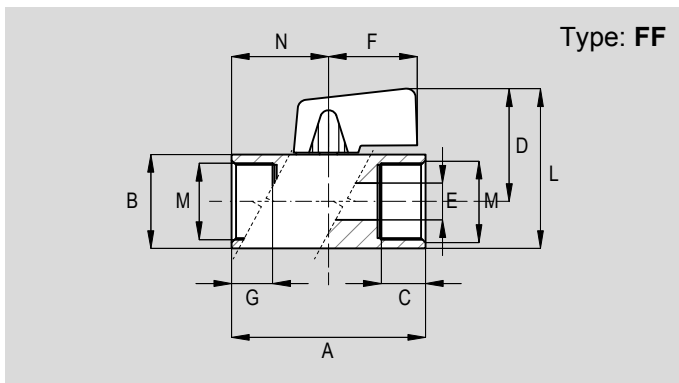
Code key

Size	Series	Configuration
1	MVS	FF
<ul style="list-style-type: none"> 1 = 1/8" 2 = 1/4" 3 = 3/8" 4 = 1/2" 5 = 3/4" 	MVS	<ul style="list-style-type: none"> FF = Female-Female MF = Male-Female

How to order



Standard dimensions



Code	Item	Size		A	B	C	D	E	F	G	L	N
		M	H									
030501	1MVSFF	G1/8"	-	39	20	7,5	27	8	22	7,5	37	18
030502	2MVSFF	G1/4"	-	39	20	9	27	8	22	7,5	37	18
030503	3MVSFF	G3/8"	-	42	20	10	27	8	22	10	37	21
030504	4MVSFF	G1/2"	-	47	24	12	29,5	10	22	10	41	21
030505	5MVSFF	G3/4"	-	54	30	12	32	13,5	22	11	47	27
030601	1MVSMF	G1/8"	G1/8"	39	20	8,5	27	8	22	7	37	18
030602	2MVSMF	G1/4"	G1/4"	39	20	9	27	8	22	8	37	18
030603	3MVSMF	G3/8"	G3/8"	40	20	10	27	8	22	8	37	19
030604	4MVSMF	G1/2"	G1/2"	45	24	12	29,5	10	22	10	41,5	21
030605	5MVSMF	G3/4"	G3/4"	51	30	12	32	13,5	22	12	47	24

Ancillary valves

Miniature ball valves with cast body



Main features

Version	Code	Item	Symbol
1/8" female-female	030641	11MSFF	
1/4" female-female	030642	22MSFF	
1/8" male-female	030643	11MSMF	
1/4" male - 1/8" female	030644	21MSMF	
1/4" male-female	030645	22MSMF	
3/8" male - 1/4" female	030646	32MSMF	



Technical data

Version	Miniature ball valves with cast body series MS					
Code	030641	030642	030643	030644	030645	030646
Item	11MSFF	22MSFF	11MSMF	21MSMF	22MSMF	32MSMF
Male thread	-	-	1/8"	1/4"	1/4"	3/8"
Female thread	1/8"	1/4"	1/8"	1/8"	1/4"	1/4"
Fluid	Filtered compressed air with or without lubrication.					
Pressure range	0 ÷ 10 bar					
Temperature range	-10°C ÷ +90°C					
Orifice	5,5 mm					
Lever color	Black					
Mounting	In-line					

Standard materials

Description	Material
Body	Nickel-plated brass
Lever	Nylon 66 reinforced glass
Ball	Nickel-plated brass
Seals	PTFE - NBR

Ancillary valves

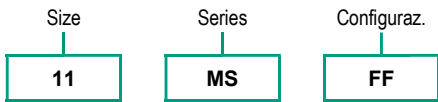
Miniature ball valves with cast body



Code key

Size	Series	Configuration
11	MS	FF
<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">11 = 1/8"</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">21⁽¹⁾ = 1/4" M - 1/8" F</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">22 = 1/4"</div> <div style="border: 1px solid black; padding: 5px;">32⁽¹⁾ = 3/8" M - 1/4" F</div>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">MS</div>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">FF = Female-Female</div> <div style="border: 1px solid black; padding: 5px;">MF = Male-Female</div>

How to order



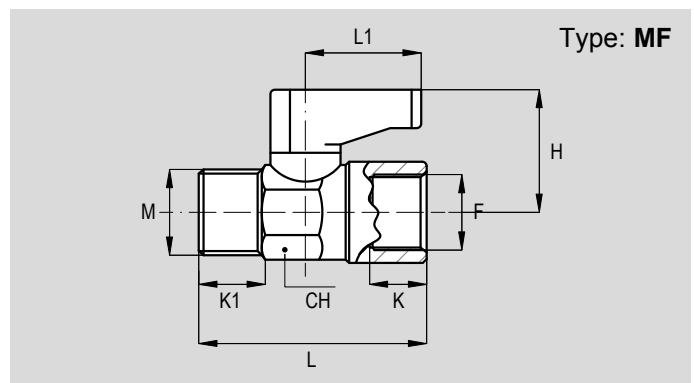
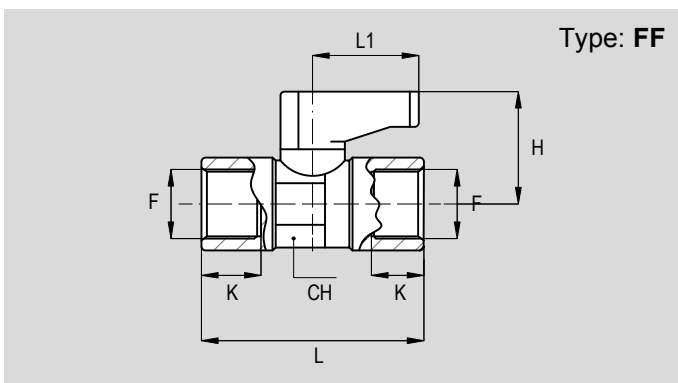
Notes

For standard materials see table at page 2.254.1

Options in the same grid are alternative to each others.

(1) Size available only for configuration Male-Female (MF).

Standard dimensions



Code	Item	M	F	K	K1	L	L1	H	CH
030641	11MSFF	-	1/8"	8	-	36.5	19	21	14
030642	22MSFF	-	1/4"	11	-	43	19	21	14
030643	11MSMF	1/8"	1/8"	8	8	35.5	19	21	14
030644	21MSMF	1/4"	1/8"	8	11	36	19	21	14
030645	22MSMF	1/4"	1/4"	11	11	41	19	21	14
030646	32MSMF	3/8"	1/4"	11	11.5	41.5	19	21	14

Ancillary valves

Ball valve "full bore"



Main features

Version	Code	Item	Symbol
1/4"	030661	VSLO014FF	
3/8"	030662	VSLO038FF	
1/2"	030663	VSLO012FF	
3/4"	030664	VSLO034FF	
1"	030665	VSLO100FF	
1 1/4"	030666	VSLO114FF	
1 1/2"	030667	VSLO112FF	
2"	030668	VSLO200FF	



Technical data

Version	Ball valve "full bore" series VSLO							
Code	030661	030662	030663	030664	030665	030666	030667	030668
Item	VSLO014FF	VSLO038FF	VSLO012FF	VSLO034FF	VSLO100FF	VSLO114FF	VSLO112FF	VSLO200FF
Size	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Fluid	Compressed air, inert gases, non-aggressive fluids							
Pressure range	40 bar		32 bar		25 bar	20 bar		16 bar
Temperature range	-15°C ÷ +100°C							
Orifice	10 mm		15 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Flow rate	3.000 l/min.		11.500 l/min.	21.000 l/min.	33.000 l/min.	50.000 l/min.	84.000 l/min.	97.000 l/min.
Mounting	In-line							

Standard materials

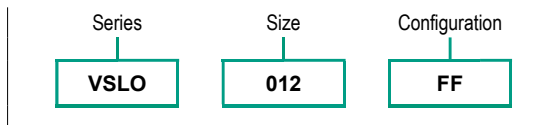
Description	Material
Body	Nickel-plated brass
Lever	Aluminium covered with polyurethane
Ball	Nickel-plated brass
Seals	PTFE - NBR

Code key

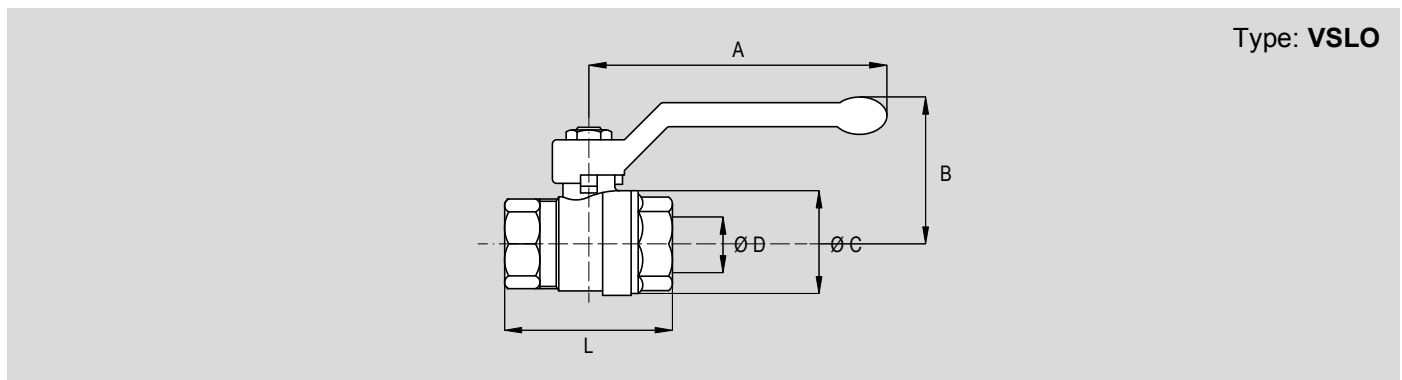
Series	Size	Configuration
VSLO	012	FF

VSLO	014 = 1/4" 038 = 3/8" 012 = 1/2" 034 = 3/4" 100 = 1" 114 = 1 1/4" 112 = 1 1/2" 200 = 2"	FF = Female-Female
------	--	--------------------

How to order



Standard dimensions



Type: VSLO

Code	Item	Size	Ø D	A	B	Ø C	L	Weight (g)
030661	VSLO014FF	1/4"	10	85	42	23	37	100
030662	VSLO038FF	3/8"	10	85	42	24	42	120
030663	VSLO012FF	1/2"	15	85	46	30	50	160
030664	VSLO034FF	3/4"	20	105	53	38	58	285
030665	VSLO100FF	1"	25	105	57	46	69	450
030666	VSLO114FF	1 1/4"	32	130	70	58	81	820
030667	VSLO112FF	1 1/2"	40	130	76	70	93	1280
030668	VSLO200FF	2"	50	165	92	86	110	2050

Main features

Version	Code	Item	Symbol
M5	030806	7VSR	
1/8"	030801	1VSR	
1/4"	030802	2VSR	
3/8"	030803	3VSR	
1/2"	030804	4VSR	
3/4"	030805	5VSR	
3/4" maxi	030807	5VSRM	
1" maxi	030808	6VSRM	



Technical data

Version	Quick exhaust valves series VSR							
Code	030806	030801	030802	030803	030804	030805	030807	030808
Item	7VSR	1VSR	2VSR	3VSR	4VSR	5VSR	5VSRM	6VSRM
Size	M5	1/8"	1/4"	3/8"	1/2"	3/4"	3/4"	1"
Fluid	Filtered compressed air with or without lubrication							
Pressure range	1 ÷ 10 bar							
Temperature range	-20°C ÷ +70°C (standard)		-10°C ÷ +150°C (V)					
Orifice	4 mm	6 mm	8,5 mm		15 mm	18 mm	24 mm	
Flow from P to A (at 6 bar)*	310 NI/min.	1.170 NI/min.	3.200 NI/min.	3.600 NI/min.	5.900 NI/min.	3.100 NI/min.	-	
Flow from A to R (at 6 bar)*	310 NI/min.	1.400 NI/min.	3.300 NI/min.	3.780 NI/min.	7.500 NI/min.	6.300 NI/min.	-	
Mounting	Preferably directly on the cylinder port							

* At 3 bar for size 3/4"

Standard materials

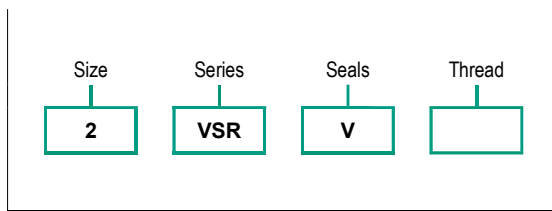
Description	Material							
	7VSR	1VSR	2VSR	3VSR	4VSR	5VSR	5VSRM	6VSRM
Body	Nickel-plated brass							
Diaphragm	NBR	PU						
Washer	Hytel 55 D							

For spare parts see page 2.260.2

Code key

Size	Series	Seals option	Thread option
2	VSR	V	
7 = M5	VSR ⁽¹⁾	V = FKM (-10°C ÷ +150°C)	NPT = NPT threaded
1 = 1/8"	VSRM ⁽²⁾		
2 = 1/4"			
3 = 3/8"			
4 = 1/2"			
5 = 3/4"			
6 = 1"			

How to order



Notes

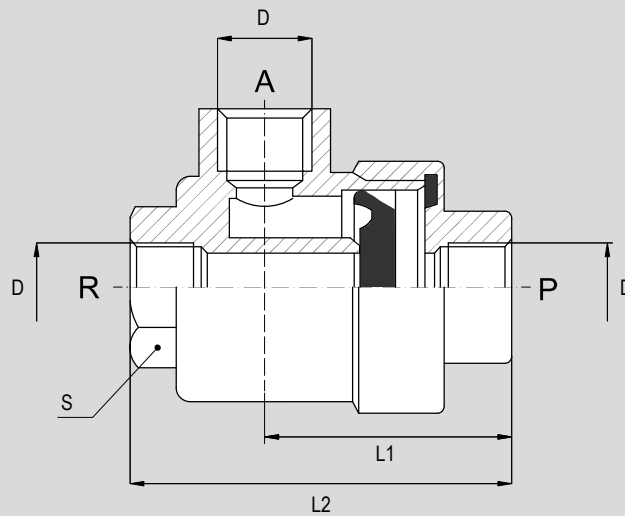
For standard materials see table at page 2.260.1
Options in the same grid are alternative to each others.
(1) Series VSR available from size M5 (7) up to size 3/4" (5).
(2) Series VSR Maxi (VSRM) available only for sizes 3/4" (5) e 1" (6).

Spare parts kits

Valve code	Valve item	Valve size	PU diaphragm code	FKM diaphragm code	Washer code	PU seals kit code	FKM seals kit code
030806	7VSR	M5	030906	-	030913	-	-
030801	1VSR	1/8"	030901	030909	038018	038061	038062
030802	2VSR	1/4"	030902	030903	038019	038063	038064
030803	3VSR	3/8"	030902	030903	038019	038063	038064
030804	4VSR	1/2"	030904	030910	038020	038065	038066
030805	5VSR	3/4"	030905	030908	038021	038067	038068
030807	5VSRM	3/4"	030907	030911	038026	038069	038070
030808	6VSRM	1"	030907	030911	038026	038069	038070

Standard dimensions

Type: **VSR**
VSRM



Code	Item	Size	D	L1	L2	S
030806	7VSR	M5	M5	17	25	10
030801	1VSR	1/8"	1/8"	30	46	14
030802	2VSR	1/4"	1/4"	35	53	17
030803	3VSR	3/8"	3/8"	37	57	21
030804	4VSR	1/2"	1/2"	45	73	26
030805	5VSR	3/4"	3/4"	55	90	32
030807	5VSRM	3/4"	3/4"	71	110	46
030808	6VSRM	1"	1"	71	110	46

Important note

The valve must be directly mounted on the port of the cylinder to achieve the maximum possible speed.
When the supply is in **P** the diaphragm closes the exhaust **R** and so the air flows through **A** into the chamber of the cylinder. When the supply **P** fails the diaphragm get back in its original position (closing **P**) due to the exhaust air from **A** to **R**. The noise of the exhaust **R** can be reduced by a silencer (for silencers see from page 4.150.1)

Main features

Version	Code	Item	Symbol
M5	030101	7FF	
1/8"	030102	1FF	
1/4"	030103	2FF	
3/8"	030104	3FF	
1/2"	030105	4FF	
3/4"	030107	5FF	
1"	030117	6FF	



Technical data

Version	Unidirectional valves series FF						
Code	030101	030102	030103	030104	030105	030107	030117
Item	7FF	1FF	2FF	3FF	4FF	5FF	6FF
Female thread	M5	1/8	1/4"	3/8"	1/2"	3/4"	1"
Fluid	Filtered compressed air with or without lubrication.						
Pressure range	2 ÷ 10 bar						
Temperature range	-10°C ÷ +60°C (standard) -10°C ÷ +150°C (V)			-10°C ÷ +150°C		-10°C ÷ +60°C (standard) -10°C ÷ +150°C (V)	
Orifice	2,2 mm	5,2 mm	7 mm	10 mm	12 mm	18 mm	24 mm
Flow (at 6 bar)*	100 NI/min.	500 NI/min.	900 NI/min.	2.600 NI/min.	3.500 NI/min.	3100 NI/min.	-
Mounting	In-line						

* At 3 bar for size 3/4"

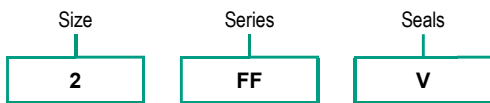
Standard materials

Description	Material						
	7FF	1FF	2FF	3FF	4FF	5FF	6FF
Body	Nickel-plated brass					Brass (not plated)	
Internal parts	Brass						
Spring	Stainless Steel						
Washer	NBR			FKM		NBR	

Code key

Size	Series	Garnizioni							
2	FF	V							
<table border="1"> <tr><td>7 = M5</td></tr> <tr><td>1 = 1/8"</td></tr> <tr><td>2 = 1/4"</td></tr> <tr><td>3 = 3/8"</td></tr> <tr><td>4 = 1/2"</td></tr> <tr><td>5 = 3/4"</td></tr> <tr><td>6 = 1"</td></tr> </table>	7 = M5	1 = 1/8"	2 = 1/4"	3 = 3/8"	4 = 1/2"	5 = 3/4"	6 = 1"	FF	V ⁽¹⁾ = FKM (-10°C ÷ +150°C)
7 = M5									
1 = 1/8"									
2 = 1/4"									
3 = 3/8"									
4 = 1/2"									
5 = 3/4"									
6 = 1"									

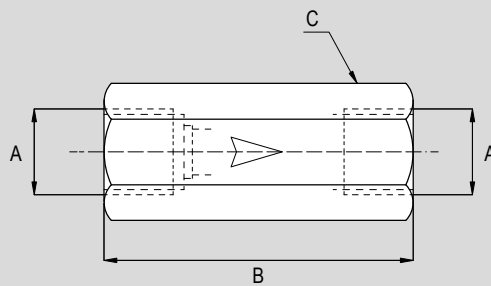
How to order



Notes

For standard materials see table at page 2.263.1
Options in the same grid are alternative to each others.
(1) Standard seals in FKM for sizes 3/8" and 1/2"

Standard dimensions



Type: **FF**

Code	Item	A (size)	B	C
030101	7FF	M5	25	8
030102	1FF	1/8"	34	13
030103	2FF	1/4"	39	16
030104	3FF	3/8"	50	21
030105	4FF	1/2"	60	25
030107	5FF	3/4"	42	30
030117	6FF	1"	-	-

Main features

Version	Code	Item	Symbol
1/8"	030951	1VS	
1/4"	030952	2VS	
3/8"	030953	3VS	
1/2"	030954	4VS	
3/4"	030955	5VS	
1"	030956	6VS	



Technical data

Version	Safety valves (adjustable) series VS					
Code	030951	030952	030953	030954	030955	030956
Item	1VS	2VS	3VS	4VS	5VS	6VS
Female thread	1/8"	1/4"	3/8"	1/2"	3/4"	1"
Fluid	Filtered compressed air with or without lubrication. Lubrication, if started, must be continued.					
Pressure range	3 ÷ 7 bar					
Temperature range	-10°C ÷ +90°C					
Orifice	6 mm		10 mm	11 mm	18 mm	
Flow	1.600 l/min.		3.400 l/min.	3.700 l/min.	7.900 l/min.	
Mounting	In line					

Standard materials

Description	Material
Body	Brass
Poppet	Brass
Adjusting screw	Brass
Nut	Brass
Spring	Steel C 98
Seal	NBR

Code key

Size	Series	Option
3	VS	●

1 = 1/8"
2 = 1/4"
3 = 3/8"
4 = 1/2"
5 = 3/4"
6 = 1"

VS

CCTF..⁽¹⁾ = Fixed calibration with certificate according 97/23/EC Directive. ISPEL on request

Notes

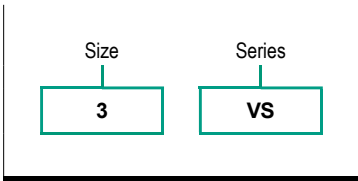
For standard materials see the table at page 2.265.1

Options in the same grid are alternative to each others.

(1) The certified valve is available with fixed calibration only. After the option suffix, please specify the required calibration in bar, as in the "how to order" table below.

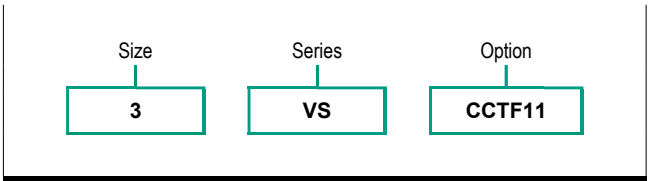
Special version on request, add **/S** suffix at the end of the coding.

How to order series VS standard*



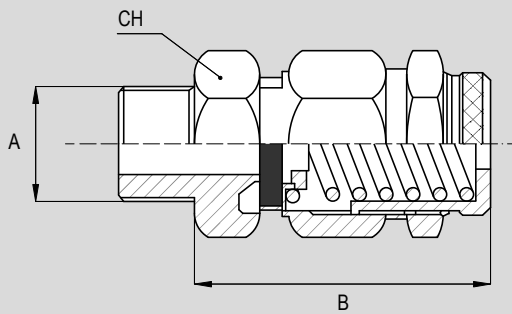
*Adjustable 3 ÷ 7bar

How to order series VS with option CCTF and fixed calibration at 11bar



Standard dimensions**

Type: VS



Code	Item	A (size)	B	CH
030951	1VS	1/8"	34	15
030952	2VS	1/4"	34	15
030953	3VS	3/8"	53	20
030954	4VS	1/2"	53	22
030955	5VS	3/4"	70	30
030956	6VS	1"	70	30

**For overall dimensions of valves with option CC..., please contact the sales department

COILS



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key products



Solution for most applications



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Excellent value for money



Wide availability



Fast delivery



Features and certifications

Coils for solenoid operated valves. Available in size 22 mm and 30 mm, in different voltages. For plungers Ø 9mm, Ø 10mm and Ø 13mm. Supplied as standard conforming to CE, UKCA, EAC, EN, VDE and DIN standards, and also supplied as standard in compliance to Reach and RoHS directives. Connectors to be ordered separately.



Series ASA12

from page 2.315.10



Series of 22 mm coils with low electrical consumption, conforming to EN 60204 and VDE 0580 standards (in compliance with UKCA and EAC standard as well), insulation class F, class protection IP65.
Available in voltages 12 and 24 V DC, and in voltages 12, 24, 48, 110 and 230 V AC.
For Ø 9 mm plunger.
Connector to be ordered separately.

Series ASA2

from page 2.315.11



Series of 30 mm coils with low electrical consumption, conforming to EN 60204.1 and VDE 0580 standards (in compliance with UKCA and EAC standard as well), insulation class F, class protection IP65.
Available in voltages 12 and 24 V DC, and in voltages 12, 24, 48, 110 and 230 V AC.
For Ø 9 mm plunger.
Connector to be ordered separately.

Series ASA33

from page 2.315.12



Series of 22 mm coils conforming to DIN 43650 standards (in compliance with UKCA and EAC standard as well), insulation class F, class protection IP65.
Available in voltages 12 and 24 V DC, and in voltages 12, 24, 48, 110 and 230 V AC.
For Ø 10 mm plunger.
Connector to be ordered separately.

Series ASA32

from page 2.315.13



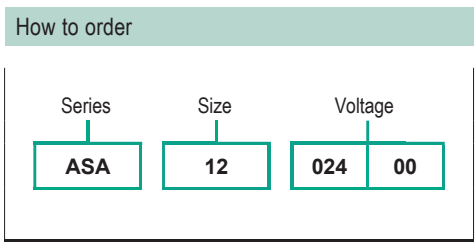
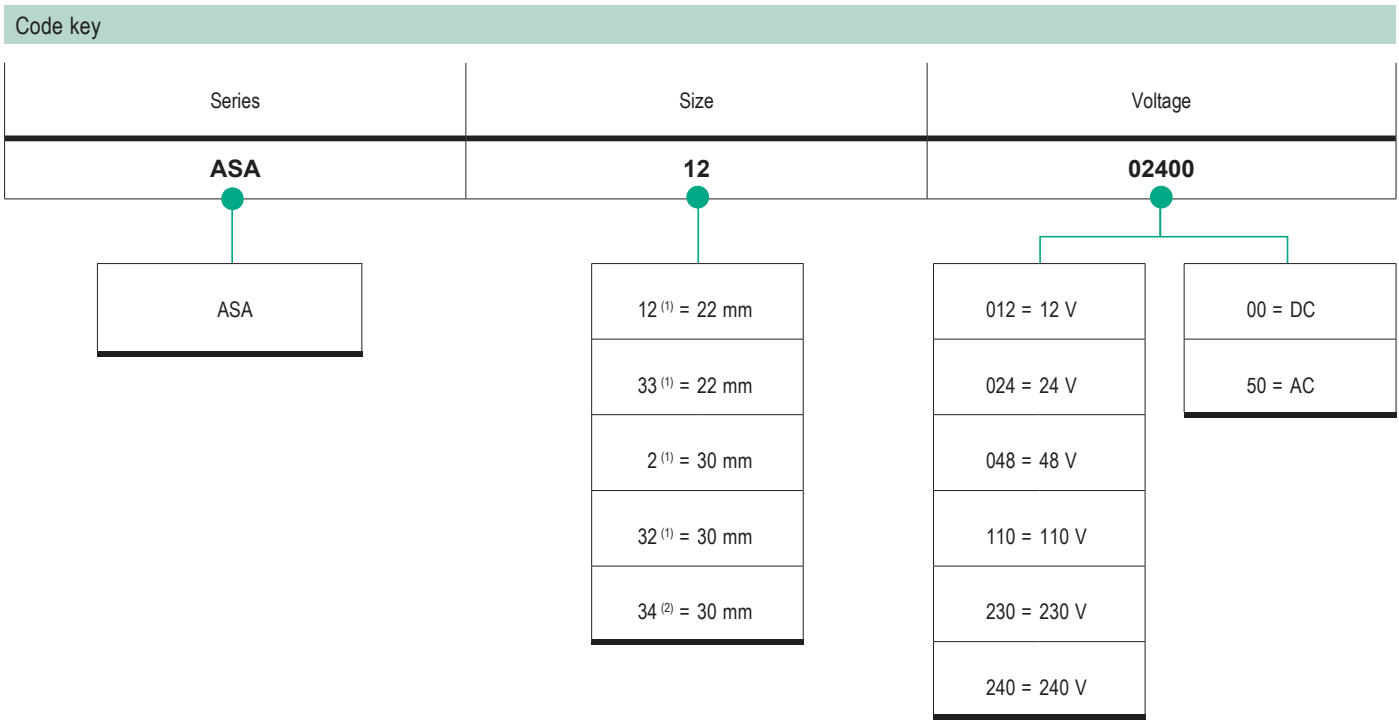
Series of 30 mm coils conforming to DIN 43650/A standard (in compliance with UKCA and EAC standard as well), insulation class F, class protection IP65.
Available in voltages 12 and 24 V DC, and in voltages 12, 24, 48, 110 and 230 V AC.
For Ø 13 mm plunger.
Connector to be ordered separately.

Series ASA34

from page 2.315.14



Series of 30 mm coils conforming to EN 175301-803-A, form A, insulation class F, class protection IP65.
Available in voltages 24 V DC, and in voltages 24, 110 and 240 V AC.
For Ø 13 mm plunger.
Connector to be ordered separately.



Notes

Options in the same grid are alternative to each others.

For available matching between coils and valves, and between coils and connectors, please see the table below.

For ATEX coils and connectors, in different classifications, see page 2.320.1

(1) Available in voltage 12 and 24 V DC, and in voltage 12, 24, 48, 110 and 230 V AC.

(2) Available in voltage 24 V DC, and in voltage 24, 110 and 240 V AC.

Matching with valves

Valves series	Coils series					See page
	ASA12..	ASA2..	ASA33..	ASA32..	ASA34..	
AE05..	-	-	-	-	-	2.5.1
A1EM..	●	●	-	-	-	2.12.10
A1E..MD	●	-	-	-	-	2.14.10
A1E..	●	●	-	-	-	2.20.1
A1K..	●	●	-	-	-	2.20.1
A1NE..	●	●*	-	-	-	2.44.1
ISO1E..	●	●	-	-	-	2.91.30
ISO1EL..	●	●	-	-	-	2.92.30
ISO2..	●	●	-	-	-	2.94.30
AEF..	●	●	-	-	-	2.130.1
AEC..	●	●	-	-	-	2.130.1
AEN22..	1/4" ÷ 1"	-	●	-	-	2.120.1
AEV22..		-	-	●	-	
AEP22..	1 1/4" ÷ 2"	-	-	-	-	
AVP..E	●	●	-	-	-	3.20.1
AX1E..	●	●	-	-	-	5.102.1
AX1K..	●	●	-	-	-	
AX1EG..	-	-	-	-	●	
AX1KG..	-	-	-	-	-	5.120.1
AX1NE..	●	●	-	-	-	
AX1NEG..	-	-	-	-	●	

Matching with connectors

Connectors series	Coils series					See page
	ASA12..	ASA2..	ASA33..	ASA32..	ASA34..	
A192..	-	-	-	-	-	2.318.10
A122..	●	-	●	-	-	2.318.12
A182..	-	●	-	●	●	2.318.14

Key

● allowed matching; - not allowed matching

* Plate type PSN required, see page 2.56.10

Main features

Series	Voltage	Code	Item
ASA12	12 V DC	032100	ASA1201200
	12 V AC	032101	ASA1201250
	24 V DC	032102	ASA1202400
	24 V AC	032103	ASA1202450
	48 V AC	032104	ASA1204850
	110 V AC	032105	ASA1211050
	230 V AC	032106	ASA1223050

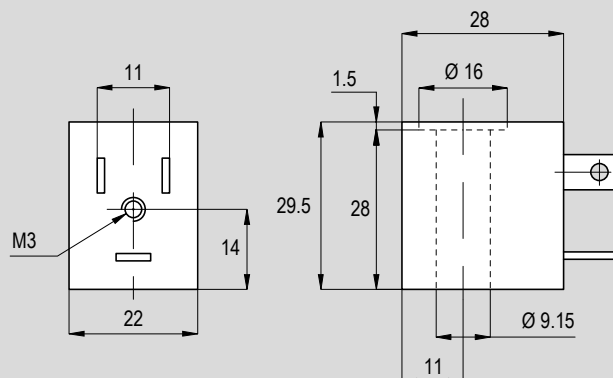


Technical data

Series	ASA12						
Code	032100	032101	032102	032103	032104	032105	032106
Item	ASA1201200	ASA1201250	ASA1202400	ASA1202450	ASA1204850	ASA1211050	ASA1223050
Voltage	12 V DC	12 V AC	24 V DC	24 V AC	48 V AC	110 V AC	230 V AC
Frequency	-	50/60 Hz	-	50/60 Hz			
Size	22 mm						
Plunger Ø	9 mm						
Compliance	EN 60204 e VDE 0580						
Current	Direct	Alternating	Direct	Alternating			
Voltage tolerance	±10%						
Frequency tolerance	-	± 5%	-	± 5%			
Electrical consumption	3 W	4.2 VA	3 W	4.2 VA			
Duty cycle	100% ED						
Class protection*	IP 65						
Temperature range	-20°C ÷ +50°C			-20°C ÷ +40°C		-20°C ÷ +50°C	
Response time	10 ms.						
Matching	see page 2.230.3						

* With connector already mounted. For connectors type see page 2.318.1

Standard dimensions



Main features

Series	Voltage	Code	Item
ASA2	12 V DC	032109	ASA201200
	12 V AC	032110	ASA201250
	24 V DC	032111	ASA202400
	24 V AC	032112	ASA202450
	48 V AC	032113	ASA204850
	110 V AC	032114	ASA211050
	230 V AC	032115	ASA223050



Important notes

For sub-base mounting, the option P32 (wide pitch 32 mm) is required, see page 2.305.3

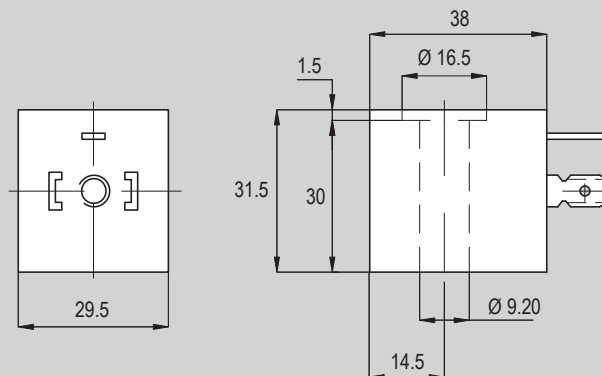
With valve bodies type A1NE, plate type PSN is required, see page 2.56.10

Technical data

Series	ASA2						
Code	032109	032110	032111	032112	032113	032114	032115
Item	ASA201200	ASA201250	ASA202400	ASA202450	ASA204850	ASA211050	ASA223050
Voltage	12 V DC	12 V AC	24 V DC	24 V AC	48 V AC	110 V AC	230 V AC
Frequency	-	50/60 Hz	-	50/60 Hz			
Size	30 mm						
Plunger Ø	9 mm						
Compliance	EN 60204.1 e VDE 0580						
Current	Direct	Alternating	Direct	Alternating			
Voltage tolerance	±10%	-10% ÷ +15%	±10%	-10% ÷ +15%			
Frequency tolerance	-	± 5%	-	± 5%			
Electrical consumption	2.5 W	5 VA	2.5 W	5 VA			
Duty cycle	100% ED						
Class protection*	IP 65						
Insulation class	F						
Temperature range	-20°C ÷ +50°C			-20°C ÷ +40°C		-20°C ÷ +50°C	
Response time	10 ms.						
Matching	see page 2.230.3						

* With connector already mounted. For connectors type see page 2.318.1

Standard dimensions



Main features

Series	Voltage	Code	Item
ASA33	12 V DC	034311	ASA3301200
	12 V AC	034312	ASA3301250
	24 V DC	034313	ASA3302400
	24 V AC	034314	ASA3302450
	48 V AC	034315	ASA3304850
	110 V AC	034316	ASA3311050
	230 V AC	034317	ASA3323050

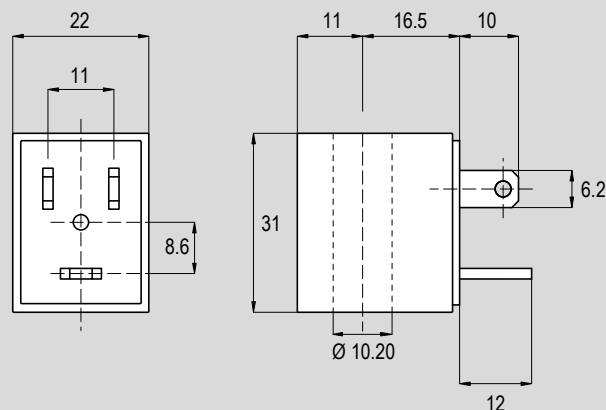


Technical data

Series	ASA33						
Code	034311	034312	034313	034314	034315	034316	034317
Item	ASA3301200	ASA3301250	ASA3302400	ASA3302450	ASA3304850	ASA3311050	ASA3323050
Voltage	12 V DC	12 V AC	24 V DC	24 V AC	48 V AC	110 V AC	230 V AC
Frequency	-	50/60 Hz	-	50/60 Hz			
Size	22 mm						
Plunger Ø	10 mm						
Compliance	DIN 43650						
Current	Direct	Alternating	Direct	Alternating			
Voltage tolerance	±10%	-10% ÷ +15%	±10%	-10% ÷ +15%			
Frequency tolerance	-	± 5%	-	± 5%			
Electrical consumption	6.5 W	8 VA	6.5 W	8 VA			
Duty cycle	100% ED						
Class protection*	IP 65						
Insulation class	F						
Temperature range	-10°C ÷ +55°C			-10°C ÷ +40°C		-10°C ÷ +55°C	
Response time	10 ms.						
Matching	see page 2.230.3						

* With connector already mounted. For connectors type see page 2.318.1

Standard dimensions



Main features

Series	Voltage	Code	Item
ASA32	12 V DC	034321	ASA3201200
	12 V AC	034322	ASA3201250
	24 V DC	034323	ASA3202400
	24 V AC	034324	ASA3202450
	48 V AC	034325	ASA3204850
	110 V AC	034326	ASA3211050
	230 V AC	034327	ASA3223050

