

Pilot valve type PV94/PV95 3/2-ways



Type PV94

Type PV95

Product description

The PV94/PV95 pilot valve is a direct-acting plunger valve. The 3/2-way solenoid valve is used to activate single-acting pneumatic actuators. The PV94 is designed for dimensions up to DN50, the PV95 for DN65-DN150. It is mounted directly on the actuator via a banjo bolt.

The PV94 pilot valve is available in nominal diameter DN1.2 and in variants with G $\frac{1}{8}$ ", NPT $\frac{1}{8}$ " or with 6mm air connection and with different voltages.

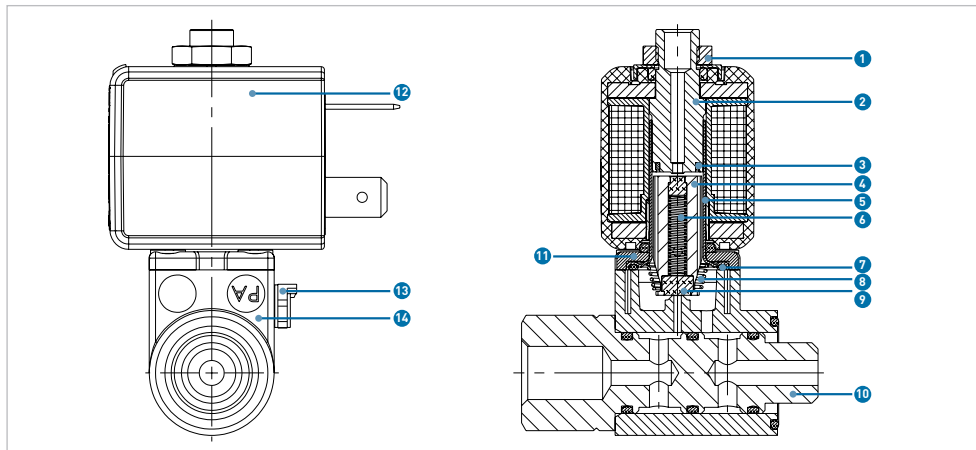
The PV95 pilot valve is available in nominal diameter DN2 and in variants with G $\frac{1}{4}$ " or with NPT $\frac{1}{8}$ " air connection and with different voltages.

Benefits/features

- Direct acting and compact small valve
- Easy direct attachment to a pneumatic Actuator
- Service-friendly manual operation
- PV94: Push-over coil system
- PV95: Vibration-proof, bolted coil system

