



## 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

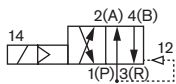


**Type 2030**

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 valve, normally pressure port 1 connected to outlet 2, outlet 4 relieved

Technical data	
<b>Orifice</b>	DN3,0 mm
<b>Port connection</b>	G 1/8, tube SL 6/4, sub-base
<b>Body material</b>	Polyamide
<b>Coil material</b>	Polyamide, Epoxy
<b>Seal material</b>	NBR
<b>Medium</b>	Neutral medium, e.g. lubricated or unlubricated compressed air
<b>Air pressure quality</b>	ISO 8573-1:2010, class 7.4.4*
<b>Medium Temperature</b>	-10 °C to +60 °C
<b>Medium pressure</b>	2,5 to 10 bar
<b>Ambient Temperature</b>	max. 55 °C
<b>QnN-Value air</b>	200 l/min
<b>Operating voltage</b>	24 V DC 24/ 230 V/ 50-60 Hz
<b>Voltage tolerance</b>	+10%
<b>Power consumption</b>	version with V DC: 2 W version with V AC: 11 VA (inrush), 6 VA (hold)
<b>Response time</b>	opening: 30 ms (pressure rise 0 to 90%) closing: 20 ms (pressure drop 100 to 10%)
<b>Duty cycle</b>	100% continuously rated
<b>Electrical connection</b>	Tag connectors according to DIN EN 175301-803 (previously DIN 43650) Form A for cable plug Type 2508
<b>Protection class</b>	IP65 with cable plug
<b>Installation</b>	As required, preferably with actuator upright

**Flow rate:** QnN-value air [l/min]; and response times [ms]:

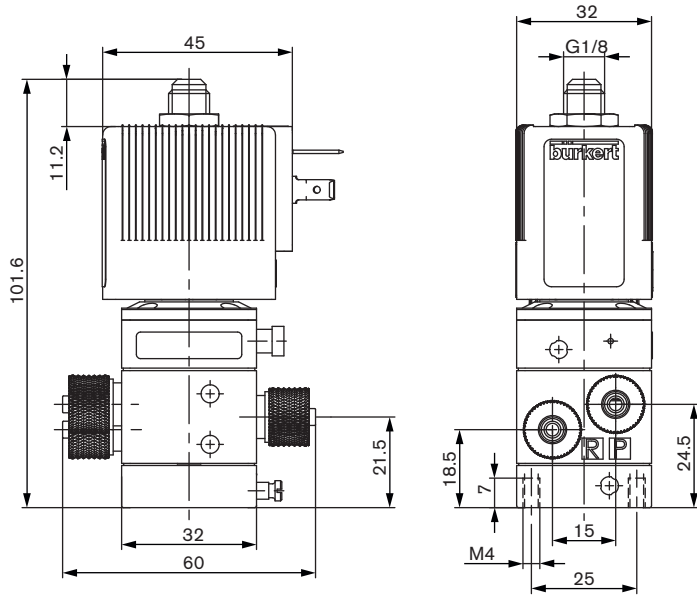
Measured at +20 °C, 6 bar pressure at valve inlet and 1 bar pressure difference.

**Pressure ranges [bar]:** Overpressure to the atmospheric pressure

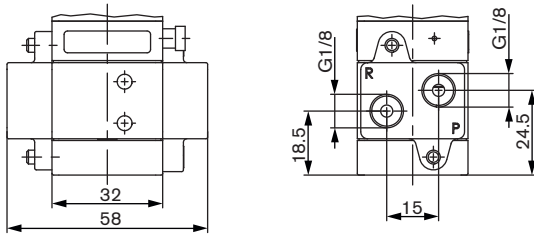
\* To prevent freezing of the expanded compressed air, the pressure dew point must be at least 10 K lower than the temperature of the medium.

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 x 2).



Threaded connection G 1/8



Ordering chart for valves - Standard version

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

Circuit function	Port connection 1 and 3	Port connection 2 and 4	Orifice [mm]	Q <sub>Nn</sub> value air [l/min]	Pressure range [bar]	Item 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	134 622	134 623	134 625
	Hose fitting 6/4	Hose fitting 6/4	3.0	200	2.5 - 10	134 630	134 631	134 633
	Flange for manifold	G 1/8	3.0	200	2.5 - 10	134 634	134 635	134 637
	Flange for manifold	Hose fitting 6/4	3.0	200	2.5 - 10	134 638	134 639	134 641

