# 3/2 and 4/2-way Solenoid Valve for pneumatic systems



- Compact design in 3/2 and 4/2-way versions
- Extendable valve block
- Reduced power consumption
- Different pneumatic connections available
- Robust

Type 5470-R can be combined with ...



Type 2506

Cable plug

Type 2012

Single-seat globe valve

Type 0044

Pneumatic cylinder

Valves of type 5470 consist of a type 6104 pilot rocker solenoid valve and a pneumatic valve.

An armature with a tilting bearing, similar o a rocker, tilts within the body of the pilot valve, and switches the valve. The minimal tilting movement of the rocker is non-wearing, and basic lubrication is unnecessary.

The type 5470~R is available as a 3/2~and~4/2-way valve. The valves can be mounted together individually using the module flange. In various applications, they can be used advantageously as valve blocks. Different variants are available for service ports 2~and~4.

#### **Power consumption**

corresponds to the effective coil power in the ordering chart.

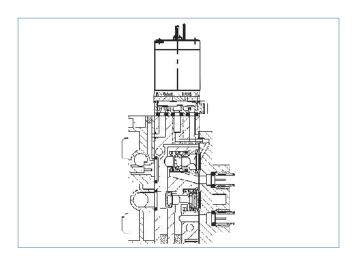
Technical data	
Orifice	DN 4.0 mm
Body material	polyamide (PA)
Valve internal	ultramide
Seal material	NBR
Media	Compressed air, neutral gases (5 µm filtering)
Media temperature	-10 +50 °C
Ambient temperature	-10 +55 °C
Supply connections 1 and 3	Module flange
Service port 2 and 4 (options)	Threaded port G 1/8 Threaded port NPT 1/8 Tube connection SL 6/4 mm Push-in connection Ø 6 mm
Operating voltage	24 V DC, 110 - 120 V DC, 220 - 240 V DC, (In the case of a.c. voltage, use the valves with a UC coil.)
Voltage tolerance	±10 %
Duty cycle	100 % continuous operation
Electrical connection	Tag connector above acc. to DIN 43 650 Form C, for cable plug type 2506 and type 1057 rectangular plug (5.08 mm)
Type of protection	EEx ia IIC T6 on request
Protection class	IP 65 (with cable plug) IP 20 (at type 1057) and IP 40 (at rectangular plug 5.08 mm)
Installation	as required, preferably with actuator upright

#### **Response times**

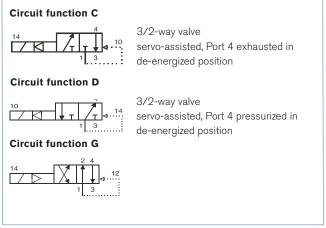
Orifice	Q <sub>Nn</sub> value	Pressure	Effective	Response times			Weight	
	air	range	coil power	DC		AC		
[mm]	[I/min]	[bar] <sup>1)</sup>	[ <b>W</b> ]²)	Opening [ms]	Closing [ms]	Opening [ms]	Closing [ms]	[g]
4.0	300	2 - 10	2	15	12	15	20	ca. 120
4.0	300	2 - 10	3	15	12	15	20	ca. 120

- 1) Pressure data [bar]: Overpressure with respect to atmospheric pressure
- 2) Magnetic coils with integrated rectifier, LED and varistor (UC-model)
- Q<sub>Nn</sub> value [I/min]: Flow rate value for air, Measured at +20 °C and 6 bar pressure at the valve inlet port and 1 bar pressure differential
   Switching times [ms]: Measured at the valve outlet port acc. to ISO 12238.

