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 G⅛", NPT⅛" or with 6mm air connection and with different voltages.

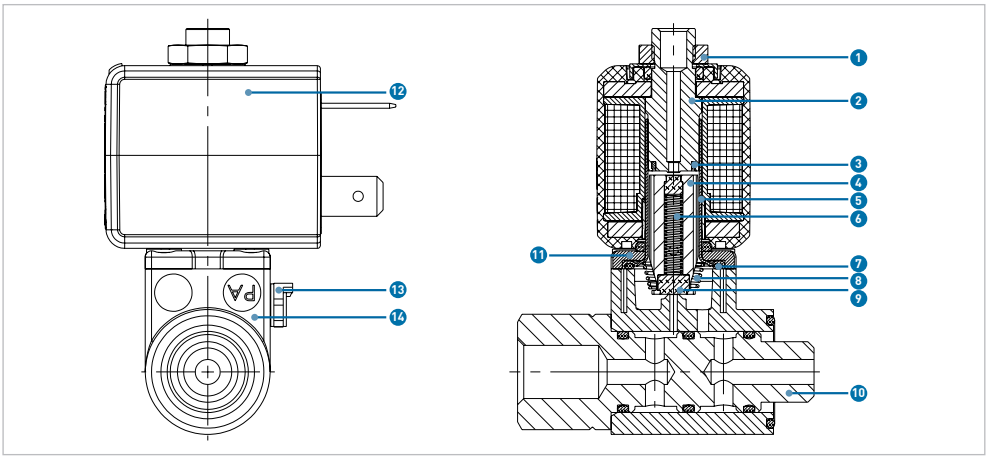
The PV95 pilot valve is available in nominal diameter DN2 and in variants with G¼" or with NPT⅛" air connection and with different voltages.

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

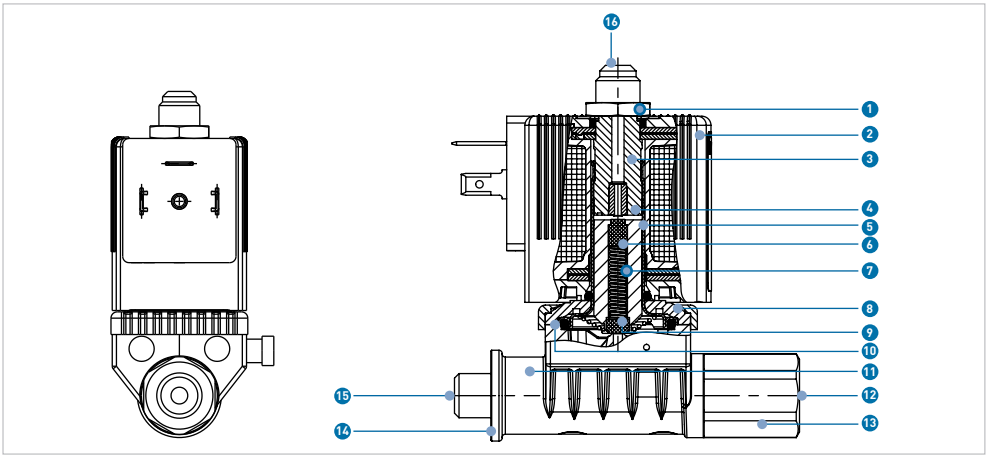
Technical data

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 bold (Brass Nickel plated)
11 Flange
12 Coil (PA)
13 Hand lever (Durethane)
14 Housing (PA)

PV95



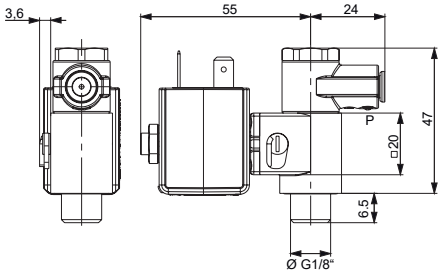
1 Locknut (Steel)
2 Coil (PA)
3 Stopper (Stainless steel)
4 Shading ring (Copper)
5 Core guide tube (Stainless steel)
6 Magnetic core (Stainless steel)
7 Spring (Stainless steel)
8 Sub-base (Steel)
9 Armature seal (FKM)
10 O-ring (FKM)
11 Valve body (PPS)
12 Pressure connection P/Inlet
13 Screw (Brass)
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	G⅛“	G⅛“, G¼“
Air connection	G⅛", NPT ⅛", tube fitting Ø6mm	G¼", NPT ⅛"
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