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	
<b>Body material</b>	Polyamide
<b>Seal material</b>	NBR
<b>Medium</b>	neutral medium, e.g. lubricated or unlubricated compressed air
<b>Air pressure quality</b>	ISO 8573-1:2010, class 7.4.4*
<b>Medium temperature</b>	-10 °C to +60 °C
<b>Ambient temperature</b>	
Single mounting	-30 °C to +60 °C
Block mounting	-30 °C to +50 °C
<b>Port connection</b>	G 1/8, tube SL 6/4, sub-base
<b>Operating voltage</b>	24/ 110/ 230 V UC
<b>Voltage tolerance</b>	+10%
<b>Duty cycle</b>	100% continuously rated
<b>Electrical connection</b>	3m cable, moulded Junction box (without fuse), moulded
<b>Protection class</b>	IP65
<b>Type of protection</b>	
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
<b>Installation</b>	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.

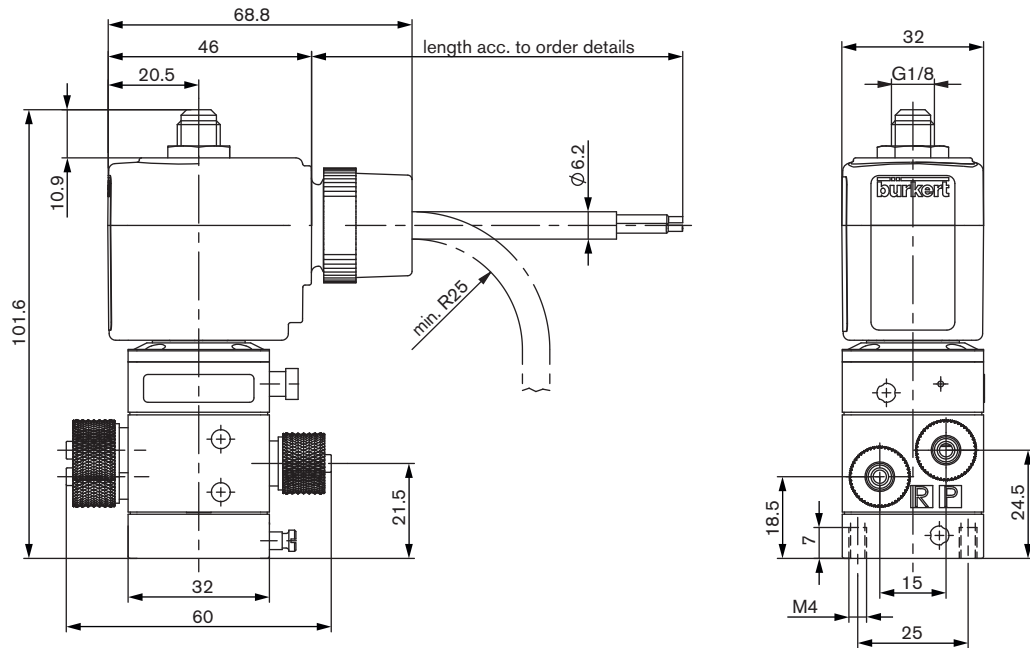
Orifice [mm]	QNn value [l/min]	Port connection		Coil power [W]	Pressure range [bar]	Response times		Weight [kg]
		1 and 3	2 and 4			opening [ms]	closing [ms]	
3	200	G 1/8	G 1/8	3	2.5 to 10	30	20	ca 0.4
		SL 6/4	SL 6/4					
		sub-base *	G 1/8					
		sub-base **	SL 6/4					