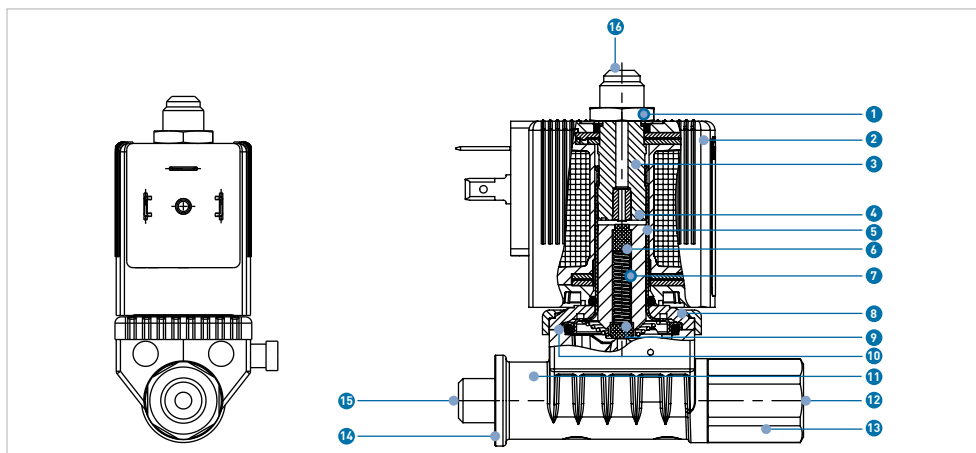
Technical data

PV94



- 1 Locknut (Steel)
- 2 Stopper (Stainless steel)
- 3 Shading ring (Copper)
- 4 Magnetic core (Stainless steel)
- 5 Guide tube (Stainless steel)
- 6 Spring (Stainless steel)
- 7 O-ring (FKM)
- 8 Spring (Stainless steel)
- 9 Armature seal (FKM)
- 10 Banjo bolt (Brass Nickel plated)
- 11 Flange
- 12 Coil (PA)
- 13 Hand lever (Durethane)
- 14 Housing (PA)

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 Pressure connection P/Inlet
- 13 Screw (Brass)
- 14 O-rings (NBR)
- 15 Pressure connection A/Outlet
- 16 R-connection

Specification	PV94	PV95
Nominal diameter	DN1.2	DN2
PN	10 bar	10 bar
Housing material	Polyamide	PPS
Coil material	Epoxy resin	Polyamide
Hollow screw	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 +40°C	max. + 55 °C
Viscosity	Max. 21 mm ² /S	
Port connection	G ¹ / ₈ "	G ¹ / ₈ ", G ¹ / ₄ "
Air connection	G ¹ / ₈ ", NPT ¹ / ₈ ", tube fitting Ø6mm	G ¹ / ₄ ", NPT ¹ / ₈ "
Supply voltage	24 V DC 24 V, 50 – 60 Hz 115 V, 50 – 60 Hz 230 V, 50 – 60 Hz	
Voltage tolerance	+/-10 %	
Rated duty	Continuous duty 100 % ED, intermittent duty 40% ED (30min)	
Electrical connections	Per DIN EN 175301-803* Form C or Form B	Per DIN EN 175301-803* Form A

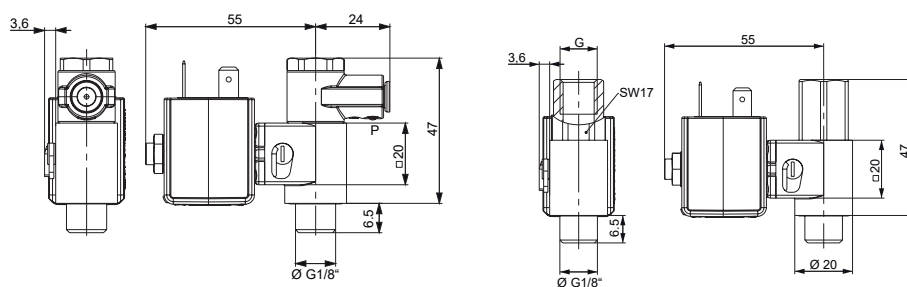
Specification	PV94	PV95
Manual override	Standard	
Mounting position	User-defined, preferably actuator on top	
Weight	135 g	420 g
Protection rating	IP 65 with cable plug	
Coil insulation class	H	B
Circuit function	C (normally closed)	C (normally closed)
QNm value air ¹⁾	48 l/min	120 l/min
Pressure range ²⁾	0-10 bar	0-10 bar
Coil output	4 W AC or 5 W DC	8 W (AC, DC)
Electrical power startup	9 VA (AC); 4 W (DC)	24 VA (AC), 8 W (DC)
Electrical power operation	6 VA (AC), 4 W (DC)	17 VA (AC), 8 W (DC)
Response time open ³⁾	7-12 ms	10-15 ms
Response time close ³⁾	7-12 ms	15-20 ms
Product standard	IEC 61508-2	IEC 61508-2
Test standard	IEC 61508-2	IEC 61508-2
Approvals	SIL	SIL

¹⁾ QNm value air (l/min) at +20°C, 6 bar valve inlet, pressure difference 1 bar.