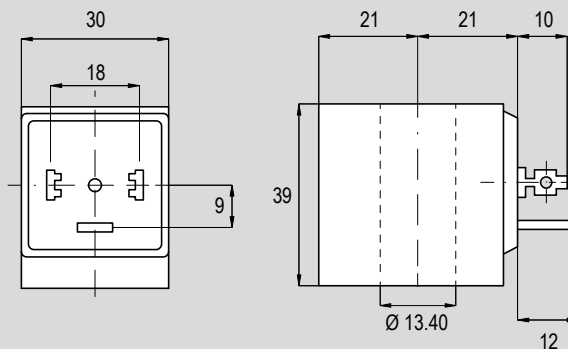


Technical data

Series	ASA32						
Code	034321	034322	034323	034324	034325	034326	034327
Item	ASA3201200	ASA3201250	ASA3202400	ASA3202450	ASA3204850	ASA3211050	ASA3223050
Voltage	12 V DC	12 V AC	24 V DC	24 V AC	48 V AC	110 V AC	230 V AC
Frequency	-	50/60 Hz	-	50/60 Hz			
Size	30 mm						
Plunger Ø	13 mm						
Compliance	DIN 43650/A						
Current	Direct	Alternating	Direct	Alternating			
Voltage tolerance	±10%	-10% ÷ +15%	±10%	-10% ÷ +15%			
Frequency tolerance	-	± 5%	-	± 5%			
Electrical consumption	10 W	15 VA	10 W	15 VA			
Duty cycle	100% ED						
Class protection*	IP 65						
Insulation class	F						
Temperature range	-10°C ÷ +55°C			-10°C ÷ +40°C		-10°C ÷ +55°C	
Response time	10 ms.						
Matching	see page 2.230.3						

With connector already mounted. For connectors type see page 2.318.1

Standard dimensions



Main features

Series	Voltage	Code	Item
ASA34	24 V DC	034341	ASA3402400
	24 V AC	034340	ASA3402450
	110 V AC	034342	ASA3411050
	240 V AC	034343	ASA3424050

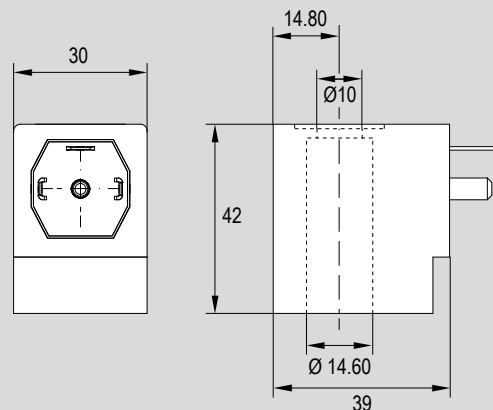


Technical data

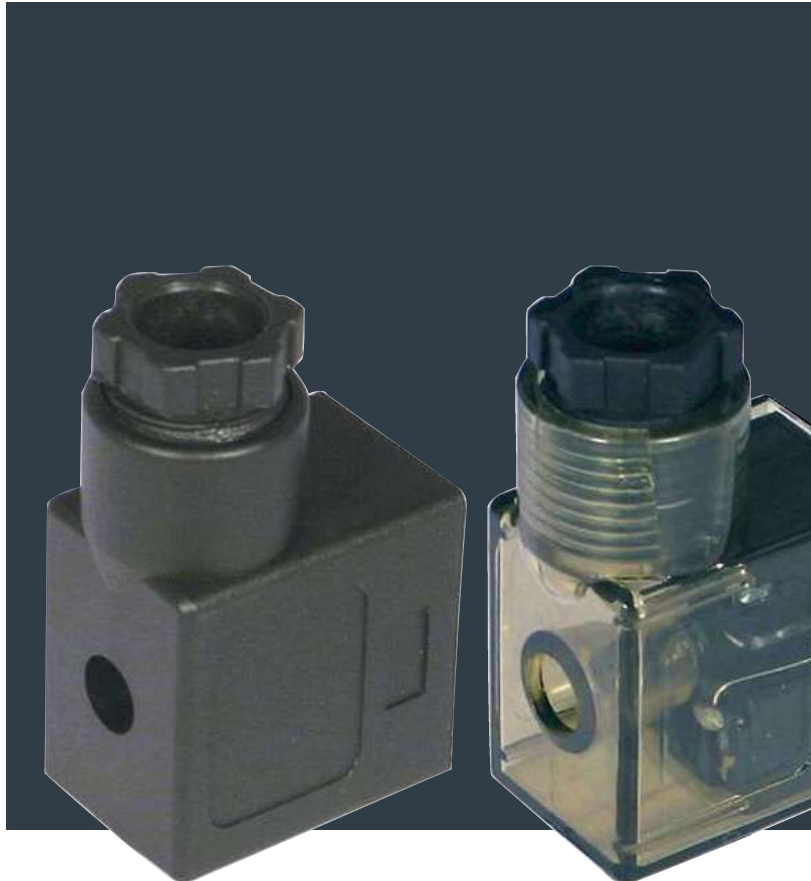
Series	ASA34			
Code	034341	034340	034342	034343
Item	ASA3402400	ASA3402450	ASA3411050	ASA3424050
Voltage	24 V DC	24 V AC	110 V AC	240 V AC
Frequency	-	50 Hz		
Size	30 mm			
Plunger Ø	13 mm			
Compliance	EN 175301-803-A, form A			
Current	Direct	Alternating		
Voltage tolerance	±10%			
Electrical consumption	15 W	19.3 VA	17.6 VA	
Duty cycle	100% ED			
Class protection*	IP 65 (conforming to EN60529 standards)*			
Insulation class	F (conforming to DIN VDE 60524 standards)			
Temperature range	-20°C ÷ +50°C	-20°C ÷ +40°C	-20°C ÷ +50°C	
Matching valves	see page 2.230.3			

* With connector already mounted. For connectors type see page 2.318.1

Standard dimensions



CONNECTORS



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Solution for most applications



Easy and intuitive choice



Excellent value for money



Wide availability



Fast delivery



Features and certifications

Connectors for coils for solenoid operated valves. Available in size 15 mm, 22 mm and 30 mm, in different versions and voltages. Supplied as standard conforming to EN VDE and DIN standards, and also supplied as standard in compliance to Reach and RoHS directives. Coils to be ordered separately.



Series A192

from page 2.318.10



Series of 15 mm connectors, insulation class VDE 0110 - 1/89, class protection IP65 EN 60529. Available in version black standard, cabled black standard and transparent in various voltages with VDR and LED, and cabled black in various voltage with VDR and LED. Supplied complete of mounting screw and profiled NBR seal. For valves series AE05..

Series A122

from page 2.318.12



Series of 22 mm connectors conforming to DIN 43 650 standards, insulation class VDE 0110 - 1/89, class protection IP65 EN 60529. Available in version black standard, cabled black standard and transparent in various voltages with VDR and LED, and cabled black in various voltages with VDR and LED. Supplied complete of mounting screw and profiled NBR seal. Coils type ASA12 and ASA33, to be ordered separately.

Series A182

from page 2.318.14



Series of 30 mm connectors conforming to DIN 43650 - A/ISO 4400 standards, insulation class VDE 0110 - 1/89, class protection IP65 EN 60529. Available in version black standard, cabled black standard and transparent in various voltages with VDR and LED, and cabled black in various voltages with VDR and LED. Supplied complete of mounting screw and profiled NBR seal. Coils type ASA2, ASA32 and ASA 34, to be ordered separately.

Code key

Series	Size	Color	Circuit	Cabling
A	122	N	1	K
A	192 = 15 mm 122 = 22 mm 182 = 30 mm	N = Black T = Transparent	= Without circuit 1 = LED+VDR 24 V AC/DC 2 = LED+VDR 115 V AC/DC 3 = LED+VDR 230 V AC/DC	= Not cabled K ⁽¹⁾ = Cabled

How to order

Series	Size	Color	Circuit	Cabling
A	122	N	1	K

Notes

Options in the same grid are alternative to each others
 For standard materials see the data sheet of single components.
 For possible matching with valves and coils, see the tables below.
 For ATEX coils and connectors, in different classifications, see page 2.320.1
 (1) Cabled connector available only in combinations with color black option (N) and circuits 1, 2 or 3.

Matching with valves

Valves series	Connector series			See page
	A192..	A122..	A182..	
AE05..	●	-	-	2.5.1

Key

● allowed matching; - not allowed matching

Matching with coils

Coil series	Connector series			See page
	A192..	A122..	A182..	
ASA12..	-	●	-	2.315.10
ASA2..	-	-	●	2.315.11
ASA32..	-	-	●	2.315.13
ASA33..	-	●	-	2.315.12
ASA34..	-	-	●	2.315.14

Main features

Series	Version	Code	Item
A192	Black standard (without circuit)	032117	A19207N
	Transparent with VDR+LED, 24 V, AC-DC	032201	A19207T1
	Transparent with VDR+LED, 115 V, AC-DC	032202	A19207T2
	Transparent with VDR+LED, 230 V, AC-DC	032203	A19207T3
	Cabled black standard (without circuit)	033511	A19207NK
	Cabled black with LED+VDR, 24 V, AC-DC	033512	A19207N1K
	Cabled black with LED+VDR, 115 V, AC-DC	033513	A19207N2K
	Cabled black with LED+VDR, 230 V, AC-DC	033514	A19207N3K

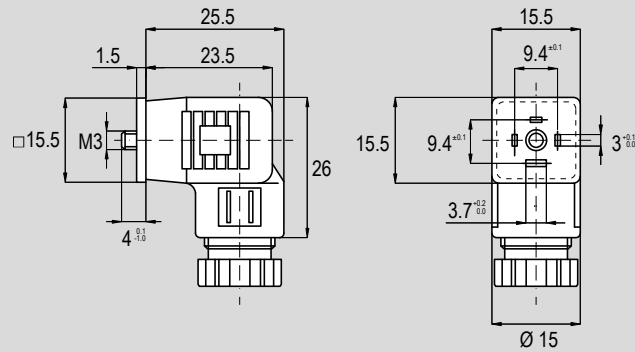


Technical data

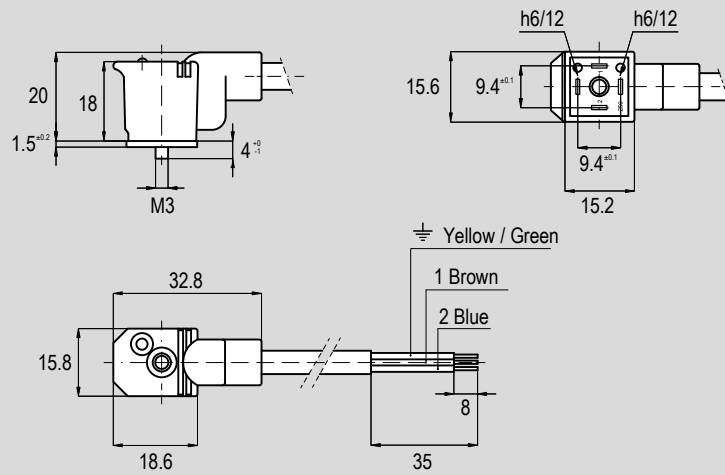
Series	A192							
Code	032117	032201	032202	032203	033511	033512	033513	033514
Item	A19207N	A19207T1	A19207T2	A19207T3	A19207NK	A19207N1K	A19207N2K	A19207N3K
Voltage	All	24 V AC-DC	115 V AC-DC	230 V AC-DC	All	24 V AC-DC	115 V AC-DC	230 V AC-DC
Size	15 mm							
Contact distance	9.4 mm							
Nominal voltage	250 V AC max 300 V DC max	250 V			250 V			
Nominal current	6 A				-			
Maximum current on contacts	10 A				-			
Maximum current	-				3 A			
Contact resistance	≤ 4 m Ohm							
Maximum conductor section	0.75 mm ²				-			
Gland size	Pg 07				-			
Class protection	IP 65 EN 60529							
Insulation class	VDE 0110 - 1/89							
Temperature range	-40°C ÷ +90°C							
Earth contact (number)	1				2 connected (pos. 6/12)			
Poles number	2							
Cable length	-				2 mt.			
Cable material	-				Self-extinguishing polypropylene			
Cable color	-				Grey			
Wire color	-				Conforming to ENEL 0722 standards			
Cable external Ø	-				5.5 mm			
Cable insulation	-				300 V			
Cable temperature range	-				-5°C ÷ +70°C			
Cable standards	-				CEI 2022 II OR			
Wire section	-				3x0.5 mm ²			
Matching	Valves series AE05..							

Standard dimensions

Type: **A192N**
A192T



Type: **A192NK**
A192N..K



Main features

Series	Version	Code	Item
A122	Black standard (without circuit)	032118	A12209N
	Transparent with VDR+LED, 24 V, AC-DC	032204	A12209T1
	Transparent with VDR+LED, 115 V, AC-DC	032205	A12209T2
	Transparent with VDR+LED, 230 V, AC-DC	032206	A12209T3
	Cabled black standard (without circuit)	033521	A12209NK
	Cabled black with LED+VDR, 24 V, AC-DC	033522	A12209N1K
	Cabled black with LED+VDR, 115 V, AC-DC	033523	A12209N2K
	Cabled black with LED+VDR, 230 V, AC-DC	033524	A12209N3K

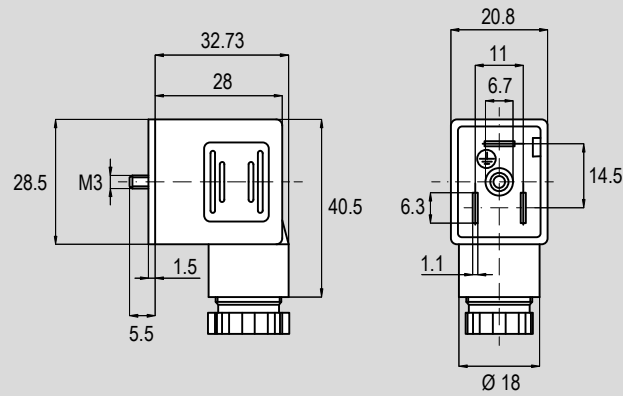


Technical data

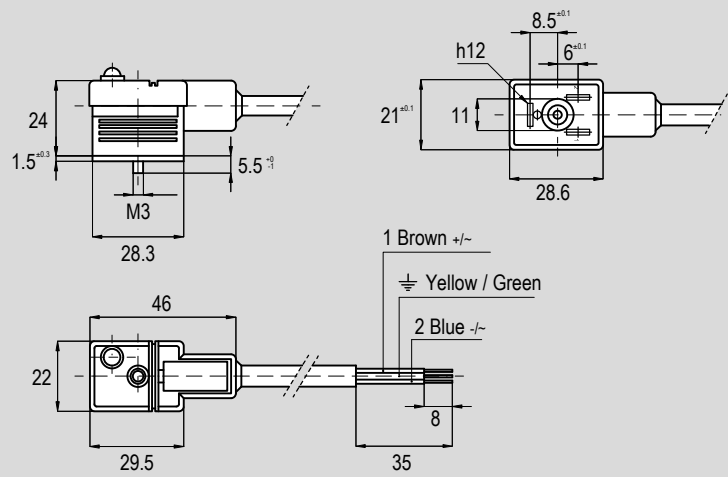
Series	A122							
Code	032118	032204	032205	032206	033521	033522	033523	033524
Item	A12209N	A12209T1	A12209T2	A12209T3	A12209NK	A12209N1K	A12209N2K	A12209N3K
Voltage	All	24 V AC-DC	115 V AC-DC	230 V AC-DC	All	24 V AC-DC	115 V AC-DC	230 V AC-DC
Size	22 mm							
Contact distance	11 mm							
Nominal voltage	250 V AC max 300 V DC max	250 V			250 V			
Nominal current	10 A				-			
Maximum current on contacts	16 A				-			
Maximum current	-				5 A			
Contact resistance	≤ 4 m Ohm							
Maximum conductor section	1.5 mm ²				-			
Gland size	Pg 09				-			
Class protection	IP 65 EN 60529							
Insulation class	VDE 0110 - 1/89							
Temperature range	-40°C ÷ +90°C							
Earth contact (number)	1				2 connected (pos. 6/12)			
Poles number	2							
Cable length	-				2 mt.			
Cable material	-				Self-extinguishing polypropylene			
Cable color	-				Grey			
Wire color	-				Conforming to ENEL 0722 standards			
Cable external Ø	-				7.3 mm			
Cable insulation	-				300 V			
Cable temperature range	-				-5°C ÷ +70°C			
Cable standards	-				CEI 2022 II OR			
Wire section	-				3x1 mm ²			
Matching	Coils series ASA12.. and series ASA33..							

Standard dimensions

Type: **A122N**
A122T



Type: **A122NK**
A122N..K



Main features

Series	Version	Code	Item
A182	Black standard (without circuit)	032119	A18209N
	Transparent with VDR+LED, 24 V, AC-DC	032207	A18209T1
	Transparent with VDR+LED, 115 V, AC-DC	032208	A18209T2
	Transparent with VDR+LED, 230 V, AC-DC	032209	A18209T3
	Cabled black standard (without circuit)	033531	A18209NK
	Cabled black with LED+VDR, 24 V, AC-DC	033532	A18209N1K
	Cabled black with LED+VDR, 115 V, AC-DC	033533	A18209N2K
	Cabled black with LED+VDR, 230 V, AC-DC	033534	A18209N3K

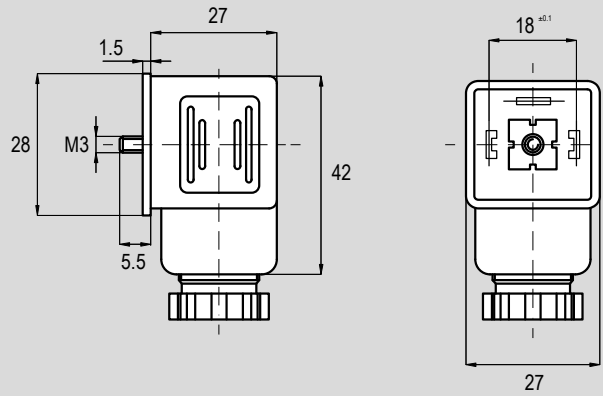


Technical data

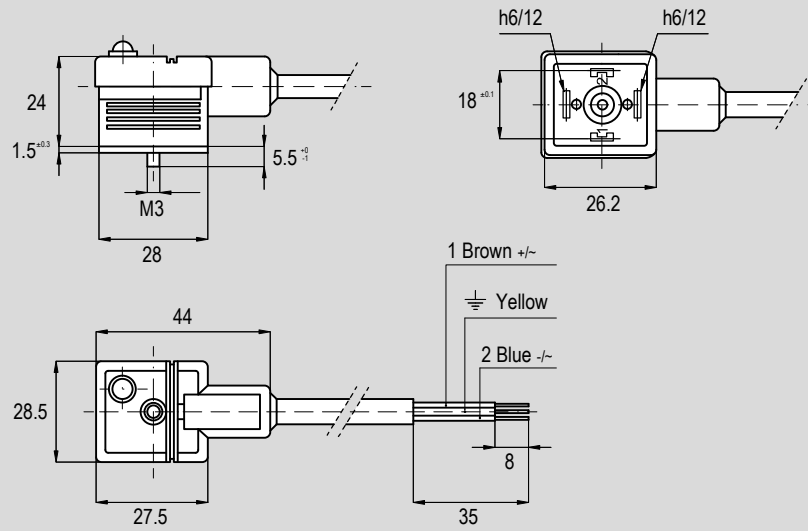
Series	A182							
Code	032119	032207	032208	032209	033531	033532	033533	033534
Item	A18209N	A18209T1	A18209T2	A18209T3	A18209NK	A18209N1K	A18209N2K	A18209N3K
Voltage	All	24 V AC-DC	115 V AC-DC	230 V AC-DC	All	24 V AC-DC	115 V AC-DC	230 V AC-DC
Size	30 mm							
Contact distance	18 mm							
Nominal voltage	250 V AC max 300 V DC max	250 V			250 V			
Nominal current	10 A				-			
Maximum current on contacts	16 A				-			
Maximum current	-				3 A			
Contact resistance	≤ 4 m Ohm							
Maximum conductor section	1.5 mm ²				-			
Gland size	Pg 07				-			
Class protection	IP 65 EN 60529							
Insulation class	VDE 0110 - 1/89							
Temperature range	-40°C ÷ +90°C							
Earth contact (number)	1				2 connected (pos. 6/12)			
Poles number	2							
Cable length	-				2 mt.			
Cable material	-				Self-extinguishing polypropylene			
Cable color	-				Grey			
Wire color	-				Conforming to ENEL 0722 standards			
Cable external Ø	-				7.3 mm			
Cable insulation	-				300 V			
Cable temperature range	-				-5°C ÷ +70°C			
Cable standards	-				CEI 2022 II OR			
Wire section	-				3x1 mm ²			
Matching	Coils series ASA2.., series ASA32.. and series ASA34..							

Standard dimensions

Type: **A182N**
A182T



Type: **A182NK**
A182N..K



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Features and certifications

Solenoid operated valves for applications in potentially explosive atmospheres. These solenoid operated valves, supplied complete and already assembled with coil and connector, are conforming to 2014/34/EU Directive, available in classification Ex ia (intrinsic safety coil) or Ex d (explosion proof coil). They are also compliant with Reach and RoHS directives, and SIL certified.



Complete solenoid operated valves conforming to ATEX Ex ia (valve body mounted with intrinsic safe coil) type XA

from page 2.321.1

Solenoid operated valves supplied complete and already mounted, composed by the desired valve body, 30 mm Ex ia intrinsic safety coil (voltage 21.6 ÷ 28 V DC) and compatible connector. Conforming to 2014/34/EU ATEX Directive for applications in potentially explosive atmospheres, Group II, cat. 2 Gas & Powders, temperature class T6, protection grade IP65. Ex ia coil can be matched with valve bodies series A1E, series A1NE and series ISO.



Complete solenoid operated valves conforming to ATEX Ex ia (valve body mounted with intrinsic safe coil) type XA1

from page 2.321.1

Solenoid operated valves supplied complete and already mounted, composed by the desired valve body, 30 mm Ex ia intrinsic safety coil (voltage 21.6 ÷ 28 V DC) and compatible connector. Conforming to 2014/34/EU ATEX Directive for applications in potentially explosive atmospheres, Group II, cat. 2 Gas & Powders, temperature class T4, protection grade IP65. Ex ia coil can be matched with valve bodies series A1E, series A1NE and series ISO.



Complete solenoid operated valves conforming to ATEX Ex d (valve body mounted with explosion proof coil) type XC

from page 2.322.1

Solenoid operated valves supplied complete and already mounted, composed by the desired valve body and explosion proof coil Ex d with integrated pilot, available in different voltages. Conforming to 2014/34/EU ATEX Directive for applications in potentially explosive atmospheres, Group II, cat. 2 Gas, temperature class T6. Ex d coil can be matched with valve bodies series A1E and series A1NE.



Caratteristiche e certificazioni

Coils and connectors to be combined with valve bodies (ATEX option required) for the configuration of solenoid operated valves suitable for applications in potentially explosive atmospheres. The solenoid valves configured in this way comply with the ATEX directive 2014/34/EU, in classification Ex ec (increased safety coil), Ex dm (explosion-proof encapsulated coil) or Ex mb (encapsulated coil). They are also compliant with Reach and RoHS directives and SIL certified. Valve bodies, coils and connectors are to be ordered separately.



Coils and connectors conforming to ATEX Ex ec (to be configured combining valve body with increased safety coil and connector) from page 2.325.1

Solenoid operated valves to be configured by combining the desired valve body (with body ATEX option) with increased safety coil Ex ec type ASA12/ATEXII3 size 22 mm (available in various voltages) and connector type A12209N/ATEX size 22 mm
Thus configured, the solenoid operated valve comply with 2014/34/EU ATEX Directive for applications in potentially explosive atmospheres Group II, category 3 Gas and dust, temperature class T5, protection grade IP65.
Valve bodies, coils and connectors are to be ordered separately.



Coils conforming to ATEX Ex dm (to be configured combining valve body with explosion proof encapsulated coil) from page 2.326.1

Solenoid operated valves to be configured by combining the desired valve body (with body ATEX option) with explosion proof encapsulated coil Ex dm type ASA4/ATEXII2 size 36 mm with integrated connector.
Thus configured, the solenoid operated valve comply with 2014/34/EU ATEX Directive for applications in potentially explosive atmospheres Group II, category 2 Gas and dust, temperature class T5, protection grade IP66.
Valve bodies, coils and connectors are to be ordered separately.



Coils conforming to ATEX Ex mb (to be configured combining valve body with encapsulated coil) from page 2.327.1

Solenoid operated valves to be configured by combining the desired valve body (with body ATEX option) with encapsulated coil Ex mb type ASA2/ATEXII2 size 30 mm with integrated cabled connector (cable length 2 m) available in different voltages.
Thus configured, the solenoid operated valve comply with 2014/34/EU ATEX Directive for applications in potentially explosive atmospheres Group II, category 2 Gas and dust, temperature class T5, protection grade IP66.
Valve bodies, coils and connectors are to be ordered separately.



Types and configurations

Solenoid valve	Classification	Coil/Connector	Configuration
Ex ia (type XA)	II 2G Ex ia IIC T6 Gb II 2D Ex tb IIIC T80°C Db X IP65		Solenoid operated valve supplied complete with Ex ia intrinsically safe coil and connector mounted, type XA. For possible matching with ATEX valve body see page the table below. For code key see from page 2.321.2 For dimensions see from page 2.321.4
Ex ia (type XA1)	II 2G Ex ia IIC T4 Gb II 2D Ex tb IIIC T130°C Db X IP65		Solenoid operated valve supplied complete with Ex ia intrinsically safe coil and connector mounted, type XA1. For possible matching with ATEX valve body see page the table below. For code key see from page 2.321.2 For dimensions see from page 2.321.4
Ex d (type XC)	II 2G Ex db IIC T6 Gb		Solenoid operated valve supplied complete with Ex d explosion proof coil with integrated pilot mounted, type XC. For possible matching with ATEX valve body see page the table below. For code key see page 2.322.2 For dimensions see from page 2.322.3

Matching coil/connector with valve body

Coil/Connector		II 2G Ex ia IIC T6 Gb II 2D Ex tb IIIC T80°C Db IP65	II 2G Ex ia IIC T4 Gb II 2D Ex tb IIIC T130°C Db IP65	II 2G Ex db IIC T6 Gb
Valve body	Size	Supplied already mounted with valve body	Supplied already mounted with valve body	Supplied already mounted with valve body
A1E	1/8"	●	●	-
	1/4"	●	●	●
	1/2"	●	●	-
A1K	1/8"	●	●	-
	1/4"	●	●	-
	1/2"	●	●	-
A1NE	1/4"	●	●	●
ISO..E	ISO1	●	●	-
	ISO2	●	●	-
ISO..K	ISO1	●	●	-
	ISO2	●	●	-
ISO..EL	ISO1	●	●	-
ISO..KL		●	●	-

Key
● allowed matching; - not allowed matching

Types and configurations

Solenoid valve type	Classification	Coil/Connector	Configuration
EX ec	II 3G Ex ec IIC T5 Gc II 3D Ex tc IIIC T95°C Dc IP65		To configure the solenoid valve, combine: <ul style="list-style-type: none"> desired ATEX valve body, see from page 2.20.1 (for valves series A1), from page 2.44.1 (for valves series A1N), from page 2.90.1 (for ISO valves), from page 2.10.1 (for valves series A1EM and series A1E..MD) or from page 2.130.1 (for series AEF); Coil type ASA12/ATEXII3, see page 2.325.2; Connector type A12209N/ATEX, see page 2.325.3;
EX dm	II 2G Ex db mb IIC T5 Gb II 2D Ex tb IIIC T95°C Db IP66		To configure the solenoid valve, combine: <ul style="list-style-type: none"> desired ATEX valve body, see from page 2.20.1 (for valves series A1), from page 2.44.1 (for valves series A1N) or from page 2.90.1 (for ISO valves); Coile type ASA4/ATEXII2 (with integrated connector), see page 2.320.21;
EX mb	II 2G Ex mb IIC T5 Gb II 2D Ex tb IIIC T95°C Db IP66		To configure the solenoid valve, combine: <ul style="list-style-type: none"> desired ATEX valve body, see from page 2.20.1 (for valves series A1), from page 2.44.1 (for valves series A1N) or from page 2.90.1 (for ISO valves); Coile type ASA2/ATEXII2 (with 2 mt. cabled connector integrated), see page 2.320.22;

Matching coil/connector with valve body

Coil/Connector		II 3G Ex ec IIC T5 Gc II 3D Ex tc IIIC T95°C Dc IP65		II 2G Ex db mb IIC T5 Gb II 2D Ex tb IIIC T95°C Db IP66		II 2G Ex mb IIC T5 Gb II 2D Ex tb IIIC T95°C Db IP66	
Valve body	Size	ASA12/ATEXII3 (coil)	A12209N/ATEX (connector)	ASA4/ATEXII2 (coil with integrated connector)	ASA2/ATEXII2 (coil with integrated cabled connector)		
A1EM	1/8"	●	●	-	-		
A1E..MD	1/8"	●	●	-	-		
	1/4"	●	●	-	-		
A1E	1/8"	●	●	●	●		
	1/4"	●	●	●	●		
	1/2"	●	●	●	●		
A1K	1/8"	●	●	●	●		
	1/4"	●	●	●	●		
	1/2"	●	●	●	●		
A1NE	1/4"	●	●	●	●		
ISO..E	ISO1	●	●	●	●		
	ISO2	●	●	●	●		
ISO..K	ISO1	●	●	●	●		
	ISO2	●	●	●	●		
ISO..EL	ISO1	●	●	●	●		
ISO..KL		●	●	●	●		
AEF..	1/4"	●	●	●	●		

Key

● allowed matching; - not allowed matching

Solenoid operated valves, ATEX coils and connectors

Complete solenoid operated valves type XA - XA1, intrinsic safety Ex ia



Main features

Solenoid operated valves supplied complete and already mounted, composed by the desired valve body, 30 mm Ex ia intrinsic safety coil (voltage 21.6 ÷ 28 V DC) and relevant connector.

The Ex ia coil (and its connector) can be matched with:

- valve bodies series A1E size 1/8", 1/4" and 1/2", electric actuated, also with external air pilot;
- valve bodies series A1NE size 1/4", electric actuated;
- valve bodies series ISO size ISO1, with Cnomo or in-line pilot, and size ISO2 with Cnomo pilot, electric actuated, also with external air pilot.

These solenoid valve are available in two different ATEX classification:

Type XA is conforming to 2014/34/UE ATEX Directive suitable for applications in potentially explosive atmospheres, Group II, cat. 2 Gas & Powders, temperature class T6, protection grade IP65.

Type XA1 is conforming to 2014/34/UE ATEX Directive for applications in potentially explosive atmospheres, Group II, cat. 2 Gas & Powders, temperature class T4, protection grade IP65.

For code key see from page 2.321.2

For dimensions see from page 2.321.4

For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

	II 2G Ex ia IIC T6 Gb	
	II 2D Ex tb IIIC T80°C Db IP65	
	II 2G Ex ia IIC T4 Gb	
	II 2D Ex tb IIIC T130°C Db IP65	



2 - VALVES

Technical data

Solenoid valve		type XA	type XA1
ATEX classification		II 2G Ex ia IIC T6 Gb II 2D Ex tb IIIC T80°C Db IP65	II 2G Ex ia IIC T4 Gb II 2D Ex tb IIIC T130°C Db IP65
Protection	Gas	Ex ia	
	Dust	Ex tb	
Protection grade		IP65	
Fluid		Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	Solenoid/Spring	2 ÷ 7 bar	
	Solenoid/Solenoid	2 ÷ 7 bar	
	3 positions	2,5 ÷ 7 bar	
Temperature range	Standard	-10°C ÷ +60°C	-10°C ÷ +50°C
	(BT)	-25°C ÷ +60°C	-25°C ÷ +50°C

Standard materials

Solenoid valve		type XA	type XA1
Plunger		Brass	
Coil		Thermoset resin	
Connector		Thermoset resin	
Valve body	A1E A1K	See page 2.20.7	
	A1NE	See page 2.44.4	
	ISO..E ISO..K	See page 2.90.6	
	ISO..EL ISO..KL	See page 2.90.6	

Electrical features ATEX coil/connector

Nominal Voltage	Frequency	Nominal current	Nominal power	Duty cycle	Temperature class	Standard voltage	Suffix	ATEX Classification	Coil/Connector
21.6 ÷ 28 V DC	-	0.115 A (@ 28VDC)	1.6 W (@ 28VDC)	100% ED	T6	●	C	II 2G Ex ia IIC T6 Gb II 2D Ex tb IIIC T80°C Db IP65	XA
21.6 ÷ 28 V DC		0.115 A (@ 28VDC)	1.6 W (@ 28VDC)	100% ED	T4	●	C	II 2G Ex ia IIC T4 Gb II 2D Ex tb IIIC T130°C Db IP65	XA1



Key

- standard voltage

Solenoid operated valves, ATEX coils and connectors

Complete solenoid operated valves type XA - XA1, intrinsic safety Ex ia

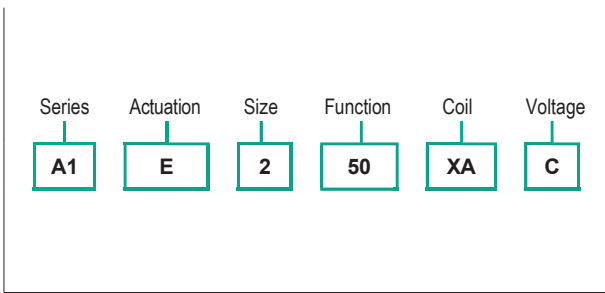


Code key solenoid valves ATEX complete with coils and connectors (series A1 and A1N)

Series	Actuation	Size	Function	ATEX coil	Coil voltage	Option
A1	E	2	50	XA	C	
A1 = In line	E = Electric	1 = 1/8"	30 = 3/2 N. C.	XA = II 2G Ex ia IIC T6 Gb II 2D Ex tb IIIC T80°C Db X IP65	See table on page 2.321.1	BT = Low temperatures seals
A1N ⁽¹⁾ = Namur	K = External air pilot	2 = 1/4"	31 = 3/2 N. A.	XA1 = II 2G Ex ia IIC T4 Gb II 2D Ex tb IIIC T130°C Db X IP65		
		4 = 1/2"	32 = 3/2 Sol./Sol.			
			50 = 5/2 Sol./Spring			
			51 = 5/2 Sol./Sol.			
			52 = 5/2 Sol./Sol. differential			
			70 = 5/3 C.C.			
			71 = 5/3 O.C.			
			72 = 5/3 P.C.			

2 - VALVES

How to order



Notes

Options in the same grid are alternative to each others.

For features and standard materials of the valve body, see from page 2.20.7 (for series A1) and from page 2.44.3 (for valves series A1N).

For features and standard materials of coils/connectors, see page 2.321.1

(1) Namur series (A1N) available with electric actuation only (E), in size 1/4" (2), and in functions 3/2 N.C. (30), 3/2 solenoid/solenoid (32), 5/2 solenoid/spring (50), 5/2 solenoid/solenoid (51), 5/3 C.C. (70), 5/3 O.C. (71) and 5/3 P.C. (72).

