

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 Form C/ISO15217.

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 V DC and 1.6 VA at 24 V AC, 115 V AC and 230 V AC.

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 bare 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 or 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).

J

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 El/supply connection on opposite side	
K	Standard version
M	Mobile version
Q	Food industry version

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**

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

Valvetype/Function	
3	 3/2 valve, normally closed (NC)

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

Technical data

	NC, Standard	NC, Food ¹⁾	NC, Mobile ²⁾
Working pressure	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
Orifice	1,0 mm	1,0 mm	1,0 mm
Flow Qmax	33 Nl/min	33 Nl/min	22 Nl/min
Power, hold	DC 1,2 W / AC 1,6 VA	DC 1,2 W / AC 1,6 VA	DC 1 W
Power, surge	DC 1,2 W / AC 3,5 VA	DC 1,2 W / AC 3,5 VA	DC 1 W
Connection time	100%	100%	100%
Voltage tolerance	+10%/–15%	+10%/–15%	+25%/–30%
Electric connection:	Form C/ISO15217		
Port pattern:	To future CNOMO standard		
Protection:	IP 65 - IP 67, depending on type of cable plug		
Approval:	Some valves are UL-approved and marked with the following symbol ☉		
Working media:	All neutral media, such as compressed air, water, hydraulic oil and many gases.		
1) Design:	Completely smooth exterior, suitable for food industry.		
2) Mobile standard	According to European standard EN 50 155.		

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

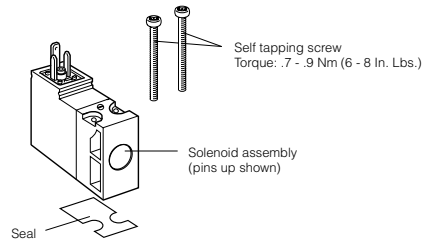
Body, coil casing	Thermoplastic
Internal metal parts	Steel
Screws	Stainless steel
Bottom plug	Thermoplastic
Sealing materials	FPM (Viton™) and nitrile rubber

Cable head

Sheath	Thermoplastic
Retaining screw	Stainless steel, zinc-plated steel

15mm Solenoid Operators

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

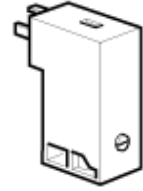
Solenoids 15 mm NC, food industry version

(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 230 VAC 50 Hz		0,038	P2E-QV31F3 P2E-QV31J3	0,038	P2E-QV31F4 P2E-QV31J4	

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

- High performance and flow
- 8 mm Pin spacing
- UL Listed (according types)
- IP 65 Encapsulated coil (connected)
- Full compliance with European Directives 73/23/EEC "Low Voltage"
89/336/EEC "Electro-Magnetic Compability"



Operating information

	NC, Standard flow	NO, Standard flow	NC, High flow
Working pressure	0 to 10 bar	0 to 10 bar	0 to 10 bar
Working temperature	-15 °C to +60 °C	-15 °C to +50 °C	-15 °C to +50 °C
Orifice diameter	1,0 mm	1,1 mm	1,4 mm
Flow Qmax	33 NI/min	33 NI/min	50 NI/min
Power, Hold	DC1,2 W / AC1,6 VA	DC1,8 W / AC 2,4 VA	DC1,8 W / AC 2,4 VA
Power, Inrush	1,2 W / AC 3,5 VA	1,8 W / AC 5,5 VA	1,8 W / AC 5,5 VA
Voltage range	+ 10 %, -15 %	+ 10 %, -15 %	+ 10 %, -15 %

Note! Solenoids are supplied without screws.