²⁾ Pressure data (bar) overpressure to atmospheric pressure

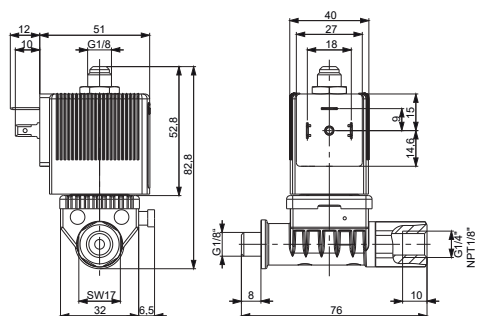
³⁾ Switching times (ms) Measurement at valve outlet at 6 bar and +20°C Opening: Pressure build-up 0-90 %, closing: Pressure reduction 100-0 %

Dimensions



Type PV94 with hose coupling

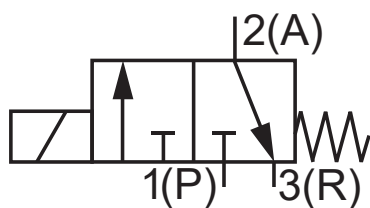
Type PV94 with G1/8" threaded connection



Typ PV95

Switching functions

Circuit function C



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

Valve selection guide

≤DN65		>DN65	
PV94		PV95	
			
Diaphragm Valve Type DIASTAR		Pneumatic actuator Type PPA	
			

PV94

Compressed air connection P	Voltage	Working connection (actuator) A	Cable plug shape	Order code
G $\frac{1}{8}$ "	24 V DC	G $\frac{1}{8}$ "	C	199 190 498
G $\frac{1}{8}$ "	24 V, 50-60 Hz	G $\frac{1}{8}$ "	C	199 190 499
G $\frac{1}{8}$ "	110 V, 50-60 Hz	G $\frac{1}{8}$ "	C	199 190 500
G $\frac{1}{8}$ "	230 V, 50-60 Hz	G $\frac{1}{8}$ "	C	199 190 501
push-in 6mm	24 V DC	G $\frac{1}{8}$ "	C	199 190 510
push-in 6mm	24 V, 50-60 Hz	G $\frac{1}{8}$ "	C	199 190 511
push-in 6mm	110 V, 50-60 Hz	G $\frac{1}{8}$ "	C	199 190 512
push-in 6mm	230 V, 50-60 Hz	G $\frac{1}{8}$ "	C	199 190 513
NPT $\frac{1}{8}$ "	24 V DC	G $\frac{1}{8}$ "	C	199 190 546
NPT $\frac{1}{8}$ "	110 V, 50-60 Hz	G $\frac{1}{8}$ "	C	199 190 547
NPT $\frac{1}{8}$ "	24 V DC	G $\frac{1}{8}$ "	C	199 190 561
push-in 6mm	230 V, 50-60 Hz	G $\frac{1}{8}$ "	B	199 190 571
G $\frac{1}{8}$ "	230 V, 50-60 Hz	G $\frac{1}{8}$ "	B	199 190 572
push-in 6mm	24 V DC	G $\frac{1}{8}$ "	B	199 190 573
G $\frac{1}{8}$ "	24 V DC	G $\frac{1}{8}$ "	B	199 190 574

PV95

Compressed air connection P	Voltage	Working connection (actuator) A	Cable plug shape	Order code
G $\frac{1}{4}$ "	24 V DC	G $\frac{1}{8}$ "	A	199 190 532
G $\frac{1}{4}$ "	24 V, 50-60 Hz	G $\frac{1}{8}$ "	A	199 190 533
G $\frac{1}{4}$ "	110 V, 50-60 Hz	G $\frac{1}{8}$ "	A	199 190 534
G $\frac{1}{4}$ "	230 V, 50-60 Hz	G $\frac{1}{8}$ "	A	199 190 535
NPT $\frac{1}{8}$ "	24 V DC	G $\frac{1}{8}$ "	A	199 190 554
NPT $\frac{1}{8}$ "	110 V, 50-60 Hz	G $\frac{1}{8}$ "	A	199 190 555