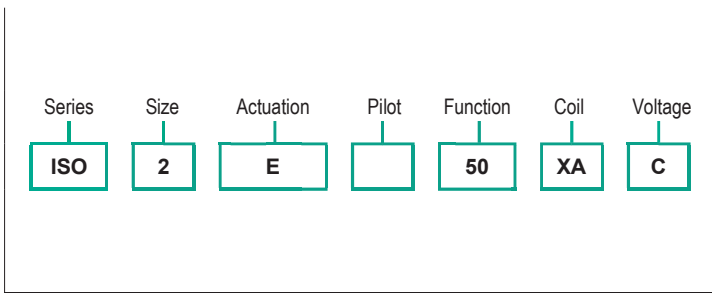
For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

Code key solenoid valves ATEX complete with coils and connectors (series ISO)

Series	Size	Actuation	Pilot	Function	ATEX coil	Coil voltages
ISO	2	E		50	XA	C
ISO	1 = ISO1 2 = ISO2	E = Electric K = External air pilot		50 = 5/2 Sol./Spring 51 = 5/2 Sol./Sol. 52 = 5/2 Sol./Sol. differential 70 = 5/3 C.C. 71 = 5/3 O.C. 72 = 5/3 P.C.	XA = II 2G Ex ia IIC T6 Gb II 2D Ex tb IIIC T80°C Db X IP65 XA1 = II 2G Ex ia IIC T4 Gb II 2D Ex tb IIIC T130°C Db X IP65	See table on page 2.321.1
		= CNOMO L ⁽¹⁾ = In-Line				

2 - VALVES

How to order



Notes

Options in the same grid are alternative to each others.
 For features and standard materials of the valve body, see from page 2.90.6
 For features and standard materials of coils/connectors see page 2.321.1
 (1) In line pilot (L) available only for size ISO1 (1).
 For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

Dimensions coil and connector series XA and XA1 with valves body series A1E1 (1/8")

Valve bodies series: **A1E1**

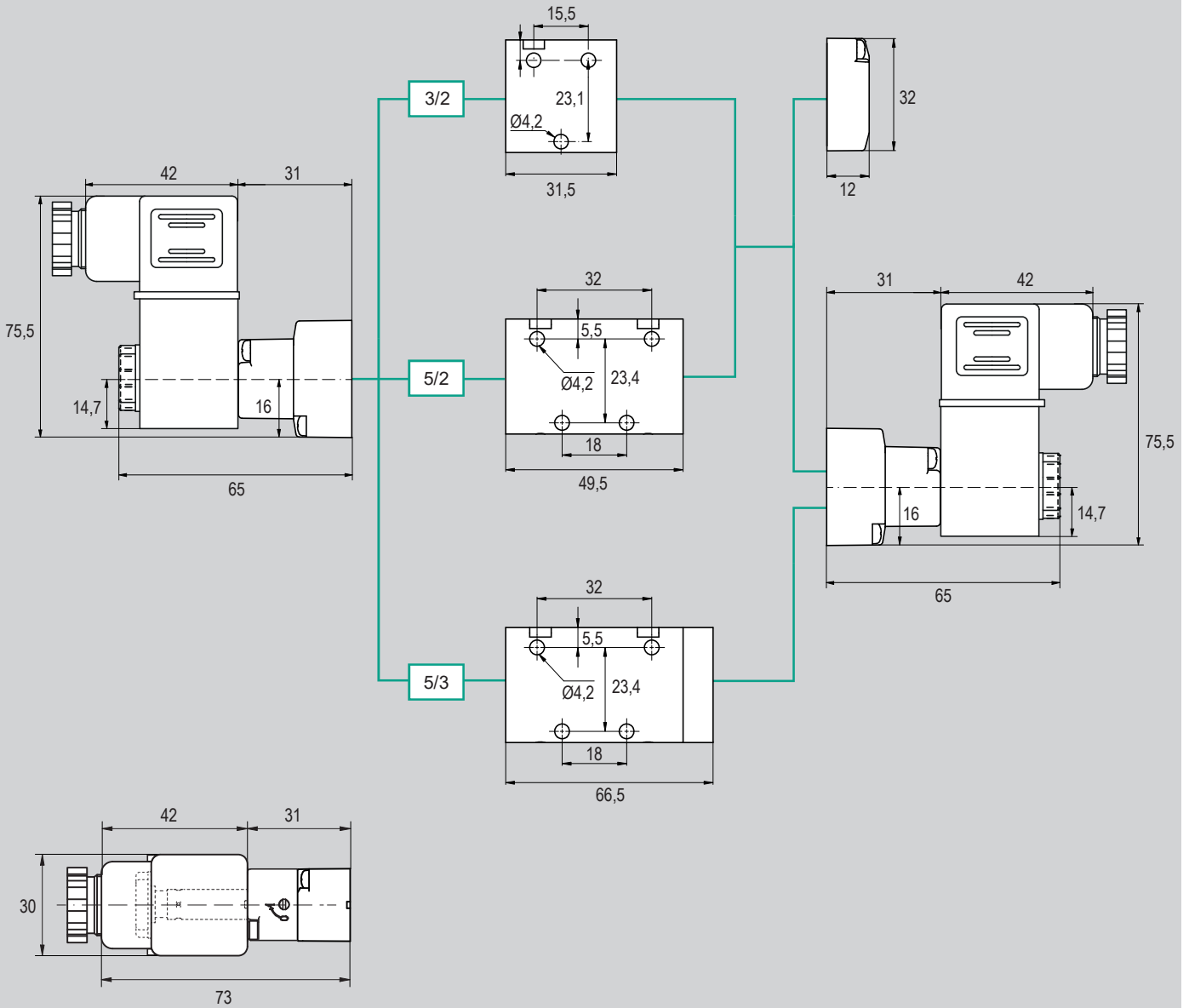
CE **Ex** II 2G Ex ia IIC T6 Gb
 II 2D Ex tb IIIC T80°C Db IP65

XA

CE **Ex** II 2G Ex ia IIC T4 Gb
 II 2D Ex tb IIIC T130°C Db IP65

XA1

2 - VALVES



For further information on features of valves body series A1E1 (1/8"), see from page 2.21.10

Dimensions coil and connector series XA and XA1 with valves body series A1K1 (1/8")

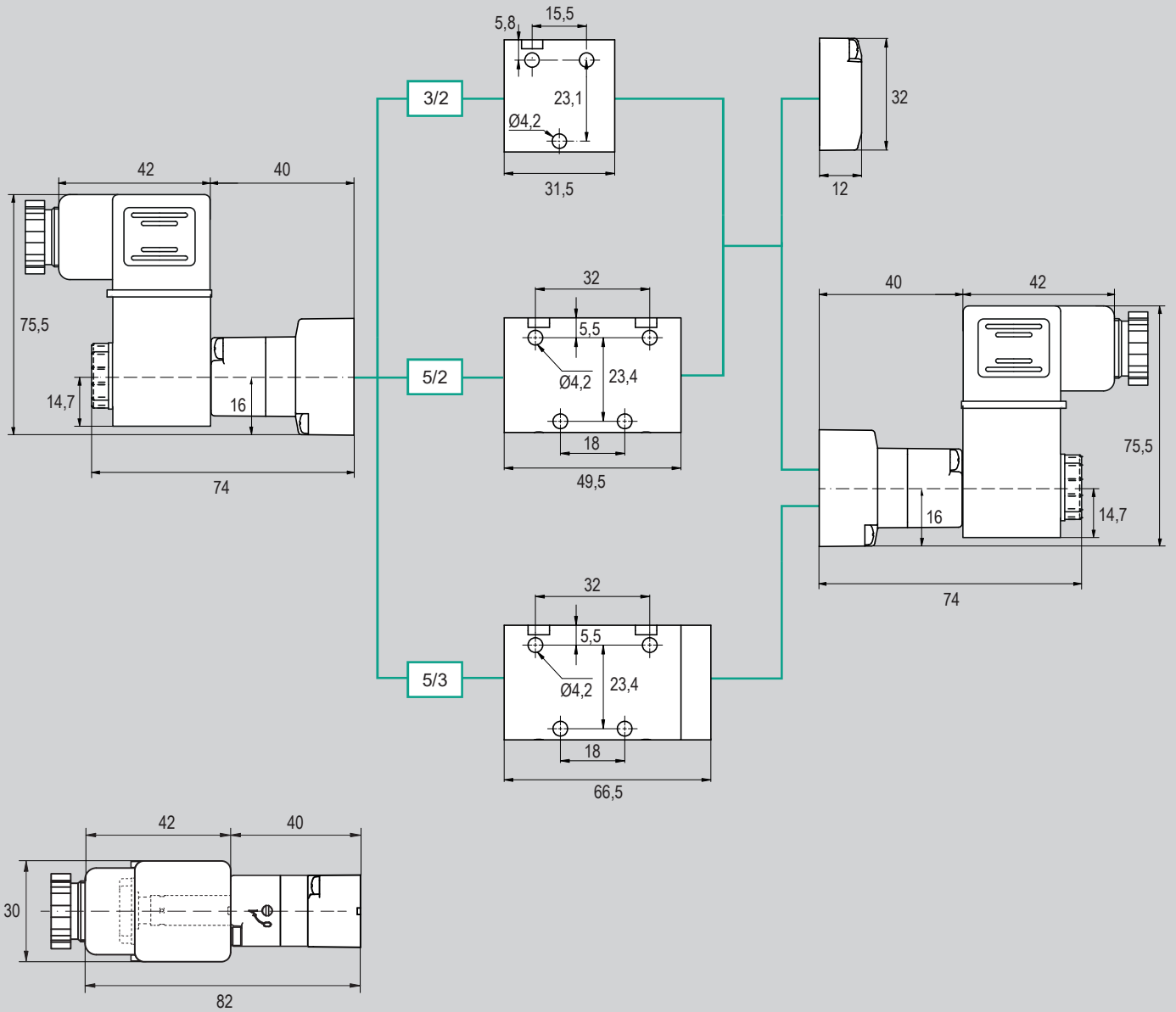
Valve bodies series: **A1K1**

CE Ex II 2G Ex ia IIC T6 Gb
 II 2D Ex tb IIIC T80°C Db IP65

XA

CE Ex II 2G Ex ia IIC T4 Gb
 II 2D Ex tb IIIC T130°C Db IP65

XA1



2 - VALVES

For further information on features of valves body series A1K1 (1/8"), see from page 2.21.10

Dimensions coil and connector series XA and XA1 with valves body series A1E2 (1/4")

Valve bodies series: **A1E2**

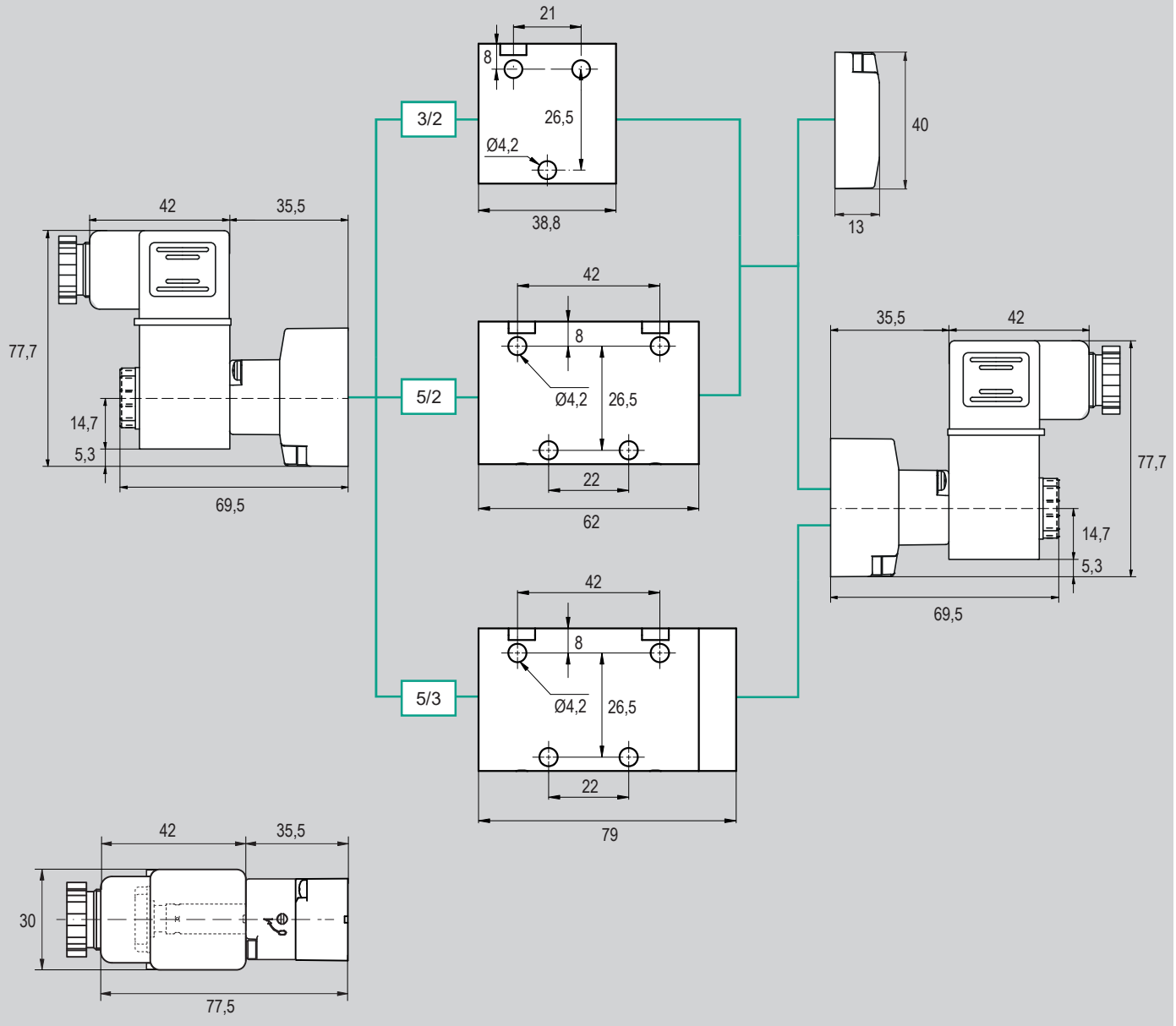
CE Ex II 2G Ex ia IIC T6 Gb
 II 2D Ex tb IIIC T80°C Db IP65

XA

CE Ex II 2G Ex ia IIC T4 Gb
 II 2D Ex tb IIIC T130°C Db IP65

XA1

2 - VALVES



For further information on features of valves body series A1E2 (1/4"), see from page 2.23.10

Dimensions coil and connector series XA and XA1 with valves body series A1K2 (1/4")

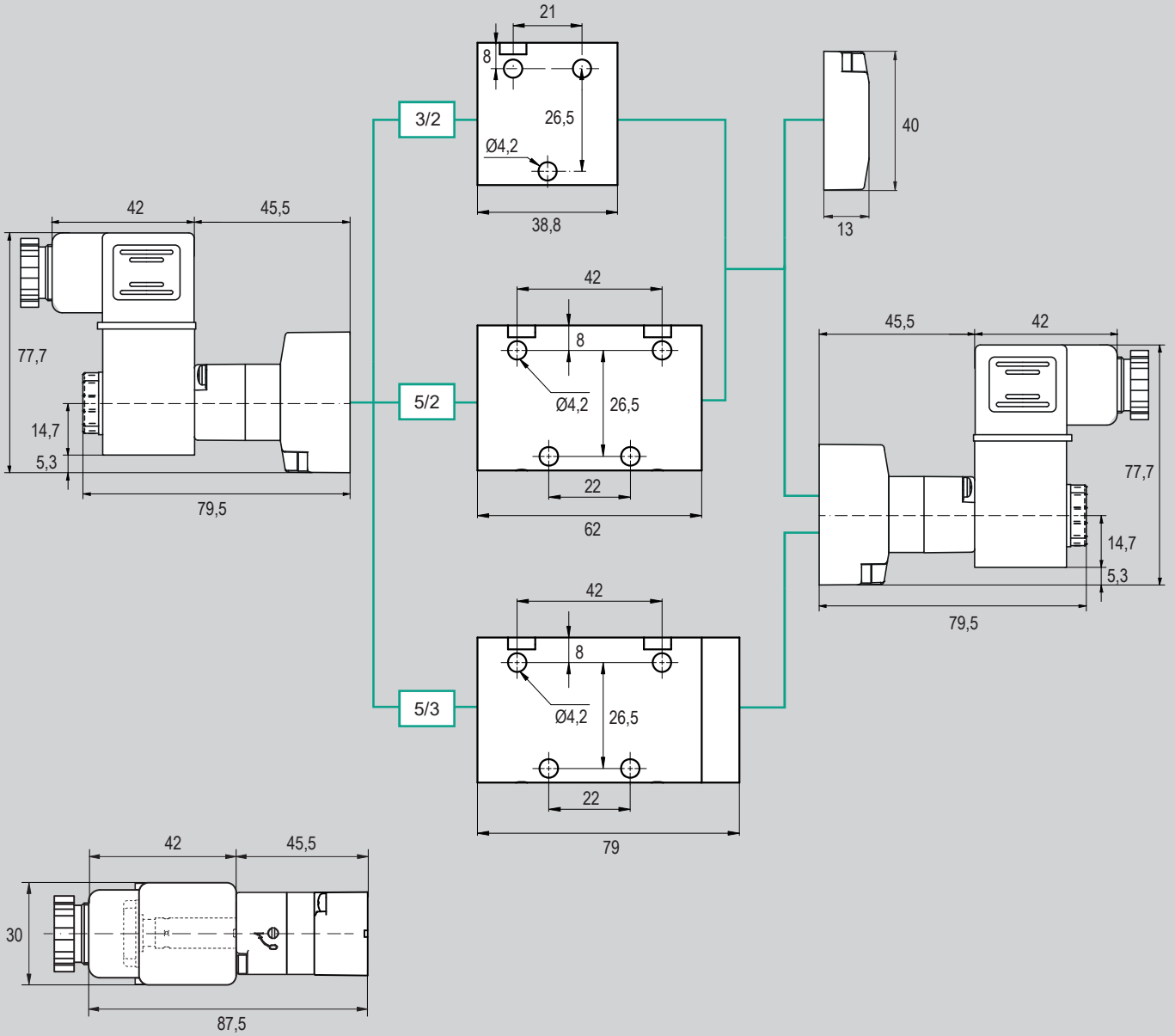
Valve bodies series: **A1K2**

CE Ex II 2G Ex ia IIC T6 Gb
 II 2D Ex tb IIIC T80°C Db IP65

XA

CE Ex II 2G Ex ia IIC T4 Gb
 II 2D Ex tb IIIC T130°C Db IP65

XA1



2 - VALVES

For further information on features of valves body series A1K2 (1/4"), see from page 2.23.10

Dimensions coil and connector series XA and XA1 with valves body series A1E4 and A1K4 (1/2")

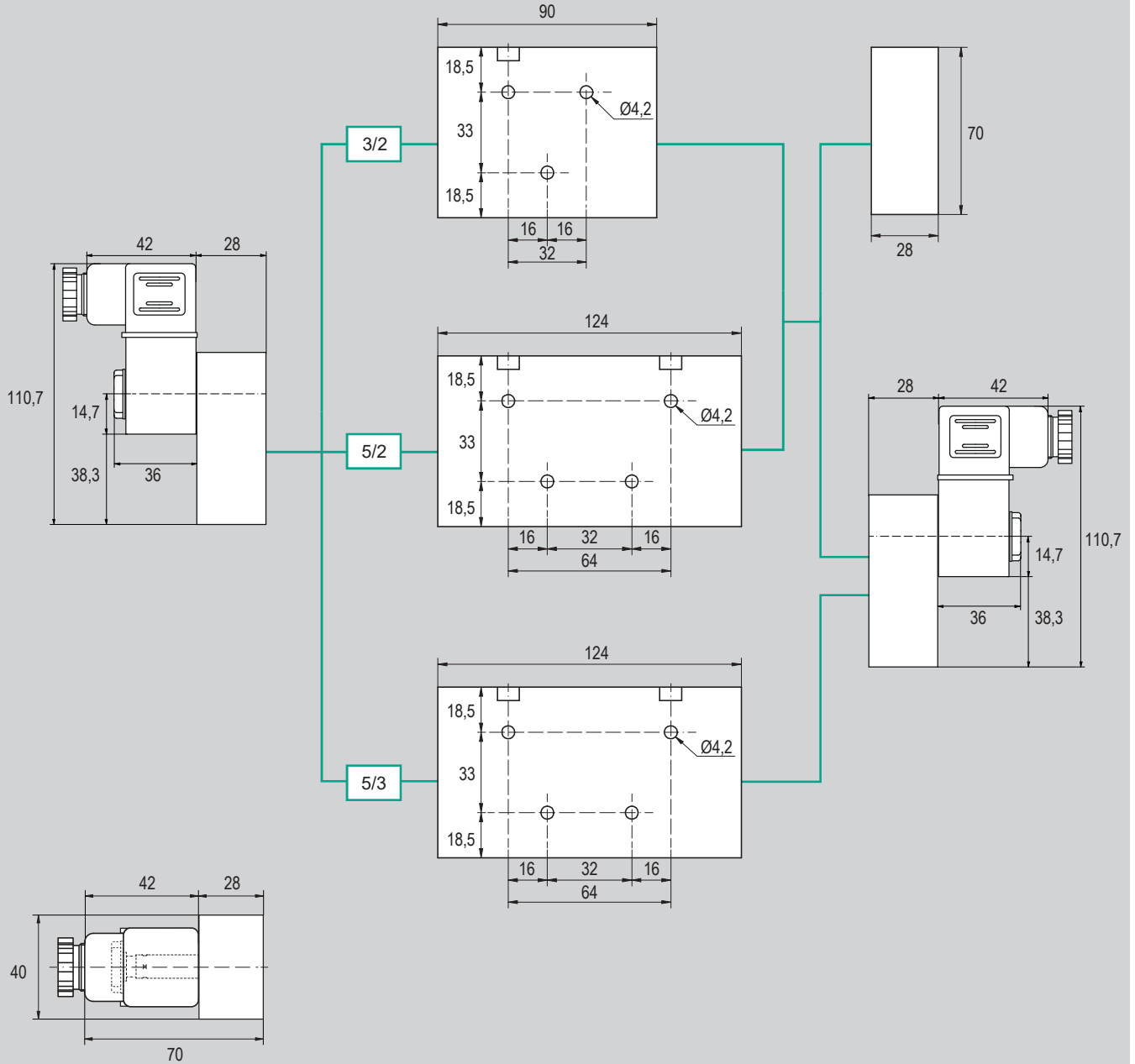
Valve bodies series: **A1E4 - A1K4**

CE Ex II 2G Ex ia IIC T6 Gb
 II 2D Ex tb IIIC T80°C Db IP65

XA

CE Ex II 2G Ex ia IIC T4 Gb
 II 2D Ex tb IIIC T130°C Db IP65

XA1



For further information on features of valves body series A1E4 and A1K4 (1/4"), see from page 2.25.10

Dimensions coil and connector series XA and XA1 with valves body series A1NE2 (1/4")

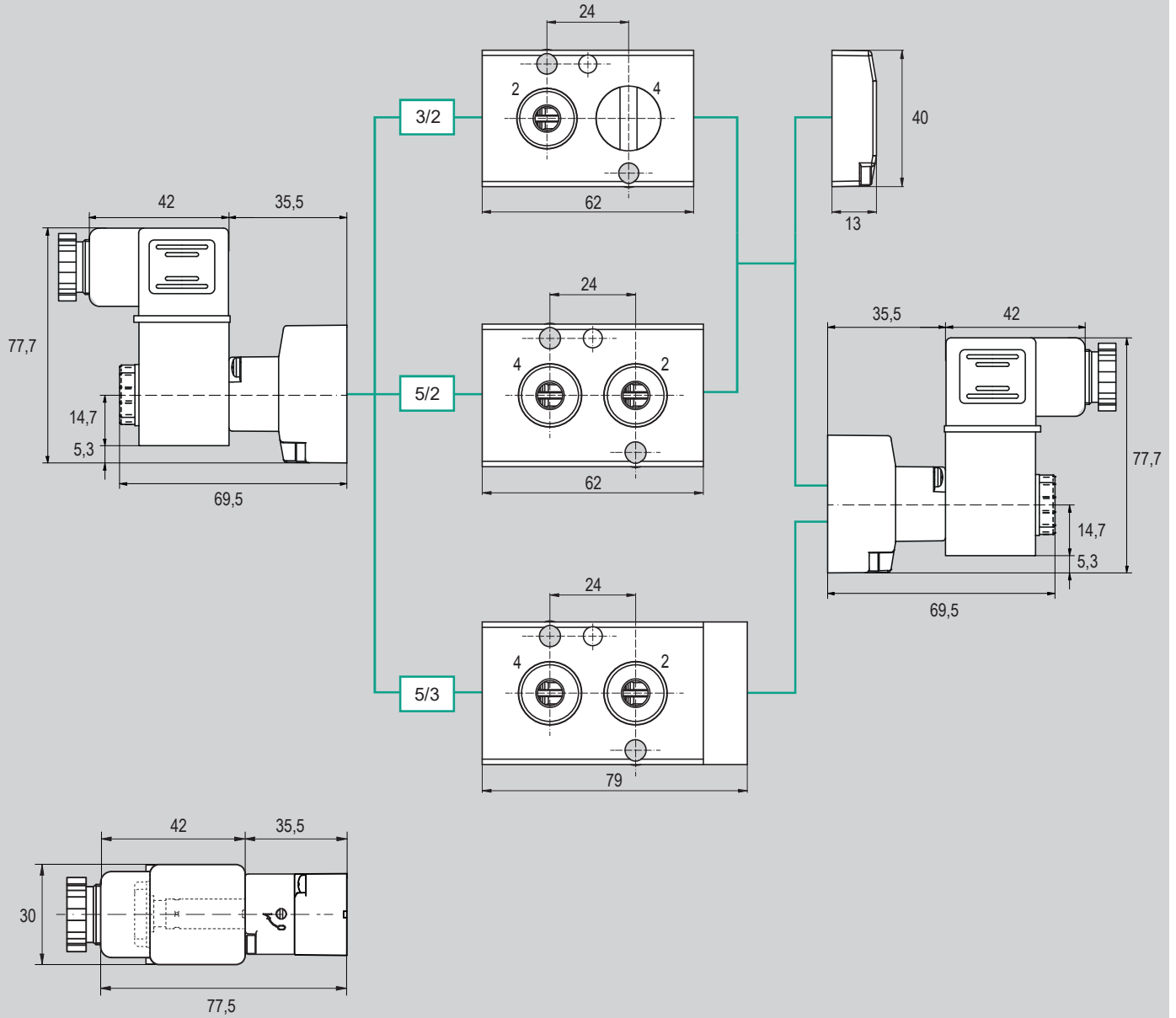
Valve bodies series: **A1NE2**

CE Ex II 2G Ex ia IIC T6 Gb
 II 2D Ex tb IIIC T80°C Db IP65

XA

CE Ex II 2G Ex ia IIC T4 Gb
 II 2D Ex tb IIIC T130°C Db IP65

XA1



For further information on features of valves body series A1NE2 (1/4"), see from page 2.46.10

Dimensions coil and connector series XA and XA1 with valves body series ISO1E and ISO1K, 5/2 and 5/3

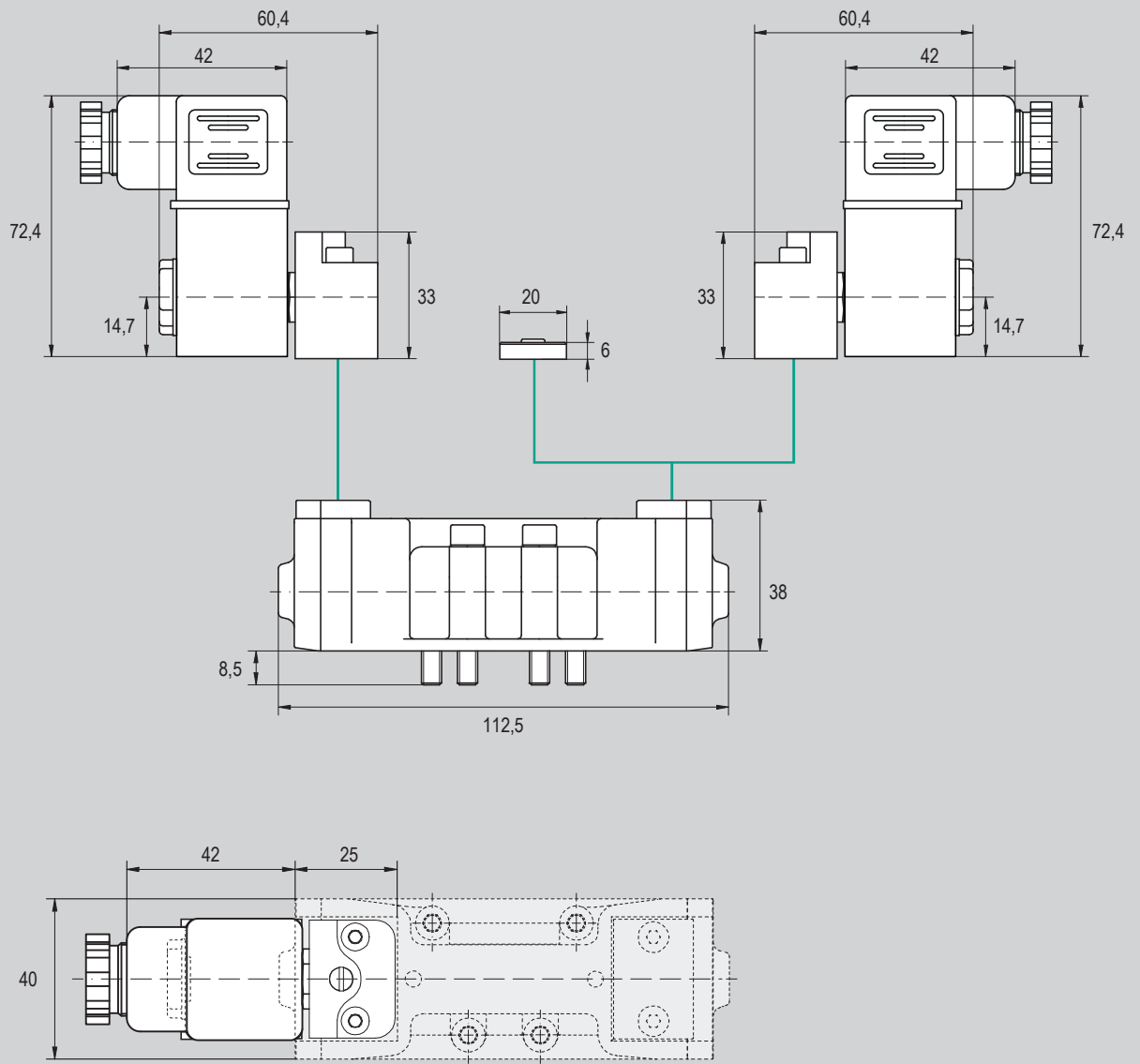
Valve bodies series: **ISO1E - ISO1K**

CE Ex II 2G Ex ia IIC T6 Gb
 II 2D Ex tb IIIC T80°C Db IP65

XA

CE Ex II 2G Ex ia IIC T4 Gb
 II 2D Ex tb IIIC T130°C Db IP65

XA1



For further information on features of valves body series ISO1E and ISO1K, see from page 2.91.30

Dimensions coil and connector series XA and XA1 with valves body series ISO1EL and ISO1KL

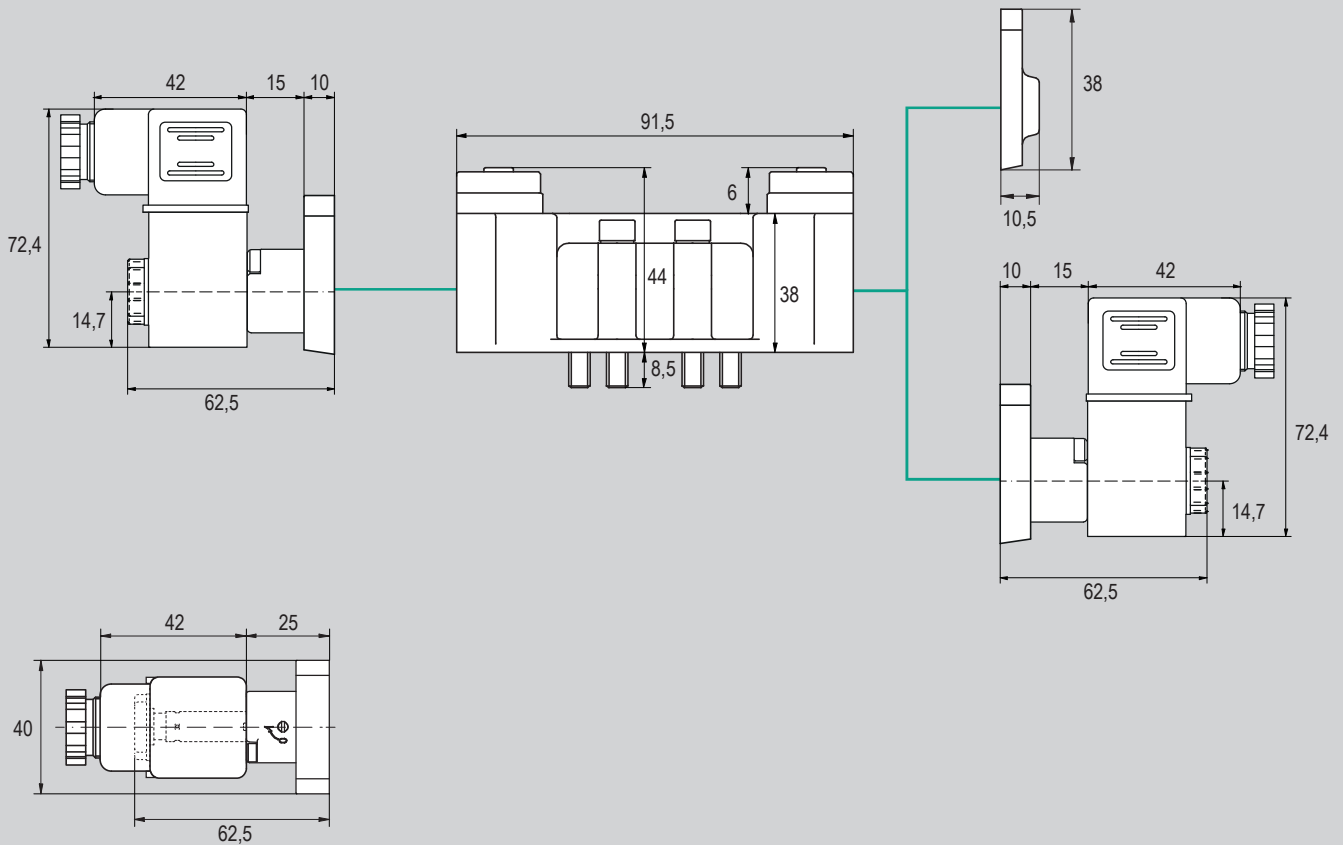
Valve bodies series: **ISO1EL - ISO1KL**

CE **Ex** II 2G Ex ia IIC T6 Gb
 II 2D Ex tb IIIC T80°C Db IP65

XA

CE **Ex** II 2G Ex ia IIC T4 Gb
 II 2D Ex tb IIIC T130°C Db IP65

XA1



2 - VALVES

For further information on features of valves body series ISO1EL and ISO1KL, see from page 2.92.30

Dimensions coil and connector series XA and XA1 with valves body series ISO2E and ISO2K

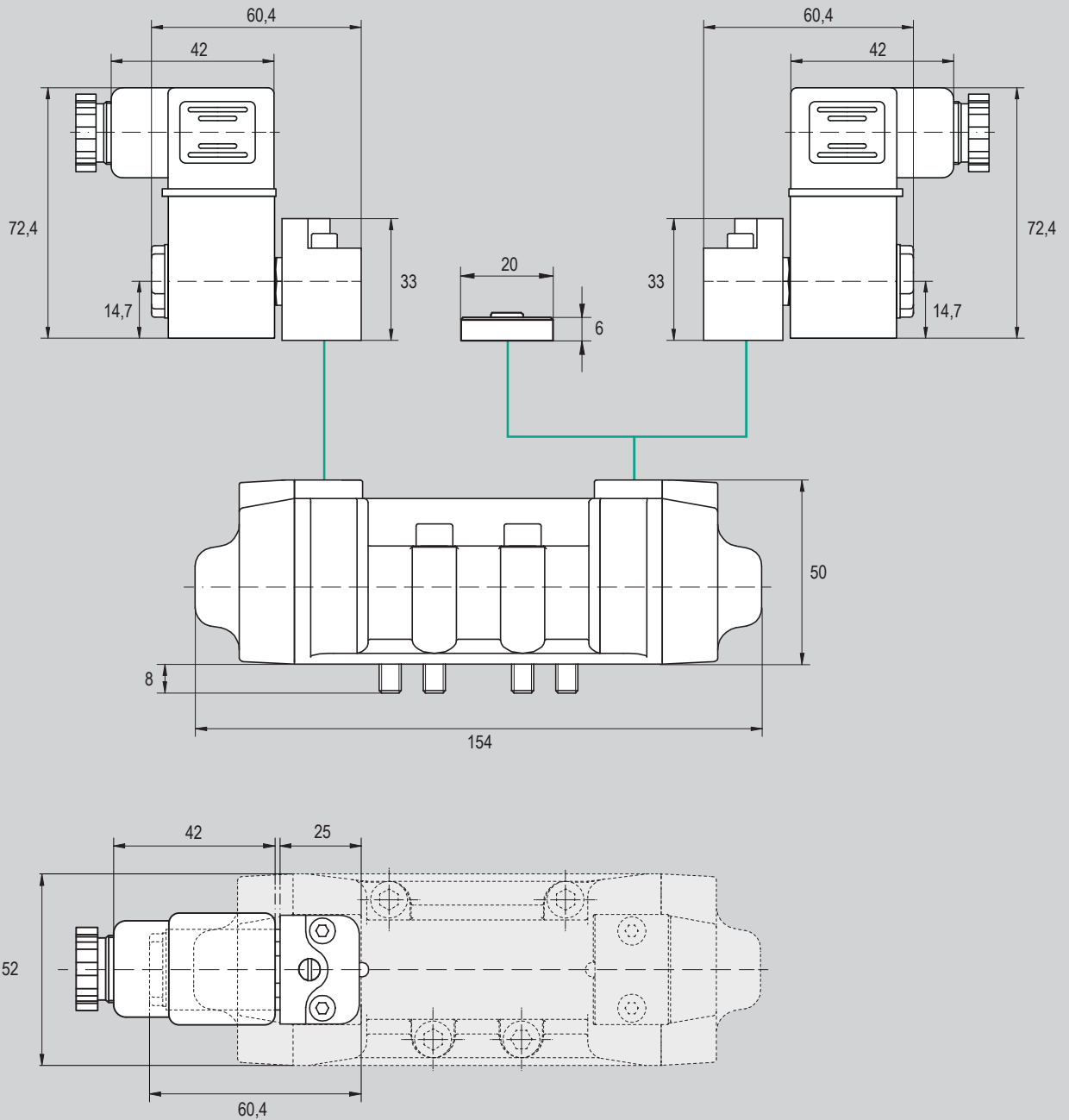
Valve bodies series: **ISO2E - ISO2K**

CE II 2G Ex ia IIC T6 Gb
 II 2D Ex tb IIIC T80°C Db IP65

XA

CE II 2G Ex ia IIC T4 Gb
 II 2D Ex tb IIIC T130°C Db IP65

XA1



For further information on features of valves body series ISO2E and ISO2K, see from page 2.94.30

Solenoid operated valves, ATEX coils and connectors

Complete solenoid operated valves type XC, explosion proof coil Ex d



Main features

Solenoid operated valves supplied complete and already mounted, composed by the desired valve body and Ex d explosion proof coil with integrated pilot.