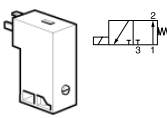
Solenoid 15 mm NC Standard flow

(electrical interface same side as pneumatic interface)

	Voltage	Weight kg	Order code		Weight kg	Order code	
			Without manual override	With manual override		Non locking flush	With manual override Locking flush
<p>120 VAC 60Hz</p>	12 VDC	0,038	P2E-KS32B0	0,038	P2E-KS32B1	0,038	P2E-KS32B2
	24 VDC	0,038	P2E-KS32C0	0,038	P2E-KS32C1	0,038	P2E-KS32C2
	48 VDC	0,038	P2E-KS32D0	0,038	P2E-KS32D1	0,038	P2E-KS32D2
	24 VAC 50Hz	0,038	P2E-KS31C0	0,038	P2E-KS31C1	0,038	P2E-KS31C2
	48 VAC 50/60Hz	0,038	P2E-KS34D0	0,038	P2E-KS34D1	0,038	P2E-KS34D2
	115 VAC 50Hz/	0,038	P2E-KS31F0	0,038	P2E-KS31F1	0,038	P2E-KS31F2
	Voltage		Weight kg	Order code With manual override Extended non locking	Weight kg	Order code With manual override Extended locking	
	24 VDC		0,038	P2E-KS32C3	0,038	P2E-KS32C4	
	24 VAC 50Hz		0,038	P2E-KS31C3	0,038	P2E-KS31C4	

Solenoid 15 mm NO Standard flow

(electrical interface same side as pneumatic interface)

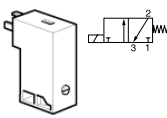


Voltage	Weight kg	Order code Without manual override	Weight kg	Order code Override Non locking flush	Weight kg	Order code Override Locking flush
24 VDC	0,038	P2E-KS12C0	0,038	P2E-KS12C1	0,038	P2E-KS12C2
24 VAC 50Hz	0,038	P2E-KS11C0	0,038	P2E-KS11C1	0,038	P2E-KS11C2

Voltage	Weight kg	Order code Override extended non locking	Weight kg	Order code Override extended locking
24 VDC	0,038	P2E-KS12C3	0,038	P2E-KS12C4
24 VAC 50Hz	0,038	P2E-KS11C3	0,038	P2E-KS11C4

Solenoid 15 mm NC High flow

(electrical interface same side as pneumatic interface)



Voltage	Weight kg	Order code Without manual override	Weight kg	Order code Override flush Non locking	Weight kg	Order code Override flush Locking
24 VDC	0,038	P2E-HS32C0	0,038	P2E-HS32C1	0,038	P2E-HS32C2
24 VAC 50Hz	0,038	P2E-HS31C0	0,038	P2E-HS31C1	0,038	P2E-HS31C2
48 VDC	0,038	P2E-HS32D0	0,038	P2E-HS32D1	0,038	P2E-HS32D2
115 V 50Hz / 120 V 60Hz	0,038	P2E-HS31F0	0,038	P2E-HS31F1	0,038	P2E-HS31F2

Voltage	Weight kg	Order code Override extended non locking	Weight kg	Order code Override extended locking
24 VDC	0,038	P2E-HS32C3	0,038	P2E-HS32C4
24 VAC 50Hz	0,038	P2E-HS31C3	0,038	P2E-HS31C4
48 VDC	0,038	P2E-HS32D3	0,038	P2E-HS32D4
115 V 50Hz / 120 V 60Hz	0,038	P2E-HS31F3	0,038	P2E-HS31F4

Main data for spare set of Solenoids Mounting screws

Kit	Type	Material	Ø mm	Length mm	Weight kg	Order code
	Metric	Steel, passivated	M3	26	0,02	P2E-KP026PM3 *
	Self tapping	Steel, passivated	Ø 3 mm	25	0,02	P2E-KP025PS3 *

*Sold by lot of 10

Correspondence table between screws and Valves Series

Valvetronic Series	Description	Mounting screw length	Order code Mounting screw kit
P2S-HW	Valvetronic Solstar	25 mm	P2E-KP025PS3
P2S-EW	Interface 2000	26 mm	P2E-KP026PM3
PVL-B10	Valvetronic 1/8"	26mm	P2E-KP026PM3
PVL-C10	Valvetronic 1/4"	26 mm	P2E-KP026PM3