

Application

Control of pneumatic rotary actuators with NAMUR interface $\frac{1}{4}$ " according to VDI/VDE 3845



General

The Type 3930 Solenoid Valve is used to control pneumatic rotary actuators with NAMUR interface. Different nominal signals and switching functions result in versatile use.

The Type 3930 Solenoid Valve has the following special features:

General features

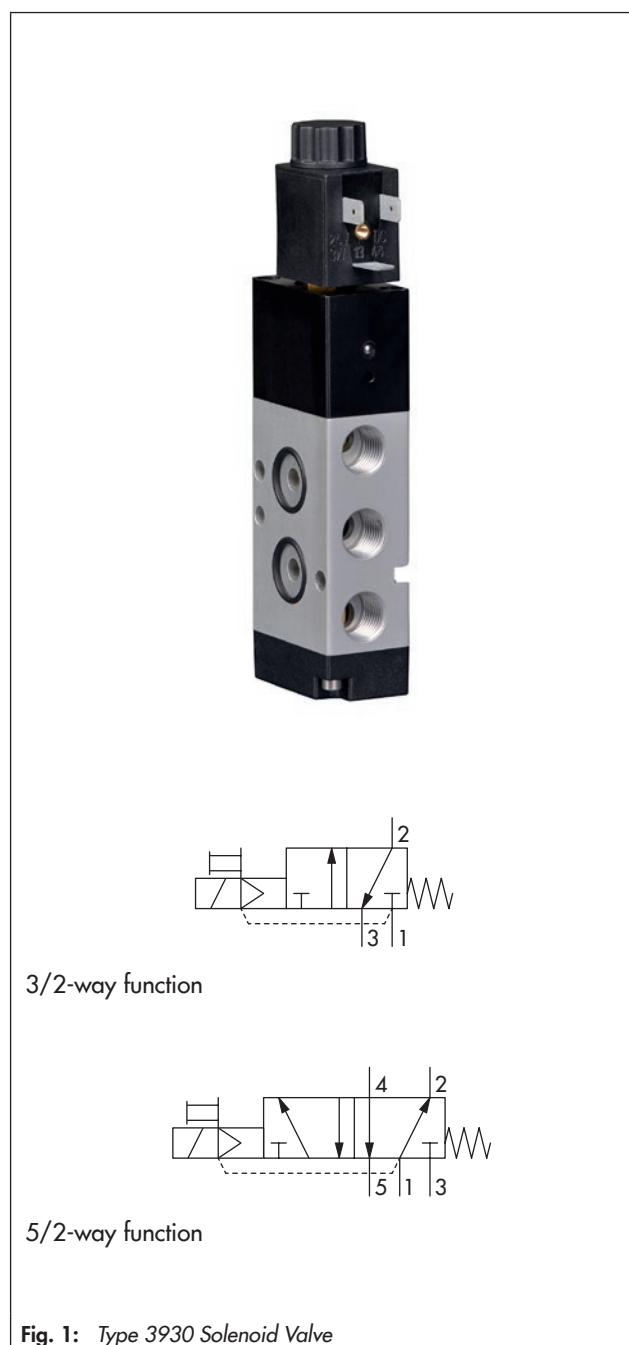
- Solenoid and piston valve with return spring
- 3/2 or 5/2-way function
- Corrosion-resistant body with degree of protection IP 65
- Ambient temperatures from -10 to $+60$ °C

Electric data

- Nominal signal 24 V DC or 230 V AC, other nominal signals on request
- Manual override
- Connector according to DIN EN 175301-803, type B

Pneumatic data

- K_{VS} 0.85
- Supply air 2.5 to 10.0 bar
- Operating pressure max. 10.0 bar
- Threaded connection G $\frac{1}{4}$ and NAMUR interface $\frac{1}{4}$ " according to VDI/VDE 3845



Technical data

General data	
Design	Solenoid and piston valve with return spring
Switching function	3/2 or 5/2-way function
Control	Pilot-operated on one side
Material	Body: black polyamide (solenoid) and aluminum (valve body) Internal parts: stainless steel and brass Screws: zinc-coated steel Short-circuit ring: copper Gaskets: nitrile butadiene rubber
Degree of protection	IP 65 (with mounted cable socket)
Attachment	NAMUR interface 1/4" according to VDI/VDE 3845
Mounting position	Any desired position
Ambient temperature	-10 to +60 °C
Approx. weight	0.42 kg
Electric data	
Nominal signal	24 V DC ($\pm 10\%$) or 230 V AC ($\pm 10\%$), other nominal signals on request
Power consumption	3 W (DC), 5 VA (AC)
Duty cycle	100 %
Connection	Connector according to DIN EN 175301-803, type B, 3-pole
Pneumatic data	
Medium	Instrument air (free from corrosive substances)
Medium temperature	+5 to +80 °C
Compressed air quality according to ISO 8573-1	Max. particle size and density: Class 4 · Oil content: Class 3 · Pressure dew point: Class 3 or at least 10 K below the lowest ambient temperature to be expected
K_{VS} ¹⁾	0.85
Output signal	Same as the operating pressure
Operating pressure	2.5 to 10 bar
Connection	Threaded connection G 1/4 and NAMUR interface 1/4" according to VDI/VDE 3845

¹⁾ The air flow rate when $p_1 = 2.4$ bar and $p_2 = 1.0$ bar is calculated using the following formula:
 $Q = K_{VS} \times 36.22$ in m³/h.