The Ex d coil can be matched with:

- valve bodies series A1E size 1/4", electric actuated;
- valve bodies series A1NE size 1/4", electric actuated.

Type XC is conforming to 2014/34/EU ATEX Directive suitable for applications in potentially explosive atmospheres, Group II, cat. 2 Gas, temperature class T6.

For code key see page 2.322.2

For dimensions see from page 2.322.3

For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1




Technical data

Elettrovalvola	tipo XC	
ATEX classification	II 2G Ex db IIC T6 Gb	
Protection	Gas	Ex db
	Dust	-
Protection grade	-	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.	
Pressure range	Solenoid/Spring	2 ÷ 8 bar
	Solenoid/Solenoid	2 ÷ 8 bar
	3 positions	2,5 ÷ 8 bar
Temperature range	Standard	-10°C ÷ +60°C
	(BT)	-25°C ÷ +60°C

Standard materials

Elettrovalvola	tipo XC	
Plunger	Stainless Steel AISI 316L	
Coil		
Connector		
Valve body	A1E	See page 2.20.7
	A1NE	See page 2.44.4

Electrical features ATEX coil/connector

Nominal Voltage	Frequency	Nominal current	Nominal power	Duty cycle	Temperature class	Standard voltage	Suffix	ATEX Classification	Coil/Connector
12 VDC	-	-	3.5 W	100% ED	T6	-	B	II 2G Ex db IIC T6 Gb	XC 
24 VDC						●	C		
24VAC	50 / 60 Hz	-	4 VA			●	F		
110 VAC						-	I		
120 VAC						●	M		
220 VAC						●	O		
240 VAC						-	Q		

Key

● standard voltage; - voltage available on request (please contact our sales department)

Solenoid operated valves, ATEX coils and connectors

Complete solenoid operated valves type XC, explosion proof coil Ex d

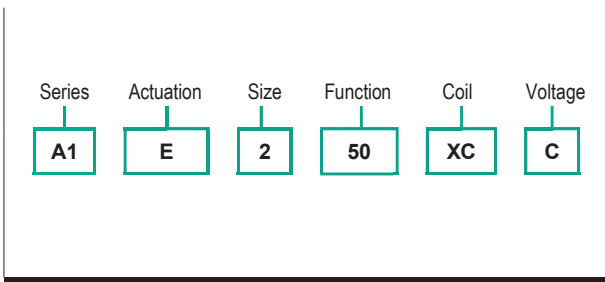


Code key solenoid valves ATEX complete with coils and connectors (serie A1 e A1N)

Series	Actuation	Size	Function	ATEX coil	Coil voltage	Option
A1	E	2	50	XA	C	
A1 = In line A1N ⁽¹⁾ = Namur	E = Electric	2 = 1/4"	30 = 3/2 N. C. 31 = 3/2 N. A. 32 = 3/2 Sol./Sol. 50 = 5/2 Sol./Spring 51 = 5/2 Sol./Sol. 52 = 5/2 Sol./Sol. differential 70 = 5/3 C.C. 71 = 5/3 O.C. 72 = 5/3 P.C.	XC = CE II 2G Ex db IIC T6 Gb	See table on page 2.322.1	BT = Low temperatures seals

2 - VALVES

How to order



Notes

Options in the same grid are alternative to each others.

For features and standard materials of the valve body, see from page 2.20.7 (series A1) and from page 2.44.3 (series A1N).

For features and standard materials of coils/connectors see page 2.320.3.

(1) Namur valves (series A1N) is available only in functions 3/2 N.C. (30), 3/2 sol./sol. (32), 5/2 sol./spring (50), 5/2 sol./sol. (51), 5/3 C.C. (70), 5/3 C.A. (71) and 5/3 C.P. (72).

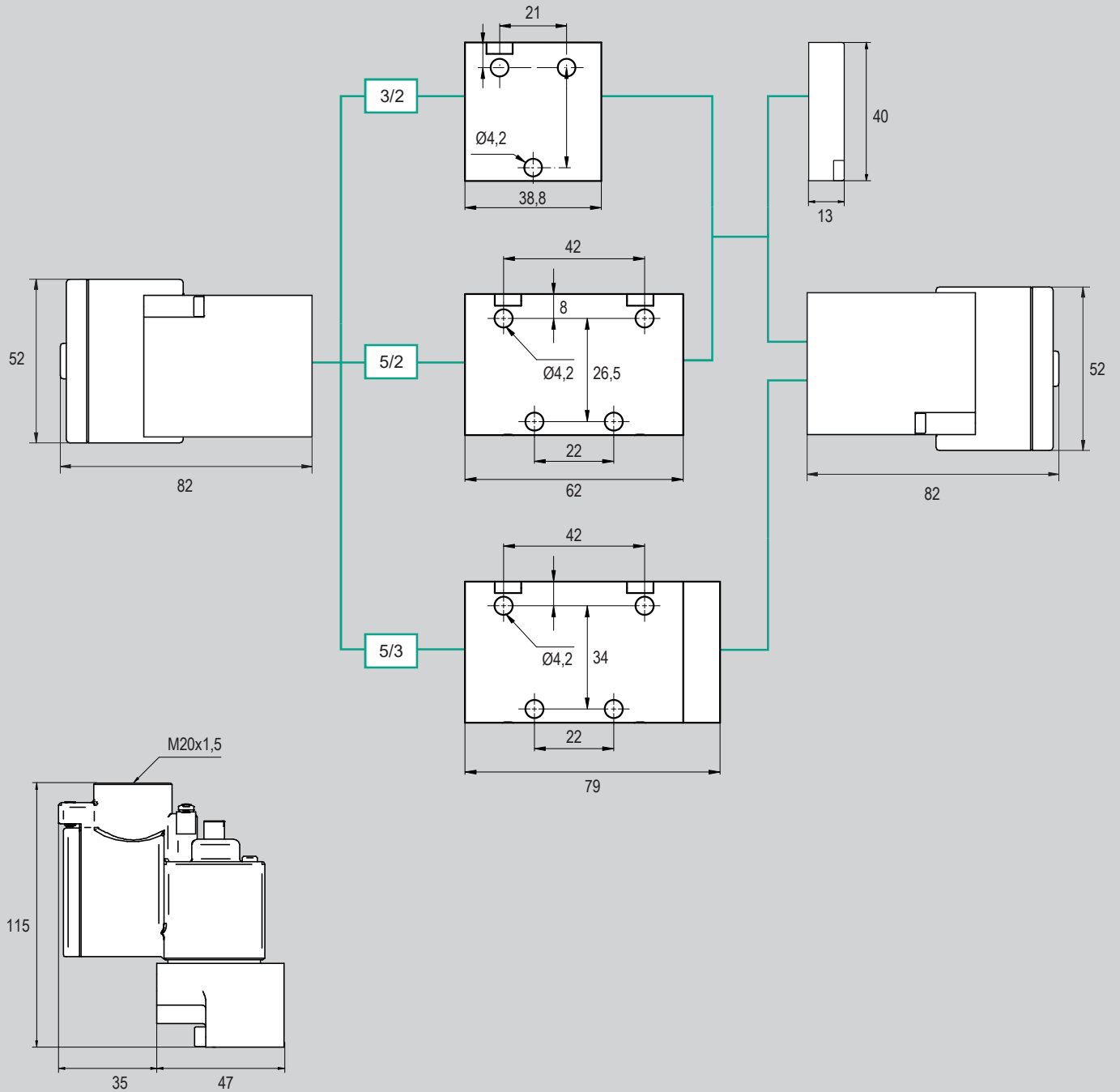
For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

Dimensions coil series XC with valves body series A1E2 (1/4")

Valve bodies series: **A1E2**

CE II 2G Ex db IIC T6 Gb

XC



2 - VALVES

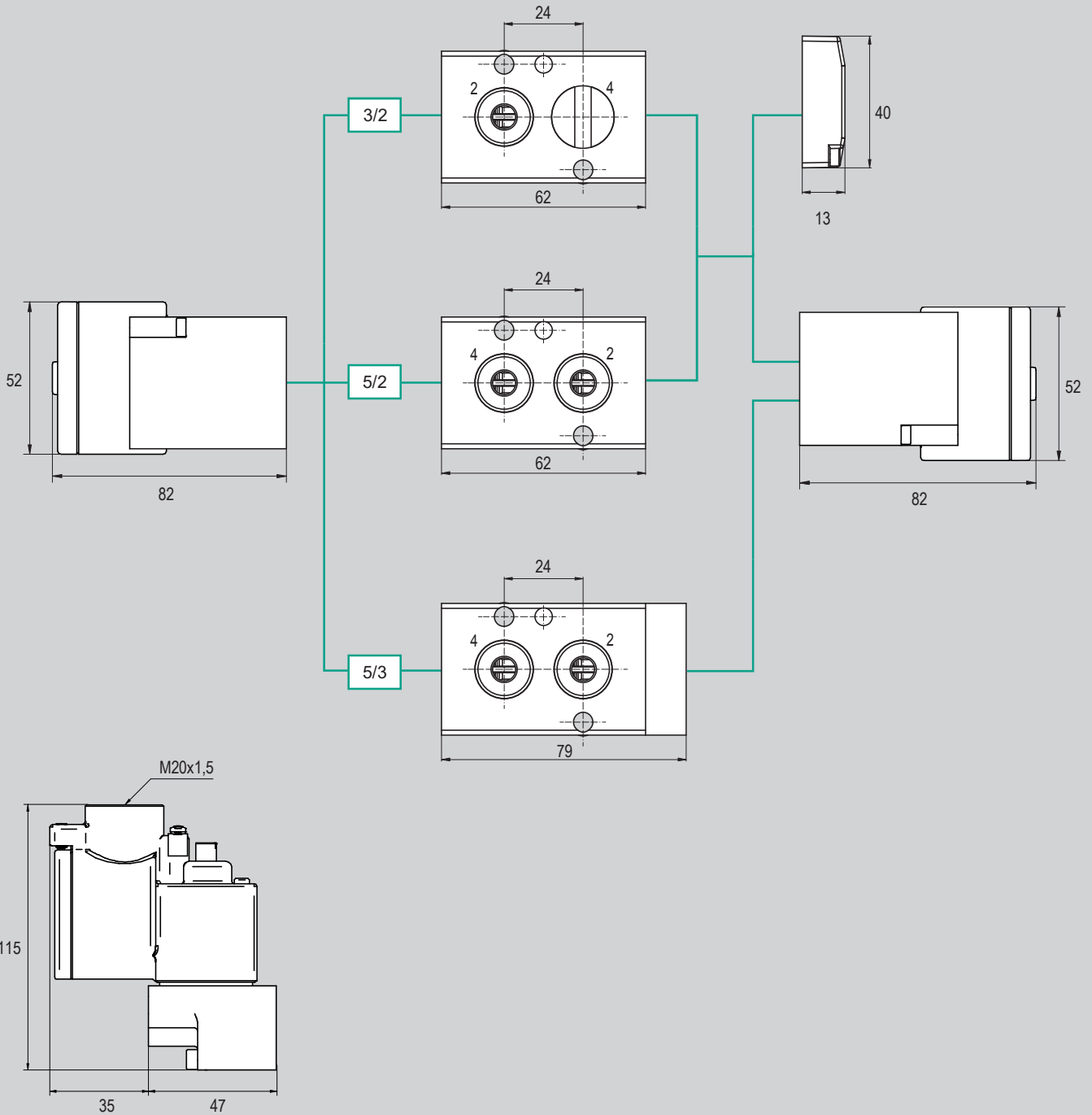
For further information on features of valves body series A1E2 (1/4"), see from page 2.23.10

Dimensions coil series XC with valves body series A1NE2 (1/4")

CE Ex II 2G Ex db IIC T6 Gb

XC

Valve bodies series: **A1NE2**



For further information on features of valves body series A1NE2 (1/4"), see from page 2.46.10

Solenoid operated valves, ATEX coils and connectors

Coils and connectors supplied separately, increased safety Ex ec



Main features

Solenoid operated valves conforming to ATEX Ex ec (increased safety), to be configured combining the valve body with coil type ASA12/ATEXII3 and connector type A12209N/ATEX.

Valve body, coil and connector are supplied separately and not mounted.

The configuration require to order the valve body of desired size and function, with "Atex body" option (see the relevant code key of each series), the 22 mm coil type ASA12/ATEXII3 (available in different voltages) and the 22 mm connector type A12209N/ATEX, as shown in the "how to order" table below.

For matching between valve body, coil and connector, please see page 2.320.5

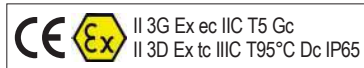
For technical data and for dimensions of the valve body, please refer to the relevant pages of each series.

For technical data and for dimensions of the coil type ASA12/ATEXII3 see page 2.325.2

For technical data and for dimensions of the connector type A12209N/ATEX see page 2.325.3

ATEX compliance

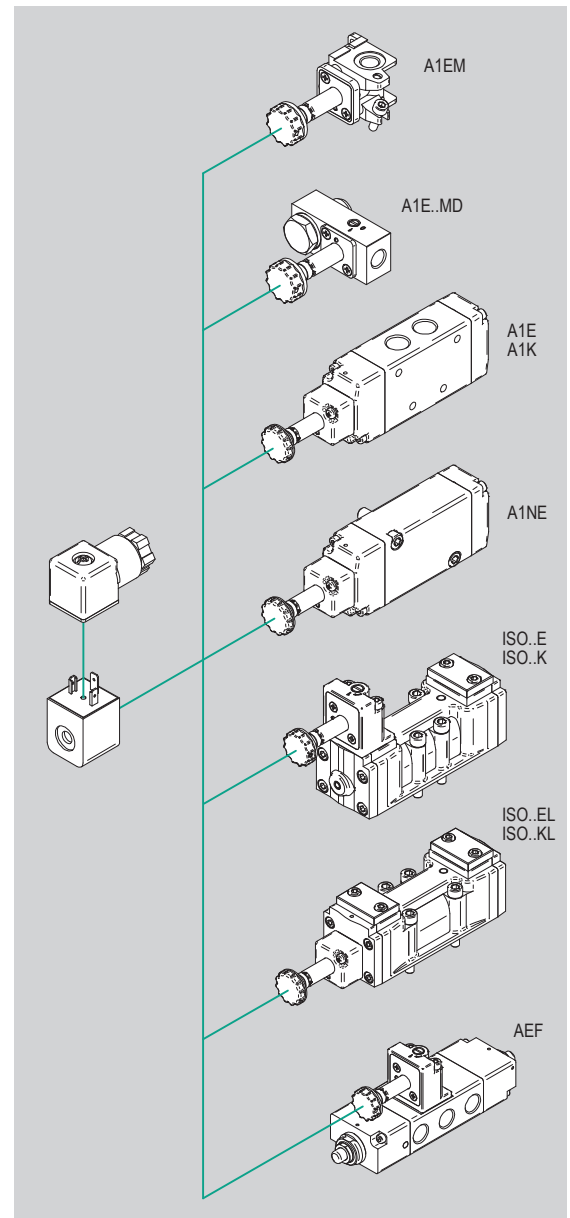
The abovementioned components, while assembled, makes a solenoid operated valve conforming to 2014/34/EU ATEX Directive, in classification Ex ec, suitable for application in potentially explosive atmospheres Group II, cat. 3 Gas & Powders, temperature class T5, protection grade IP65, with the following marking:



For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

How to order

Valve body series	Actuation	Size	Function	ATEX body option
A1	E	2	50	/ATEX
Coil series	Size	Voltage	ATEX compliance	
ASA	12	024 00	/ATEXII3	
Connector series	Size	Voltage	Color	ATEX compliance
A	122	09	1	/ATEX



2 - VALVES

Valve body technical data, dimensions and materials

Technical data, dimensions and materials of the valve bodies (Atex valve body option required) are the same of the standard valve body. For further information, please see the relevant pages, as indicated in the table below.

Series	Size	Technical data					Dimensions					Standard materials
		3/2 sol./spring	3/2 sol./sol.	5/2 sol./spring	5/2 sol./sol.	5/3	3/2 sol./spring	3/2 sol./sol.	5/2 sol./spring	5/2 sol./sol.	5/3	
A1EM	22 mm	2.12.10	-	-	-	-	2.12.11	-	-	-	-	2.10.4
A1E..MD	22 mm	2.14.10	-	-	-	-	2.14.11	-	-	-	-	2.10.5
A1E A1K	1/8"	2.21.10	2.21.30	2.21.50	2.21.70	2.21.90	2.21.11	2.21.31	2.21.51	2.21.71	2.21.91	2.20.7
	1/4"	2.23.10	2.23.30	2.23.50	2.23.70	2.23.90	2.23.11	2.23.31	2.23.51	2.23.71	2.23.91	
	1/2"	2.25.10	2.25.30	2.25.50	2.25.70	2.25.90	2.25.11	2.25.31	2.25.51	2.25.71	2.25.91	
A1NE	1/4"	2.46.10	2.46.30	2.46.50	2.46.70	2.46.90	2.46.11	2.46.31	2.46.51	2.46.71	2.46.91	2.44.4
ISO..E ISO..K	ISO1	-	-	2.91.30	2.91.50	2.91.70	-	-	2.91.31	2.91.51	2.91.71	2.90.6
	ISO2	-	-	2.94.30	2.94.50	2.94.70	-	-	2.94.31	2.94.51	2.94.71	
ISO..EL ISO..KL	ISO1	-	-	2.92.30	2.92.50	2.92.70	-	-	2.92.31	2.92.51	2.92.71	
	ISO2	-	-	-	-	-	-	-	-	-	-	
AEF	1/4"	-	-	2.130.20	-	-	-	-	2.130.21	-	-	2.130.3

Solenoid operated valves, ATEX coils and connectors

Coils series ASA12/ATEXII3, increased safety Ex ec



Main features

Version	Standard voltages	Code	Item
ASA12/ATEXII3	12 V DC	032100X	ASA1201200/ATEXII3
	24 V DC	032102X	ASA1202400/ATEXII3
	24 V AC	032103X	ASA1202450/ATEXII3
	110 V AC	032105X	ASA1211050/ATEXII3
	230 V AC	032106X	ASA1223050/ATEXII3



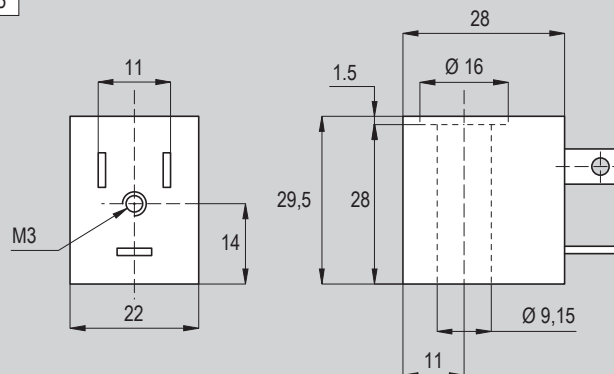
Technical data

Version	ASA12../ATEXII3				
Code	032100X	032102X	032103X	032105X	032106X
Item	ASA1201200/ATEXII3	ASA1202400/ATEXII3	ASA1202450/ATEXII3	ASA1211050/ATEXII3	ASA1223050/ATEXII3
Voltage	12 V DC	24 V DC	24 V AC	110 V AC	230 V AC
Current	0.250 A	0.120 A	0.208 A	0.045 A	-0.023 A
Frequency	-		50/60 Hz		
Size	22 mm				
Plunger Ø	9 mm				
Compliance	ATEX 2014/34/EU				
ATEX classification	II 3G Ex ec IIC T5 Gc II 3D Ex tc IIIC T95°C Dc IP65				
Current	Direct		Alternating		
Voltage tolerance	±10%				
Electrical consumption	3 W		5 VA		
Duty cycle	100% ED				
Class protection*	IP 65				
Insulation class	F				
Temperature range	-10°C ÷ +50°C				
Material	Thermoset resin				
Valves matching	Series A1EM..., Series A1E..MD, Series A1E..., Series A1K..., Series A1NE..., Series ISO..., Series AEF..				
Connectors matching	Series A122..ATEX				

*With connector already mounted

Standard dimensions

II 3G Ex ec IIC T5 Gc
 II 3D Ex tc IIIC T95°C Dc IP65



Main features

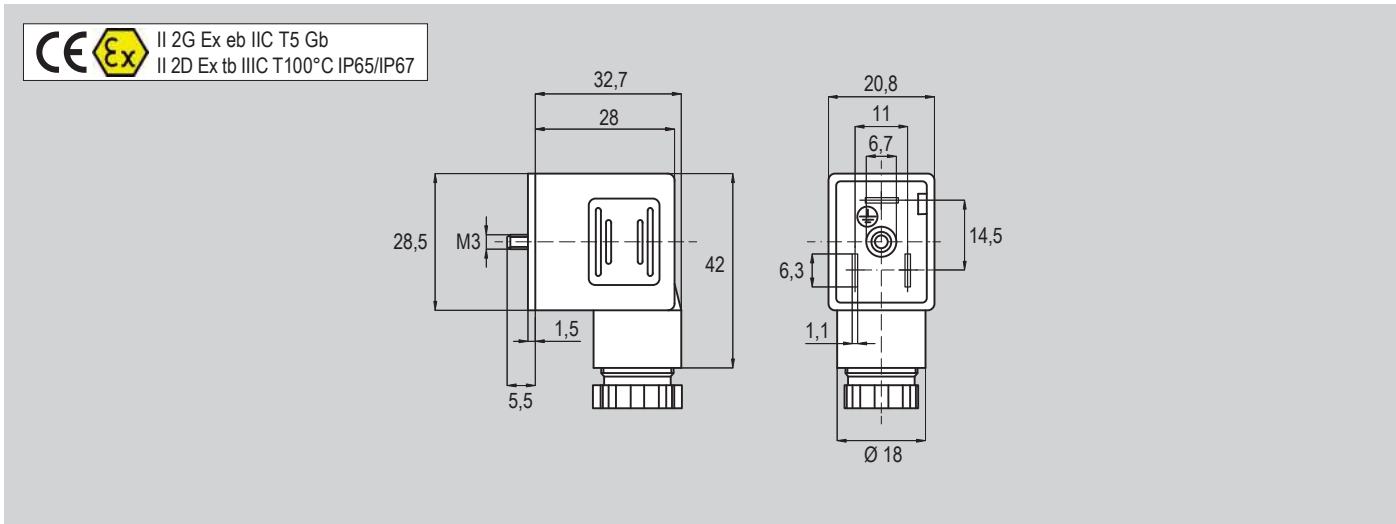
Version	Code	Item
A122/ATEX	032118X	A12209N/ATEX



Technical data

Version	A122../ATEX
Code	032118X
Item	A12209N/ATEX
Nominal voltage	230 V DC
Norm	EN 175301-803 (formaDIN 43 650)
Size	22 mm
Contact distance	11 mm
Compliance	ATEX 2014/34/EU
ATEX classification	II 2G Ex eb IIC T5 Gb II 2D Ex tb IIIC T100°C IP65/IP67
Rated impulse voltage	4000 V
Rated current (40°C)	10 A
Contact resistance	≤ 15 mΩ
Insulation resistance	≥ 100 MΩ
Class protection	IP65 / IP67
Insulation class	F
Temperature range	-20°C ÷ +85°C
Material	Thermoset resin
Valves matching	Series A1EM..., Series A1E..MD, Series A1E..., Series A1K..., Series A1NE..., Series ISO..., Series AEF..
Coils matching	ASA12../ATEXII3

Standard dimensions



2 - VALVES

Solenoid operated valves, ATEX coils and connectors

Coils and connectors supplied separately, explosion proof encapsulated coil Ex dm



Main features

Solenoid operated valves conforming to ATEX Ex dm (explosion proof encapsulated coil), to be configured combining the valve body with coil type ASA4/ATEXII2 with integrated connector.

Valve body and coil are supplied separately and not mounted.

The configuration require to order the valve body of desired size and function, with "Atex body" option (see the relevant code key of each series), and the 36 mm coil type ASA4/ATEXII2, as shown in the "how to order" table below.

For matching between valve body and coil, please see page 2.320.5

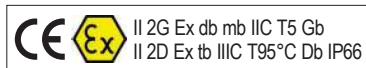
For technical data and for dimensions of the valve body, please refer to the relevant pages of each series.

For technical data and for dimensions of the coil type ASA4/ATEXII2 see page 2.326.2

Valve body series A1NE require plate type PSN, see from page 2.56.1

ATEX compliance

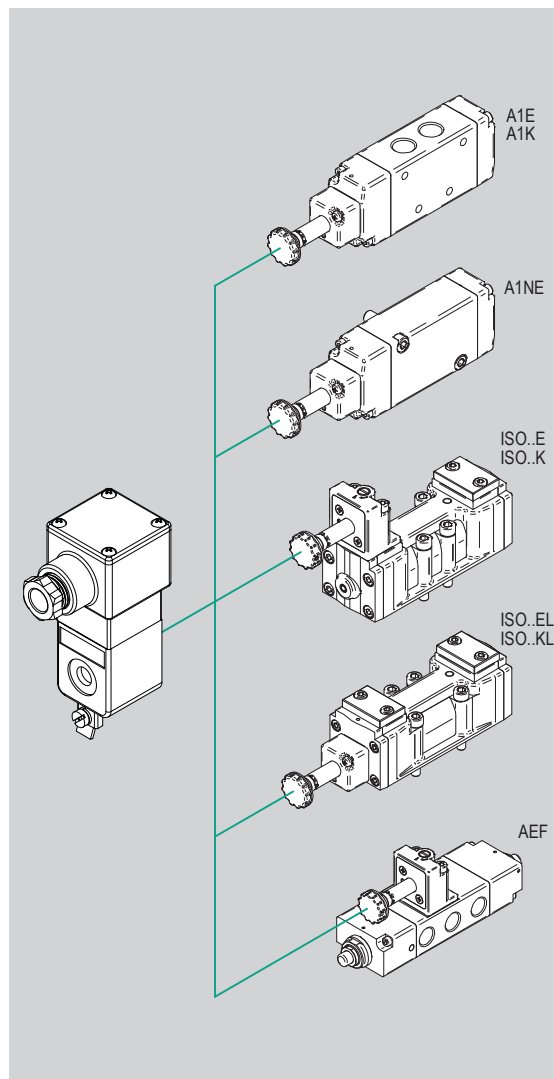
The abovementioned components, while assembled, makes a solenoid operated valve conforming to 2014/34/EU ATEX Directive, in classification Ex ec, suitable for application in potentially explosive atmospheres Group II, cat. 2 Gas & Powders, temperature class T5, protection grade IP66, with the following marking:



For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

How to order*

Valve body series	Actuation	Size	Function	ATEX body option
A1	E	2	50	/ATEX
Coil series	Size	Voltage	ATEX compliance	
ASA	4	024 00	/ATEXII2	



***Important note:** valve bodies series A1NE requires plates type PSN. For codes see page 2.56.10

Valve body technical data, dimensions and materials

Technical data, dimensions and materials of the valve bodies (Atex valve body option required) are the same of the standard valve body. For further information, please see the relevant pages, as indicated in the table below.

Series	Size	Technical data					Dimensions					Standard materials
		3/2 sol./spring	3/2 sol./sol.	5/2 sol./spring	5/2 sol./sol.	5/3	3/2 sol./spring	3/2 sol./sol.	5/2 sol./spring	5/2 sol./sol.	5/3	
A1E A1K	1/8"	2.21.10	2.21.30	2.21.50	2.21.70	2.21.90	2.21.11	2.21.31	2.21.51	2.21.71	2.21.91	2.20.7
	1/4"	2.23.10	2.23.30	2.23.50	2.23.70	2.23.90	2.23.11	2.23.31	2.23.51	2.23.71	2.23.91	
	1/2"	2.25.10	2.25.30	2.25.50	2.25.70	2.25.90	2.25.11	2.25.31	2.25.51	2.25.71	2.25.91	
A1NE	1/4"	2.46.10	2.46.30	2.46.50	2.46.70	2.46.90	2.46.11	2.46.31	2.46.51	2.46.71	2.46.91	2.44.4
ISO..E ISO..K	ISO1	-	-	2.91.30	2.91.50	2.91.70	-	-	2.91.31	2.91.51	2.91.71	2.90.6
	ISO2	-	-	2.94.30	2.94.50	2.94.70	-	-	2.94.31	2.94.51	2.94.71	
ISO..EL ISO..KL	ISO1	-	-	2.92.30	2.92.50	2.92.70	-	-	2.92.31	2.92.51	2.92.71	
	ISO2	-	-	-	-	-	-	-	-	-	-	
AEF	1/4"	-	-	2.130.20	-	-	-	-	2.130.21	-	-	2.130.3

Solenoid operated valves, ATEX coils and connectors

Coils series ASA4/ATEXII/2, explosion proof encapsulated coil Ex dm



Main features

Version	Standard voltages	Code	Item
ASA4/ATEXII2	24 V DC	032199	ASA402400/ATEXII2

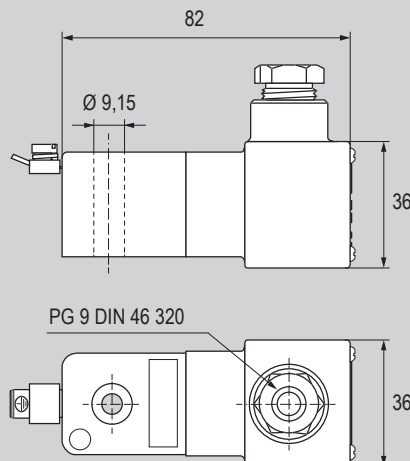
Technical data

Version	ASA4/ATEXII2
Code	032199
Item	ASA202400/ATEXII2
Voltage	24 V DC
Frequency	50/60 Hz
Size	36 mm
Plunger Ø	9 mm
Compliance	ATEX 2014/34/EU
ATEX classification	II 2G Ex mb IIC T5 Gb II 2D Ex tb IIIC T95°C IP66 Db
Current	Direct
Voltage tolerance	±10%
Electrical consumption	3.2 VA
Duty cycle	100% ED
Class protection	IP 66
Insulation class	F
Temperature range	-20°C ÷ +50°C
Material	Thermoset resin
Valves matching*	Series A1E..., Series A1K..., Series A1NE..., Series ISO..., Series AEF..
Connectors	Connector integrated

* Valve body series A1NE require plate type PSN, see from page 2.56.1

Standard dimensions

II 2G Ex mb IIC T5 Gb
 II 2D Ex tb IIIC T95°C IP66 Db



Solenoid operated valves, ATEX coils and connectors

Coils and connectors supplied separately, encapsulated coil Ex mb



Main features

Solenoid operated valves conforming to ATEX Ex mb (encapsulated coil), to be configured combining the valve body with coil type ASA2/ATEXII2 with cabled connector integrated.

Valve body and coil are supplied separately and not mounted.

The configuration require to order the valve body of desired size and function, with "Atex body" option (see the relevant code key of each series), and the 30 mm coil type ASA2/ATEXII2 (available in different voltages), as shown in the "how to order" below.

For matching between valve body and coil, please see page 2.320.5

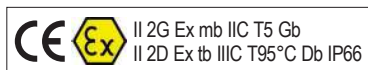
For technical data and for dimensions of the valve body, please refere to the relevant pages of each series.

For technical data and for dimensions of the coil type ASA2/ATEXII2 see page 2.327.2

Valve body series A1NE require plate type PSN, see from page 2.56.1

ATEX compliance

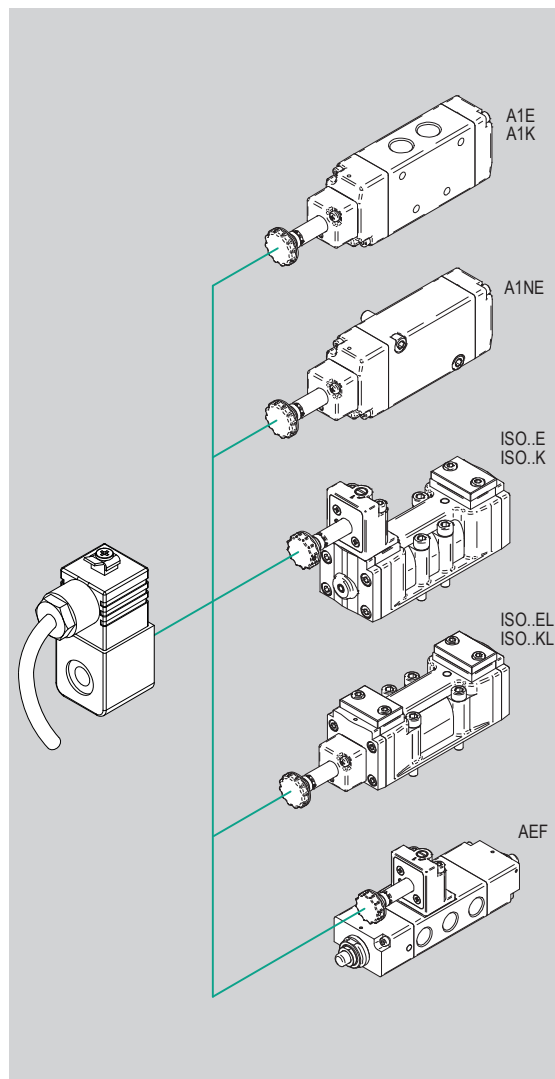
The abovementioned components, while assembled, makes a solenoid operated valve conforming to 2014/34/EU ATEX Directive, in classification Ex mb, suitable for application in potentially explosive atmospheres Group II, cat. 2 Gas & Powders, temperature class T5, protection grade IP66, with the following marking:



For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

How to order*

Valve body series	Actuation	Size	Function	ATEX body option
A1	E	2	50	/ATEX
Coil series	Size	Voltage	ATEX compliance	
ASA	2	024 00	/ATEXII2	



***Important note:** valve bodies series A1NE requires plates type PSN. For codes see page 2.56.10

Valve body technical data, dimensions and materials

Technical data, dimensions and materials of the valve bodies (Atex valve body option required) are the same of the standard valve body. For further information, please see the relevant pages, as indicated in the table below.