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

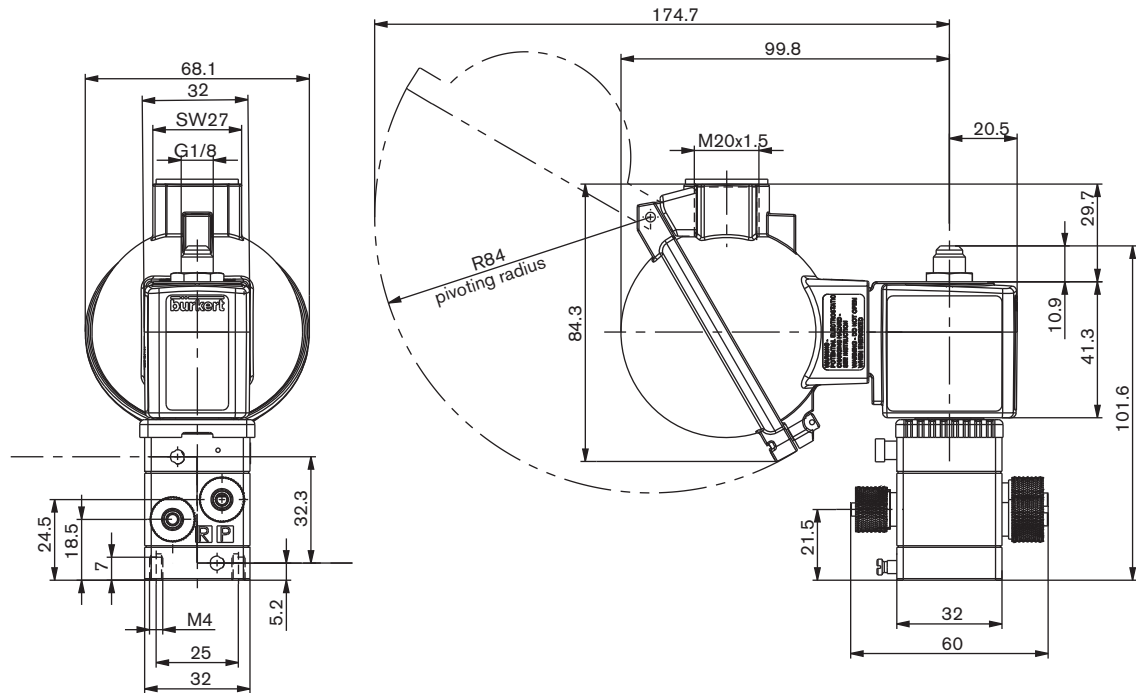
\*\* Sub-base for mounting on manifolds.

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 <sub>Nn</sub> value air [l/min]	Pressure range [bar]	Electrical connection usage	Item 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	278 134	x	x
	Hose fitting 6/4	Hose fitting 6/4	3.0	200	2.5 - 10	Block mounted	278 125	x	278 127
	Sub-base for manifold	G 1/8	3.0	200	2.5 - 10		278 130	278 131	278 132
	Sub-base for manifold	Hose fitting 6/4	3.0	200	2.5 - 10		278 128	x	278 129

Note: Junction box on request

x on request

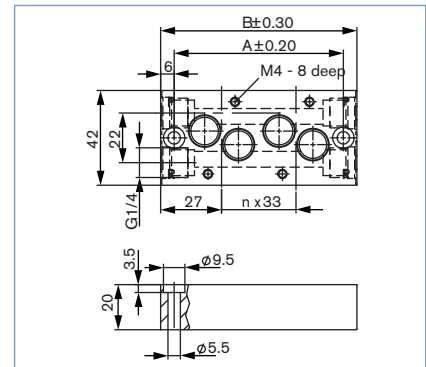
## Ordering chart for accessories

### Side by side manifolds made of light metal (Aluminium)

Total Manifolds	Hole spacing A [mm]	Total length B [mm]	Item no.
2	75	87	005 356
3	108	120	005 357
4	141	153	005 372
5	174	186	005 373
6	207	219	005 374
8	273	285	006 553

#### Accessories for Manifolds

Silencer	005 424
Screw plug for unused ports 1 or 4	005 390
Cover, complete, for unused valve positions on manifolds	005 432
Nipple with O-rings for connecting junction plate	005 049



### Cable plug Type 2508 acc. to DIN 43650 Form A

Description	Voltage	Item no.
Standard cable plug	0-250 V AC/DC	008 376
with LED	12-24 V AC/DC	008 360
with LED	100-120V AC/DC	008 361
with LED and varistor	12-24 V AC/DC	008 367
with LED and varistor	100-120V AC/DC	008 368
with LED and varistor	200-240 V AC/DC	008 369

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


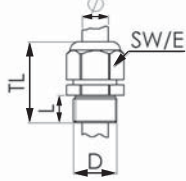

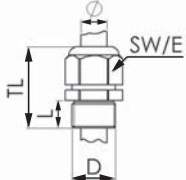
A wide selection of further cable plugs is available. Please refer to data sheet Type 2508.

[More info.](#)

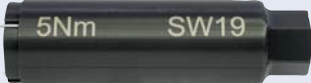
## Accessories (continued)

## Ex-Cable gland

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

Photo	Description	Ex Approvals		Item no	Drawing										
		Certification	Identifica- tion												
	Brass, nickelplated, 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,	773 278	 <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	773 277	 <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	Item no.
	Set SC02-AC10 Special wrench Service Manual	293 488

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