



### Advantages/Benefits

- ▶ G 1/8, push-on tube and manifold connection
- ▶ When de-energized, pressure inlet port connected to one outlet port, the other outlet port is vented
- ▶ Body material: Polyamide
- ▶ Direct control via PLC as an option
- ▶ Air flow can be regulated with two separate restrictors
- ▶ Compact design
- ▶ Suitable for manifold mounting
- ▶ Lockable manual override standard

### Design/Function

Type 420 is a servo-assisted diaphragm seat valve. A minimal pressure differential of 2.5 bar between pressure inlet port P and outlet port R is required to provide reliable switching of the valve.

The power consumption of the 3/2-way pilot is very low, which allows direct control via a PLC. The valve is compact and can be joined together on two-channel valve manifolds with common pressure supply and exhaust.

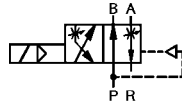
### Applications

- Pneumatic control
- Lubricated and unlubricated compressed air
- Piloting of double-acting cylinders to DN 32 mm (depending upon the required piston speed)
- Piloting of pneumatic linear and rotary actuators
- Packaging machines
- Production lines
- Handling systems
- Sawing machines
- Fire protection systems

## Technical Data

### Circuit Function

- G** 4/2-way valve, when de-energized pressure port P connected to outlet B outlet port A exhausted. With manual override and two separate restrictors.



### Body Material

Polyamide

### Specification

Orifice DN [mm]	QnN-Value Air <sup>1)</sup> [l/min]	Pressure Range <sup>2)</sup> [bar]	Weight [kg]
3	200	2,5-10	0,27 - 0,32

<sup>1)</sup> Measured with 6 bar upstream pressure and 1 bar pressure drop across the valve at +20 °C, <sup>2)</sup> 1.5-10 bar version on request.

All pressures quoted are gauge pressures with respect to the prevailing atmospheric pressure.

## Operating Data (Valve)

### Seal Materials/Fluids Handled

NBR Compressed air -10 to +50 °C

FPM<sup>3)</sup> Neutral fluids, e.g. compressed air; increased temperature and fluid load -10 to +50 °C

<sup>3)</sup> pilot control only

For more detailed information please refer to resistance chart (Leaflet-No. 1896009).

Max. ambient temperature +50 °C

Response times opening approx. 30 ms closing approx. 20 ms

Port connections	P, R	A, B
	SL 6/4	SL 6/4
	G 1/8 manifold	SL 6/4
	SL 6/4	G 1/8
	G 1/8 manifold	G 1/8
	SL 6/4	G 1/8
	SL 6/4	push-on tube connections for 6 mm OD tubing

## Operating Data (Actuator)

Operating voltage 24, 42, 48, 110, 230, 240V/50 Hz, 24 V/=

Voltage tolerance ±10 %

Power consumption AC 3,5 VA/2 W (hold) DC 2 W

Duty cycle 100% continuously rated

Cycling rate up to 600 c.p.m.

Rating with IP 65 cable plug

## Installation / Accessories

Installation as required

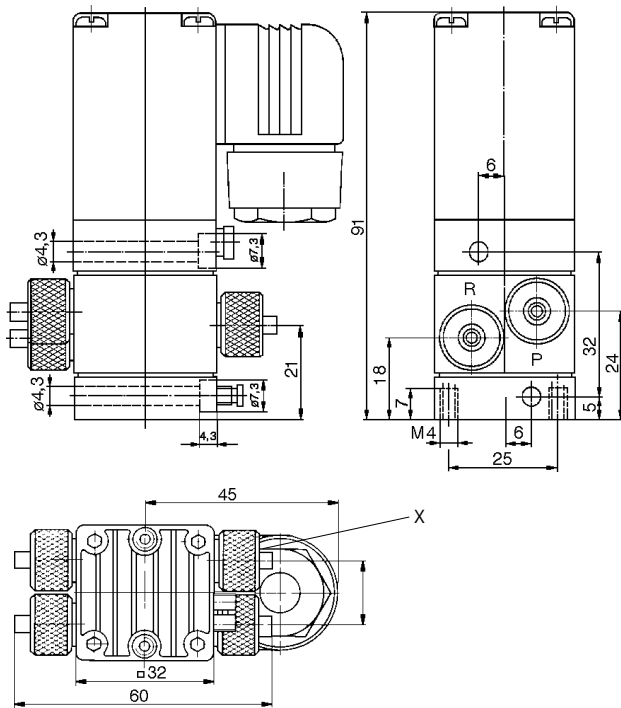
Electrical connectionmit cable plug for 6-7 mm ø cable (supplied as standard).