Series	Size	Technical data					Dimensions					Standard materials
		3/2 sol./spring	3/2 sol./sol.	5/2 sol./spring	3/2 sol./sol.	5/3	3/2 sol./spring	3/2 sol./sol.	5/2 sol./spring	3/2 sol./sol.	5/3	
A1E A1K	1/8"	2.21.10	2.21.30	2.21.50	2.21.70	2.21.90	2.21.11	2.21.31	2.21.51	2.21.71	2.21.91	2.20.7
	1/4"	2.23.10	2.23.30	2.23.50	2.23.70	2.23.90	2.23.11	2.23.31	2.23.51	2.23.71	2.23.91	
	1/2"	2.25.10	2.25.30	2.25.50	2.25.70	2.25.90	2.25.11	2.25.31	2.25.51	2.25.71	2.25.91	
A1NE	1/4"	2.46.10	2.46.30	2.46.50	2.46.70	2.46.90	2.46.11	2.46.31	2.46.51	2.46.71	2.46.91	2.44.4
ISO..E ISO..K	ISO1	-	-	2.91.30	2.91.50	2.91.70	-	-	2.91.31	2.91.51	2.91.71	2.90.6
	ISO2	-	-	2.94.30	2.94.50	2.94.70	-	-	2.94.31	2.94.51	2.94.71	
ISO..EL ISO..KL	ISO1	-	-	2.92.30	2.92.50	2.92.70	-	-	2.92.31	2.92.51	2.92.71	
	ISO2	-	-	-	-	-	-	-	-	-	-	
AEF	1/4"	-	-	2.130.20	-	-	-	-	2.130.21	-	-	2.130.3

Solenoid operated valves, ATEX coils and connectors

Coils series ASA2/ATEXII/2, encapsulated coil Ex mb



Main features

Version	Standard voltages	Code	Item
ASA2/ATEXII2	24 V DC	032192	ASA201200/ATEXII2
	24 V AC	032193	ASA202400/ATEXII2
	48 V AC	032196	ASA202450/ATEXII2
	110 V DC	032197	ASA202450/ATEXII2
	110 V AC	032194	ASA211050/ATEXII2
	230 V AC	032195	ASA223050/ATEXII2

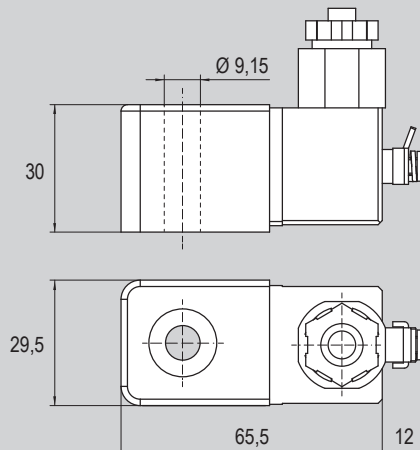
Technical data

Version	ASA2/ATEXII2					
Code	032192	032193	032196	032197	032194	032195
Item	ASA202400/ATEXII2	ASA202450/ATEXII2	ASA204850/ATEXII2	ASA211000/ATEXII2	ASA211050/ATEXII2	ASA223050/ATEXII2
Voltage	24 V DC	24 V AC	48 V AC	110 V DC	110 V AC	230 V AC
Frequency	-	50/60 Hz		-	50/60 Hz	
Size	30 mm					
Plunger Ø	9 mm					
Compliance	ATEX 2014/34/EU					
ATEX classification	II 2G Ex mb IIC T5 Gb II 2D Ex tb IIIC T95°C IP66 Db					
Current	Direct	Alternating		Direct	Alternating	
Voltage tolerance	±10%					
Electrical consumption	3 W	5 VA		3 W	5 VA	
Duty cycle	100% ED					
Class protection	IP 66					
Insulation class	F					
Temperature range	-20°C ÷ +50°C					
Material	Thermoset resin					
Valves matching*	Series A1E.., Series A1K.., Series A1NE.., Series ISO..., Series AEF..					
Connector	Cabled connector integrated					
Cable length	2 m					

*Valve body series A1NE require plate type PSN, see from page 2.56.1

Standard dimensions

II 2G Ex mb IIC T5 Gb
 II 2D Ex tb IIIC T95°C IP66 Db



ROTARY

actuators



Find out our
key products



Solution for most applications



Easy and intuitive choice



Excellent value for money



Wide availability



Fast delivery



Features and certifications

Pneumatic rotary actuators, single or double acting, with double rack, to automate industrial valves operation. The coupling between actuator and valve could be direct, thanks to the holes according to ISO 5211-DIN 3337 standard in the bottom of the actuator, or through adapters. The upper side of the actuator is according VDI/VDE 3845 NAMUR standards and allow mounting accessories such as CAM and position sensors. Side connections are threaded and for NAMUR valves (see from page 2.44.1 and from page 2.50.1).
 Supplied as standard in compliance to Reach and RoHS directives, SIL certified and conforming to ATEX 2014/34/EU Directive.



Series AR..SE

from page 2.401.1



Series of aluminium rotary actuators, single acting, with double rack. Available from bore \varnothing 52 to \varnothing 400, 12 springs as standard, on request can be equipped with a different number of springs (from 5 to 12 for bores \varnothing 52 ÷ \varnothing 350, from 7 to 16 for bore \varnothing 400, see the table at page 2.401.2).

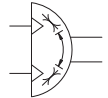


Series AR..DE

from page 2.403.1



Series of aluminium rotary actuators, double acting, with double rack. Available from bore \varnothing 32 to \varnothing 400.



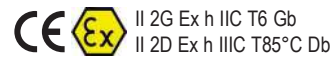
Code key

Series	Bore	Function	Flange ⁽²⁾	Female Key ⁽²⁾	Seals option
AR	52	DE	F03/05	11	V
AR	32 = Ø 32 40 = Ø 40 52 = Ø 52 63 = Ø 63 75 = Ø 75 83 = Ø 83 92 = Ø 92 105 = Ø 105 115 = Ø 115 125 = Ø 125 105 = Ø 105 140 = Ø 140 160 = Ø 160 190 = Ø 190 210 = Ø 210 240 = Ø 240 270 = Ø 270 300 = Ø 300 350 = Ø 350 400 = Ø 400	SE ⁽¹⁾ = Single acting DE = Double acting	F03 = F03 F03/05 = F03 / F05 F05/07 = F05 / F07 F07/10 = F07 / F10 F10/12 = F10 / F12 F14 = F14 F16 = F16 F16/25 = F16 / F25	9 = 9x11 11 = 11x14 14 = 14x18 17 = 17x21 22 = 22x26 27 = 27x31 36 = 36x40 46 = 46x50 55 = 55x60	V = FKM (-10°C ÷ +150°C) BT = Silicone (-40°C ÷ +80°C)

ATEX note



Actuators supplied according to 2014/34/EU ATEX Directive as standard



For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

How to order

Series	Bore	Function	Flange	Female key	Option
AR	52	DE	F03/05	11	V

Notes

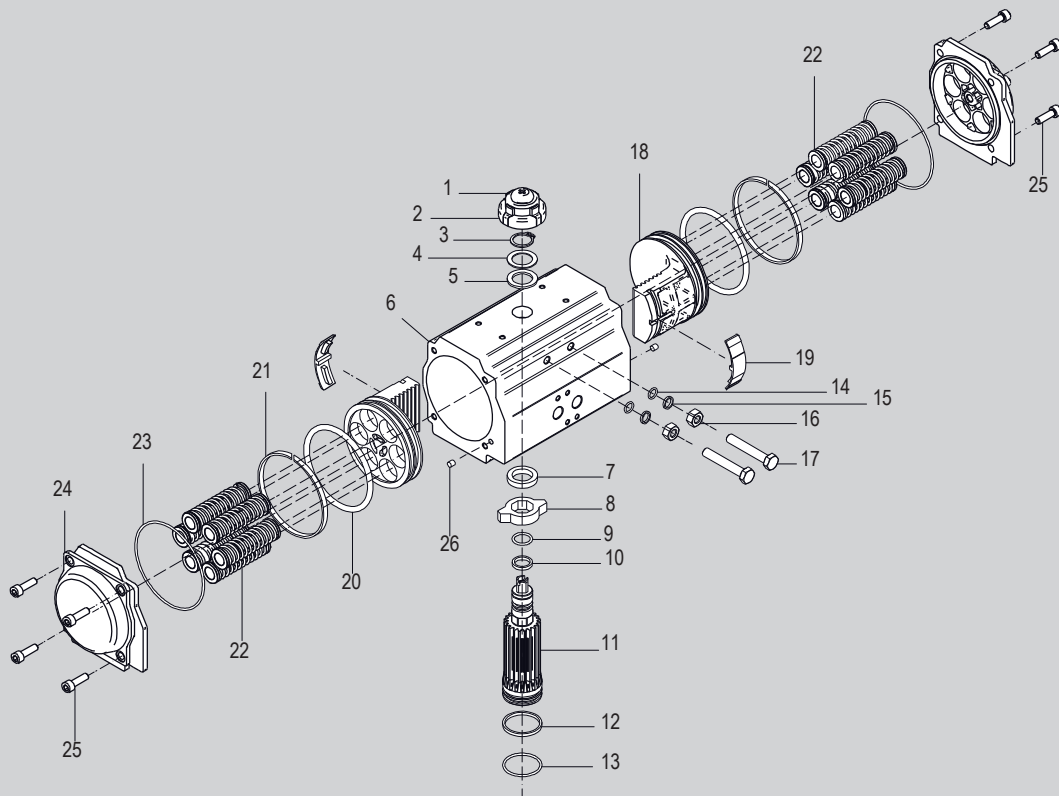
For standard materials see the table at page 2.400.4.

Options in the same grid are alternative to each others.

(1) Single acting actuators (SE) available from bore Ø 52.

(2) For matching between bore, flange and female key, see the single products data sheet.

Standard materials



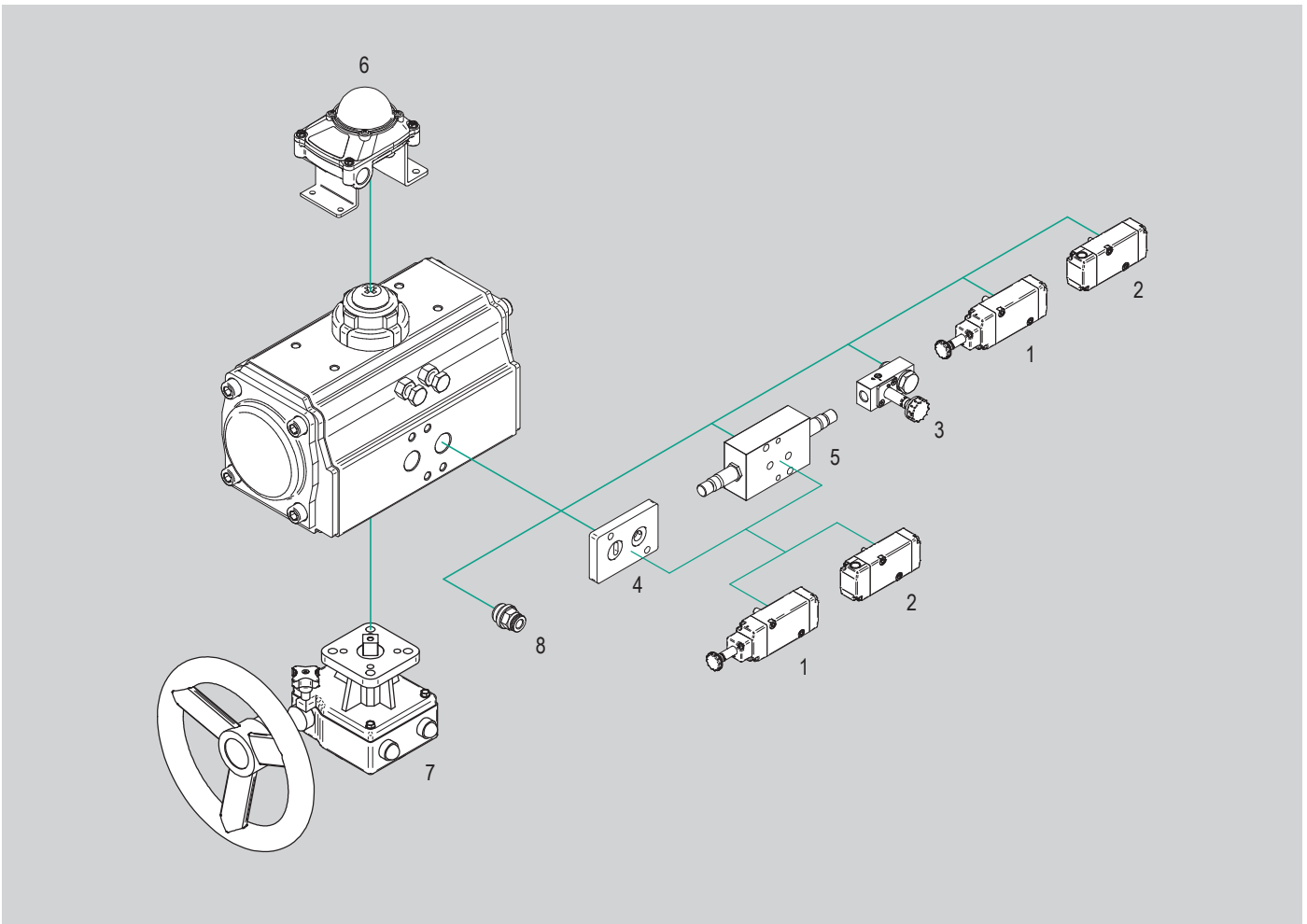
2 - VALVES

Position	Description	Quantity	Material
1	Indicator screw	1	ABS and Stainless Steel
2	Indicator	1	ABS
3	Seeger	1	Stainless Steel
4	Washer	1	Stainless Steel
5	Outside washer	1	Polyoxymethylene
6	Body	1	Extruded hard anodized aluminium alloy
7	Inside washer	1	Polyoxymethylene
8	Cam	1	C 45 steel
9	O-ring (Pinion top)	1	NBR
10	Bearing (Pinion top)	1	Polyoxymethylene
11	Pinion	1	Nickel-plated steel alloy
12	Bearing (Pinion bottom)	1	Polyoxymethylene
13	O-ring (Pinion bottom)	1	NBR
14	O-ring (Adjust screw)	2	NBR
15	Gasket (Adjust screw)	2	Stainless Steel
16	Nut (Adjust screw)	2	Stainless Steel
17	Adjust screw	2	Stainless Steel
18	Piston	2	Die-cast anodized aluminium
19	Guide (Piston)	2	Nylon 66
20	O-ring (Piston)	2	NBR
21	Bearing (Piston)	2	Polyoxymethylene
22	Spring*	0 ÷ 12**	Electrophoretic painted spring steel
23	O-ring (End cap)	2	NBR
24	End cap	2	Powder painted die-cast aluminium
25	Cap screw	8	Stainless Steel
26	Plug	1	NBR

*Only for single acting actuators

**16 spring for bore Ø 400

Accessories



2 - VALVES

N.	Actuator bore	Item	Description	Compliance	Matching		Code key page	Data sheet page
					AR..SE	AR..DE		
1	Ø 52 ÷ 270	A1NE..	Solenoid valves NAMUR 1/4" 3/2	NAMUR	●	-	2.405.1	2.44.1
			Solenoid valves NAMUR 1/4" 5/2 and 5/3		-	●		
	Ø 32 ÷ 270	A1NE..X..	Solenoid valves NAMUR 1/4" 3/2 ATEX	NAMUR 2014/34/EU ATEX	●	-		2.320.1
			Solenoid valves NAMUR 1/4" 5/2 and 5/3 ATEX		-	●		
2	Ø 52 ÷ 270	A1NP..	Valves NAMUR 1/4" 3/2	NAMUR	●	-	2.405.1	2.50.1
			Valves NAMUR 1/4" 5/2 and 5/3		-	●		
	Ø 32 ÷ 270	A1NP..X..	Valves NAMUR 1/4" 3/2 ATEX	NAMUR 2014/34/EU ATEX	●	-		2.320.1
			Valves NAMUR 1/4" 5/2 and 5/3 ATEX		-	●		
3	Ø 52 ÷ 270	A1E2..MD	22 mm directly operated solenoid valves	-	●	-	2.405.1	2.10.1
4	Ø 32 ÷ 270	PNF..	Mounting plate*	NAMUR	●	●	2.405.1	2.430.50
5	Ø 52 ÷ 270	APNRSR	Speed regulators for actuators	NAMUR	●	-	2.405.1	2.430.1
		APNRDA		NAMUR	-	●		
6	Ø 32 ÷ 400	SB200..	Aluminium limit switch box	-	●	●	2.405.1	2.426.20
		SB200/Exia..		2014/34/EU ATEX	●	●		2.426.25
		SB500..		2014/34/EU ATEX	●	●		2.426.50
		SB700..	Tecnopolymer limit switch box	-	●	●		2.426.90
7	Ø 32 ÷ 400	GDB..	Handwheel gearbox	ISO 5211	●	●	2.405.1	2.428.10
8	Ø 32 ÷ 400	R..	Push-in fittings	UNI ISO 228/1 UNI ISO7/1 ISO R/232	●	●	4.2.1	

Key
● matching accessory; - not matching accessory

Rotary actuators

Single acting aluminium rotary actuators



2 - VALVES

Main features

Bore	Code	Item	Symbol
Ø 52	810103	AR52SEF03/0511	
Ø 63	810107	AR63SEF05/0714	
Ø 75	810109	AR75SEF05/0714	
Ø 83	810111	AR83SEF05/0717	
Ø 92	810113	AR92SEF05/0717	
Ø 105	810115	AR105SEF07/1022	
Ø 115	810165	AR115SEF07/1022	
Ø 125	810117	AR125SEF07/1022	
Ø 130	810167	AR130SEF10/1227	
Ø 140	810139	AR140SEF10/1227	
Ø 160	810122	AR160SEF10/1227	
Ø 190	810147	AR190SEF1436	
Ø 210	810140	AR210SEF1436	
Ø 240	810148	AR240SEF1646	
Ø 270	810149	AR270SEF1646	
Ø 300	810158	AR300SEF1646	
Ø 350	810159	AR350SEF16/2546	
Ø 400	810160	AR400SEF16/2555	



Technical data

Version	Single acting rotary actuator																		
Bore	Ø 52	Ø 63	Ø 75	Ø 83	Ø 92	Ø 105	Ø 105	Ø 125	Ø 130	Ø 140	Ø 160	Ø 190	Ø 210	Ø 240	Ø 270	Ø 300	Ø 350	Ø 400	
Code	810103	810107	810109	810111	810113	810115	810165	810117	810167	810139	810122	810147	810140	810148	810149	810158	810159	810160	
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.																		
Pressure range	2 ÷ 8 bar (for further information see output torque table from page 2.401.2)																		
Temperature range	-20°C ÷ +80°C (standard)			-10°C ÷ +150°C (V)					-40°C ÷ +80°C (BT)										
Connections	G 1/4" NAMUR														G 1/2" NAMUR				
ISO flange	F03/F05		F05/F07		F07/F10			F10/F12		F14		F16		F16/F25					
Female key	11x14		14x18		17x25			22x26		27x31		36x40		46x50		55x60			
Spring number	12																	16	
Weight (Kg)	1,35	2,19	2,86	3,64	5,35	6,76	9,3	10,0	13,7	16,5	24,4	40,2	49,2	70,0	100	141	220	285	
ATEX compliance	II 2G Ex h IIC T6 Gb II 2D Ex h IIC T85°C Db																		

Output torque

Unit: Nm

Actuator		Air pressure (bar)																
Size	Spring number	2,5		3		4		5		6		7		8		Springs output		
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	90°	0°	
Ø 52	5	5.7	3.8	7.6	5.7												6.2	4.3
	6	4.9	2.5	6.9	4.5	10.9	8.5										7.4	5.0
	7	4.0	1.3	6.0	3.3	9.8	7.3	14.0	10.4								8.6	5.9
	8			5.2	2.0	9.2	6.0	13.2	9.1	17.2	14.1						9.9	6.7
	9			4.3	0.8	8.3	4.8	12.3	7.9	16.3	12.8	20.3	16.8				11.1	7.6
	10					7.4	3.6	11.5	6.7	15.5	11.6	19.5	15.6				12.4	8.5
	11					6.6	2.3	10.6	5.4	14.6	10.4	18.6	14.3	22.6	18.3		13.6	9.3
	12							9.7	4.2	13.8	9.1	17.8	12.2	21.8	17.1		14.8	10.2
Ø 63	5	11.4	7.7	15.0	11.4	22.3	14.9										10.4	6.8
	6	10.1	5.7	13.6	9.3	20.9	16.6	29.3	23.9								12.5	8.2
	7	8.6	3.6	12.5	7.2	19.5	14.5	26.8	21.9								14.6	9.6
	8			10.9	5.1	18.2	12.4	25.5	19.8	32.8	27.0	40.1	34.3				16.7	10.9
	9					16.8	10.4	24.1	17.7	31.4	24.9	38.7	32.2				18.8	12.3
	10					1.4	8.2	22.8	15.6	30.0	22.8	37.3	30.1	44.7	37.4		20.9	13.7
	11							21.5	13.5	28.7	20.7	36.0	28.0	43.3	35.3		22.9	15.0
	12							20.0	11.4	27.3	18.6	34.6	25.9	41.9	33.3		25.0	16.4
Ø 75	5	14.5	10.6	19.4	15.5	29.5	25.7										14.5	10.5
	6	12.4	7.6	17.3	12.6	27.4	22.7	37.5	32.8								17.4	12.7
	7	10.4	4.8	15.2	9.7	25.3	19.9	35.4	29.9								20.3	14.8
	8			13.1	6.8	23.1	16.9	33.3	27.0	43.2	37.0	53.3	47.0				23.2	16.9
	9					19.0	14.1	31.2	24.1	41.1	34.1	51.2	44.2				26.1	19.0
	10						11.1	28.8	21.2	39.0	31.2	49.1	41.2	59.1	51.2		29.0	21.1
	11							27.0	18.3	37.0	28.3	47.0	38.4	57.0	48.4		31.9	23.2
	12							24.9	15.4	34.9	25.4	44.9	35.4	54.9	45.4		34.7	25.3
Ø 83	5	23.3	16.1	31.1	24.0	46.8	39.7										23.0	15.8
	6	20.1	11.5	28.0	19.3	43.7	35.1	59.4	50.7								27.6	19.0
	7	17.0	6.9	24.8	14.8	40.5	30.5	56.2	46.2								32.2	22.1
	8			21.7	10.1	37.4	25.8	53.1	41.5	68.8	57.2	84.5	72.9				36.8	25.3
	9					34.2	21.3	49.9	37.0	65.6	52.6	81.2	68.3				41.4	28.5
	10					31.0	16.6	46.7	32.3	62.4	48.0	78.1	63.7	93.8	79.3		46.0	31.6
	11							43.6	27.7	59.3	43.4	75.0	59.1	90.6	74.8		50.6	34.8
	12							40.4	23.2	56.1	38.9	71.7	54.5	87.4	70.2		55.2	38.0
Ø 92	5	33.1	22.0	44.2	33.2	66.8	55.8										34.4	23.3
	6	28.4	15.2	39.6	26.4	62.2	49.0	84.8	71.6								41.2	28.0
	7	23.8	8.2	34.9	19.4	57.5	42.1	80.2	64.7								48.1	32.7
	8			31.3	12.6	52.9	35.2	75.5	57.9	98.1	80.5	120.7	103.0				55.0	37.3
	9					48.2	28.4	70.9	51.0	93.5	73.6	116.0	96.1				61.9	42.0
	10					43.6	21.5	66.2	44.1	88.8	66.7	111.3	89.2	134.0	111.8		68.7	46.7
	11							61.5	37.2	84.1	59.9	106.6	82.4	129.2	105.0		75.6	51.4
	12							56.8	30.4	79.4	53.0	101.9	75.5	124.5	98.1		82.5	56.0
Ø 105	5	51.0	33.4	67.5	49.9	100.6	83.0										49.2	31.6
	6	44.7	23.5	61.1	40.0	94.2	73.2	127.3	106.2								59.1	38.0
	7	38.4	13.7	54.9	30.3	87.9	63.4	121.0	96.4								68.9	44.3
	8			48.5	20.4	81.6	53.5	114.7	86.5	147.7	119.6	180.8	152.7				78.7	50.6
	9					75.3	43.7	108.4	76.8	141.5	109.8	174.5	142.9				88.6	56.9
	10					68.9	33.4	102.0	66.5	135.1	99.6	168.2	132.9	201.2	165.7		98.4	63.3
	11							95.7	57.0	128.7	90.1	161.8	123.1	194.8	156.2		108.3	69.6
	12							89.4	47.5	122.5	80.6	155.5	113.6	188.6	146.7		118.1	75.9
Ø 115	5	65	43	87	65	130	108										65	43
	6	56	30	78	52	121	95	164	138								78	52
	7	47	17	69	39	112	82	155	125								91	61
	8			61	26	104	69	147	112	190	155	233	198				104	69
	9					95	56	138	99	181	142	224	185				117	78
	10					86	43	129	86	172	129	215	172	259	216		130	87
	11							121	73	164	116	207	159	251	203		143	95
	12							112	60	156	104	198	146	242	190		156	104

Rotary actuators

Single acting aluminium rotary actuators



Output torque

Unit: Nm

Actuator		Air pressure (bar)																
Size	Spring number	2,5		3		4		5		6		7		8		Springs output		
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	90°	0°	
Ø 125	5	73	47	98	72	148	122										79	52
	6	63	31	88	56	138	107	188	157								94	63
	7	52	15	77	50	127	90	178	141								110	73
	8			67	25	117	75	167	125	217	176	268	226				125	84
	9					107	59	157	109	207	159	257	210				141	90
	10					96	44	146	94	196	144	247	194	297	245		157	105
	11							136	78	186	128	236	178	286	228		173	115
	12							125	63	176	113	226	163	276	213		188	125
Ø 130	5	107	68	142	103	211	1720										105	66
	6	93	46	128	81	197	150	266	219								127	80
	7	80	25	115	60	184	129	253	198								148	93
	8			101	39	170	108	239	177	309	247	378	316				169	107
	9					157	87	226	156	296	226	365	295				190	120
	10					144	65	213	134	283	204	352	273	422	343		212	133
	11							199	113	269	183	338	252	408	322		233	147
	12							185	91	255	161	324	230	394	300		255	161
Ø 140	5	128	85	171	127	256	213										129	86
	6	111	59	154	102	239	187	325	273								155	103
	7	94	33	137	76	222	162	308	247								181	120
	8			120	50	205	136	291	221	376	307	462	392				206	137
	9					187	110	273	196	358	281	444	367				232	155
	10					170	84	256	169	341	255	427	340	512	426		258	172
	11							238	143	324	229	409	314	495	400		284	189
	12							221	118	307	203	392	289	478	374		310	206
Ø 160	5	193	124	259	191	392	324										208	140
	6	165	83	232	149	365	282	498	415								250	168
	7	137	41	203	107	336	240	469	373								292	196
	8			176	66	309	199	442	273	575	465	708	598				333	223
	9					280	157	413	260	546	423	679	556				375	251
	10					253	115	386	248	519	381	652	514	785	647		417	279
	11							358	207	491	340	624	473	757	606		458	307
	12							330	165	463	298	596	431	729	564		500	355
Ø 190	5	332	222	438	329	651	542										309	200
	6	292	161	398	267	611	480	824	693								371	240
	7	252	99	358	205	571	418	784	631								433	280
	8			318	143	531	356	744	569	957	782	1169	995				495	320
	9					491	295	704	507	917	720	1130	933				557	360
	10					451	233	664	446	877	658	1090	871	1302	1084		618	400
	11							624	384	837	597	1050	809	1263	1022		680	440
	12							584	322	797	535	1010	748	1223	960		742	480
Ø 210	5	390	285	523	418	789	684										380	275
	6	335	209	468	342	734	608	1000	874								456	330
	7	280	133	413	266	679	532	945	798								532	385
	8			358	190	624	456	890	722	1156	988	1422	1254				608	440
	9					569	380	835	646	1101	912	1367	1178				684	495
	10					514	304	780	570	1046	836	1312	1102	1578	1368		760	550
	11							725	494	991	760	1257	1026	1523	1292		836	605
	12							670	418	936	684	1202	950	1468	1216		912	660
Ø 240	5	552	409	744	600	1129	985										554	410
	6	470	297	662	489	1047	874	1432	1259								665	492
	7	388	187	580	379	964	764	1349	1149								775	575
	8			498	268	883	653	1267	1037	1652	1422	2037	1807				886	656
	9					800	542	1185	926	1569	1311	1954	1696				998	739
	10					718	431	1103	816	1488	1201	1872	1586	2257	1970		1108	821
	11							1021	705	1406	1090	1791	1474	2176	1859		1219	903
	12							939	594	1323	979	1708	1363	2093	1748		1330	985

2 - VALVES

Output torque

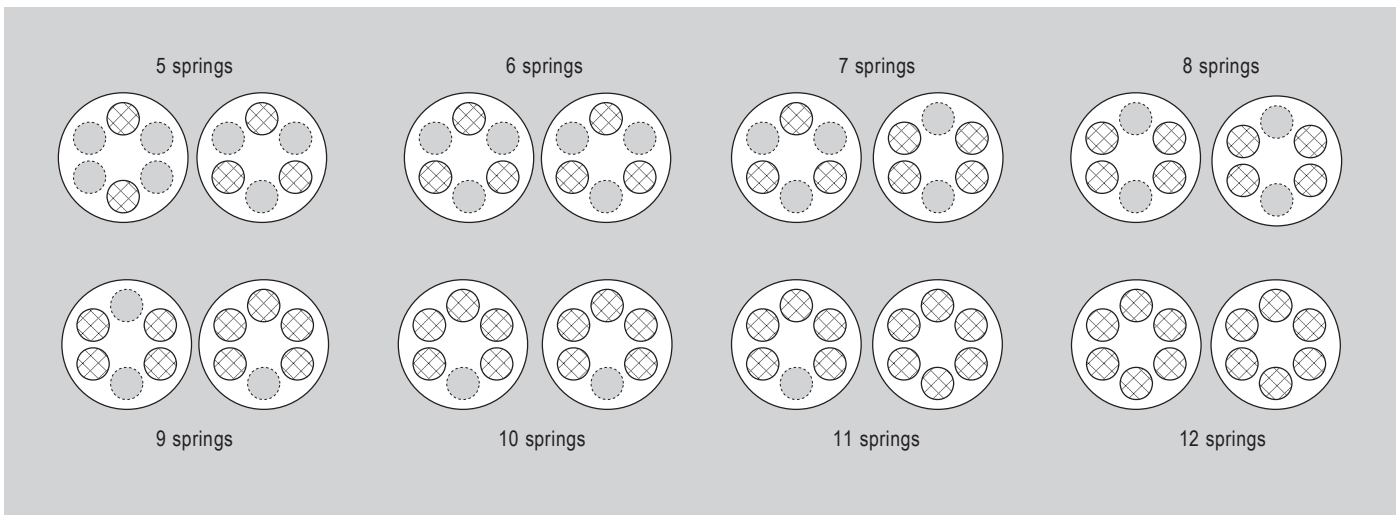
Unit: Nm

Actuator		Air pressure (bar)																
Size	Spring number	2,5		3		4		5		6		7		8		Springs output		
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	90°	0°	
Ø 270	5	903	675	1195	968	1779	1552										787	560
	6	790	519	1083	811	1667	1396	2252	1981								943	672
	7	679	361	972	654	1556	1238	2141	1900								1101	783
	8			860	497	1444	1081	2029	1823	2614	2252	3199	2836				1258	895
	9					1332	923	1917	1666	2502	2094	3087	2678				1416	1007
	10					1220	767	1805	1509	2390	1937	2974	2521	3560	3107		1572	1119
	11							1693	1352	2278	1779	2862	2364	3448	2949	1730	1231	
	12							1582	1037	2167	1623	2751	2207	3336	2792	1887	1342	
Ø 300	5	1097	729														1061	730
	6	935	494	1316	875												1273	876
	7	772	258	1153	639	1916	1402										1485	1022
	8			991	403	1754	1166	2517	1929								1697	1168
	9					1592	930	2255	1693	3118	2456						1909	1314
	10					1430	695	2193	1458	2956	2221	3719	2984	4482	3747	2122	1460	
	11							2030	1222	2793	1985	3556	2748	4319	3511	2334	1606	
	12							1868	986	2631	1749	3394	2512	4157	3275	2546	1752	
Ø 350	5	1552	964														1702	1173
	6	1292	586	1863	1157												2043	1408
	7	1031	208	1602	779	2745	1922										2383	1642
	8			1341	401	2484	1544	3626	2686								2724	1877
	9					2224	1165	3336	2307	4508	3449						3064	2112
	10					1963	787	3105	1929	4247	3071	5390	4214	6532	5356	3405	2346	
	11							2844	1551	3986	2693	5129	3836	6271	4978	3745	2581	
	12							2584	1172	3726	2314	4869	3457	6011	4599	4086	2816	
Ø 400	7	2028	869														2880	1837
	8	1736	411	2550	1225												3292	2100
	9			2259	768	3887	2396										3703	2362
	10			1967	311	3595	1939	5223	3567								4115	2624
	11					3303	1482	4931	3110	6559	4738						4526	2887
	12					3012	1025	4640	2653	6268	4281	7895	5908	9523	7536	4938	3149	
	13							4348	2195	5976	3823	7603	5450	9231	7078	5349	3412	
	14							4057	1738	5685	3366	7312	4993	8940	6621	5761	3674	
	15							3756	1281	4393	2909	7020	4536	8648	6164	6172	3937	
	16									5101	2452	6728	4079	8356	5707	6584	4199	

Important note

Output torque air decreasing from 90° - 0°; Output torque springs decreasing from 90° - 0°

Springs mounting for single acting actuators*



* For information on spring mounting of actuator size Ø 400, please contact the sales department

Operation time*

Unit: s

Actuator			Springs													
Item	Code	Size	3 + 3		3 + 4		4 + 4		4 + 5		5 + 5		5 + 6		6 + 6	
			0°-90°	90°-0°	0°-90°	90°-0°	0°-90°	90°-0°	0°-90°	90°-0°	0°-90°	90°-0°	0°-90°	90°-0°	0°-90°	90°-0°
AR52SEF03/0511	810103	Ø 52	2.46	0.48	2.48	0.46	2.50	0.44	2.52	0.42	2.54	0.40	2.56	0.38	2.58	0.36
AR63SEF05/0714	810107	Ø 63	2.54	0.56	2.56	0.54	2.58	0.52	2.60	0.50	2.62	0.48	2.64	0.46	2.66	0.44
AR75SEF05/0714	810109	Ø 75	2.62	0.64	2.64	0.62	2.66	0.60	2.68	0.58	2.70	0.56	2.72	0.54	2.74	0.20
AR83SEF05/0717	810111	Ø 83	2.71	0.73	2.73	0.71	2.75	0.69	2.77	0.67	2.79	0.65	2.81	0.63	2.83	0.61
AR92SEF05/0717	810113	Ø 92	2.89	0.86	2.91	0.84	2.93	0.82	2.95	0.80	2.97	0.78	2.99	0.76	3.01	0.74
AR105SEF07/1022	810115	Ø 105	3.14	0.91	3.16	0.89	3.18	0.87	3.20	0.85	3.22	0.83	3.24	0.81	3.26	0.79
AR115SEF07/1022	810165	Ø 115	3.59	1.02	3.61	1.00	3.62	0.98	3.64	0.96	3.66	0.95	3.67	0.93	3.69	0.91
AR125SEF07/1022	810117	Ø 125	4.24	1.20	4.26	1.18	4.28	1.16	4.30	1.14	4.32	1.12	4.43	1.10	4.36	1.08
AR130SEF10/1227	810167	Ø 130	4.33	1.22	4.36	1.32	4.49	1.26	4.58	1.25	4.50	1.21	4.49	1.21	4.54	1.18
AR140SEF10/1227	810139	Ø 140	4.40	1.35	4.40	1.33	4.62	1.31	4.64	1.29	4.66	1.27	4.68	1.25	4.68	1.22
AR160SEF10/1227	810122	Ø 160	4.74	1.77	4.76	1.75	4.78	1.73	4.80	1.71	4.82	1.69	4.82	1.67	4.84	1.65
AR190SEF1436	810147	Ø 190	5.75	3.70	5.77	3.50	5.75	3.48	5.77	3.46	5.79	3.44	5.80	3.42	5.83	3.40
AR210SEF1436	810140	Ø 210	8.25	4.80	8.40	4.60	8.42	4.58	8.44	4.56	8.46	4.54	8.48	4.52	8.50	4.50
AR240SEF1646	810148	Ø 240	16.2	5.14	16.40	5.12	16.42	5.10	16.44	4.90	16.6	4.98	16.8	4.86	17.00	4.84
AR270SEF1646	810149	Ø 270	17.60	6.28	17.80	6.26	17.60	6.24	17.80	6.20	18.00	6.18	18.20	6.16	18.40	6.14
AR300SEF1646	810158	Ø 300	24.00	13.20	24.50	13.00	24.40	12.80	24.30	12.60	24.50	12.58	24.70	12.56	24.90	12.54
AR350SEF16/2546	810159	Ø 350	31.00	17.30	31.50	17.00	31.30	16.80	31.00	16.60	31.20	16.58	31.40	16.56	31.60	16.54
AR400SEF16/2555	810160	Ø 400	45.00	27.00	51.00	27.00	51.30	26.80	51.50	26.80	51.70	26.60	51.90	26.40	52.10	26.20

* With pressure at 5 bar

Air consumption

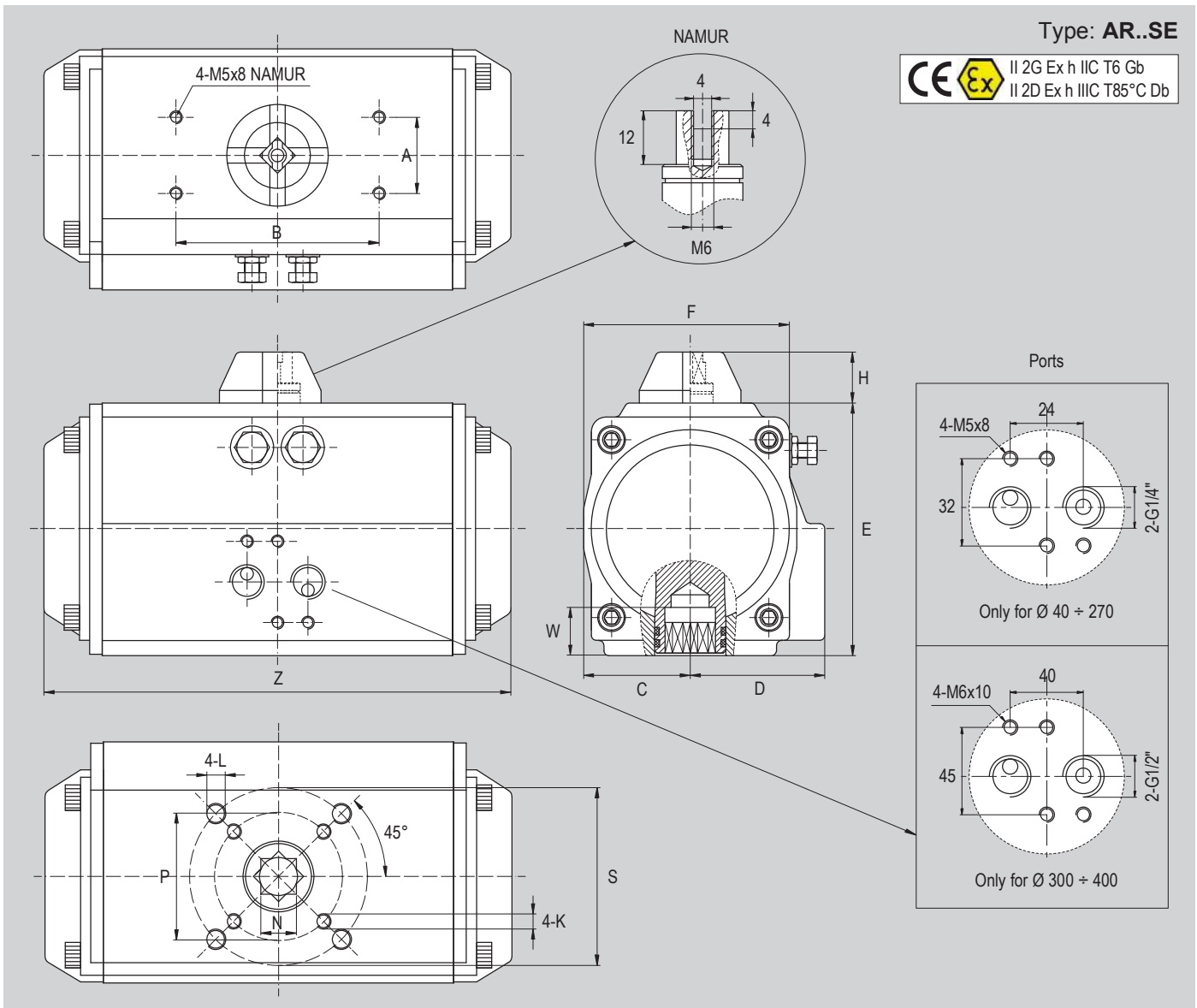
Unit: l.

