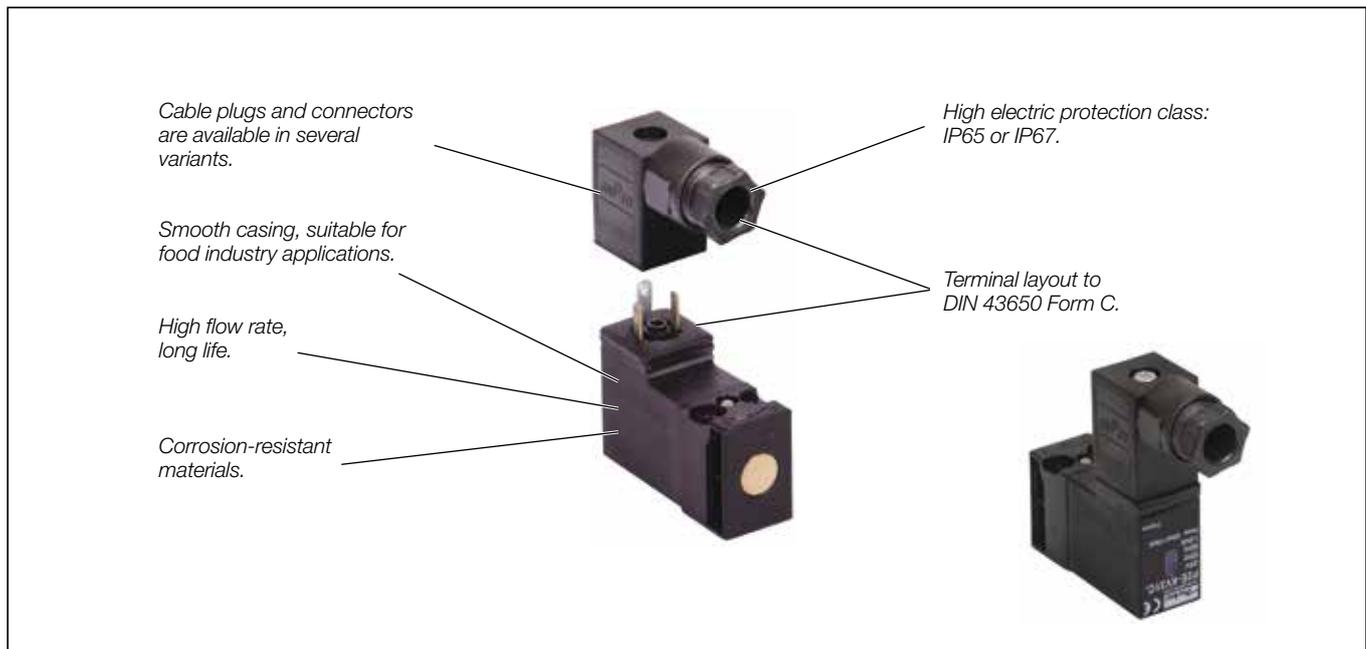


Solenoid operators - 15 mm



The P2E-•V solenoid operator range

The P2E-•V range of operators are normally closed (NC) 3/2 solenoid valves, with exceedingly compact dimensions in relation to their capacity.

International standard

The port connection pattern complies with a new French CNOMO standard (in process of drafting), with cable plug connections in accordance with DIN 43650 Form C.

Compact design

Overall dimensions of the P2E-•V operators are substantially less than those of earlier generations of solenoid operators.

High flow capacity

High flow capacity relative to the electrical operating power as a result of optimised internal flow paths.

Corrosion-resistant design

The valve is made of thermoplastic material and stainless steel, with Viton™ and nitrile rubber seals for excellent corrosion resistance.

Clean lines suitable for food industry applications, P2E-QV

The valve has been designed in conjunction with several machine manufacturers and organisations in the food processing industry, with corrosion-resistant materials and smooth lines being important starting points. The valve and its accessories have been designed so that there are no gaps or crevices in which dirt could collect.

High reliability

Few moving parts result in high reliability, rapid changeover and very long life.

Low power demand

The solenoids have a power demand of 1.2 W at 24 VDC and 1.6 VA at 24 VAC, 115 V AC and 230 VAC.

High protection class

The protection class is IP 67 when connected using the cable plug with a moulded cable. When using the standard cable plug for fitting by the user, the protection class is IP65, the valve, with Fast-on connectors, has an encapsulation class of IP 20.

