

4/2 way Pneumatic Solenoid Valve

- Compact design
- Push-over solenoid coil
- Exhaust air can be regulated
- Tube, threaded and sub-base connections
- Seat valve version

Type 5420 combined with ...



Type 2508

Cable plug



Type 2510/11

Cable plug ASI



Type 2012

Globe valve

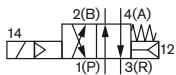


Type 2030

Diaphragm valve

The Type 5420 is a pilot-controlled 4 way seat valve with servo-diaphragms. A minimum differential pressure of 2.5 bar is needed for switch-over. The valve can be mounted on two-channel manifolds with a common pressure supply.

Circuit function G



4/2 way servo-controlled solenoid valve

Technical data	
Orifice	DN3.0 mm
Port connection	G 1/8, tube SL 6/4, sub-base
Body material	Polyamide
Coil material	Polyamide, Epoxy
Seal material	NBR
Medium	Neutral medium, e.g. lubricated or unlubricated compressed air
Air pressure quality	ISO 8573 - 1:2010, class 7.4.4*
Medium Temperature	- 10 °C to + 60 °C
Medium pressure	2.5 to 10 bar
Ambient Temperature	max. 55 °C
Q_{Nn}-Value air	200 l/min
Operating voltage	24 V DC 24/ 230 V/ 50-60 Hz
Voltage tolerance	+ 10 %
Power consumption	version with V DC 2 W version with V AC 11 VA (inrush), 6 VA (hold)
Response time	opening 30 ms (pressure rise 0 to 90%) closing 20 ms (pressure drop 100 to 10%)
Duty cycle	100% continuously rated
Electrical connection	Tag connectors according to DIN EN 175301 - 803 (previously DIN 43650) Form A for cable plug Type 2508
Protection class	IP65 with cable plug
Installation	As required, preferably with actuator upright

Flow rate: Q_{Nn}-value air [l/min]; and response times [ms]:

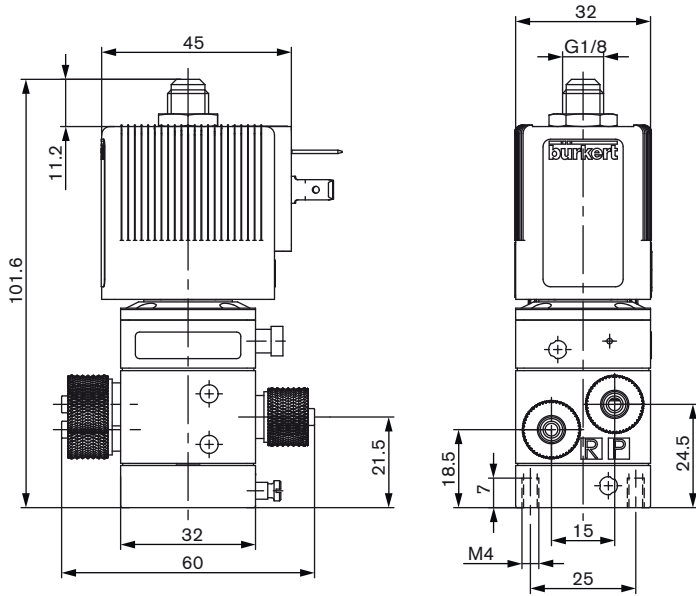
Measured at +20 °C, 6 bar pressure at valve inlet and 1 bar pressure difference.

Pressure ranges [bar]: Overpressure to the atmospheric pressure

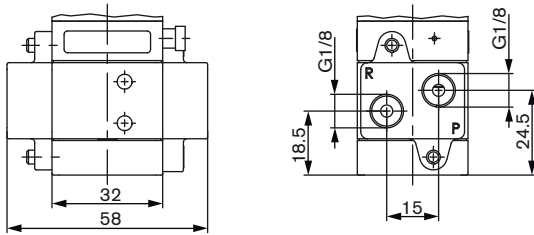
* To prevent freezing of the expanded compressed air, the pressure dew point must be at least 10 K lower than the temperature of the medium.

Dimensions - Standard version [mm]

Tube connection for semi-soft plastic tubes (outer-Ø 6 mm, inner-Ø 4 mm).
 For battery mounting, the union nuts on the Ports 1 and 3 are replaced by O-rings (10 × 2).