Item	Code	Size	Air volume opening (A1)	Air volume closing (A2)
AR52SEF03/0511	810103	Ø 52	0.12 l.	-
AR63SEF05/0714	810107	Ø 63	0.21 l.	-
AR75SEF05/0714	810109	Ø 75	0.30 l.	-
AR83SEF05/0717	810111	Ø 83	0.43 l.	-
AR92SEF05/0717	810113	Ø 92	0.64 l.	-
AR105SEF07/1022	810115	Ø 105	0.95 l.	-
AR115SEF07/1022	810165	Ø 115	1.30 l.	-
AR125SEF07/1022	810117	Ø 125	1.60 l.	-
AR140SEF10/1227	810167	Ø 130	2.30 l.	-
AR140SEF10/1227	810139	Ø 140	2.50 l.	-
AR160SEF10/1227	810122	Ø 160	3.70 l.	-
AR190SEF1436	810147	Ø 190	5.90 l.	-
AR210SEF1436	810140	Ø 210	7.50 l.	-
AR240SEF1646	810148	Ø 240	11.0 l.	-
AR270SEF1646	810149	Ø 270	17.0 l.	-
AR300SEF1646	810158	Ø 300	23.8 l.	-
AR350SEF16/2546	810159	Ø 350	35.1 l.	-
AR400SEF16/2555	810160	Ø 400	52.6 l.	-

To calculate the actuator's cycle consumption use the formula on the right.
For "A1" and "A2" values refer to the tables above, "P" is for the air pressure.

$$l./ciclo = A1 + A2 \times \frac{P + 1,013 \text{ bar}}{1,013 \text{ bar}}$$

Standard dimensions



2 - VALVES

Item	Code	Size	A	B	C	D	E	F	H	ØP	ØS	K	L	N	W	Z	Connection	ISO flange
AR52SEF03/0511	810103	Ø 52	30	80	30.5	41	72	65	20	36	50	M5x8	M6x9	11x14	14	147	G 1/4" NAMUR	F03 / F05
AR63SEF05/0714	810107	Ø 63	30	80	36	47	88	72	20	50	70	M6x10	M8x13	14x18	18	165	G 1/4" NAMUR	F05 / F07
AR75SEF05/0714	810109	Ø 75	30	80	42	53	99.5	81	20	50	70	M6x10	M8x13	14x18	18	182	G 1/4" NAMUR	F05 / F07
AR83SEF05/0717	810111	Ø 83	30	80	46	57	109	92	20	50	70	M6x10	M8x13	17x21	21	208	G 1/4" NAMUR	F05 / F07
AR92SEF05/0717	810113	Ø 92	30	80	50	58.5	116.5	98	20	50	70	M6x10	M8x13	17x21	21	262	G 1/4" NAMUR	F05 / F07
AR105SEF07/1022	810115	Ø 105	30	80	58	66.5	133	109.5	20	70	102	M8x13	M10x16	22x26	26	270	G 1/4" NAMUR	F07 / F10
AR115SEF07/1022	810165	Ø 115	30	80	62	72	144	119	20	70	102	M8x13	M10x16	22x26	26	298	G 1/4" NAMUR	F07 / F10
AR125SEF07/1022	810117	Ø 125	30	80	67	75	155	127.5	20	70	102	M8x13	M10x16	22x26	26	301	G 1/4" NAMUR	F07 / F10
AR130SEF10/1227	810167	Ø 130	30	80	74	74	160	130	20	102	125	M10x16	M12x19	27x31	31	367	G 1/4" NAMUR	F10 / F12
AR140SEF10/1227	810139	Ø 140	30	80	76	76	172	137.5	20	102	125	M10x16	M12x19	27x31	31	395	G 1/4" NAMUR	F10 / F12
AR160SEF10/1227	810122	Ø 160	30	80	87	87	197	158	20	102	125	M10x16	M12x19	27x31	31	454	G 1/4" NAMUR	F10 / F12
AR190SEF1436	810147	Ø 190	30	130	103	103	230	189	30	-	140	-	M16x24	36x40	50	528	G 1/4" NAMUR	F14
AR210SEF1436	810140	Ø 210	30	130	113	113	255	211	30	-	140	-	M16x24	36x40	50	536	G 1/4" NAMUR	F14
AR240SEF1646	810148	Ø 240	30	130	130	130	289	245	30	-	165	-	M20x25	46x50	60	608	G 1/4" NAMUR	F16
AR270SEF1646	810149	Ø 270	30	130	147	147	328	273	30	-	165	-	M20x25	46x50	60	721	G 1/4" NAMUR	F16
AR300SEF1646	810158	Ø 300	30	130	203	203	348	406	30	165	215	M20x25	M20x25	46x60	63	769	G 1/2" NAMUR	F16
AR350SEF16/2546	810159	Ø 350	30	130	230	230	408	460	30	165	254	M20x25	M16x24*	46x60	63	909	G 1/2" NAMUR	F16 / F25
AR400SEF16/2555	810160	Ø 400	30	130	258	258	480	516	30	165	254	M20x25	M16x24*	55x60	73	925	G 1/2" NAMUR	F16 / F25

* 8 holes

Rotary actuators

Double acting aluminium rotary actuators



Main features

Bore	Code	Item	Symbol
Ø 32	810101	AR32DEF0309	
Ø 40	810128	AR40DEF03/0511	
Ø 52	810102	AR52DEF03/0511	
Ø 63	810106	AR63DEF05/0714	
Ø 75	810108	AR75DEF05/0714	
Ø 83	810110	AR83DEF05/0717	
Ø 92	810112	AR92DEF05/0717	
Ø 105	810114	AR105DEF07/1022	
Ø 115	810164	AR115DEF07/1022	
Ø 125	810116	AR125DEF07/1022	
Ø 130	810166	AR130DEF10/1227	
Ø 140	810130	AR140DEF10/1227	
Ø 160	810119	AR160DEF10/1227	
Ø 190	810143	AR190DEF1436	
Ø 210	810144	AR210DEF1436	
Ø 240	810145	AR240DEF1646	
Ø 270	810146	AR270DEF1646	
Ø 300	810155	AR300DEF1646	
Ø 350	810156	AR350DEF16/2546	
Ø 400	810157	AR400DEF16/2555	



2 - VALVES

Technical data

Version	Double acting rotary actuator																						
Bore	Ø 32	Ø 40	Ø 52	Ø 63	Ø 75	Ø 83	Ø 92	Ø 105	Ø 115	Ø 125	Ø 130	Ø 140	Ø 160	Ø 190	Ø 210	Ø 240	Ø 270	Ø 300	Ø 350	Ø 400			
Code	810101	810128	810102	810106	810108	810110	810112	810114	810164	810116	810166	810130	810119	810143	810144	810145	810146	810155	810156	810157			
Fluid	Compressed air with or without lubrication. Lubrication, if started, must be continued.																						
Pressure range	2 ÷ 8 bar (for further information see output torque table from page 2.403.2)																						
Temperature range	-20°C ÷ +80°C																						
Ports	G 1/8" G 1/4" NAMUR																	G 1/2" NAMUR					
ISO flange	F03		F03/F05		F05/F07			F07/F10			F10/F12			F14		F16			F16/F25				
Female key	9x14		11x14		14x18			17x25			22x26			27x31			36x40		46x50			55x60	
Weight (Kg)	0.80	0.97	1.22	2.02	2.60	3.23	4.58	5.92	8.18	8.68	11.2	14.1	20.6	33.2	39.7	57.0	78.7	114	171	240			
ATEX compliance	II 2G Ex h IIC T6 Gb II 2D Ex h IIIC T85°C Db																						

Output torque

Unit: Nm

Actuator	Air pressure (bar)									
	2	2,5	3	4	4,5	5	5,5	6	7	8
32	3.1	3.8	4.6	6.1	6.9	7.6	8.4	9.2	10.7	12.2
40	4.8	6	7.2	9.5	10.7	11.9	13.1	14.3	16.7	19.1
52	8.0	10.0	12.0	16.0	18.0	20.0	21.9	23.9	27.9	31.9
63	14.6	18.2	21.9	29.2	32.8	36.5	40.1	43.8	51.1	58.4
75	20.1	25.1	30.1	40.1	45.1	50.2	55.2	60.2	70.2	80.3
83	31.4	39.2	47.0	62.7	70.5	78.4	86.2	94.1	109.7	125.4
92	45.1	56.4	67.7	90.3	101.6	112.9	124.1	135.4	158.0	180.6
105	66.1	82.7	99.2	132.2	148.8	165.3	181.8	198.4	231.4	264.5
115	86.0	108.0	130.1	173.0	194.0	216.0	238.0	259.0	302.0	346.0
125	100.3	125.4	150.5	200.6	225.7	250.8	275.9	301.0	351.1	401.3
130	138.0	173.0	208.0	277.0	312.0	346.0	381.0	416.0	485.0	555.0
140	171.0	213.8	256.5	342.0	384.8	427.5	470.3	513.0	598.5	684.0
160	266.0	332.5	399.0	532.0	598.5	665.0	731.5	798.0	931.0	1064.0
190	425.6	532.0	638.4	851.2	957.6	1064.0	1170.4	1276.8	1489.6	1702.4
210	532.0	665.0	798.0	1064.0	1197.0	1330.0	1463.0	1596.0	1862.0	2128.0
240	796.5	961.9	1154.3	1539.0	1731.4	1923.8	2116.1	2308.5	2693.3	3078.0
270	1169.6	1462.1	1754.5	2339.3	2631.7	2924.1	3216.5	3508.9	4093.7	4678.6
300	1526.0	1908.0	2289.0	3052.0	3434.0	3815.0	4187.0	4578.0	5341.0	6104.0
350	2285.0	2856.0	3427.0	4570.0	5141.0	5712.0	6283.0	6854.0	7997.0	9139.0
400	3256.0	4070.0	4884.0	6512.0	7326.0	8140.0	8954.0	9768.0	11396.0	13024.0

Important note

Constant output torque 90° - 0° / 0° - 90 0°

Rotary actuators

Double acting aluminium rotary actuators



2 - VALVES

Operation time*

Unit: s

Actuator			0° - 90°	90° - 0°
Item	Code	Size		
AR32DEF0309	810101	Ø 32	0.50	0.50
AR40DEF03/0511	810128	Ø 40	0.55	0.55
AR52DEF03/0511	810102	Ø 52	0.60	0.60
AR63DEF05/0714	810106	Ø 63	0.70	0.70
AR75DEF05/0714	810108	Ø 75	0.80	0.70
AR83DEF05/0717	810110	Ø 83	0.90	0.80
AR92DEF05/0717	810112	Ø 92	1.00	1.00
AR105DEF07/1022	810114	Ø 105	1.50	1.50
AR115DEF07/1022	810164	Ø 115	1.70	1.70
AR125DEF07/1022	810116	Ø 125	2.00	2.00
AR130DEF10/1227	810116	Ø 130	2.20	2.20
AR140DEF10/1227	810130	Ø 140	2.50	2.50
AR160DEF10/1227	810119	Ø 160	4.00	3.00
AR190DEF1436	810143	Ø 190	5.00	4.00
AR210DEF1436	810144	Ø 210	5.00	4.00
AR240DEF1646	810145	Ø 240	6.00	6.00
AR270DEF1646	810146	Ø 270	8.00	8.00
AR300DEF1646	810155	Ø 300	12.00	12.00
AR350DEF16/2546	810156	Ø 350	14.00	14.00
AR400DEF16/2555	810157	Ø 400	15.00	15.00

* With pressure at 5 bar

Air consumption

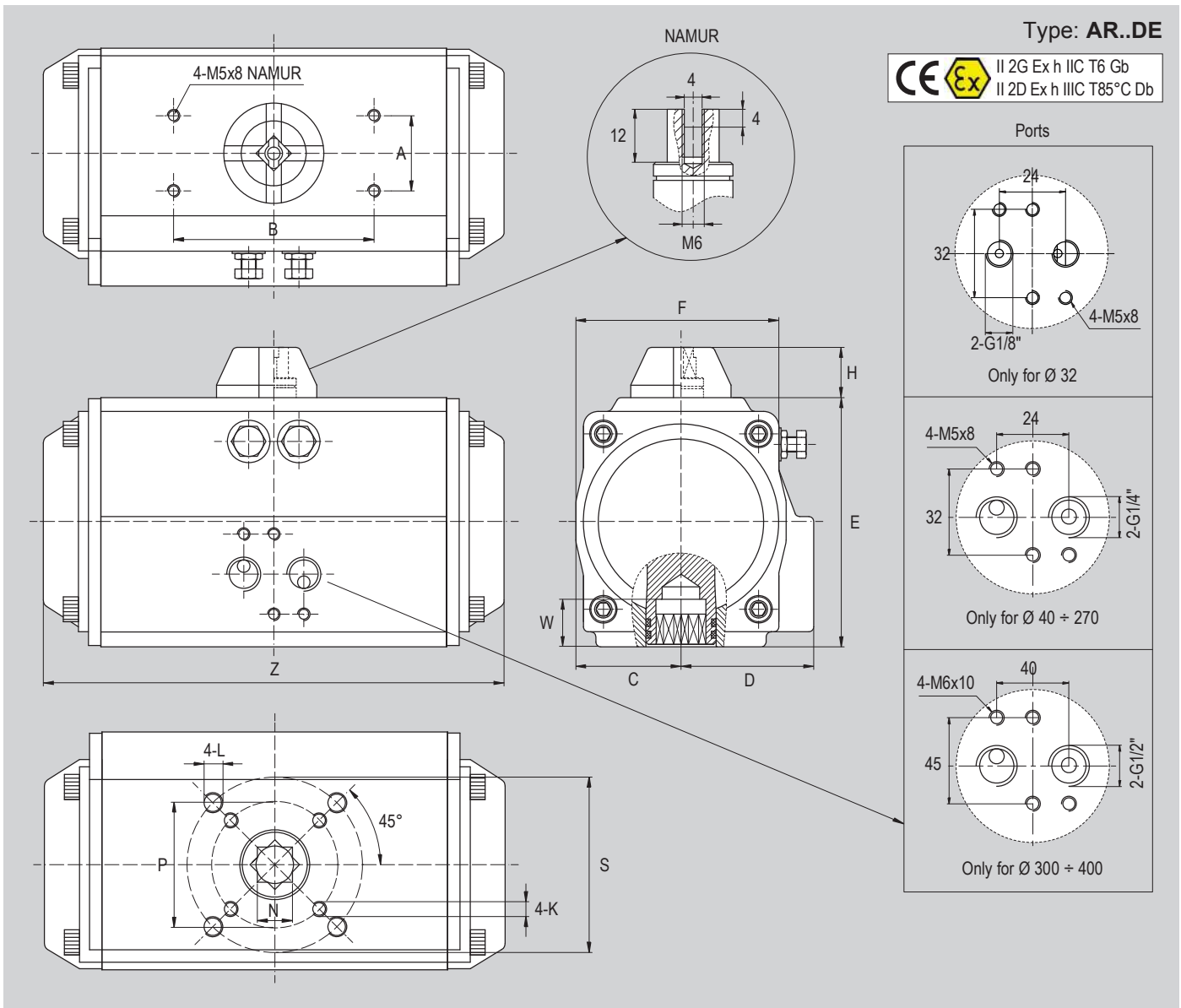
Unit: l.

Item	Code	Size	Air volume opening (A1)	Air volume closing (A2)
AR32DEF0309	810101	Ø 52	0.04 l.	0.05 l.
AR40DEF03/0511	810128	Ø 63	0.08 l.	0.11 l.
AR52DEF03/0511	810102	Ø 52	0.12 l.	0.16 l.
AR63DEF05/0714	810106	Ø 63	0.21 l.	0.23 l.
AR75DEF05/0714	810108	Ø 75	0.30 l.	0.34 l.
AR83DEF05/0717	810110	Ø 83	0.43 l.	0.47 l.
AR92DEF05/0717	810112	Ø 92	0.64 l.	0.73 l.
AR105DEF07/1022	810114	Ø 105	0.95 l.	0.88 l.
AR115DEF07/1022	810164	Ø 115	1.30 l.	1.20 l.
AR125DEF07/1022	810116	Ø 125	1.60 l.	1.40 l.
AR130DEF10/1227	810166	Ø 130	2.30 l.	2.10 l.
AR140DEF10/1227	810130	Ø 140	2.50 l.	2.20 l.
AR160DEF10/1227	810119	Ø 160	3.70 l.	3.20 l.
AR190DEF1436	810143	Ø 190	5.90 l.	5.40 l.
AR210DEF1436	810144	Ø 210	7.50 l.	7.50 l.
AR240DEF1646	810145	Ø 240	11.00 l.	9.00 l.
AR270DEF1646	810146	Ø 270	17.00 l.	14.00 l.
AR300DEF1646	810155	Ø 300	23.80 l.	29.70 l.
AR350DEF16/2546	810156	Ø 350	35.10 l.	46.30 l.
AR400DEF16/2555	810157	Ø 400	52.60 l.	56.00 l.

To calculate the actuator's cycle consumption use the formula on the right.
For "A1" and "A2" values refer to the tables above, "P" is for the air pressure.

$$l./ciclo = A1 + A2 \times \frac{P + 1,013 \text{ bar}}{1,013 \text{ bar}}$$

Standard dimensions






2 - VALVES

Item	Code	Size	A	B	C	D	E	F	H	ØP	ØS	K	L	N	W	Z	Connections	ISO flange
AR32DEF0309	810101	Ø 32	30	80	24.5	30.5	49	51	20	36	-	M5x8	-	9x11	-	114	G 1/8"	F03
AR40DEF03/0511	810128	Ø 40	30	80	28.5	36.5	60	65	20	36	50	M5x8	M6x9	11x14	14	120	G 1/4" NAMUR	F03 / F05
AR52DEF03/0511	810102	Ø 52	30	80	30.5	41	72	65	20	36	50	M5x8	M6x9	11x14	14	147	G 1/4" NAMUR	F03 / F05
AR63DEF05/0714	810106	Ø 63	30	80	36	47	88	72	20	50	70	M6x10	M8x13	14x18	18	165	G 1/4" NAMUR	F05 / F07
AR75DEF05/0714	810108	Ø 75	30	80	42	53	99.5	81	20	50	70	M6x10	M8x13	14x18	18	182	G 1/4" NAMUR	F05 / F07
AR83DEF05/0717	810110	Ø 83	30	80	46	57	109	92	20	50	70	M6x10	M8x13	17x21	21	208	G 1/4" NAMUR	F05 / F07
AR92DEF05/0717	810112	Ø 92	30	80	50	58.5	116.5	98	20	50	70	M6x10	M8x13	17x21	21	262	G 1/4" NAMUR	F05 / F07
AR105DEF07/1022	810114	Ø 105	30	80	58	66.5	133	109.5	20	70	102	M8x13	M10x16	22x26	26	270	G 1/4" NAMUR	F07 / F10
AR115DEF07/1022	810164	Ø 115	30	80	62	72	144	119	20	70	102	M8x13	M10x16	22x26	26	298	G 1/4" NAMUR	F07 / F10
AR125DEF07/1022	810116	Ø 125	30	80	67	75	155	127.5	20	70	102	M8x13	M10x16	22x26	26	301	G 1/4" NAMUR	F07 / F10
AR130DEF10/1227	810166	Ø 130	30	80	74	74	160	130	20	102	125	M10x16	M12x19	27x31	31	367	G 1/4" NAMUR	F10 / F12
AR140DEF10/1227	810130	Ø 140	30	80	76	76	172	137.5	20	102	125	M10x16	M12x19	27x31	31	395	G 1/4" NAMUR	F10 / F12
AR160DEF10/1227	810119	Ø 160	30	80	87	87	197	158	20	102	125	M10x16	M12x19	27x31	31	454	G 1/4" NAMUR	F10 / F12
AR190DEF1436	810143	Ø 190	30	130	103	103	230	189	30	-	140	-	M16x24	36x40	50	528	G 1/4" NAMUR	F14
AR210DEF1436	810144	Ø 210	30	130	113	113	255	211	30	-	140	-	M16x24	36x40	50	536	G 1/4" NAMUR	F14
AR240DEF1646	810145	Ø 240	30	130	130	130	289	245	30	-	165	-	M20x25	46x50	60	608	G 1/4" NAMUR	F16
AR270DEF1646	810146	Ø 270	30	130	147	147	328	273	30	-	165	-	M20x25	46x50	60	721	G 1/4" NAMUR	F16
AR300DEF1646	810155	Ø 300	30	130	203	203	348	406	30	165	215	M20x25	M20x25	46x60	63	769	G 1/2" NAMUR	F16
AR350DEF16/2546	810156	Ø 350	30	130	230	230	408	460	30	165	254	M20x25	M16x24*	46x60	63	909	G 1/2" NAMUR	F16 / F25
AR400DEF16/2555	810157	Ø 400	30	130	258	258	480	516	30	165	254	M20x25	M16x24*	55x60	73	925	G 1/2" NAMUR	F16 / F25


* 8 holes

Solenoid operated valves Namur* 1/4"

	Code	Item	Matching
	034059 	A1NE230	AR..SE
	034060	A1NE232	
	034057 	A1NE250	AR..DE
	034058	A1NE251	
	034174	A1NE270	
	034179	A1NE271	
	034254	A1NE272	


*For ATEX solenoid operated NAMUR valves, see from page 2.320.1

Air operated valves Namur* 1/4"

	Code	Item	Matching
	034238	A1NP230	AR..SE
	034239	A1NP232	
	034108	A1NP250	AR..DE
	034240	A1NP251	
	034251	A1NP270	
	034252	A1NP271	
	034253	A1NP272	


*For ATEX air operated NAMUR valves, see from page 2.320.1

Plate for valves* PSN..


	Code	Item	Matching (valve function)
	034203	PSN3/2	3/2
	034166	PSN5/2	5/2

* Required for direct mounting to the component in presence of valve with coil thicker than the valve body.


22 mm directly operated solenoid valves A1E2..MD

	For actuator Ø mm	Code	Item	Actuator matching
	52 ÷ 270	034227	A1E230MD	AR..SE



Speed regulators for rotary actuators and valves, APNR..

	Code	Item	Actuator matching	Valve matching
	810153	APNRSR	AR..SE	3/2
	810152	APNRDA	AR..DE	5/2 5/3




Thecnopolymer limit switch box SB700

	Code	Item	Compliance	Class protection
	811200	SB700M052	-	IP65



Aluminium limit switch box SB200

	Code	Item	Compliance	Class protection
	811188 	SB200M012	-	IP67
	811189	SB200M022		
	811190	SB200P112		
	811191	SB200P122		
	811192	SB200P132		
	811193	SB200Q512		


Aluminium limit switch box SB200/Exia

	Code	Item	Compliance	Class protection
	810072 	SB200M022/Exia		IP67
	810073	SB200P132/Exia		
	810074	SB200P132/NJ2/Exia		
	810075	SB200P142/Exia		
	810076	SB200Q512/Exia		

Aluminium limit switch box SB500

	Code	Item	Compliance	Class protection
	811194	SB500M012		IP66
	811195	SB500M022		
	811196	SB500P112		
	811197	SB500P122		
	811198	SB500P132		
	811218	SB500P142		
811199	SB500Q512			

Aluminium handwheel declutchable gearbox GBD..

	Code	Item	Size	Actuator matching
	811168	GDB050	Ø 50	Ø 32 ÷ Ø 75
	811169	GDB070	Ø 70	Ø 83 ÷ Ø 92
	811170	GDB102	Ø 102	Ø 105 ÷ Ø 125
	811171	GDB140	Ø 140	Ø 140 ÷ Ø 160
	811173	GDB165	Ø 165	Ø 190 ÷ Ø 210
	811174	GDB254	Ø 254	Ø 240 ÷ Ø 400

BALL VALVES

with rotary actuators



Find out our
key products



Solution for most applications



Easy and intuitive choice



Excellent value for money



Wide availability



Fast delivery



Features and certifications

Ball valves with rotary actuator single or double acting, with double rack.
 The coupling between actuator and valve could be direct, thanks to the holes according to ISO 5211-DIN 3337 standard in the bottom of the actuator, or through adapters.
 The upper side of the actuator is according VDI/VDE 3845 NAMUR standards and allow mounting accessories such as CAM and position sensors. Side connections are threaded and for NAMUR valves (see from page 2.44.1 and from page 2.50.1).
 Supplied as standard in compliance to Reach and RoHS directives, SIL certified and conforming to ATEX 2014/34/EU Directive.

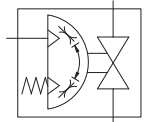


Series VSO..SE

from page 2.411.10



Series of brass full bore valves with aluminium single acting double rack rotary actuator. Ball valves available in size from 1/2" to 2".

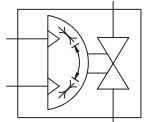


Series VSO..DE

from page 2.411.30



Series of brass full bore valves with aluminium double acting double rack rotary actuator. Ball valves available in size from 1/2" to 2".

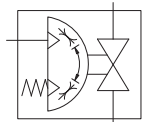


Series VSI..SE

from page 2.412.10



Series of Stainless Steel full bore valves with aluminium single acting double rack rotary actuator. Ball valves available in size from 3/8" to 2".

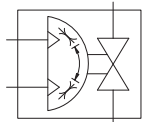


Series VSI..DE

from page 2.412.30



Series of Stainless Steel full bore valves with aluminium double acting double rack rotary actuator . Ball valves available in size from 3/8" to 2".



Code key

Series	Valve size	Actuator function ⁽²⁾
VSO	2034	DE

VSO = Brass ball valve VSI = Stainless Steel ball valve	2038 ⁽¹⁾ = 3/8" 2012 = 1/2" 2034 = 3/4" 2100 = 1" 2114 = 1 1/4" 2112 = 1 1/2" 2200 = 2"	SE = Single acting DE = Double acting
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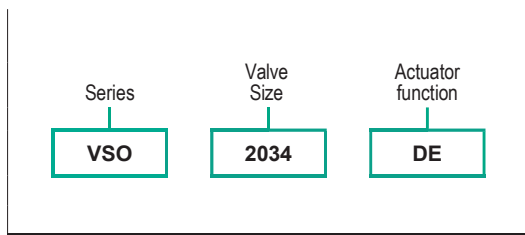
ATEX note

Actuators supplied according to 2014/34/EU ATEX Directive as standard

II 2G Ex h IIC T6 Gb
II 2D Ex h IIIC T85°C Db

For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

How to order



Notes

Options in the same grid are alternative to each others.

For ball valves standard materials, see the tables in the products data sheet, while for actuators standard materials see page 2.400.4.

(1) Size available only for series VSI

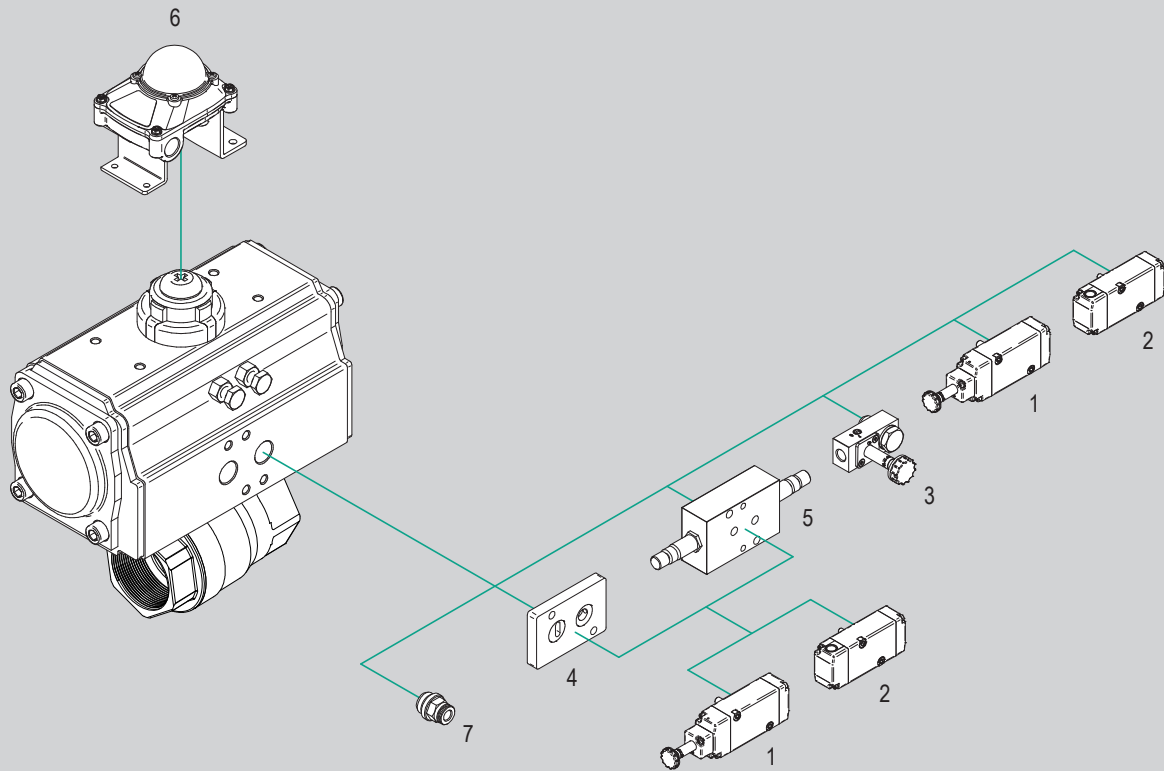
(2) It is only possible to choose the function of the actuator, which will be supplied with the appropriate bore for the selected valve size. For combinations of valve size and actuator bore, see the table below.

Actuator/Valve matching

Actuator		VSO valve						VSI valve						
Function	Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
..SE	Ø 52	●	●	●	●	-	-	●	●	-	-	-	-	-
	Ø 63	-	-	-	-	●	●	-	-	●	●	●	-	-
	Ø 75	-	-	-	-	-	-	-	-	-	-	-	●	-
	Ø 83	-	-	-	-	-	-	-	-	-	-	-	-	●
..DE	Ø 32	●	●	-	-	-	-	●	-	-	-	-	-	-
	Ø 40	-	-	●	●	-	-	-	●	-	-	-	-	-
	Ø 52	-	-	-	-	●	●	-	-	●	●	-	-	-
	Ø 63	-	-	-	-	-	-	-	-	-	-	●	●	●

Key
 ● allowed matching; - not allowed matching

Accessories



2 - VALVES

N.	Actuator bore	Item	Description	Compliance	Matching				Code key page	Data sheet page	
					VSO..SE	VSO..DE	VSI..SE	VSI..DE			
1	Ø 52 ÷ 83	A1NE..	Solenoid valves NAMUR 1/4" 3/2	NAMUR	●	-	●	-	2.415.1	2.44.1	
	Ø 32 ÷ 63		Solenoid valves NAMUR 1/4" 5/2 - 5/3		-	●	-	●			
	Ø 52 ÷ 83	A1NE..X..	Solenoid valves NAMUR 1/4" 3/2 ATEX	NAMUR 2014/34/EU ATEX	●	-	●	-		2.320.1	
	Ø 32 ÷ 63		Solenoid valves NAMUR 1/4" 5/2 - 5/3 ATEX		-	●	-	●			
2	Ø 52 ÷ 83	A1NP..	Valves NAMUR 1/4" 3/2	NAMUR	●	-	●	-		2.415.1	2.50.1
	Ø 32 ÷ 63		Valves NAMUR 1/4" 5/2 - 5/3		-	●	-	●			
	Ø 52 ÷ 83	A1NP..X..	Valves NAMUR 1/4" 3/2 ATEX	NAMUR 2014/34/EU ATEX	●	-	●	-			2.320.1
	Ø 32 ÷ 63		Valves NAMUR 1/4" 5/2 - 5/3 ATEX		-	●	-	●			
3	Ø 52 ÷ 83	A1E2..MD	22 mm directly operated solenoid valves	-	●	-	●	-	2.10.1		
4	Ø 32 ÷ 63	PNF..	Mounting plate*	NAMUR	●	●	●	●	2.430.50		
5	Ø 52 ÷ 83	APNRSR	Speed regulator for actuators	NAMUR	●	-	●	-	2.430.1		
	Ø 32 ÷ 63	APNRDA		NAMUR	-	●	-	●			
6	Ø 32 ÷ 83	SB200..	Aluminium limit switch box	-	●	●	●	●	2.426.20		
		SB200/Exia..		2014/34/EU ATEX	●	●	●	●		2.426.25	
		SB500..		2014/34/EU ATEX	●	●	●	●		2.426.50	
		SB700..	Technopolymer limit switch box	-	●	●	●	●		2.426.90	
7	Ø 32 ÷ 83	R..	Push-in fittings	UNI ISO 228/1 UNI ISO7/1 ISO R/232	●	●	●	●	4.2.1		

Key
 ● matching accessory; - not matching accessory

Ball valves with rotary actuator

Brass ball valve with single acting aluminium rotary actuator



Main features

Size	Code	Item	Symbol
1/2"	811011	VSO2012SE	
3/4"	811012	VSO2034SE	
1"	811013	VSO2100SE	
1 1/4"	811014	VSO2114SE	
1 1/2"	811015	VSO2112SE	
2"	811016	VSO2200SE	



Technical data ⁽¹⁾

Series	VSO..SE					
Code	811011	811012	811013	811014	811015	811016
Item	VSO2012SE	VSO2034SE	VSO2100SE	VSO2114SE	VSO2112SE	VSO2200SE
Valve size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Actuator type	Single acting					
Actuator bore	Ø 52				Ø 63	
Fluid	Compressed air, water, inert gases and non-aggressive fluids					
Pressure range	40 bar					
Temperature range	-20°C + +130°C					
Orifice	15 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Flow	11.500 l/min.	21.000 l/min.	33.000 l/min.	50.000 l/min.	84.000 l/min.	97.000 l/min.
Mounting	In line					

(1) For technical data of the actuator see from page 2.401.1

Materials ⁽²⁾

Description	Material
Body	Nickel-plated brass
Ball	Chrome-plated brass
Seals	PTFE - FKM

(2) For materials of the actuator see page 2.400.3

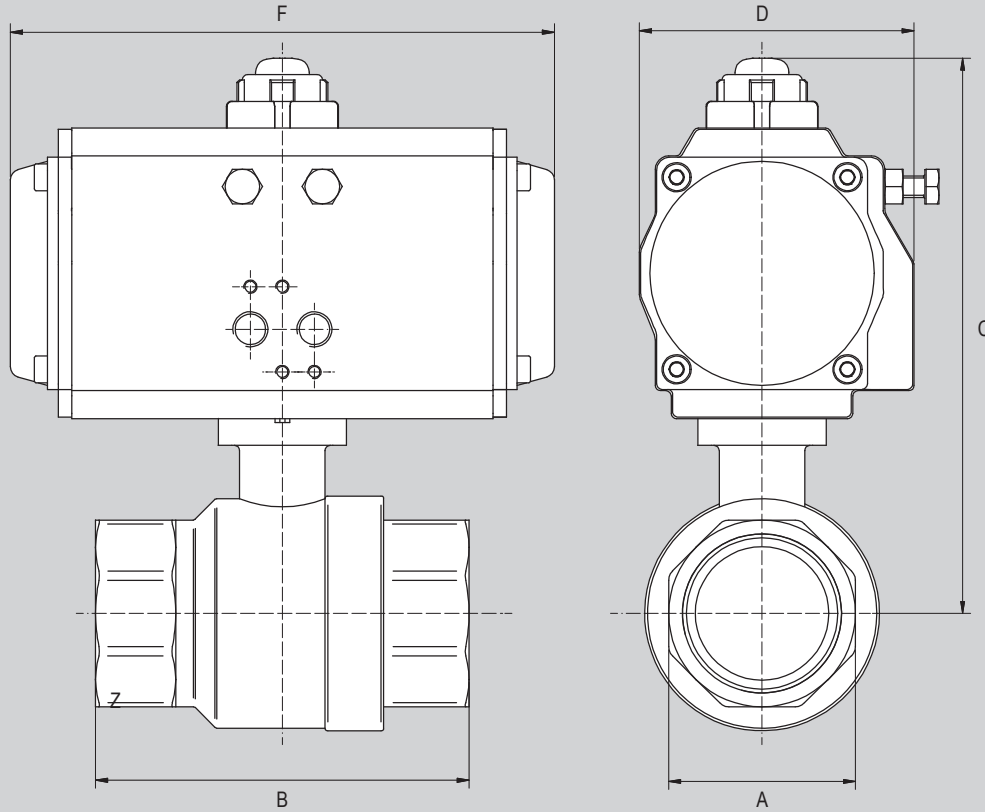
Ball valves with rotary actuator
 Brass ball valve with single acting aluminium rotary actuator