Insensitive to dirty air

The use of generously sized flow paths (1.0 mm diameter) means that the valve can be used in normal industrial environments without problems of blocking.

Manual override as option

The operators can be supplied with our without manual override. The manual override device is available as a screwdriver groove or with a control arm, and is either spring return (blue) or lockable (yellow).

Order key, solenoid operators (15mm)

P	2	E	-	Q	V	3	2	C	3
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Valve family	
P2E	Solenoid operator

Subfamily	
	Solenoid operator, 15 mm wide Electric connection acc. to ISO 15217 Form C EI/supply connection on opposite side
K	Standard version
M	Mobile version
Q	Food industry version
H	Hight flow

Type of current	
1	AC 50 Hz
2	DC
4	AC 50/60 Hz
5	Mobile and wide band only

Voltage	
B	12 V
C	24 V
D	48 V
F	115 V*
J	230 V*
W	37,5 V**
T	72 V**
Y	78 V**
V	96 V**
E	110 V**

Overrides	
0	Without
1	Non locking (blue)
2	Locking (yellow)
3	Extended non locking (blue)
4	Extended locking (yellow)

Valve type / Function	
3	3/2 valve, normally closed (NC)
1	3/2 valve, normally opened (NO)

* For standard and food type only
 ** For mobile "M" version only

Technical data

	NC, Standard	NC, Food ¹⁾	NC, Mobile ²⁾	NC, Hight flow
Working pressure	0 to 10 bar	0 to 10 bar	0 to 10 bar	0 to 10 bar
Working temperature	-15 °C to +60 °C	-15 °C to +60 °C	-40 °C to +70 °C	-15 °C to +50 °C
Orifice	1,0 mm	1,0 mm	1,0 mm	1,4 mm
Flow Qmax	33 NI/min	33 NI/min	22 NI/min	50 NI/min
Power, hold	DC 1,2 W / AC 1,6 VA *	DC 1,2 W / AC 1,6 VA *	DC 1,4 W	DC 1,8 W / AC 2,4 VA
Power, surge	DC 1,2 W / AC 3,5 VA *	DC 1,2 W / AC 3,5 VA *	DC 1,4 W	DC 1,8 W / AC 5,5 VA
Connection time	100%	100%	100%	100%
Voltage tolerance	+10%/–15%	+10%/–15%	+25%/–30%	+10%/–15%
Electric connection:	DIN 43650 Form C			
Port pattern:	To future CNOMO standard			
Protection:	IP 65			
Approval:	Standard solenoids are UL 429 recognized and marked with the following symbol 			
Working media:	All neutral media, such as compressed air, water, hydraulic oil and many gases.			
Design:	1) Completely smooth exterior, suitable for food industry.			
2) Mobile standard	According to European standard EN 50 155.			

* Power , hold for 230VAC 2.4VA
 Power, surge for 230VAC 5.5VA

Transients

Interrupting the current through the solenoid coil produces momentary voltage peaks which, under unfavourable conditions, can amount to several hundred times the rated operating voltage. Normally, these transients do not cause problems, but to achieve the maximum life of relays in the circuit (and particularly of transistors, thyristors and integrated circuits) it is desirable to provide protection by means of voltage-dependent resistors (varistors). All cable plugs with a yellow LED also incorporate such protection.

Service life

With compressed air at 6 bar, 20 °C and complying with the requirements for compressed air quality as set out in ISO8573-1 norm (class 4 for dry and class 5 for filtered air), the valves should have a life of at least 50 million cycles.

Materials

Operator

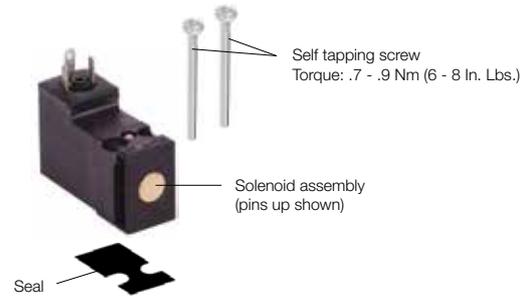
Body, coil casing	Thermoplastic
Internal metal parts	Steel
Screws	Stainless steel
Bottom plug	Thermoplastic
Sealing materials	FPM (Viton™) and nitrile rubber

