

4/2 Directional Control Valves



Nominal size 4

Solenoid pilot operated spool valve

Port size G 1/8

Manifold system G 1/4, manifold bars G 3/8

Operating pressure 1.5 to 10 bar

Catalog Register

P11

Publication 7502127.06.02.96



Description

Solenoid valve for filtered, lubricated¹⁾ or non-lubricated air

Flow direction: Fixed
Temperature range: -10 to +60°C

Features

- Standard manual override with and without detent
- Mounting position optional
- Small size
- Exhaust air attenuated
- High flow rate
- Common exhaust
- Maintenance-free
- Simple assembly
- Connector interface to DIN 43650, Form B
- Low power consumption 2.5 watt and 5 watt



Parameters

Symbols ²⁾	Nom. size	Port size	Operating pressure [bar]		Flow rate Q _N [l/min]	Switching time ²⁾ approx. [ms]		Weight [kg]	Sectional drawing No.	Dimensional drawing No.	Cat. No.	
			min.	max.		ON	OFF				Valve	Solenoid
			Power consumption 5 watt (6 VA)								See solenoid specification	
4	G1/8	1.5	10	700	18	10	0.3	01	01	2625400		
Power consumption 5 watt (6 VA)												See solenoid specification
4	G1/8	1.5	10	700	13	13	0.4	02	02	2625500		
Power consumption min. 2.5 watt												See solenoid specification
4	G1/8	1.5	10	700	24	12	0.3	01	01	2625401		
Power consumption min. 2.5 watt												See solenoid specification
4	G1/8	1.5	10	700	18	18	0.4	02	02	2625501		

¹⁾ Oil recommendation: Shell Hydraul DO 32, ESSO Febis K 32 (as of July 1992) or comparable oils with DVI values < 8 (DIN 53521) and ISO viscosity class 32-46 (DIN 51519).

²⁾ At 6 bar to VDI 3290 with DC solenoid



³⁾ Port 3 not throttleable

Further versions available on request

Solenoids with / without connectors according to DIN 43650





Standard voltages: 24 VDC, 230 VAC. Further voltages available on request.

Design acc. to VDE 0580. 100% duty cycle. See Publication 7502063 for further information.

Picture	Connector interface to DIN 43650	Degree of protection to DIN 40050	Rated power at		Temperatures ¹⁾ [°C]			Cat. No.
			DC [W]	AC [VA]	Fluid max.	Ambience	Max. temp. sum	
	Form B	IP 00	2.5 5 —	— — 6	80 80 80	—25 to +60 —25 to +60 —25 to +40	110 110 100	0151 0150 0152
		IP 65	2.5 5 —	— — 6	80 80 80	—25 to +60 —25 to +60 —25 to +40	110 110 100	0161 0160 0162

¹⁾ Temperatures refer to the respective solenoid only. Permissible valve temperatures are not considered here. The max. temperature sum, composed of ambient + fluid temperature, must not be exceeded.


Connectors for solenoids / Degree of protection: IP 65

Picture	Description	Electrical circuit diagram	Operating temperature [°C]	Operating voltage [V]	Cat. No.
	Connector acc. to DIN 43650, Form B Without cable Without LED		—40...+125	12...250 DC/AC	0680003
	Connector acc. to DIN 43650, Form B Without cable With LED and quenching diode or fluorescent lamp		—40...+100	15...30 DC	0664811
	Connector acc. to DIN 43650, Form B With cable, 3 m Without LED		—40...+90	12...250 DC/AC	0681494
	Connector acc. to DIN 43650, Form B With cable, 3 m With LED and Zener diode		—20...+80	24 DC/AC	0680208

Protection classes EEx e and EEx m

Standard voltages: 24 VDC, 230 VAC. Further voltages available on request.

Design acc. to VDE 0580 or VDE 0171. 100% duty cycle. See Publication 7502548 for further information.

Picture	Protection class	Degree of protection acc. to DIN 40050	Rated power at		Perm. temperatures [°C] Fluid and ambience	Design	Cat. No.
			DC [W]	AC [VA]			
	EEx e II T4	IP 65	5 3	— —	—20 to +80	— —	3150 3155
	EEx m II T4	IP 65	5 —	— 6	—20 to +80	With varistor With varistor and rectifier	3160 3161
			3	—		With varistor	3170

Further versions available on request

Cat. No. (example): 2625400. 0150
Valve Solenoid

Please indicate voltage [V] and frequency [Hz]

Attention:

Valves and solenoids can only be combined if their electrical ratings correspond with each other (please see Parameters, Page 1).

