Type PV95/PV96 3/2-Ways Pilot Valve

Type PV95

Type PV96

Product description

The pilot valves Type PV95 and Type PV96 are direct-acting 3/2-way Pilot Valves with NC function (Normally Closed). They are used to activate single-acting pneumatic actuators.

Both valve types have a nominal diameter of DN2 and differ in their air performance. Both the PV95 and the PV96 are available in different operating voltage variants.

PV96 pilot valves are designed for a control pressure up to 8 bar and are attached to the actuator by means of a hollow bolt. They are supplied as standard with an industry-standard Form B plug.
Connection options:

- Compressed air connection: G⅛", NPT ⅛“ or 6 mm tube fitting
- Working connection actuator: G¼" or G⅛"

PV95 pilot valves are designed for a control pressure up to 10 bar and are also attached to the actuator using a hollow bolt. They are provided with an industry-standard Form A valve plug.
Connection options:

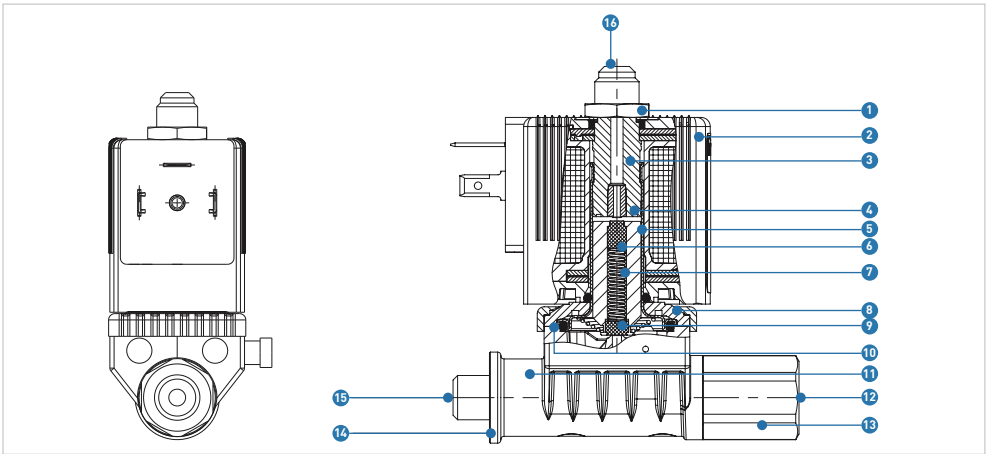
- Compressed air connection: G¼“ or NPT ⅛"
- Working connection actuator: G¼" or G⅛"

Benefits/features

- Direct acting and compact small valve
- Easy direct attachment to a pneumatic Actuator
- Service-friendly manual operation
- Type PV96 pilot valves with coil UL Recognized for USA and Canada (cURus UL File MH19303)