Threaded connection G 1/8



Ordering chart for valves - Standard version

Corrosion-resistant body in polyamide, with coil AC10 (32 mm), 2 W, seal material NBR, without cable plug

Circuit function	Port connection 1 and 3	Port connection 2 and 4	Orifice [mm]	Q ₅₀ value air [l/min]	Pressure range [bar]	Article no. per voltage/frequency [V/Hz]		
						024/DC	024/50 - 60	230/50 - 60
	G 1/8	G 1/8	3.0	200	2.5 - 10	134622	134623	134625
	Hose fitting 6/4	Hose fitting 6/4	3.0	200	2.5 - 10	134630	134631	134633
	Flange for manifold	G 1/8	3.0	200	2.5 - 10	134634	134635	134637
	Flange for manifold	Hose fitting 6/4	3.0	200	2.5 - 10	134638	134639	134641

A pressure difference of 2.5 bar is necessary for switch-over.

Type 5420 - ATEX/IECEx version



The approval Ex m is achieved by the mounting of an approved push-over coil. The cable connection and the cable are non-detachable and sealed together with the valve. The valves can be used individually or in blocks.

Technical data	
Body material	Polyamide
Seal material	NBR
Medium	neutral medium, e.g. lubricated or unlubricated compressed air
Air pressure quality	ISO 8573 - 1:2010, class 7.4.4*
Medium temperature	-10 °C to +60 °C
Ambient temperature	
Single mounting	-30 °C to +60 °C
Block mounting	-30 °C to +50 °C
Port connection	G 1/8, tube SL 6/4, sub-base
Operating voltage	24/ 110/ 230 V UC
Voltage tolerance	+ 10 %
Duty cycle	100 % continuously rated
Electrical connection	3 m cable, moulded Junction box (without fuse), moulded
Protection class	IP65
Type of protection	
Coil	PTB 14 ATEX 2023 X / IECEx PTB 14.0049 X II 2G Ex mb IIC T5 Gb II 2D Ex mb IIIC T 100 °C Db
Junction box	EPS 16 ATEX 1046 X / IECEx EPS 16.0021 X II 2G EX eb mb IIC T5 Gb II 2D EX mb tb IIIC T100 °C Db
Installation	As required, preferably with actuator upright

* To prevent freezing of the expanded compressed air, the pressure dew point must be at least 10 K lower than the temperature of the medium.

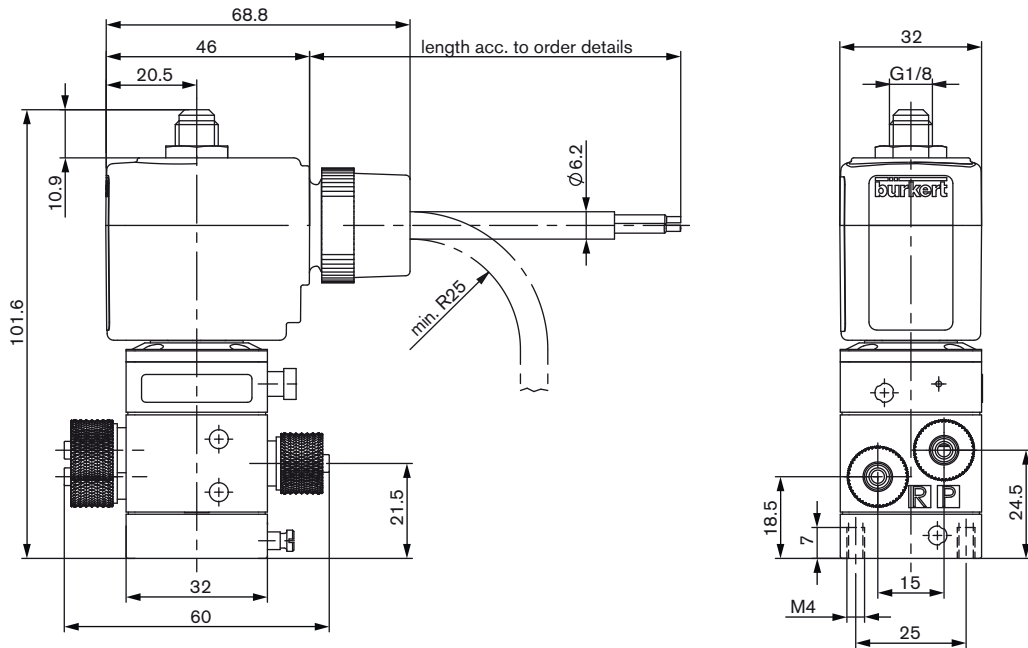
Orifice [mm]	Q _{Nn} value [l/min]	Port connection		Coil power [W]	Pressure range [bar]	Response times		Weight [kg]
		1 and 3	2 and 4			opening [ms]	closing [ms]	
3	200	G 1/8	G 1/8	3	2.5 to 10	30	20	ca 0.4
		SL 6/4	SL 6/4					
		sub-base *	G 1/8					
		sub-base **	SL 6/4					