Characteristics curves (Flow diagram)

Sectional drawings

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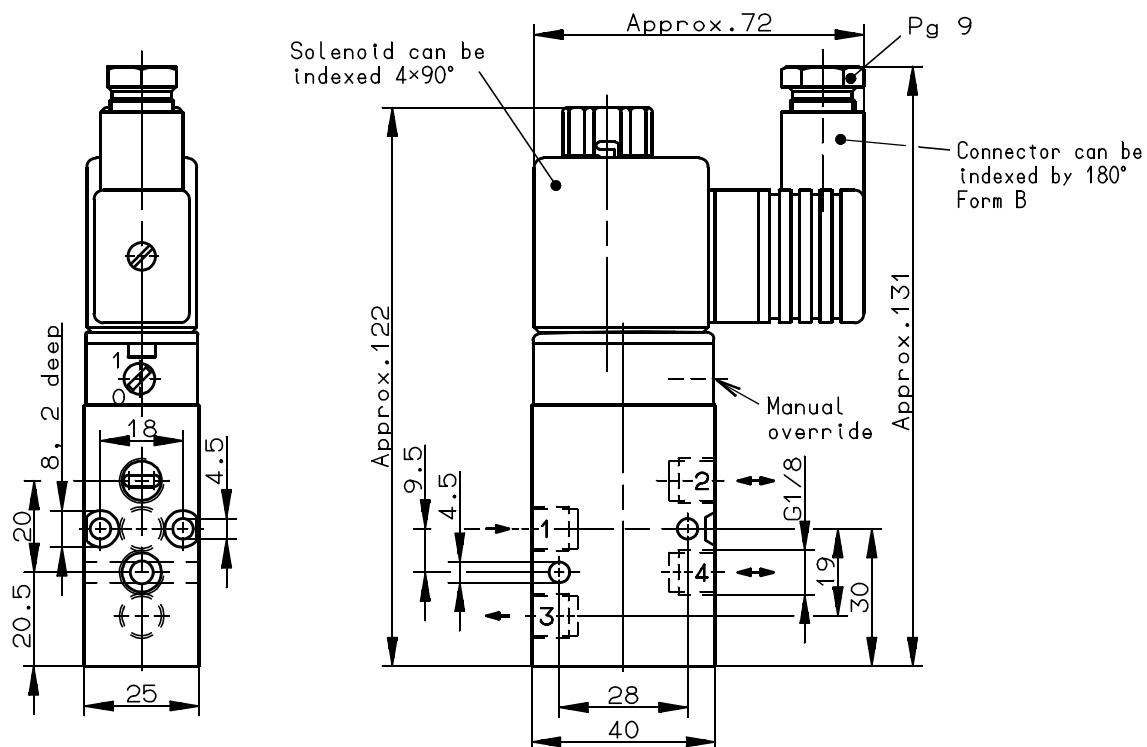
02

- 1 Body assly.
- 2 Piston
- 3 3/2 pilot valve
- 4 Bush
- 5 Bush
- 7 Sealing disc
- 8 Moulded piece
- 9 Lip ring
- 12 Retaining ring
- 13 Screw
- 19 Solenoid
- 20 Connector