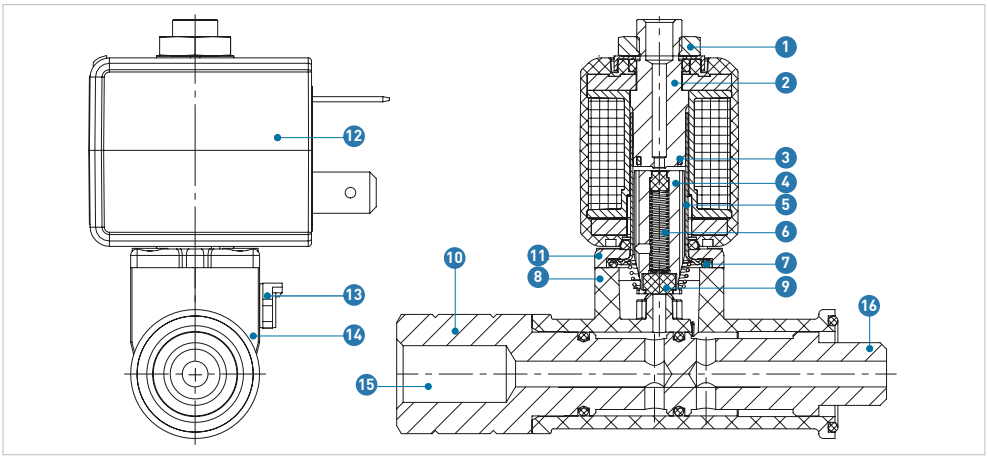
Technical data

Type PV95



1 Locknut (Steel)
2 Coil (PA)
3 Stopper (Stainless steel)
4 Shading ring (Copper)
5 Core guide tube (Stainless steel)
6 Magnetic core (Stainless steel)
7 Spring (Stainless steel)
8 Sub-base (Steel)
9 Armature seal (FKM)
10 O-ring (FKM)
11 Valve body (PPS)
12 Compressed air connection (P)
13 Hollow bolt (brass)
14 O-rings (NBR)
15 Working connection actuator (A)
16 R-connection

Type PV96



1 Nut (steel)
2 Plug (stainless steel)
3 Shorting ring (copper)
4 Core (stainless steel)
5 Core guide tube (stainless steel)
6 Spring (stainless steel)
7 O-ring (FKM)
8 Spring (stainless steel)
9 Core seal (FKM)
10 Hollow bolt (brass)
11 Flange (brass/stainless steel)
12 Coil (epoxy)
13 Hand lever (Durethan)
14 Housing (PPS)
15 Compressed air connection (P)
16 Working connection actuator (A)

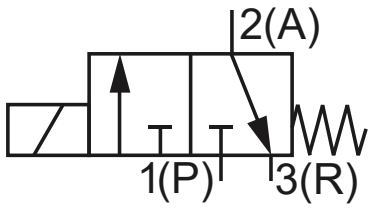
Specification	PV96	PV95
Nominal diameter	DN2	DN2
Control pressure[2)]	0 - 8 bar DC 2 - 7 bar AC	0 - 10 bar
Housing material	PPS	PPS
Coil material	Epoxy resin	Polyamide
Hollow bolt	Nickel-plated brass	Nickel-plated brass
Sealing material	FKM	FKM
Media	Neutral gases and fluids	
Medium temperature	-10 °C to +60°C	-10 °C to +100 °C
Ambient temperature	-10 °C to +55°C	Max. + 55 °C
Viscosity	Max. 21 mm^2/S	
Working connection actuator (A)	G⅛", G¼"	G⅛", G¼"
Compressed air connection (P)	G⅛", NPT ⅛", tube fitting Ø6mm	G¼", NPT ⅛"
Supply voltage	24 VDC 24 VAC, 50 – 60 Hz 110 VAC, 50 – 60 Hz 120 VAC AC, 60 Hz 230 VAC, 50 – 60 Hz	24 VDC 24 VAC, 50 Hz 110 VAC, 50 Hz 230 VAC, 50 Hz
Voltage tolerance	+/-10 %	
Rated duty	Continuous duty 100 % ED	

Specification	PV96	PV95
Electrical connections	Per DIN EN 175301-803 Form B	Per DIN EN 175301-803 Form A
Manual override	Standard	
Mounting position	User-defined, preferably actuator on top	
Weight	120 g - 135 g	420 g
Protection rating	IP 65 with cable plug	
Coil insulation class	H	B
Circuit function	NC (Normally Closed)	
QNn value air[1)]	75 l/min	120 l/min
Coil output	7 W (DC), 6 W (AC)	8 W (AC, DC)
Electrical power startup	12VA (AC); 7 W (DC)	24 VA (AC), 8 W (DC)
Electrical power operation	6,5 VA (AC); 5,5 W (DC)	17 VA (AC), 8 W (DC)
Response time open[3)]	8-12 ms	10-15 ms
Response time close[3)]	8-12 ms	15-20 ms
Product standard	IEC 61508-2	IEC 61508-2
Test standard	IEC 61508-2	IEC 61508-2
Approvals	The coils are UL Recognized for the USA and Canada according to: • UL 429 (electrically operated valves) • CAN/CSA-C22.2 No. 139	SIL