# 4/2-Way Solenoid Valve, Servo-assisted

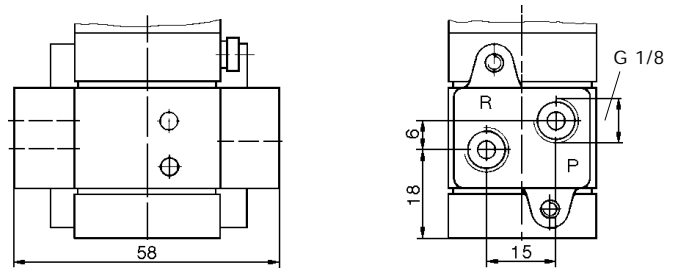
## Type 420

Dimensions in mm

### Tube Connection

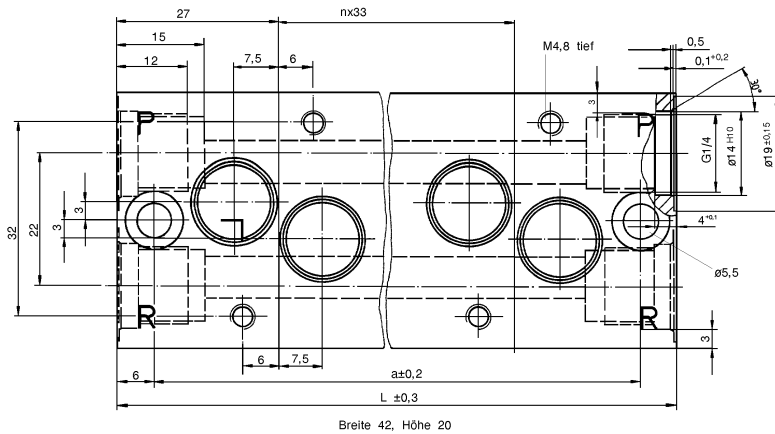


### G 1/8-Connections



X = Tube connections for semi-rigid nylon tubing 4 mm ID and 6 mm OD.  
For manifold mounting the union nuts are replaced by O-rings at the P- and R-terminals.

### Manifolds



### Light Alloy Multi-Manifolds

	Dimensions [mm]		Order-No.
	A	L	
2valves	75	87	005 356 F
3valves	108	120	005 357 G
4valves	141	153	005 372 F
5valves	174	186	005 373 G
6valves	207	219	005 374 H
8valves	273	285	006 553 W

	Order-No.
Silencers	005 424 L
Blanking plug for unused connections A or B	005 390 E
Complete blanking plate	005 432 L
O-ring nipple	005 049 F

# 4/2-Way Solenoid Valve, Servo-assisted

# Type 420

## Ordering Chart (Other Versions on Request)

Circuit Function	Orifice DN [mm]	Flow Rate Air Q/Nn <sup>2)</sup> [l/min]	Port Connection		Pressure Range [bar]	Body Material	Seal Material	Weight [kg]	Voltage/ Frequency [V/Hz]	Order-No.																					
			P-R	A-B																											
G	03,0	200	Sub base <sup>1)</sup>	SL 6/4	2,5-10	Polyamide	NBR	0,27	024/50	044 831 J																					
									024/=	047 289 E <sup>3)</sup>																					
									024/=	044 609 L																					
									042/50	044 612 W																					
									110/50	046 021 K																					
									230/50	049 123 Z <sup>3)</sup>																					
									230/50	044 608 K																					
									240/50	044 805 Z																					
			Sub base <sup>1)</sup>	G 1/8	2,5-10	Polyamide	NBR	0,32	024/=	053 494 J	230/50	051 172 U																			
													G 1/8	G 1/8	2,5-10	Polyamide	NBR	0,32	024/50	053 830 W											
																					024/=	051 190 T									
																							042/50	043 906 V							
																									110/50	051 902 Z					
																											230/50	050 472 C			
																													240/50	050 569 M	
																															G 1/8
SL 6/4	G 1/8	2,5-10	Polyamide	NBR	0,30	024/=	053 972 Y																								
								SL 6/4	SL 6/4	2,5-10	Polyamide	NBR	0,27	024/50	044 511 R																
																024/=	044 586 M														
																		042/50	045 891 Q												
																				048/50	047 004 U										
																						110/50	046 260 K								
																								230/50	047 157 Z						
																										240/50	044 804 Y				
Sub base <sup>1)</sup>	SL 6/4	2,5-10	Polyamide	FPM <sup>4)</sup>	0,27	230/50	050 468 Q																								
								SL 6/4	SL 6/4	2,5-10	Polyamide	FPM <sup>4)</sup>	0,27	024/=	068 416 S																

<sup>1)</sup> Connection to manifolds, <sup>2)</sup> Measured with 6 bar upstream pressure and 1 bar pressure drop across the valve at +20 °C, <sup>3)</sup> Without cable plug, <sup>4)</sup> pilot control only, otherwise NBR