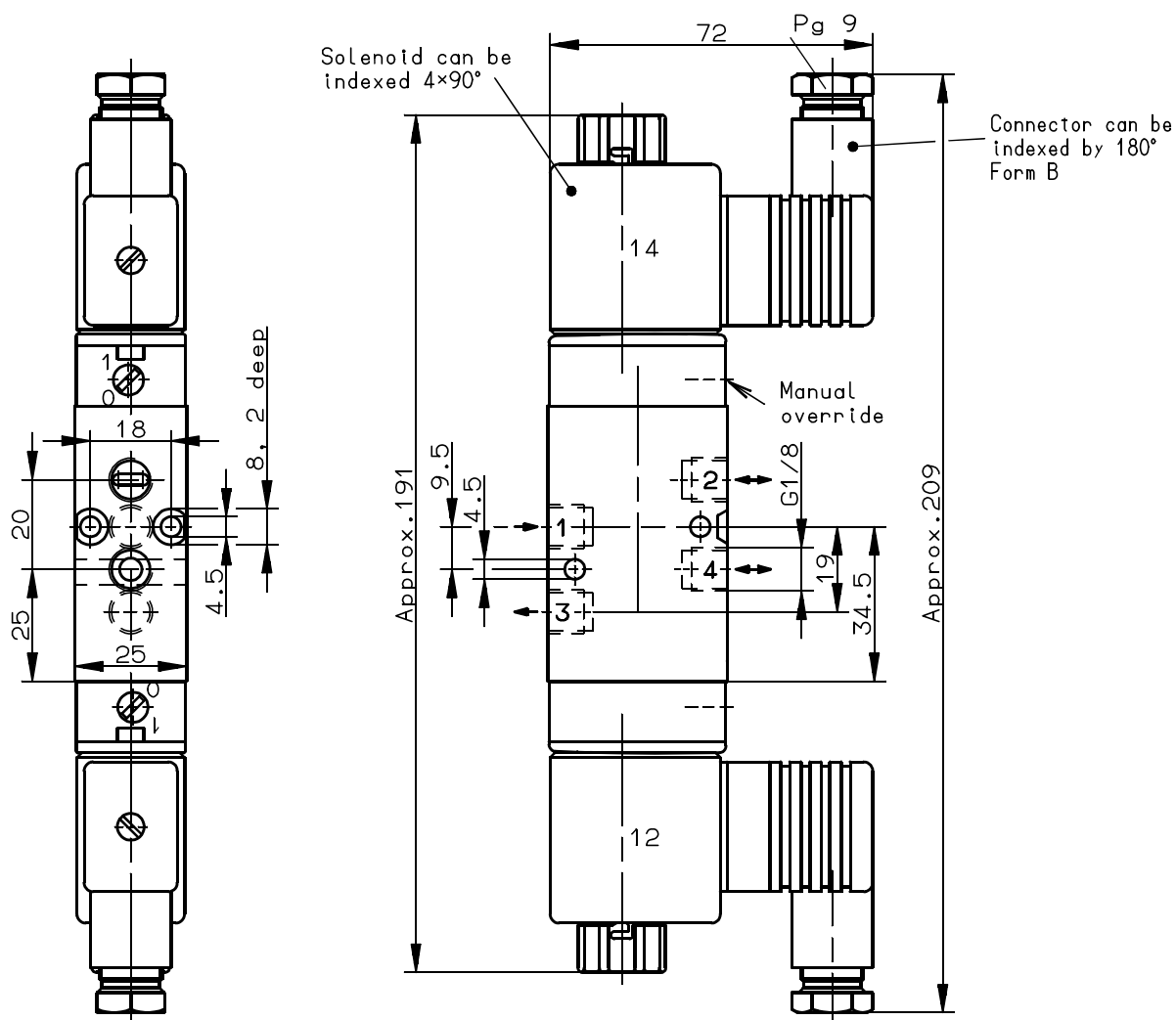
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- 2 Piston
- 3 3/2 pilot valve
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- 6 Lip ring
- 7 Screw
- 19 Solenoid
- 20 Connector

Dimensional drawings [mm]

01



02



Manifold system

Components

Manifold system without valves

Designation	Weight [kg]	Cat. No.
Terminal base assly. (threaded)	0.10	0559984
Intermediate base assly. (not threaded)	0.10	0559985
Manifold base assly. (for pressure switch 18 D)	0.10	0540937
Pressure shutoff plate assly. (for valve mounting under pressure)	0.08	0541502
Pressure supply plate assly. (for separate air supply)	0,08	0541505
Manifold system for 2 valves		
Manifold system for 3 valves	0.18	2629202
Manifold system for 4 valves	0.28	2629203
Manifold system for 5 valves	0.37	2629204
Manifold system for 6 valves	0.47	2629205
Manifold system for 7 valves	0.56	2629206
Manifold system for 8 valves	0.66	2629207
Manifold system for 9 valves	0.75	2629208
Manifold system for 10 valves	0.85	2629209
Manifold system for 11 valves	0.94	2629210
Manifold system for 12 valves	1.04	2629211
	1.13	2629212
Blank plate assly.		
Screw plug G 1/4	0.01	0540038
Sealing ring for screw plug	0.01	0565449
Isolator disc	—	0660835
(for separate supply pressure)	—	0540594
Station designation:		
Support		
Label (10 ea.)	—	0542054
	—	0543028

The manifold bases are available as individual units or completely assembled acc. to the customer's requirements. Valve assembly screws are included in the delivery.