[1)] QNn value air (l/min) at +20°C, 6 bar valve inlet, pressure difference 1 bar.
[2)] Pressure data (bar) overpressure to atmospheric pressure
[3)] Switching times (ms) Measurement at valve outlet at 6 bar and +20°C Opening: Pressure build-up 0-90 %, closing: Pressure reduction 100-0 %

Switching functions

Circuit function C

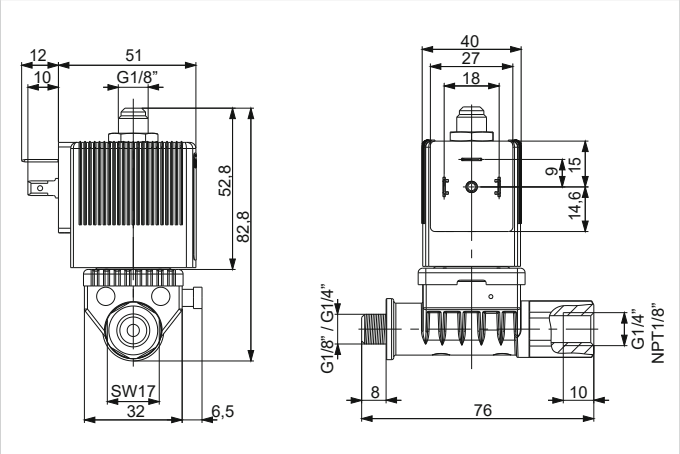


3/2 way direct-acting solenoid valve, NC normally closed

Dimensions

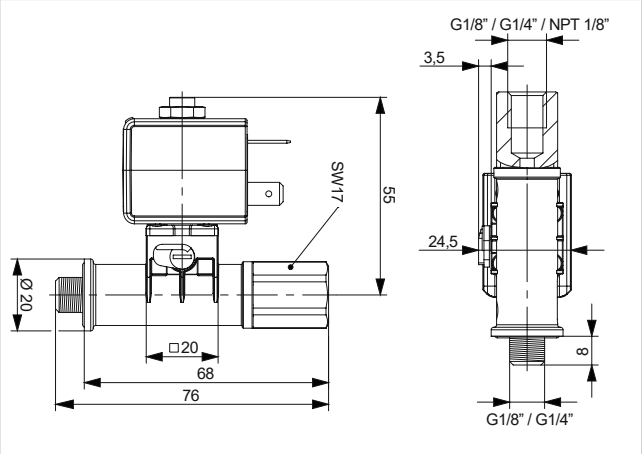
Type PV95

Version with 76 mm hollow bolt



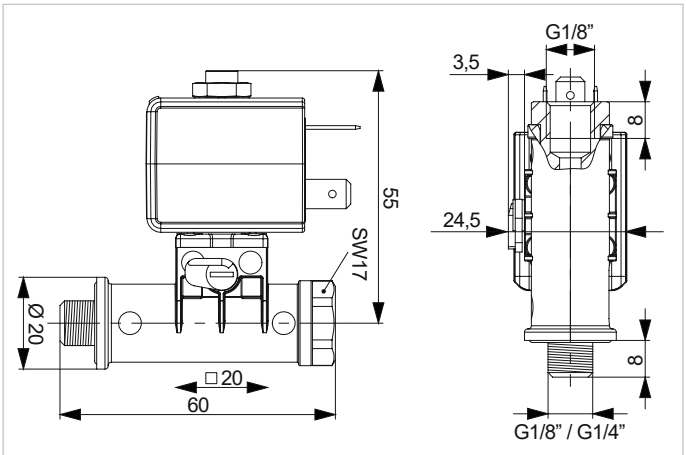
Type PV96

Version with 76 mm hollow bolt



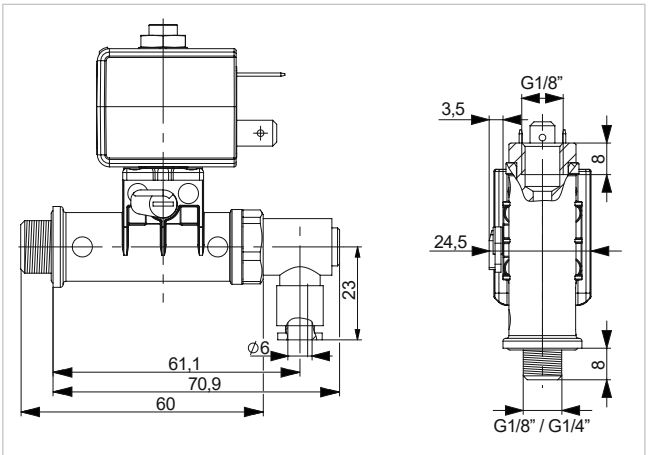
Type PV96

Version with 60 mm hollow bolt



Type PV96

Version with 60 mm hollow bolt and hose coupling



Order Overview

PV95

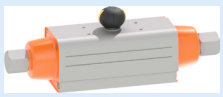
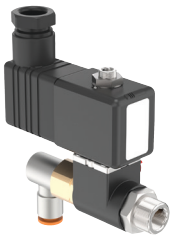
Order code	Description	Voltage	Cable plug shape	Hollow bolt, length	Compressed air connection (P)	Working connection actuator (A)
199190532	PV95 Pilot Valve, 0-10 bar	24 VDC	A	76 mm	G¼"	G⅛"
199190533	PV95 Pilot Valve, 0-10 bar	24 VAC, 50 Hz	A	76 mm	G¼"	G⅛"
199190534	PV95 Pilot Valve, 0-10 bar	110 VAC	A	76 mm	G¼"	G⅛"
199190535	PV95 Pilot Valve, 0-10 bar	230 VAC	A	76 mm	G¼"	G⅛"