Standard dimensions

CE Ex II 2G Ex h IIC T6 Gb
 II 2D Ex h IIIC T85°C Db

Type: VSO..SE



Item	Code	Valve size	Actuator type*	Actuator bore*	A	B	C	D	F
VSO2012SE	811011	1/2"	Single acting	Ø 52	26	75	130	71.5	147
VSO2034SE	811012	3/4"	Single acting	Ø 52	32	80	132.5	71.5	147
VSO2100SE	811013	1"	Single acting	Ø 52	41	90	136	71.5	147
VSO2114SE	811014	1 1/4"	Single acting	Ø 52	50	110	146.5	71.5	147
VSO2112SE	811015	1 1/2"	Single acting	Ø 63	55	120	169	83	165
VSO2200SE	811016	2"	Single acting	Ø 63	70	140	181	83	165

* For further informations of the actuator overall dimensions see page 2.401.6

Ball valves with rotary actuator

Brass ball valve with double acting aluminium rotary actuator



Main features

Size	Code	Item	Symbol
1/2"	811001	VSO2012DE	
3/4"	811002	VSO2034DE	
1"	811003	VSO2100DE	
1 1/4"	811004	VSO2114DE	
1 1/2"	811005	VSO2112DE	
2"	811006	VSO2200DE	



Technical data ⁽¹⁾

Series	VSO..DE					
Code	811001	811002	811003	811004	811005	811006
Item	VSO2012DE	VSO2034DE	VSO2100DE	VSO2114DE	VSO2112DE	VSO2200DE
Valve size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Actuator type	Double acting					
Actuator bore	Ø 32		Ø 40		Ø 52	
Fluid	Compressed air, water, inert gases and non-aggressive fluids					
Pressure range	40 bar					
Temperature range	-20°C ÷ +130°C					
Orifice	15 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Flow	11.500 l/min.	21.000 l/min.	33.000 l/min.	50.000 l/min.	84.000 l/min.	97.000 l/min.
Mounting	In line					

(1) For technical data of the actuator see from page 2.403.1

Materials ⁽²⁾

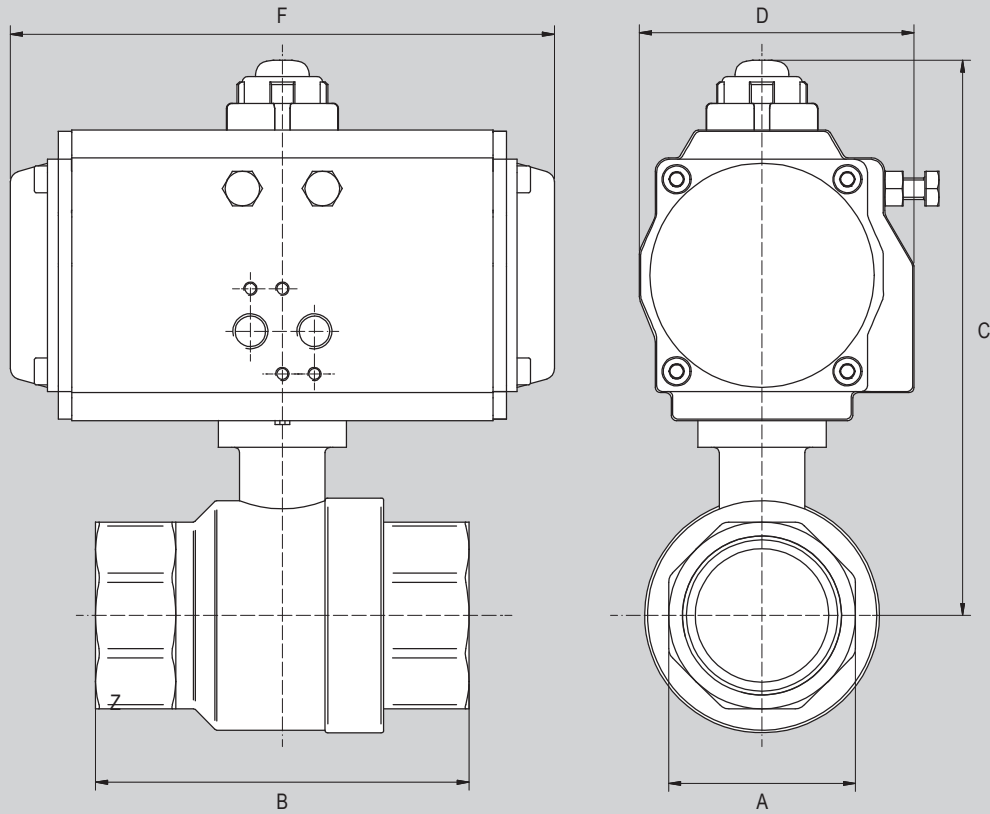
Description	Material
Body	Nickel-plated brass
Ball	Chrome-plated brass
Seals	PTFE - FKM

(2) For materials of the actuator see page 2.400.3

Standard dimensions

CE Ex II 2G Ex h IIC T6 Gb
 II 2D Ex h IIIC T85°C Db

Type: VSO..DE



Item	Code	Valve size	Actuator type*	Actuator bore*	A	B	C	D	F
VSO2012DE	811001	1/2"	Double acting	Ø 32	26	75	103	55	114
VSO2034DE	811002	3/4"	Double acting	Ø 32	32	80	105.5	55	114
VSO2100DE	811003	1"	Double acting	Ø 40	41	90	124	65	120
VSO2114DE	811004	1 1/4"	Double acting	Ø 40	50	110	135	65	120
VSO2112DE	811005	1 1/2"	Double acting	Ø 52	55	120	153.5	71.5	147
VSO2200DE	811006	2"	Double acting	Ø 53	70	140	165	71.5	147

* For further informations of the actuator overall dimensions see page 2.403.4

Ball valves with rotary actuator

Stainless Steel ball valve with single acting aluminium rotary actuator



Main features

Size	Code	Item	Symbol
3/8"	811031	VSI2038SE	
1/2"	811032	VSI2012SE	
3/4"	811033	VSI2034SE	
1"	811034	VSI2100SE	
1 1/4"	811035	VSI2114SE	
1 1/2"	811036	VSI2112SE	
2"	811037	VSI2200SE	



Technical data ⁽¹⁾

Series	VSI..SE						
Code	811031	811032	811033	811034	811035	811036	811037
Item	VSI2038SE	VSI2012SE	VSI2034SE	VSI2100SE	VSI2114SE	VSI2112SE	VSI2200SE
Valve size	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Actuator type	Single acting						
Actuator bore	Ø 52		Ø 63			Ø 75	Ø 83
Fluid	Compressed air, water, inert gases and non-aggressive fluids						
Pressure range	63 bar						
Temperature range	-20°C ÷ +150°C						
Orifice	10 mm	15 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Flow	3.000 l/min.	11.500 l/min.	21.000 l/min.	33.000 l/min.	50.000 l/min.	84.000 l/min.	97.000 l/min.
Mounting	In line						

(1) For technical data of the actuator see from page 2.401.1

Materials ⁽²⁾

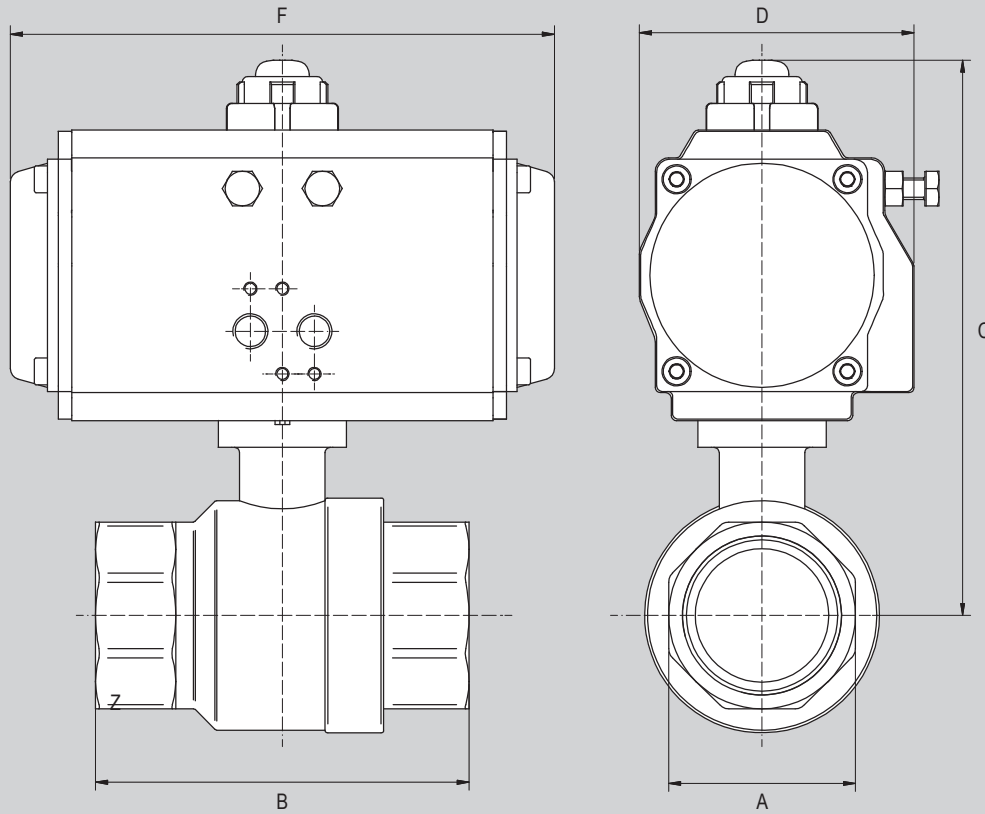
Description	Material
Body	Stainless Steel AISI 316
Ball	Stainless Steel AISI 316
Seals	PTFE - FKM

(2) For materials of the actuator see page 2.400.3

Standard dimensions

CE Ex II 2G Ex h IIC T6 Gb
II 2D Ex h IIIC T85°C Db

Type: VSI..SE



Item	Code	Valve size	Actuator type*	Actuator bore*	A	B	C	D	F
VSI2038SE	811031	3/8"	Single acting	Ø 52	27	65	132	71.5	147
VSI2012SE	811032	1/2"	Single acting	Ø 52	27	75	132	71.5	147
VSI2034SE	811033	3/4"	Single acting	Ø 63	33	80	152	83	165
VSI2100SE	811034	1"	Single acting	Ø 63	41	90	160	83	165
VSI2114SE	811035	1 1/4"	Single acting	Ø 63	50	110	166	83	165
VSI2112SE	811036	1 1/2"	Single acting	Ø 75	58	120	188	95	182
VSI2200SE	811037	2"	Single acting	Ø 83	70	140	206	103	208

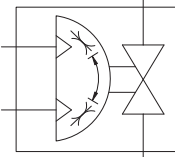
* For further informations of the actuator overall dimensions see page 2.401.6

Ball valves with rotary actuator

Stainless Steel ball valve with double acting aluminium rotary actuator



Main features

Size	Code	Item	Symbol
3/8"	811021	VSI2038DE	
1/2"	811022	VSI2012DE	
3/4"	811023	VSI2034DE	
1"	811024	VSI2100DE	
1 1/4"	811025	VSI2114DE	
1 1/2"	811026	VSI2112DE	
2"	811027	VSI2200DE	



Technical data ⁽¹⁾

Series	VSI..DE						
Code	811021	811022	811023	811024	811025	811026	811027
Item	VSI2038DE	VSI2012DE	VSI2034DE	VSI2100DE	VSI2114DE	VSI2112DE	VSI2200DE
Valve size	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Actuator type	Double acting						
Actuator bore	Ø 32	Ø 40	Ø 52	Ø 63			
Fluid	Compressed air, water, inert gases and non-aggressive fluids						
Pressure range	63 bar						
Temperature range	-20°C ÷ +150°C						
Orifice	10 mm	15 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Flow	3.000 l/min.	11.500 l/min.	21.000 l/min.	33.000 l/min.	50.000 l/min.	84.000 l/min.	97.000 l/min.
Mounting	In line						

(1) For technical data of the actuator see from page 2.403.1

Materials ⁽²⁾

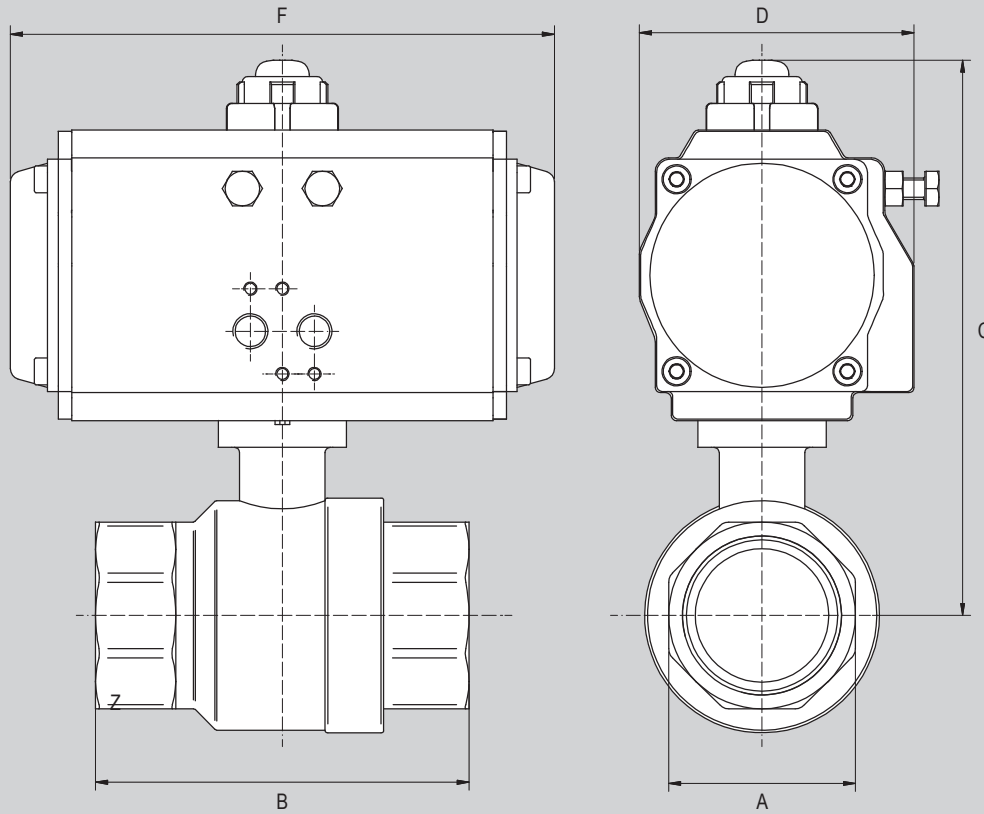
Description	Material
Body	Stainless Steel AISI 316
Ball	Stainless Steel AISI 316
Seals	PTFE - FKM

(2) For materials of the actuator see page 2.400.3

Standard dimensions

CE Ex II 2G Ex h IIC T6 Gb
II 2D Ex h IIIC T85°C Db

Type: VSI..DE



Item	Code	Valve size	Actuator type*	Actuator bore*	A	B	C	D	F
VSI2038DE	811021	3/8"	Double acting	Ø 32	27	65	105	55	114
VSI2012DE	811022	1/2"	Double acting	Ø 40	27	75	116	63	120
VSI2034DE	811023	3/4"	Double acting	Ø 52	33	80	132	71.5	147
VSI2100DE	811024	1"	Double acting	Ø 52	41	90	144	71.5	147
VSI2114DE	811025	1 1/4"	Double acting	Ø 63	50	110	166	83	165
VSI2112DE	811026	1 1/2"	Double acting	Ø 63	58	120	176	83	165
VSI2200DE	811027	2"	Double acting	Ø 63	70	140	185	83	165

* For further informations of the actuator overall dimensions see page 2.403.4

Solenoid operated valves Namur* 1/4"

	Code	Item	Matching
	034059	A1NE230	VSO..SE
	034060	A1NE232	VSI..SE
	034057	A1NE250	VSO..DE VSI..DE
	034058	A1NE251	
	034174	A1NE270	
	034179	A1NE271	
	034254	A1NE272	

*For ATEX solenoid operated NAMUR valves, see from page 2.320.1

Air operated valves Namur* 1/4"

	Code	Item	Matching
	034238	A1NP230	VSO..SE
	034239	A1NP232	VSI..SE
	034108	A1NP250	VSO..DE VSI..DE
	034240	A1NP251	
	034251	A1NP270	
	034252	A1NP271	
	034253	A1NP272	

*For ATEX solenoid operated NAMUR valves, see from page 2.320.1

Plate for valves* PSN..

	Code	Item	Matching (valve function)
	034203	PSN3/2	3/2
	034166	PSN5/2	5/2

* Required for direct mounting to the component in presence of valve with coil thicker than the valve body.

22 mm directly operated solenoid valves A1E2..MD

	For actuator Ø mm	Code	Item	Actuator matching
	52 ÷ 83	034227	A1E230MD	VSO..SE VSI..SE

Speed regulators for rotary actuators and valves, APNR..

	Code	Item	Actuator matching	Valve matching
	810153	APNRSR	VSO..SE VSI..SE	3/2
	810152	APNRDA	VSO..DE VSI..DE	5/2 5/3

Thecnopolymer limit switch box SB700

	Code	Item	Compliance	Class protection
	811200	SB700M052	-	IP65

Aluminium limit switch box SB200

	Code	Item	Compliance	Class protection
	811188	SB200M012	-	IP67
	811189	SB200M022		
	811190	SB200P112		
	811191	SB200P122		
	811192	SB200P132		
	811193	SB200Q512		

Aluminium limit switch box SB200/Exia

	Code	Item	Compliance	Class protection
	810072	SB200M022/Exia		IP67
	810073	SB200P132/Exia		
	810074	SB200P132/NJ2/Exia		
	810075	SB200P142/Exia		
	810076	SB200Q512/Exia		

Aluminium limit switch box SB500

	Code	Item	Compliance	Class protection
	811194	SB500M012		IP66
	811195	SB500M022		
	811196	SB500P112		
	811197	SB500P122		
	811198	SB500P132		
	811218	SB500P142		
	811199	SB500Q512		

ACCESSORIES

for rotary actuators



Find out our
key products



Solution for most applications



Easy and intuitive choice



Excellent value for money



Wide availability



Fast delivery



Features and certifications

Accessories for single and double acting rotary actuators: limit switch box and handwheel gearbox.
 Limit switch box available in four series: three in aluminium (SB200 - SB200/Exia - SB500) and one in technopolymer (SB700). Every series is available with different limit switch types inside, and they are compatible with the actuators thanks to the universal adjustable brackets with holes according to ISO 5211-DIN 3337 standard. Supplied as standard in compliance to Reach and RoHS directives, and SIL certified, series SB200/Exia and series SB500 are furthermore conforming to ATEX 2014/34/EU. Aluminium declutchable handwheel gearbox, compatible to pneumatic rotary actuators, are available in different size and supplied as standard in compliance to Reach and RoHS directives.



Series SB200

from page 2.426.20



Series of aluminium limit switch box compatible with pneumatic rotary actuators. available with different limit switch types: mechanical, proximity and magnetic. On request they can be supplied conforming to 2014/34/EU ATEX Directive, in classification II 3G Ex ec / II 3D Ex tc.

Series SB200/Exia

from page 2.426.25



Series of aluminium limit switch box compatible with pneumatic rotary actuators. available with different limit switch types: mechanical, proximity and magnetic. Supplied conforming to 2014/34/EU ATEX Directive, in classification Ex ia, as standard.



Series SB500

from page 2.426.50



Series of aluminium limit switch box compatible with pneumatic rotary actuators. available with different limit switch types: mechanical, proximity and magnetic. Supplied conforming to 2014/34/EU ATEX Directive, in classification Ex db, as standard.



Series SB700

from page 2.426.90



Series of technopolymer limit switch box compatible with pneumatic rotary actuators. available with different limit switch types: mechanical and proximity.

Series GDB..

from page 2.428.1



Aluminium declutchable handwheel gearbox available in size from Ø 50 to Ø 254, compatible actuator side with pneumatic rotary actuators in bores from Ø 40 to Ø 400 (ISO flange from F05 to F25), and compatible valve side with ISO flange from F05 to F26, square from 17 mm to 60 mm.

Code key

Series ⁽¹⁾	Limit switch type ⁽¹⁾	Limit switch suffix ⁽¹⁾
SB500	P	122
<ul style="list-style-type: none"> SB200 SB200/Exia SB500 SB700 	<ul style="list-style-type: none"> M = Mechanical P = Proximity Q ⁽¹⁾ = Magnetic 	<ul style="list-style-type: none"> 012 = Silver contacts (Honeywell) 022 = Gold contacts (Honeywell) 052 = Silver contacts (E-Switch) 112 = PNP (Pepperl+Fuchs) 122 = NPN / PNP (IFM) 132 = NAMUR NC (Pepperl+Fuchs) 132/NJ2 = NAMUR NC (Pepperl+Fuchs) 142 = NAMUR NC (IFM) 512 = SPDT (ALMS)

ATEX note	
<p>Limit switch box SB200, type M022, on request can be supplied conforming to 2014/34/EU ATEX Directive in classification:</p> <p> II 3G Ex ec IIC T6 Gc II 3D Ex tc IIIC T85°C Dc</p>	<p>Limit switch box SB200/Exia supplied as standard conforming to 2014/34/EU ATEX Directive in these classifications:</p> <p> II 1G Ex ia IIC T6/T5 Ga II 1D Ex ia IIIC T135°C Da</p> <p> II 1G Ex ia IIB T6/T5 Ga II 2G Ex ia IIC T6/T5 Gb II 1D Ex ia IIIC T135°C Da</p>
<p>Limit switch box SB500 supplied as standard conforming to 2014/34/EU ATEX Directive in classification:</p> <p> II 2G Ex db IIB T6 Gb</p>	

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How to order SB200 - SB500 - SB700

Series	Limit switch type	Limit switch suffix
SB500	P	122

How to order SB200/Exia

Series	Limit switch type	Limit switch suffix	Atex
SB200	P	132/NJ2	/Exia

Notes

Options in the same grid are alternative to each others.
 For standard materials see the table at page 2.425.4
 (1) For matching between limit switch box series limit switch type and limit switch suffix, see the table below.

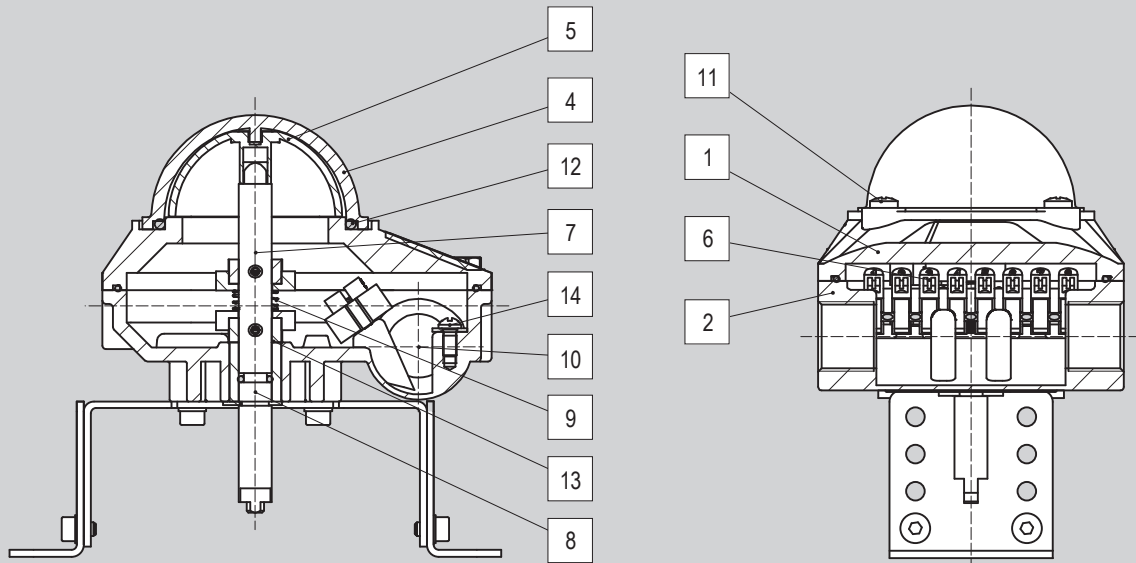
Matching series box/limit switch type

Limit switch box series	Limit switch type								
	Mechanical (M)			Proximity (P)					Magnetic (Q)
	012	022	052	112	122	132	132/NJ2	142	512
SB200	●	●	-	●	●	●	-	-	●
SB200/Exia	-	●	-	-	-	●	●	●	●
SB500	●	●	-	●	●	●	-	●	●
SB700	-	-	●	-	-	-	-	-	-

Key

● allowed matching; - not allowed matching

Limit switch box standard materials



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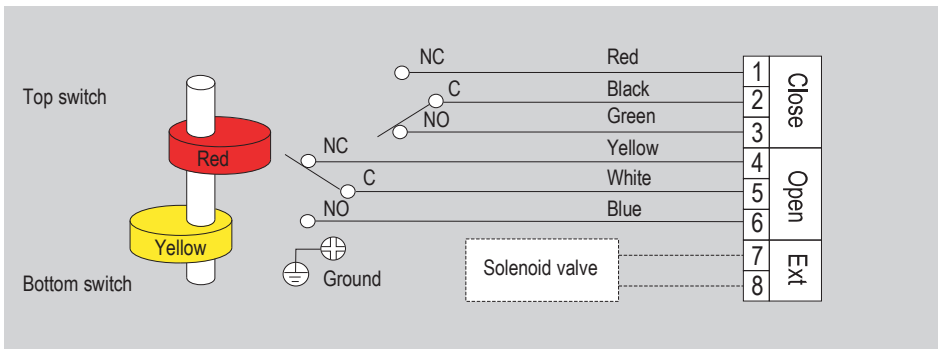
Position	Description	Material			
		SB200	SB200/Exia	SB500	SB700
1	Cover	Die-cast aluminium			Polycarbonate (PC)
2	Body	Die-cast aluminium			Polyphenylene oxide (PPO)
3	Shaft	Stainless Steel			Polyamide (PA)
4	Indicator cover	Polycarbonate (PC)			ABS
5	Indicator	ABS			
6	Terminal strip	Polycarbonate (PC), Brass, Stainless Steel			
7	Cam	Polycarbonate (PC)			
8	Plate	-			Polycarbonate (PC)
9	Cable connector	-			Nylon
10	Spring	Stainless Steel			
11	Screws	Stainless Steel			
12	Seals	NBR			
13	Bushing	Bronze			-
14	Earthing screw	Stainless Steel			-

Accessories for rotary actuators

Limit switch box

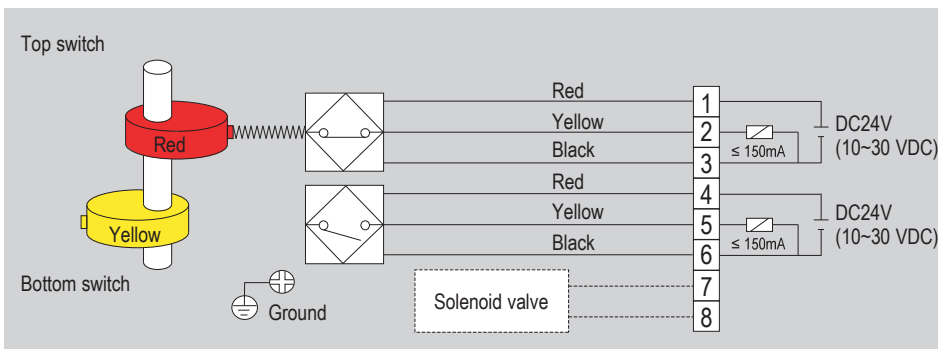


Limit switch box wiring diagram



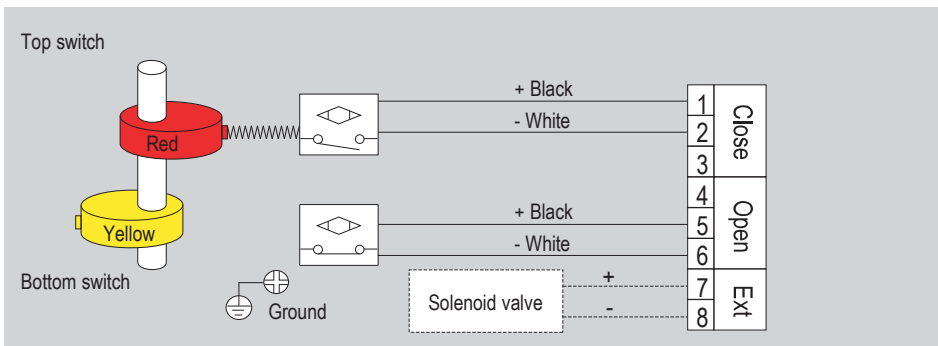
Features

Wiring diagram number	1
Function	SPDT
Limit switch type	Mechanical



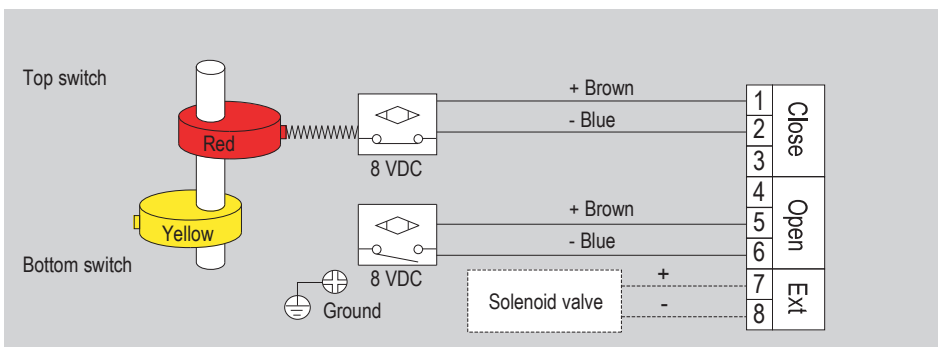
Features

Wiring diagram number	2
Function	PNP
Limit switch type	Proximity



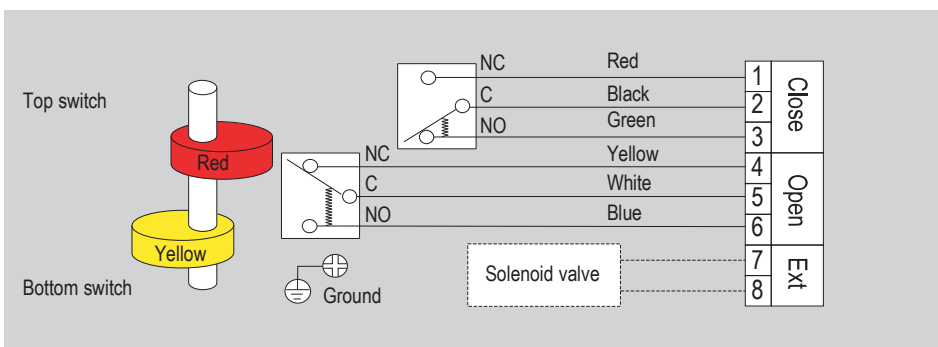
Features

Wiring diagram number	3
Function	NPN
Limit switch type	Proximity



Features

Wiring diagram number	4
Function	NAMUR NC
Limit switch type	Proximity



Features


Wiring diagram number	5
Function	SPDT
Limit switch type	Magnetic

Accessories for rotary actuators

Aluminium limit switch box series SB200



Main features

Series	Limit switch (manufacturer part no.)	Code	Item
SB200	QM50G10B01	811188 	SB200M012
	QM10G10B01-G	811189	SB200M022
	NBB2-V3-E2	811190	SB200P112
	IS5076	811191	SB200P122
	NCB2-V3-NO	811192	SB200P132
	ALMS-5-240	811193	SB200Q512



Technical data

Series	SB200					
Code	811188	811189	811190	811191	811192	811193
Item	SB200M012	SB200M022	SB200P112	SB200P122	SB200P132	SB200Q512
Class protection	IP 67					
Temperature range	-25°C ÷ +80°C					
Ports	M20x1.5 (x2)					
Terminal strip positions	8					
Positions indicator	0° ÷ 90°					
Indicator color	Open	Yellow				
	Close	Red				
ATEX classification*	-	II 3G Ex ec IIC T6 Gc II 3D Ex tc IIIC T85°C Dc		-		
Limit switch type	Mechanical			Proximity		Magnetic
Limit switch (manufacturer part no.)	QM50G10B01	QM10G10B01-G	NBB2-V3-E2	IS5076	NCB2-V3-NO	ALMS-5-240
Limit switch manufacturer	Honeywell		Pepprl+Fuchs	IFM	Pepperl+Fuchs	ALMS
Contacts	Silver	Gold	-			
Function	SPDT		PNP	PNP / NPN	NAMUR NC	SPDT
Wire number	3			2		3
Voltage	125 ÷ 250 VAC 48 VDC		10 ÷ 30 VDC	5 ÷ 36 VDC	8 VDC	5 ÷ 240 V AC/DC
Intensity	5 A VAC 5 A VDC	0,5 A VAC 0,1 A VDC	0 ÷ 100 mA	4 ÷ 200 mA	-	≤ 300 mA
Switching frequency	-		0 ÷ 1000 Hz	0 ÷ 2000 Hz		100 Hz
Limit switch number	2					
Wiring diagram number**	1	2	3	4	5	

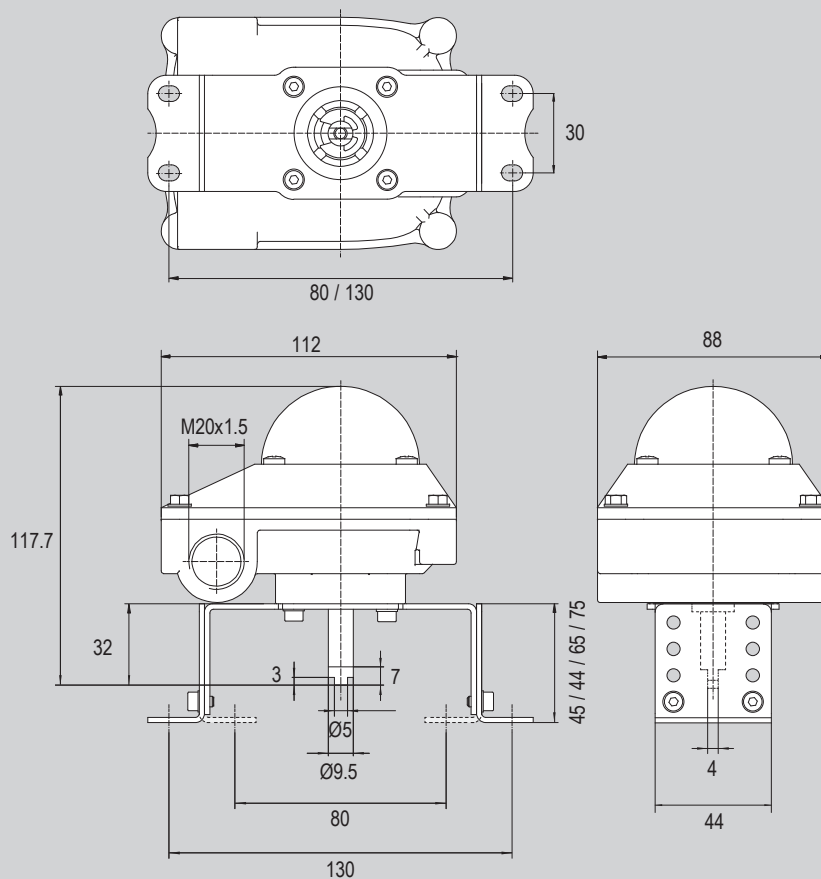
*Available on request. For availability please contact the sales department.