Cable head

Sheath	Thermoplastic
Retaining screw	Stainless steel, zinc-plated steel

Solenoid Operators - 15 mm

Electrical connection EN175301-803 C/ISO15217 (Ex DIN 43650C)



Solenoids 15 mm NC, standard

(Note! Mounting screws included in basic valve)

	Voltage	Weight kg	Order code Without manual override	Weight kg	Order code Override, blue, non locking flush	Weight kg	Order code Override, yellow, locking flush
	12 VDC	0,038	P2E-KV32B0	0,038	P2E-KV32B1	0,038	P2E-KV32B2
	24 VDC	0,038	P2E-KV32C0	0,038	P2E-KV32C1	0,038	P2E-KV32C2
	48 VDC	0,038	P2E-KV32D0	0,038	P2E-KV32D1	0,038	P2E-KV32D2
	24 VAC 50Hz	0,038	P2E-KV31C0	0,038	P2E-KV31C1	0,038	P2E-KV31C2
	48 VAC 50/60Hz	0,038	P2E-KV34D0	0,038	P2E-KV34D1	0,038	P2E-KV34D2
	115 VAC 50Hz/ 120 VAC 60Hz	0,038	P2E-KV31F0	0,038	P2E-KV31F1	0,038	P2E-KV31F2
	230 VAC 50Hz/ 240 VAC 60Hz	0,038	P2E-KV31J0	0,038	P2E-KV31J1	0,038	P2E-KV31J2

	Voltage	Weight kg	Order code Override extended, blue, non locking flush	Weight kg	Order code Override extended, yellow, locking flush
	24 VDC	0,038	P2E-KV32C3	0,038	P2E-KV32C4
	24 VAC 50Hz	0,038	P2E-KV31C3	0,038	P2E-KV31C4

Solenoids 15 mm NC, mobile

(Note! Mounting screws included in basic valve)

	Voltage	Weight kg	Order code Without manual override	Weight kg	Order code Override, blue, non locking flush
	12 VDC	0,038	P2E-MV35B0	0,038	P2E-MV35B1
	24 VDC	0,038	P2E-MV35C0	0,038	P2E-MV35C1
	37,5 VDC	0,038	P2E-MV35W0	0,038	P2E-MV35W1
	48 VDC	0,038	P2E-MV35D0	0,038	P2E-MV35D1
	72 VDC	0,038	P2E-MV35T0	0,038	P2E-MV35T1
	78 VDC	0,038	P2E-MV35Y0	0,038	P2E-MV35Y1
	96 VDC	0,038	P2E-MV35V0	0,038	P2E-MV35V1
	110 VDC	0,038	P2E-MV35E0	0,038	P2E-MV35E1

Solenoids 15 mm NC, food industry version

(Note! Mounting screws included in basic valve)

	Voltage	Weight kg	Order code Without manual override	Weight kg	Order code Override, blue, non locking flush	Weight kg	Order code Override, yellow, locking flush
	24 VDC	0,038	P2E-QV32C0	0,038	P2E-QV32C1	0,038	P2E-QV32C2
	48 VDC	0,038	P2E-QV32D0	0,038	P2E-QV32D1	0,038	P2E-QV32D2
	24 VAC 50Hz	0,038	P2E-QV31C0	0,038	P2E-QV31C1	0,038	P2E-QV31C2
	48 VAC 50/60Hz	0,038	P2E-QV34D0	0,038	P2E-QV34D1	0,038	P2E-QV34D2
	115 V 50Hz/ 120 V 60Hz	0,038	P2E-QV31F0	0,038	P2E-QV31F1	0,038	P2E-QV31F2
	230 VAC 50Hz/ 240 VAC 60Hz	0,038	P2E-QV31J0	0,038	P2E-QV31J1	0,038	P2E-QV31J2

	Voltage	Weight kg	Order code Override extended, blue, non locking flush	Weight kg	Order code Override extended, yellow, locking flush
	24 VDC	0,038	P2E-QV32C3	0,038	P2E-QV32C4
	24 VAC 50Hz	0,038	P2E-QV31C3	0,038	P2E-QV31C4
	115 VAC 50 Hz	0,038	P2E-QV31F3	0,038	P2E-QV31F4
	230 VAC 50 Hz	0,038	P2E-QV31J3	0,038	P2E-QV31J4

In accordance with the EU Machine Directive, EN 983, solenoid valves with manual override should have spring-return operating arms for safety.