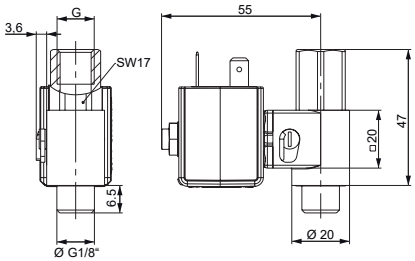
Specification	PV94	PV95
Manual override	Standard	
Mounting position	User-defined, preferably actuator on top	
Weight	135 g	420 g
Protection rating	IP 65 with cable plug	
Coil insulation class	H	B
Circuit function	C (normally closed)	C (normally closed)
QNn value air[1)]	48 l/min	120 l/min
Pressure range[2)]	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)] 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 %

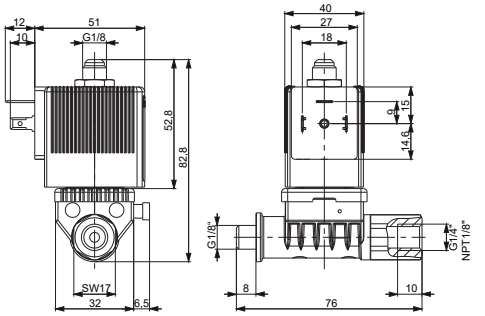
Dimensions



Type PV94 with hose coupling



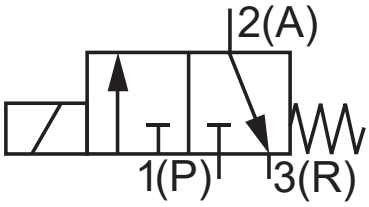
Type PV94 with G⅛“ threaded connection



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
	
	Pneumatic actuator Type PA30-90
	

PV94

Compressed air connection P	Voltage	Working connection (actuator) A	Cable plug shape	Order code
G⅛"	24 V DC	G⅛"	C	199 190 498
G⅛"	24 V, 50-60 Hz	G⅛"	C	199 190 499
G⅛"	110 V, 50-60 Hz	G⅛"	C	199 190 500
G⅛"	230 V, 50-60 Hz	G⅛"	C	199 190 501
push-in 6mm	24 V DC	G⅛"	C	199 190 510
push-in 6mm	24 V, 50-60 Hz	G⅛"	C	199 190 511
push-in 6mm	110 V, 50-60 Hz	G⅛"	C	199 190 512
push-in 6mm	230 V, 50-60 Hz	G⅛"	C	199 190 513
NPT ⅛"	24 V DC	G⅛"	C	199 190 546
NPT ⅛"	110 V, 50-60 Hz	G⅛"	C	199 190 547
NPT ⅛"	24 V DC	G⅛"	C	199 190 561
push-in 6mm	230 V, 50-60 Hz	G⅛"	B	199 190 571
G⅛"	230 V, 50-60 Hz	G⅛"	B	199 190 572
push-in 6mm	24 V DC	G⅛"	B	199 190 573
G⅛"	24 V DC	G⅛"	B	199 190 574

PV95

Compressed air connection P	Voltage	Working connection (actuator) A	Cable plug shape	Order code
G¼"	24 V DC	G⅛"	A	199 190 532
G¼"	24 V, 50-60 Hz	G⅛"	A	199 190 533
G¼"	110 V, 50-60 Hz	G⅛"	A	199 190 534
G¼"	230 V, 50-60 Hz	G⅛"	A	199 190 535
NPT ⅛"	24 V DC	G⅛"	A	199 190 554
NPT ⅛"	110 V, 50-60 Hz	G⅛"	A	199 190 555

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Tel. +41 52 631 11 11 • www.gfps.com • E-Mail: info.ps@georgfischer.com

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