For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

**For wiring diagram see page 2.426.3

Standard dimensions

Type: **SB200**



Series	Limit switch type	Limit switch manufacturer part no.	Code	Item
SB200	Mechanical	QM50G10B01	811188	SB200M012
		QM10G10B01-G	811189	SB200M022
	Proximity	NBB2-V3-E2	811190	SB200P112
		IS5076	811191	SB200P122
		NCB2-V3-N0	811192	SB200P132
	Magnetic	ALMS-5-240	811193	SB200Q512

Main features

Series	Limit switch (manufacturer part no.)	Code	Item
SB200/Exia	QM10G10B01-G	810072	SB200M022/Exia
	NCB2-V3-NO	810073	SB200P132/Exia
	NJ2-V3-N	810074	SB200P132/NJ2/Exia
	NS5002	810075	SB200P142/Exia
	ALMS-5-240	810076	SB200Q512/Exia



Technical data

Series	SB200/Exia				
Code	810072	810073	810074	810075	810076
Item	SB200M022/Exia	SB200P132/Exia	SB200P132/NJ2/Exia	SB200P142/Exia	SB200Q512/Exia
Class protection	IP 67				
Temperature range	-25°C ÷ +80°C				
Ports	M20x1.5 (x2)				
Terminal strip positions	8				
Positions indicator	0° ÷ 90°				
Indicator color	Open	Yellow			
	Close	Red			
ATEX classification*	II 1G Ex ia IIC T6/T5 Ga II 1D Ex ia IIIC T135°C Da	II 1G Ex ia IIC T6/T5 Ga II 1D Ex ia IIIC T135°C Da	II 1G Ex ia IIC T6/T5 Ga II 1D Ex ia IIIC T135°C Da	II 1G Ex ia IIC T6/T5 Ga II 2G Ex ia IIC T6/T5 Gb II 1D Ex ia IIIC T135°C Da	II 1G Ex ia IIC T6/T5 Ga II 1D Ex ia IIIC T135°C Da
Limit switch type	Mechanical	Proximity			Magnetic
Limit switch (manufacturer part no.)	QM10G10B01-G	NCB2-V3-NO	NJ2-V3-N	NS5002	ALMS-5-240
Limit switch manufacturer	Honeywell	Pepprl+Fuchs	Pepprl+Fuchs	IFM	ALMS
Contacts	Gold	-			
Function	SPDT	NAMUR NC			SPDT
Wire number	3	2	3		
Voltage	125 ÷ 250 VAC 48 VDC	8 VDC			5 ÷ 240 V AC/DC
Intensity	0,5 A VAC 0,1 A VDC	-		30 mA	≤ 300 mA
Switching frequency	-	0 ÷ 1000 Hz	0 ÷ 2000 Hz	800 Hz	100 Hz
Limit switch number	2				
Wiring diagram number**	1	4			5

*For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

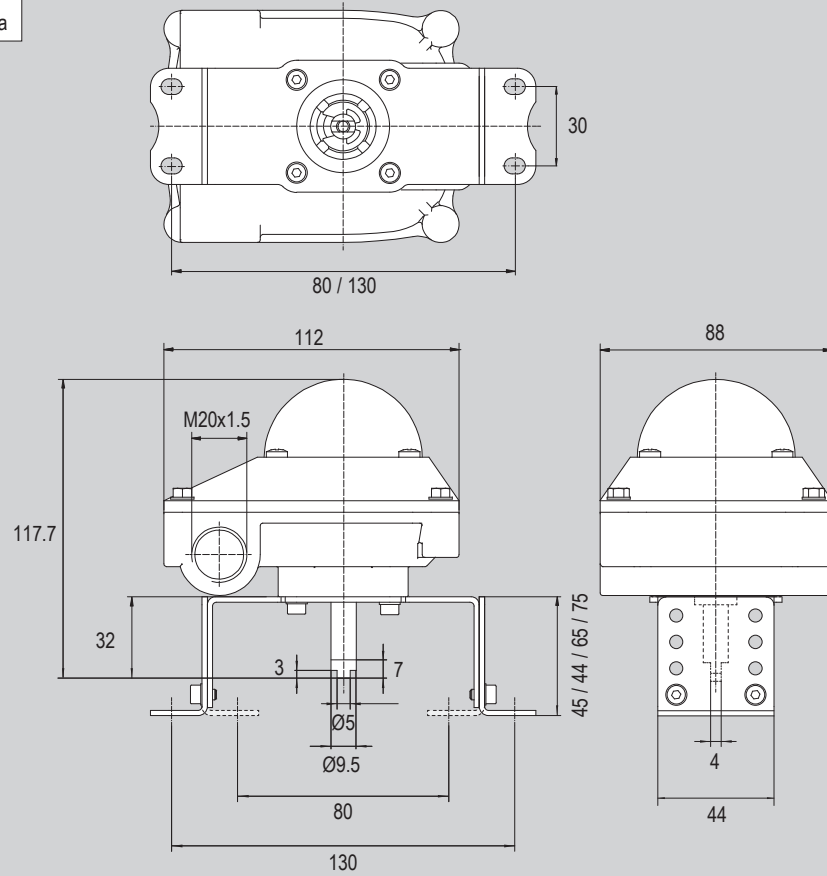
**For wiring diagram see page 2.426.3

Standard dimensions

Type: **SB200/Exia**

CE II 1G Ex ia IIC T6/T5 Ga
II 1D Ex ia IIIC T135°C Da

CE II 1G Ex ia IIC T6/T5 Ga
II 2G Ex ia IIC T6/T5 Gb
II 1D Ex ia IIIC T135°C Da



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Series	Limit switch type	Limit switch manufacturer part no.	Code	Item
SB200/Exia	Mechanical	QM10G10B01-G	810072	SB200M022/Exia
	Proximity	NCB2-V3-N0	810073	SB200P132/Exia
		NJ2-V3-N	810074	SB200P132/NJ2/Exia
		NS5002	810075	SB200P142/Exia
	Magnetic	ALMS-5-240	810076	SB200Q512/Exia

Accessories for rotary actuators

Aluminium limit switch box series SB500



Main features

Series	Limit switch (manufacturer part no.)	Code	Item
SB500	V15T16SZ200A05	811194	SB500M012
	QM10G10B01-G	811195	SB500M022
	NBB2-V3-E2	811196	SB500P112
	IS5076	811197	SB500P122
	NCB2-V3-NO	811198	SB500P132
	NS5002	811218	SB500P142
	ALMS-5-240	811199	SB500Q512



Technical data

Series	SB500						
Code	811194	811195	811196	811197	811198	811218	811199
Item	SB500M012	SB500M022	SB500P112	SB500P122	SB500P132	SB500P142	SB500Q512
Class protection	IP 66						
Temperature range	-20°C ÷ +50°C						
Ports	M20x1.5 (x2)						
Terminal strip positions	8						
Positions indicator	0° ÷ 90°						
Indicator color	Open	Giallo					
	Close	Rosso					
ATEX classification*	II 2G Ex db IIB T6 Gb						
Limit switch type	Mechanical		Proximity			Magnetic	
Limit switch (manufacturer part no.)	V15T16SZ200A05	QM10G10B01-G	NBB2-V3-E2	IS5076	NCB2-V3-NO	NS5002	ALMS-5-240
Limit switch manufacturer	Honeywell		Pepperl+Fuchs	IFM	Pepperl+Fuchs	IFM	ALMS
Contacts	Silver	Gold	-				
Function	SPDT		PNP	PNP / NPN	NAMUR NC		SPDT
Wire number	3			2			3
Voltage	250 VAC	125 ÷ 250 VAC 48 VDC	10 ÷ 30 VDC	5 ÷ 36 VDC	8 VDC		5 ÷ 240 V AC/DC
Intensity	16 (4) A	0,5 A VAC 0,1 A VDC	0 ÷ 100 mA	4 ÷ 200 mA	-	30 mA	≤ 300 mA
Switching frequency	-		0 ÷ 1000 Hz	0 ÷ 2000 Hz		800 Hz	100 Hz
Limit switch number	2						
Wiring diagram number**	1	2	3	4	5		

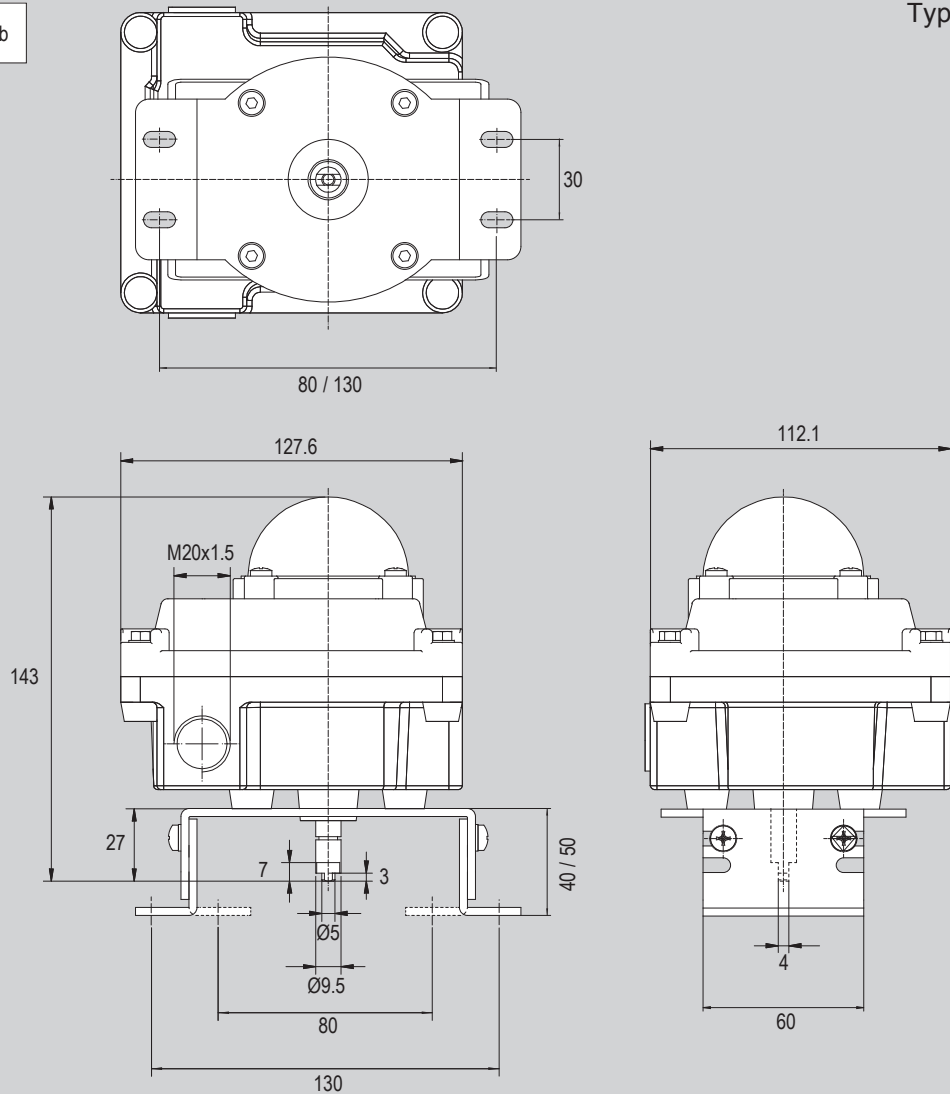
*For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

**For wiring diagram see page 2.426.3

Standard dimensions

CE II 2G Ex db IIB T6 Gb

Type: **SB500**



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Series	Limit switch type	Limit switch manufacturer part no.	Code	Item
SB500	Mechanical	V15T16SZ200A05	811194	SB500M012
		QM10G10B01-G	811195	SB500M022
	Proximity	NBB2-V3-E2	811196	SB500P112
		IS5076	811197	SB500P122
		NCB2-V3-NO	811198	SB500P132
	Magnetic	ALMS-5-240	811199	SB500Q512

Main features

Series	Limit switch (manufacturer part no.)	Code	Item
SB700	LS SILVER	811200	SB700M012



Technical data

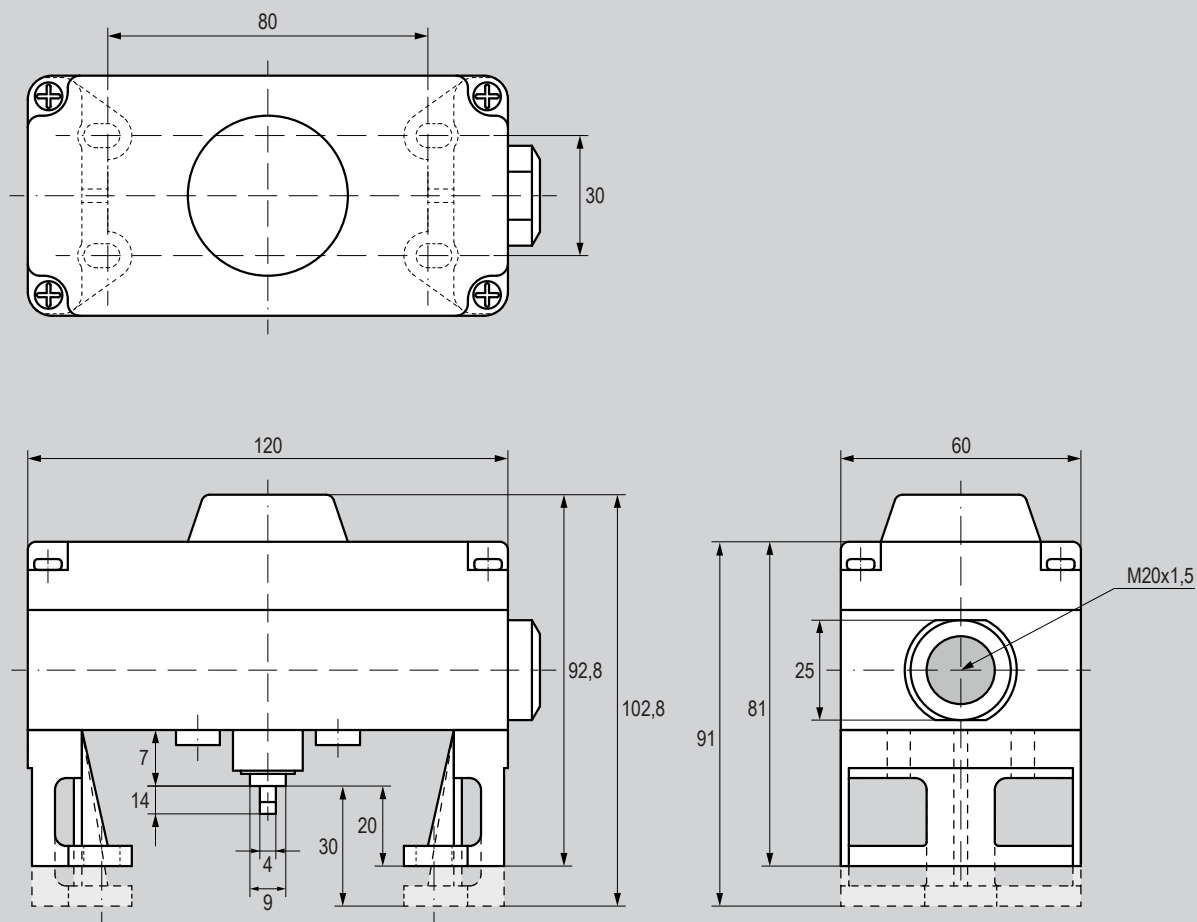
Series	SB700	
Code	811200	
Item	SB700M052	
Class protection	IP 65	
Temperature range	-15°C ÷ +80°C	
Ports	1/2" G (x2)	
Terminal strip positions	10	
Positions indicator	0° ÷ 90°	
Indicator color	Open	Green
	Close	Red
ATEX classification*	-	
Limit switch type	Mechanical	
Limit switch (manufacturer part no.)	LS silver	
Limit switch manufacturer	E-switch	
Contacts	Silver	
Function	SPDT	
Wire number	3	
Voltage	125 ÷ 250 VAC	
Intensity	15 A	
Switching frequency	-	
Limit switch number	2	
Wiring diagram number**	1	

*For further information on the ATEX 2014/34/EU Directive, on classifications and protections, see from page III.1

**For wiring diagram see page 2.426.3

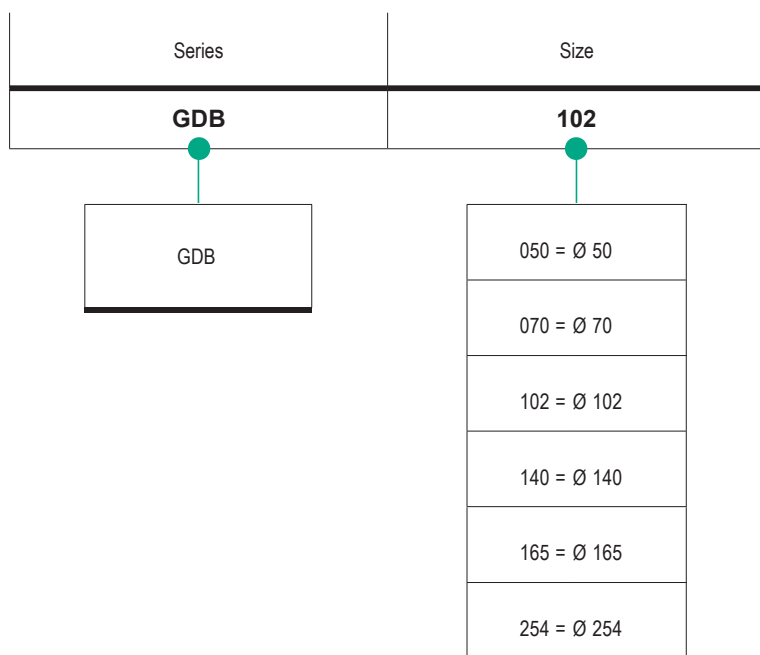
Standard dimensions

Type: **SB700**

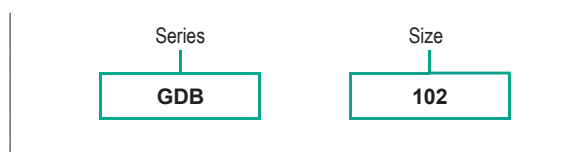


Series	Limit switch type	Limit switch manufacturer part no.	Code	Item
SB700	Mechanical	LS SILVER	811200	SB700M012

Code key



How to order



Notes

Options in the same grid are alternative to each others

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Matching handwheel gearbox/rotary actuator (direct mounting)

Handwheel gearbox size	Actuator size																	
	Ø32	Ø40	Ø52	Ø63	Ø75	Ø83	Ø92	Ø105	Ø125	Ø140	Ø160	Ø190	Ø210	Ø240	Ø270	Ø300	Ø350	Ø400
Ø 50	●*	●*	●*	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-
Ø 70	-	-	-	-	-	●	●	-	-	-	-	-	-	-	-	-	-	-
Ø 102	-	-	-	-	-	-	-	●	●	-	-	-	-	-	-	-	-	-
Ø 140	-	-	-	-	-	-	-	-	-	●	●	-	-	-	-	-	-	-
Ø 165	-	-	-	-	-	-	-	-	-	-	-	●	●	-	-	-	-	-
Ø 254	-	-	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●

Key

● allowed matching; - not allowed matching

*Adapter and bracket required. For further informations please contact the sales department

Accessories for rotary actuators

Aluminium declutchable handwheel gearbox series GDB



Main features

Series	Size	Code	Item
GDB	Ø 50	811168	GDB050
	Ø 70	811169	GDB070
	Ø 102	811170	GDB102
	Ø 140	811171	GDB140
	Ø 165	811173	GDB165
	Ø 254	811174	GDB254

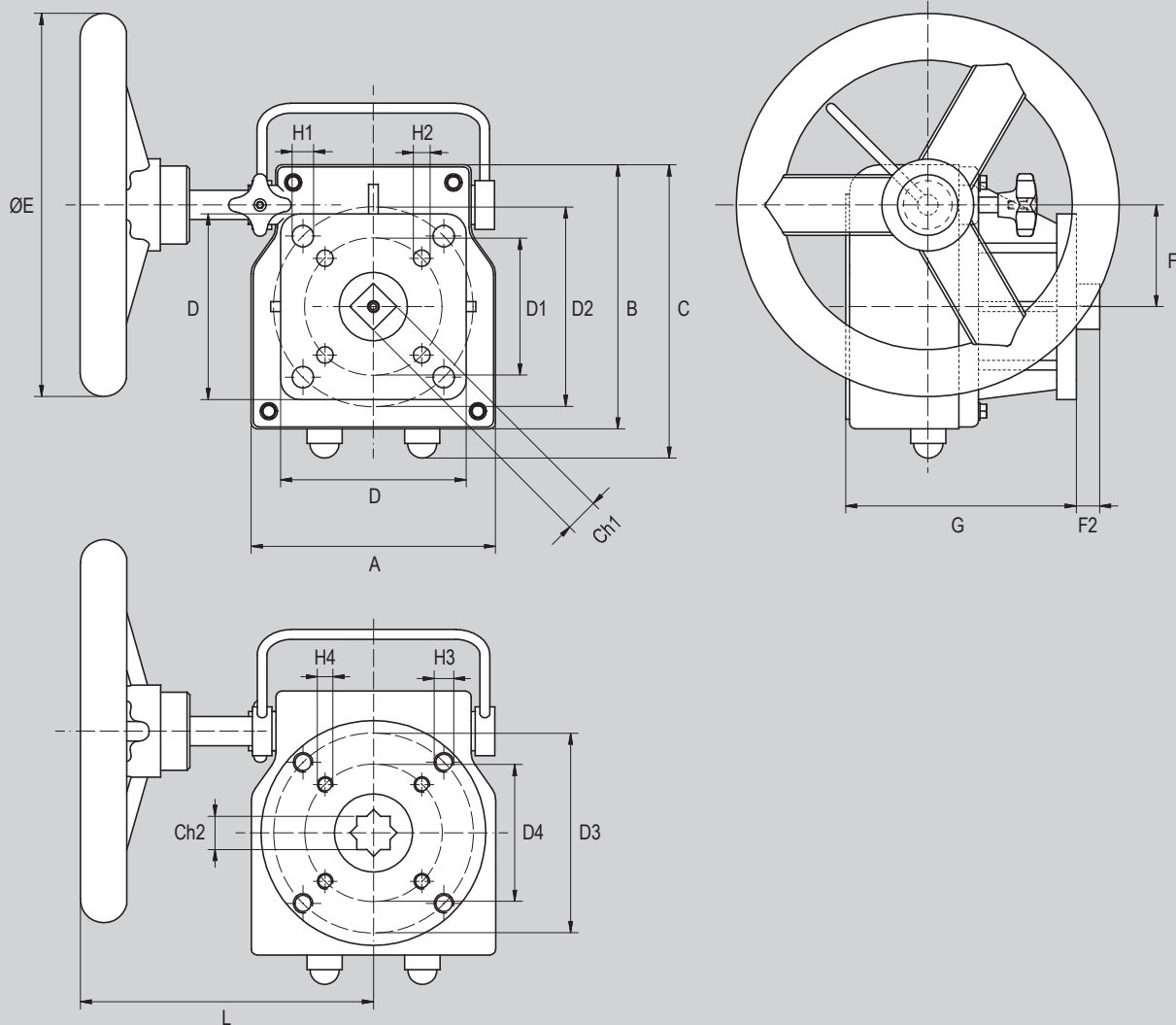


Technical data

Series	GDB					
Code	811168	811169	811170	811171	811173	811174
Item	GDB050	GDB070	GDB102	GDB140	GDB165	GDB254
Size	Ø 50	Ø 70	Ø 102	Ø 140	Ø 165	Ø 254
Class protection	IP 65					
Temperature range	-20°C ÷ +80°C					
Connections standards	ISO 5211					
Rotation	0° ÷ 90° (±5°)					
Gear ratio	1:40	1:38	1:36	1:50	1:55	1:62
Torque ratio (input:output)	1:9,6	1:12,5	1:12,5	1:10	1:19	1:19
Maximum torque output	300 Nm	360 Nm	810 Nm	1.310 Nm	2.800 Nm	5.500 Nm
Actuator square	14	14	22	27	36	46
Valve square	17	17	27	36	36	60
ISO flange actuator side	F05 / F07	F07 / F10	F10 / F12	F10 / F14	F14 / F16	F16 / F25
ISO flange valve side	F05 / F07	F07 / F10	F10 / F12	F10 / F14	F14	F16 / F25
Actuator matching	See page 2.425.6					

Standard dimensions

Type: **GDB**



Item	Code	D	B	C	A	ØE	G	F2	F	L	D1	H1	D2	H2	D3	H3	D4	H4	Ch1	Ch2
GDB050	811168	70	110	125	90	200	100	14	44.2	145	50	8.5	70	6.5	70	M8x12	50	M6x10	14	17x19
GDB070	811169	103	135	150	125	200	118	14	52.2	180	70	10.5	102	8.5	102	M10x15	70	M8x12	14	17x19
GDB102	811170	115	160	185	140	300	124	22	65	190	102	12.5	125	10.5	125	M12x18	102	M10x15	22	27x29
GDB140	811171	130	200	225	185	400	162	27	85	260	102	17	140	10.5	140	M16x24	102	M10x15	27	36x39
GDB165	811173	165	243	268	230	600	181	36	104.5	420	140	21	165	-	140	M16x24	-	-	36	36x39
GDB254	811174	295	283	330	295	700	205	46	130	430	165	17	254	21	254	M16x24	165	M20x30	46	60x70

SPEED REGULATORS

for rotary actuators and valves Series A1N



Find out our
key products



Solution for most applications



Easy and intuitive choice



Excellent value for money



Wide availability



Fast delivery



Features and certifications

Speed regulators for rotary actuators double acting (series APNRDA) and single acting (series APNRSR) for direct mounting to combine with NAMUR valves series A1N and/or positioners.

Speed regulators are designed with particular care to the micrometric adjustment pin to control the actuators opening and closing speed. Can accurately control the rotation of the actuator at every speed constantly and safely, without the fluctuation which is usually seen in the common speed controllers.

Supplied as standard in compliance to Reach and RoHS directives.

For rotary actuators see from page 2.400.1

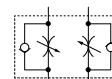


Series APNRDA

from page 2.430.10



Series of speed regulator for double acting rotary actuators and 5/2, 5/3 valves.

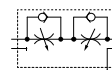


Series APNRSR

from page 2.430.20



Series of speed regulator for single acting rotary actuators and 3/2 valves.



Series PNF

from page 2.430.50



Series of plates with threaded holes for the connection of fittings to speed regulators APNR. These plates are equipped with NAMUR interface and supplied complete with screws and O-ring.

Code key

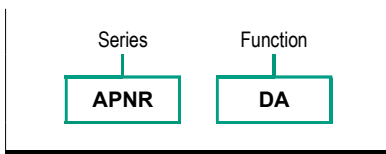
Series	Function
APNR	DA

APNR

DA = For double acting actuators and 5/2 - 5/3 valves

SR = For single acting actuators and 3/2 valves

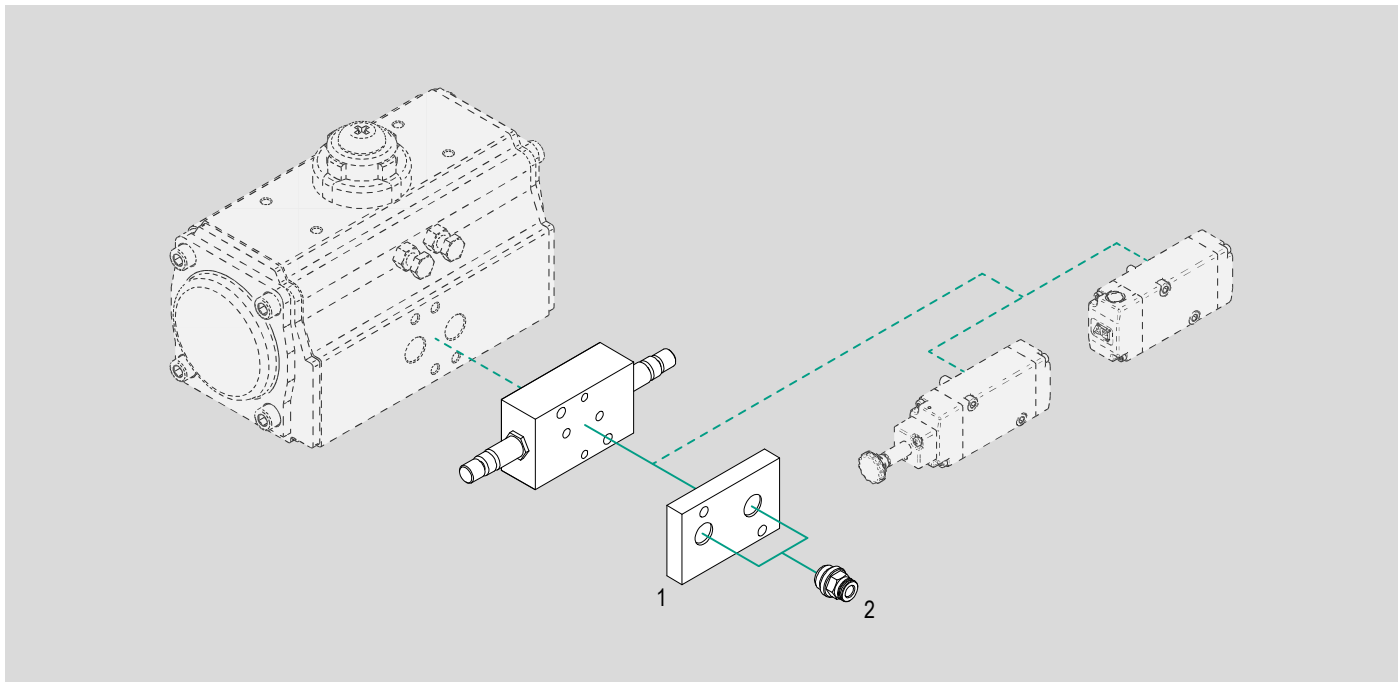
How to order



Notes

For standard materials see the data sheet of single components.
Options in the same grid are alternative to each others.

Accessories



N.	Item	Description	Compliance	Matching		Code key & data sheet page
				APNRDA	APNRSR	
1	PNF	Mounting plate	NAMUR	●	●	2.430.50
2	R..	Push-in fittings	UNI ISO 228/1 UNI ISO7/1 ISO R/232	●	●	4.2.1

Key

● matching accessory; - not matching accessory

Main features

Version	Code	Item	Symbol
For double acting actuators and 5/2 - 5/3 valves	810152	APNRDA	



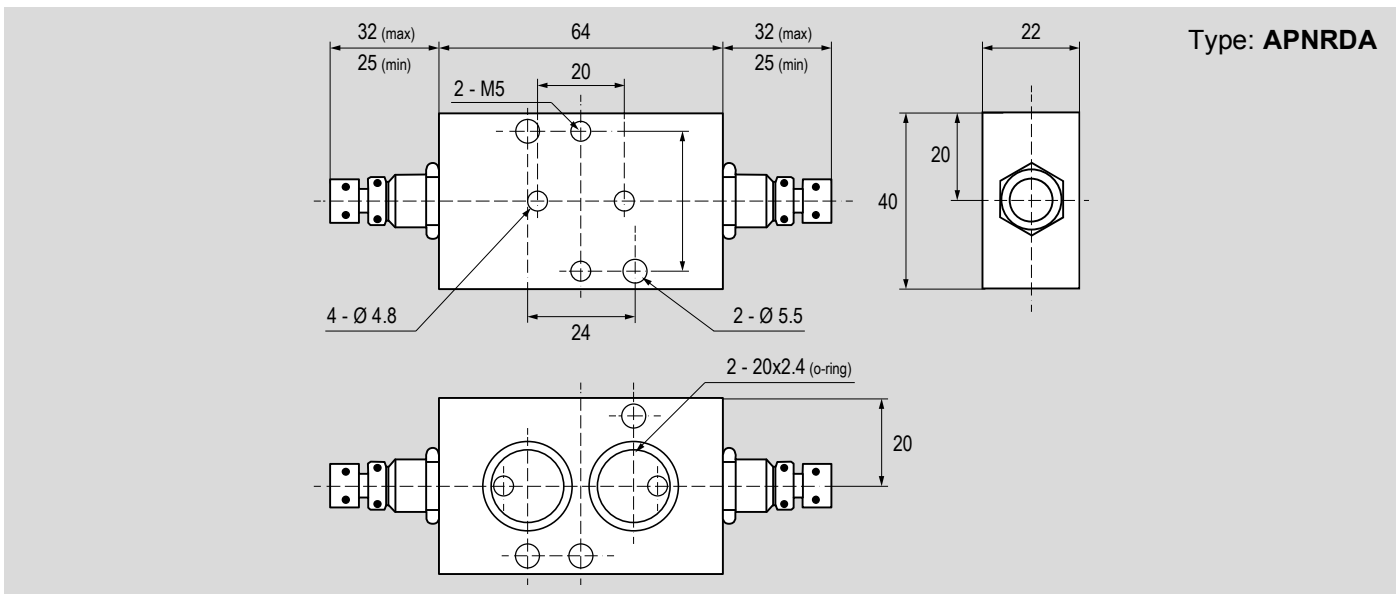
Technical data

Version	For double acting actuators and 5/2 - 5/3 valves
Code	810152
Item	APNRDA
Fluid	Compressed filtered and dried air
Pressure range	1,5 ÷ 10 bar
Temperature range	-20°C ÷ +60°C
Nominal orifice Ø	3.74 mm
Flow (at 5 bar)	750 NI/min.
Connections	NAMUR
Screws	M5x50 (2), M5x55 (2), M5x40 (2, for PNF plate, see page 2.56.20)

Standard materials

Description	Material
Body	Anodized aluminium
Seals	NBR
Screws	Stainless Steel
Elements in contact with fluid	Aluminium, brass, NBR

Standard dimensions



Main features

Version	Code	Item	Symbol
For single acting actuators and 3/2 valves	810153	APNRSR	



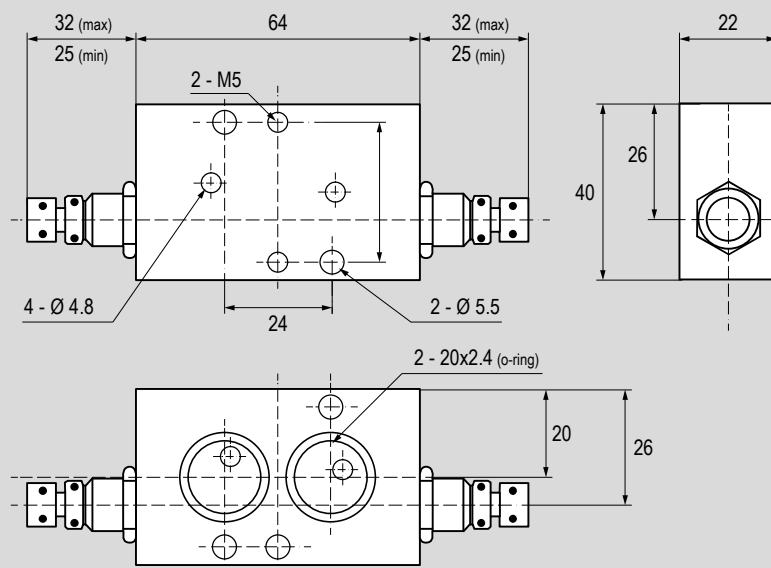
Technical data

Version	For single acting actuators and 3/2 valves
Code	810153
Item	APNRSR
Fluid	Compressed filtered and dried air
Pressure range	1,5 ÷ 10 bar
Temperature range	-20°C ÷ +60°C
Nominal orifice Ø	3.74 mm
Flow (at 5 bar)	750 NI/min.
Connections	NAMUR
Screws	M5x50 (2), M5x55 (2), M5x40 (2, for PNF plate, see page 2.56.20)

Standard materials

Description	Material
Body	Anodized aluminium
Seals	NBR
Screws	Stainless Steel
Elements in contact with fluid	Aluminium, brass, NBR

Standard dimensions



Type: **APNRSR**

Speed regulators for rotary actuators and valves series A1N

Accessories for speed regulators



Main features

Version	Code	Item
Plate for speed regulators	034228	PNF

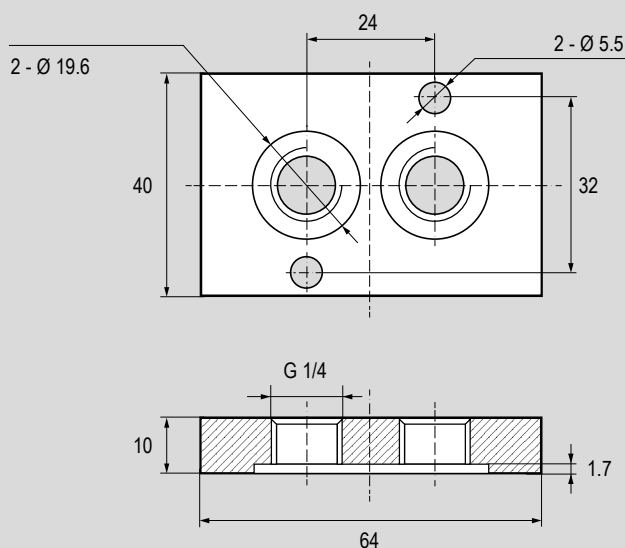


Standard materials

Description	Material
Body	Anodized aluminium
Screws	Black nickel-plated carbon steel
Seals	HNBR

Standard dimensions

Type: **PNF**



The kit include n. 2 screws and n. 2 O-ring