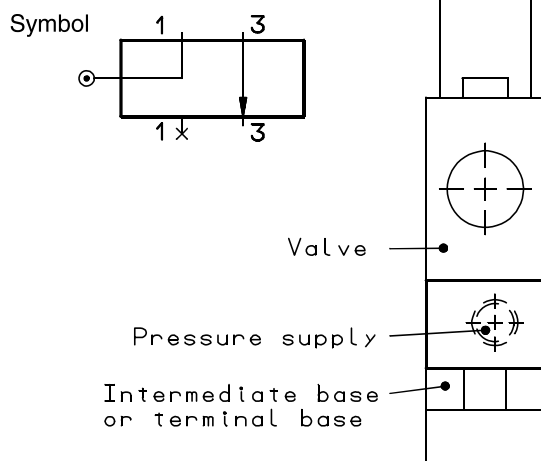
Manifold bars

Manifold bars without valves

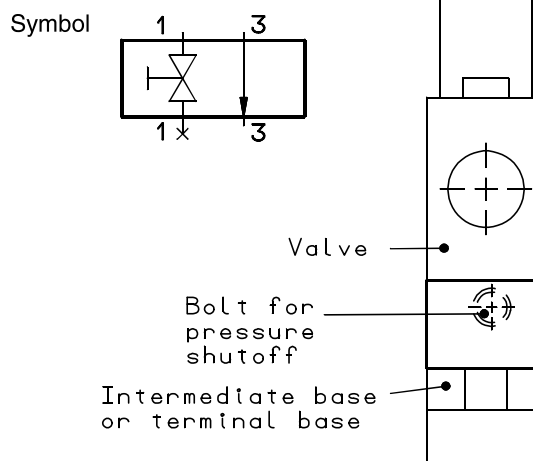
Designation	Weight [kg]	Cat. No.
Manifold bars		
for 2 valves	0.10	2629302
for 3 valves	0.15	2629303
for 4 valves	0.20	2629304
for 5 valves	0.25	2629305
for 6 valves	0.30	2629306
for 7 valves	0.35	2629307
for 8 valves	0.40	2629308
Blank plate assly.	—	0541244
Screw plug	—	0701192
Sealing ring for screw plug		0662898

Mounting instructions

Pressure supply plate

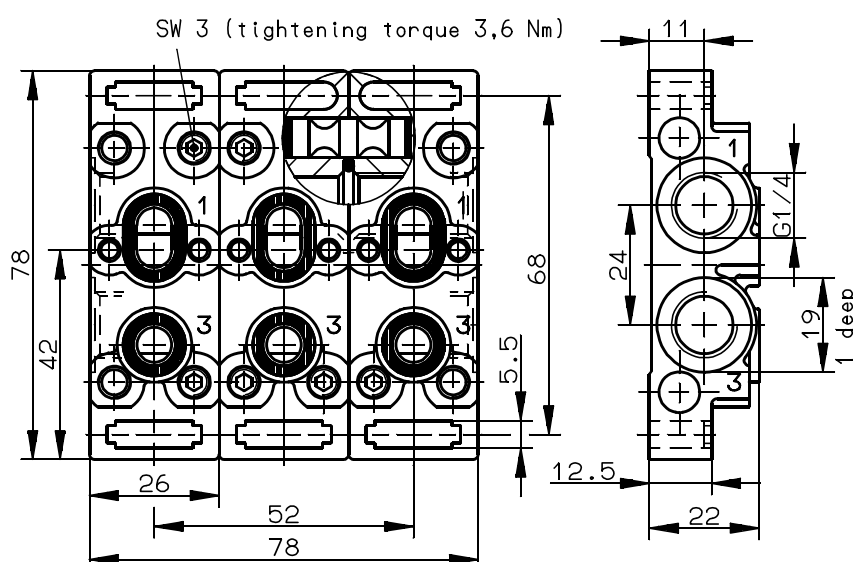


Pressure shutoff plate



Dimensional drawings [mm]

Manifold system



Dimensional table [mm]

Cat. No.	Number of valves	L	M
0559984	1	26	—
0559985	1	26	—
2629202	2	52	26
2629203	3	78	52
2629204	4	104	78
2629205	5	130	104
2629206	6	156	130
2629207	7	182	156
2629208	8	208	182
2629209	9	234	208
2629210	10	260	234
2629211	11	286	260
2629212	12	312	286

Order

The manifold bases are available as individual units or completely assembled acc. to the customer's requirements. Valve assembly screws are included in the delivery.

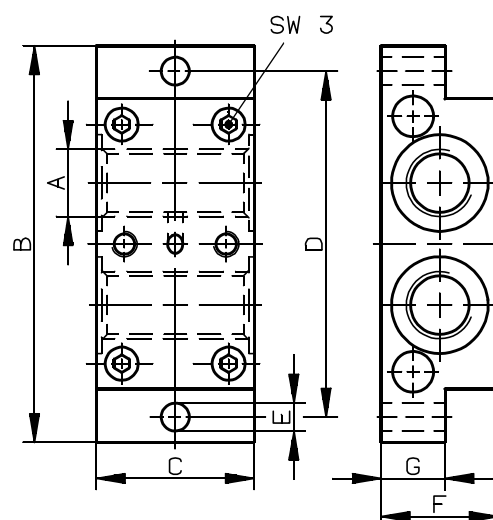
Example of order:

a) Manifold system for 3 valves (assembled) **2629203**

or

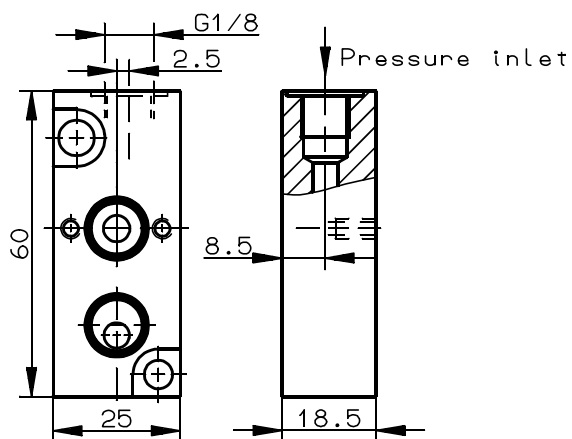
b) 2 terminal bases: 2 x **0559984**
1 intermediate base: **0559985**
(not assembled)

Base for pressure switch 18 D

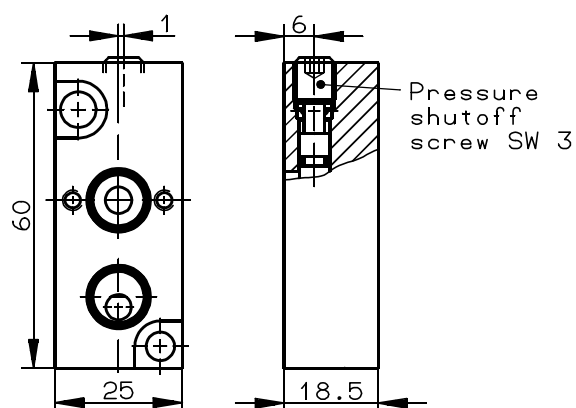


Dimensional drawings [mm]

Pressure supply plate

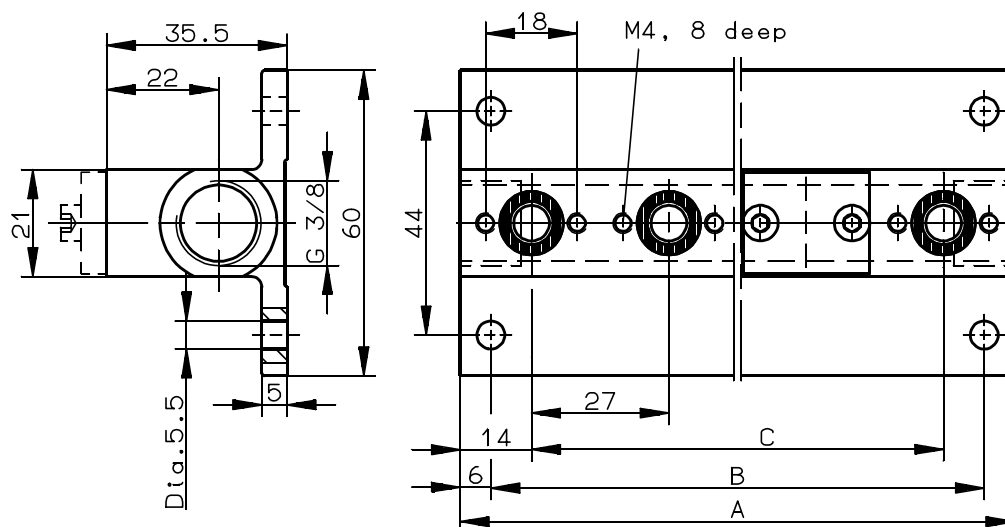


Pressure shutoff plate



Dimensional drawing [mm]

Manifold bars



Dimensional table [mm]

Cat. No.	Number of valves	A	B	C
2629302	2	55	43	27
2629303	3	82	70	54
2629304	4	109	97	81
2629305	5	136	124	108
2629306	6	163	151	135
2629307	7	190	178	162
2629308	8	217	205	189

Summary - System in nominal size 4

Components

Item	Designation	For further informations see Publication
1	Pneumatic cylinder	7502131
2	Throttle check valve, threaded	Standard program 7502184
3	Throttle valve	7502188
4	Throttle check valve	7502187
5	Silencer	7501080 / 7501079

Item	Designation	For further informations see Publication
6	Quick venting valve	7502189
7	Throttle check valve	7501068
8	Throttle check valve	7501100
9	Check valve	7501062
10	Electronic components	7502131
11	Pressure switch	Standard program 7501628