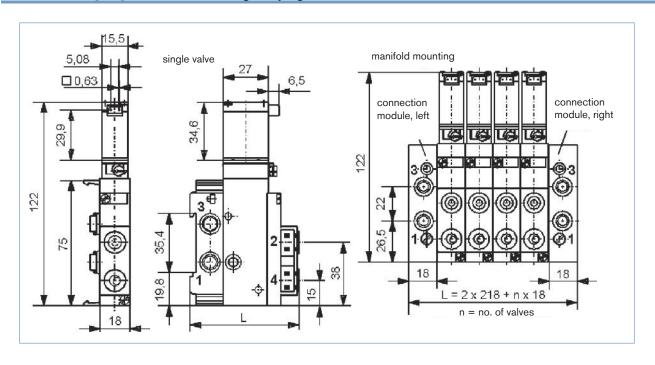
#### Structure



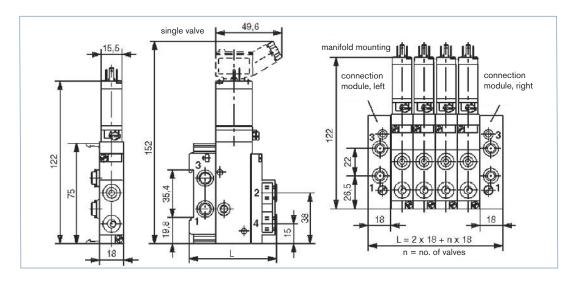
#### Circuit function of valve



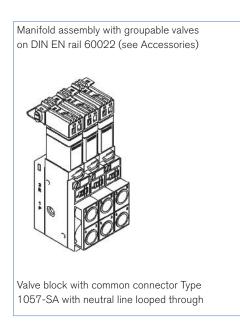
#### Dimensions [mm] - Valve with rectangular plug on the side

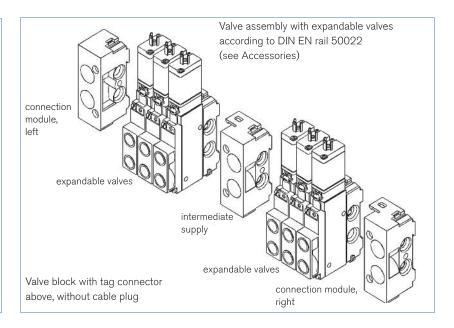


#### Dimensions [mm] - Valve with tag connector above

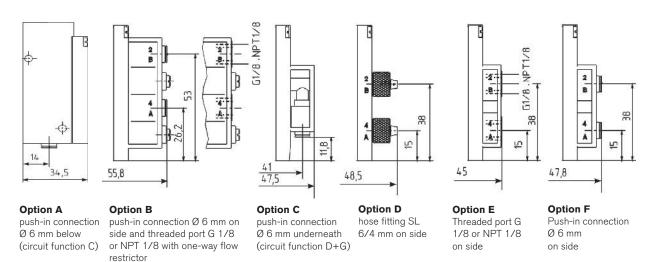


#### Manifold assembly





#### **Options for service ports**



#### Ordering chart for valves (other versions on request)

Extendable single valve with module flange for supply ports 1 and 3, tag connector above, supplied without cable plug (see Accessories)

Circuit function	Orifice [mm]	QNn value air [l/min]	Pressure range [bar]	Service port 2 and 4	Voltage/ Frequency [V/Hz]	Nominal power [W]	ltem no. DC coil²)	ltem no. UC coil³)			
С	4.0	300	2 - 10	Push-in connection Ø 6 mm	24/DC/UC	2	136 872	-			
3/2-way valve, NC <sup>1)</sup>				below with check valve	110-120/DC	3	136 873	145 970			
NC*				(option A)	220-240/DC	3	136 874	145 971			
D	4.0	300	2 - 10	Push-in connection Ø 6 mm	24/DC	2	136 875	-			
3/2-way valve NO				below with check valve (option C)	110-120/DC	3	136 876	-			
(on request)				(option C)	220-240/DC	3	136 877	-			
G	4.0	300	2 - 10	10 Tube connection at side 6/4 (option D)	24/DC/UC	2	136 878	-			
4/2-way valve					110-120/DC/UC	3	136 879	145 976			
					220-240/DC/UC	3	136 880	145 977			
						G 1/8 at side	24/DC/UC	2	136 881	-	
				(option E)	110-120/DC/UC	3	136 882	145 979			
					220-240/DC/UC	3	136 883	145 980			
				G 1/8 at side with one-way	24/DC/UC	2	136 884	-			
					flow restrictor	110-120/DC/UC	3	136 885	145 982		
					(option B)	220-240/DC/UC	3	136 886	145 983		
				Push-in connection	24/DC/UC	2	136 887	-			
					Ø 6 mm at side	110-120/DC/UC	3	136 888	145 985		
			(option F)	220-240/DC/UC	3	136 889	145 986				
			Push-in connection	24/DC/UC	2	136 890	-				
							Ø 6 mm underneath	110-120/DC/UC	3	136 891	145 988
				(option C)	220-240/DC/UC	3	136 892	145 989			