Dimensions

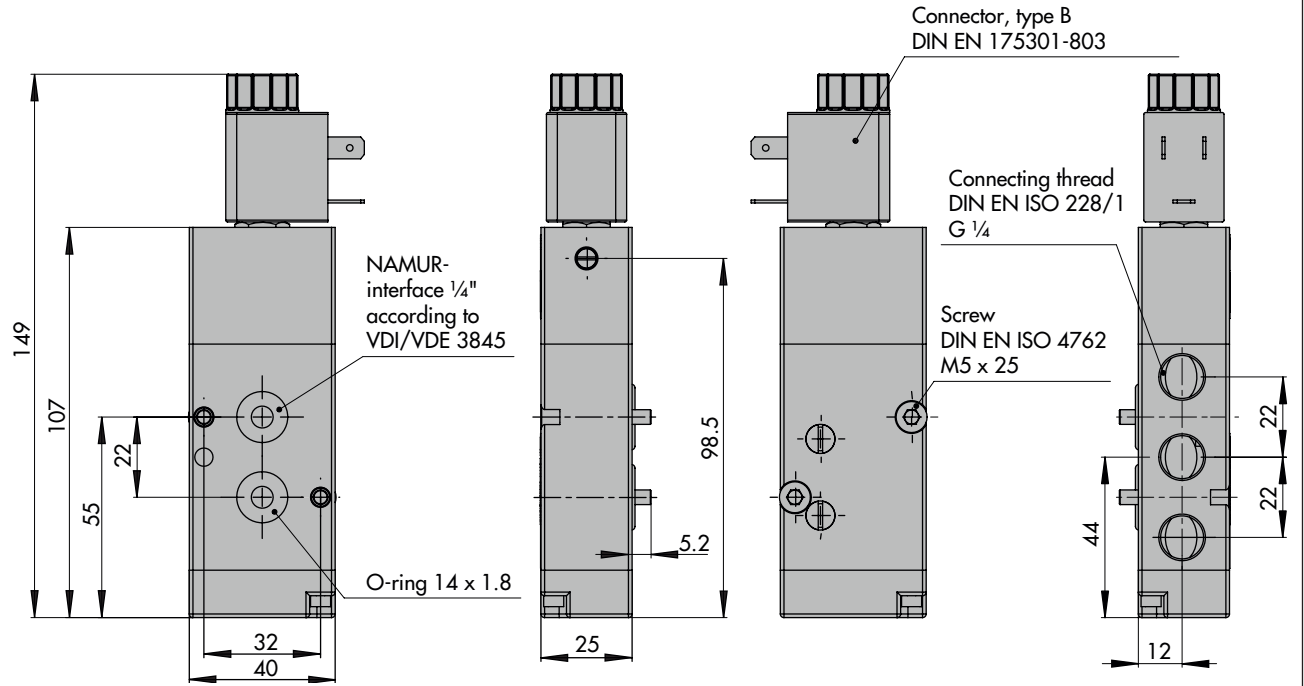


Fig. 2: Dimensions in mm

Ordering data

Solenoid valve		Type 3930- 0 0 0 x 3 x 0 0 1 0 0 0 0 0 0 0																		
Nominal signal	24 V DC	3																		
	230 V AC	5																		
Manual override	Switch (accessible using a screwdriver)	3																		
Switching function	3/2-way function	0																		
	5/2-way function	1																		
Attachment	NAMUR interface 1/4" according to VDI/VDE 3845		0																	
K _{V5} coefficient	0.85						0													
Pneumatic connection	G 1/4							1												
Housing material	Aluminum									0										
Electrical connection	Connector according to DIN EN 175301-803, type B, 3-pole (without cable socket)										0									
Degree of protection	IP 65																		0	
Permissible ambient temperature	-10 to +60 °C																			0

Accessories and spare parts

Designation	Order no.
Mounting kit with two fastening screws and two O-rings (for NAMUR interface 1/4")	1136-0186
Blanking plug 1/4", stainless steel 1.4571 (for threaded connections)	0070-0856
O-ring 14 x 1.5 made of nitrile butadiene rubber (for blanking plug)	8421-0070
Silencer made of polyethylene, G 1/4 connection, degree of protection IP 54	8504-0066
Cable socket according to DIN EN 175301-803, made of black polyamide, type B, 3-pole, with Pg 9 cable gland and gasket of nitrile butadiene rubber	0790-6054
Adapter plate for NAMUR interface 1/4" on NAMUR rib G 1/4	1400-6751
Adapter plate for NAMUR interface 1/4" for SAMSON Types 3353 and 3354 Valves	1409-3001
Adapter plate for NAMUR interface 1/4" for SAMSON Types 3351 On/off Valve	1400-9638

Specifications subject to change without notice.



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