* For full opening a differential pressure of 2.5 bar is required.

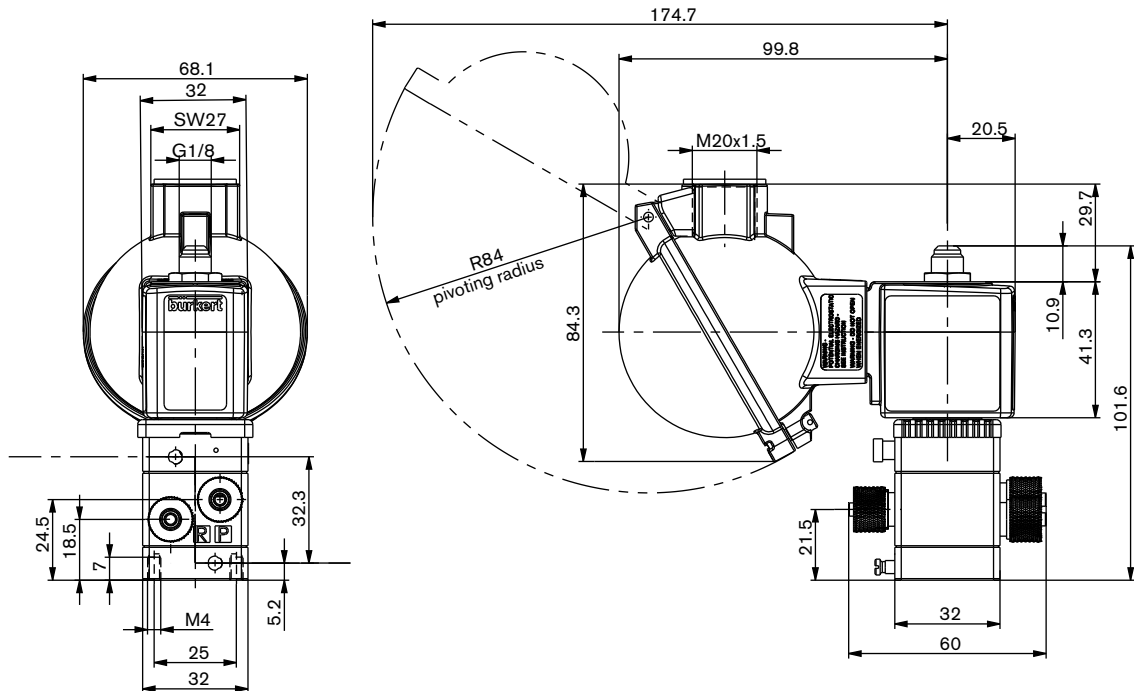
** Sub-base for mounting on manifolds.

Dimensions - ATEX/IECEx versions [mm]

Version with moulded cable (3 m)



Version with junction box



Ordering chart - ATEX/IECEX versions

Versions acc. to Ex m II T5, Polyamide body with manual override; with moulded cable (3 m long)

The maximum fluid temperature may never exceed the permissible temperature class (T4 135 °C, T5 100 °C, T6 85 °C) minus 5K.