 $<sup>^{1)}</sup>$  3/2-way models (circuit functions C and D) with non-return valve in the module flange.

### Groupable single valves with module flange for supply ports 1 and 3, with rectangular plug

Circuit function	Orifice [mm]	Q <sub>nn</sub> value air [I/min]	Pressure range [bar]	Service port 2 and 4	Voltage/ Frequency [V/Hz]	Nominal power [W]	Item no. DC coil
С	4.0	300	2 - 10	Push-in connection Ø 6 mm under with check valve (option A)	24/DC	2	145 993
G	4.0	300	2 - 10	G 1/8 with 1-way restrictor valve (option B)	24/DC	2	145 997
				Push-in connection Ø 6 mm on side (option F)	24/DC	2	145 998
				Push-in connection Ø 6 mm underneath (option C)	24/DC	2	145 999

<sup>&</sup>lt;sup>2)</sup> Only for direct current operation (DC), for alternating current (AC), place a cable plug with a rectifier upstream. <sup>3)</sup> For universal current operation (UC = DC or AC); rectifier, varistor and LED integrated into the coil.

# Ordering chart for accessories

# Connector modules and accessories for valve blocks

Version	Port connection	Item no.
Connector module,	G 1/8	623 753
left	G 1/4	623 758
	Push-in connection Ø 8 mm	623 755
	Push-in connection Ø 10 mm	623 762
Connector module,	G 1/8	623 767
right	G 1/4	623 773
	Push-in connection Ø 8 mm	623 770
	Push-in connection Ø 10 mm	623 784
Intermediate supply	G 1/8	627 742
	G 1/4	631 288
	Push-in connection Ø 8 mm	631 287
	Push-in connection Ø 10 mm	631 290
Blanking plug	G 1/8	631 019
	G 1/4	631 020
Blanking plug	Ø 6 mm	015 397
	Ø 8 mm	900 065
Covering plate	for unused valve positions	643 223

# Cable plug type 2506 to industrial standard, form B

	Accessory	Circuitry	Features	Item no.
	Cable plug	None (standard)	0 - 250 V/DC	008 353
	type 2506	with LED	12 - 24 V/DC	008 402
		with varistor	12 - 24 V/DC	008 408
57 - M. A.T. 50 - 150 50 - 150		with rectifier, LED and varistor	12 - 24 V/DC	008 345

- other versions: see Datasheet type 2506
- Supplied with cable plug: flat seal and fixing screw.

# Ordering chart for accessories

# **Additional accessories**

Version	Item no.
Extendable 3-way cable plug type 1057-SA, IP20, with looped-through neutral and protective earth (for 24 V only)	629 253
Protective conductor and neutral cable kit	629 262
Control line with AMP plug, 540 mm wires	629 181
Standard 300 mm rail for 8 - 12-way block with intermediate supply (ZE) or for 8 - 14-way block w/o ZE	640 789
Standard 408 mm rail for 13 - 17-way block with intermediate supply (ZE) or for 15 - 19-way block w/o ZE	640 788
Standard 498 mm rail for 17 - 22-way block with 2 intermediate supplies (ZE) or for 18 - 23-way block with 1 ZE	630 579