PV96

Order code	Description	Voltage	Cable plug shape	Hollow bolt, length	Compressed air connection (P)	Working connection actuator (A)
199196100	PV96 Pilot Valve, 0-8 bar	24 VDC	B	76 mm	NPT ⅛"	G¼" *
199196101	PV96 Pilot Valve, 0-8 bar	24 VDC	B	60 mm	G⅛"	G¼" *
199196102	PV96 Pilot Valve, 2-7 bar	24 VAC, 50 Hz	B	76 mm	NPT ⅛"	G¼" *
199196103	PV96 Pilot Valve, 0-8 bar	24 VDC	B	60 mm	G⅛"; tube fitting Ø6mm	G¼" *
199196104	PV96 Pilot Valve, 2-7 bar	24 VAC, 50 Hz	B	60 mm	G⅛"; tube fitting Ø6mm	G¼" *
199196105	PV96 Pilot Valve, 2-7 bar	110 VAC, 50 Hz	B	60 mm	G⅛"; tube fitting Ø6mm	G¼" *
199196106	PV96 Pilot Valve, 2-7 bar	120 VAC, 60 Hz	B	76 mm	NPT ⅛"	G¼" *
199196107	PV96 Pilot Valve, 2-7 bar	230 VAC, 50 Hz	B	60 mm	G⅛"; tube fitting Ø6mm	G¼" *
199196108	PV96 Pilot Valve, 2-7 bar	230 VAC, 50 Hz	B	60 mm	G⅛"	G¼" *

* Reducing nipple for G⅛" connection included

Pressure ratings of pilot valves and actuators

		Control pressure min. - max.	Pneumatic Actuator Typ PPA	Pneumatic Actuator Typ PA30-90	Pneumatic Diaphragm Valve DIASTAR
					
			4.5 - 7 bar	2.8 - 8.4 bar	2.6 - 5.5 bar
PV96		0 - 8 bar DC 2 - 7 bar AC	X		X
PV95		0 - 10 bar	X	X	X

03/2025-A

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