Circuit function	Port connections 1 and 3	Port connections 2 and 4	Orifice [mm]	Q _{Nr} value air [l/min]	Pressure range [bar]	Electrical connection usage	Article no. per voltage/frequency [V/Hz]		
							024/UC	110/UC	230/UC
G 4/2 way valve	G 1/8	G 1/8	3.0	200	2.5 - 10	single device	278134	x	x
	Hose fitting 6/4	Hose fitting 6/4	3.0	200	2.5 - 10	Block mounted	278125	x	278127
	Sub-base for manifold	G 1/8	3.0	200	2.5 - 10		278130	278131	278132
	Sub-base for manifold	Hose fitting 6/4	3.0	200	2.5 - 10		278128	x	278129

Note: Junction box on request

x on request

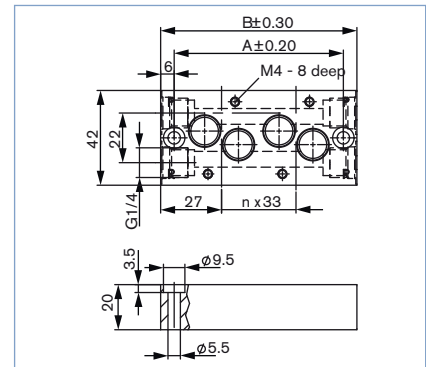
Ordering chart for accessories

Side by side manifolds made of light metal (Aluminium)

Total Manifolds	Hole spacing A [mm]	Total length B [mm]	Article no.
2	75	87	005356
3	108	120	005357
4	141	153	005372
5	174	186	005373
6	207	219	005374
8	273	285	006553

Accessories for Manifolds

Silencer	005424
Screw plug for unused ports 1 or 4	005390
Cover, complete, for unused valve positions on manifolds	005432
Nipple with O-rings for connecting junction plate	005049



Cable plug Type 2508 acc. to DIN 43650 Form A

Description	Voltage	Article no.
Standard cable plug	0 - 250 V AC/DC	008376
with LED	12 - 24 V AC/DC	008360
with LED	100 - 120 V AC/DC	008361
with LED and varistor	12 - 24 V AC/DC	008367
with LED and varistor	100 - 120 V AC/DC	008368
with LED and varistor	200 - 240 V AC/DC	008369

Note: The delivery of a cable plug includes the flat seal and fixing screw.



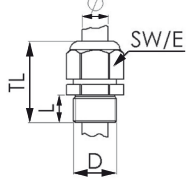


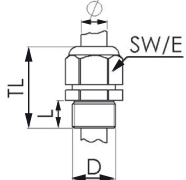
A wide selection of further cable plugs is available. Please refer to data sheet Type 2508.

[More info.](#)



Accessories (continued)

Ex-Cable gland

(polyamide version included in delivery / surcharge applied for brass nickel plated version)

Photo	Description	Ex Approvals		Article no	Drawing										
		Certification	Identifica- tion												
	Brass, nickelplat- ed, 6-13 mm	PTB 04 ATEX 1112 X, IECEX PTB 13.0027X	II 2 G Ex e IIC Gb, II 2 D Ex tb IIIC Db IP68,	773278 	 <table border="1"> <tr><td>TL</td><td>29-37 mm</td></tr> <tr><td>L</td><td>6 mm</td></tr> <tr><td>D</td><td>20</td></tr> <tr><td>SW</td><td>24 mm</td></tr> <tr><td>E</td><td>27 mm</td></tr> </table>	TL	29-37 mm	L	6 mm	D	20	SW	24 mm	E	27 mm
TL	29-37 mm														
L	6 mm														
D	20														
SW	24 mm														
E	27 mm														
	Polyamide, 7-13 mm	PTB 13 ATEX 1015 X, IECEX PTB 13.0034X	II 2 G Ex e IIC Gb, II 2 D Ex tb IIIC Db IP68	773277 	 <table border="1"> <tr><td>TL</td><td>36-45 mm</td></tr> <tr><td>L</td><td>10 mm</td></tr> <tr><td>D</td><td>20</td></tr> <tr><td>SW</td><td>24 mm</td></tr> <tr><td>E</td><td>28 mm</td></tr> </table>	TL	36-45 mm	L	10 mm	D	20	SW	24 mm	E	28 mm
TL	36-45 mm														
L	10 mm														
D	20														
SW	24 mm														
E	28 mm														

Special tool to turn the junction box (not included in delivery)

Photo	Description	Article no.
	Set SC02-AC10 Special wrench Service Manual	293488 

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