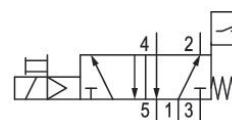
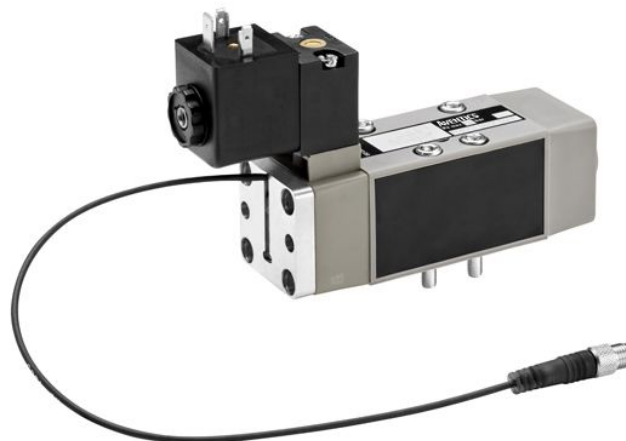


5/2-directional valve, Series IS12-PD, size 1

2024-03-18

R422102678

Series IS12-PM, size 1



Technical data

Industry

Industrial

Activation

Electrically

Nominal flow Q_n

1060 l/min

Compressed air connection output

Base plate DIN ISO 5599 size 1

Min. working pressure

3 bar

Max. working pressure

10 bar

Operational voltage

24 V DC

Operational voltage DC

24 V

Voltage tolerance DC

-10% / +10%

Manual override

without detent

Electrical connection type

Plug

Electrical connection size

EN 175301-803, form A

Actuating control

Single Solenoid

Sealing principle

Soft seal

Pilot

Internal

Certificates

UL (Underwriters Laboratories)

Standards

ISO 5599-1

Pilot valve width

30 mm

Valve type

Spool valve, positive overlapping

5/2-directional valve, Series IS12-PD, size 1

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Blocking principle	Single base plate principle
Connection type	Plate connection
Return	With spring return
Compressed air connection input	Base plate DIN ISO 5599 size 1
Compressed air connection, exhaust	Base plate DIN ISO 5599 size 1
Compressed air connection pilot input	Base plate DIN ISO 5599 size 1
Compressed air connection pilot exhaust	M5
Power consumption DC	4.4 W
Frame size	ISO 1
Min. control pressure	3 bar
Max. control pressure	10 bar
Min. ambient temperature	0 °C
Max. ambient temperature	50 °C
Min. medium temperature	0 °C
Max. medium temperature	50 °C
Medium	Compressed air
Max. particle size	5 µm
Min. oil content of compressed air	0 mg/m ³
Max. oil content of compressed air	0.01 mg/m ³
Protection class with connection	IP65
Compatibility index	15
Duty cycle	100 %
Switch-on time	18 ms
Switch-off time	40 ms
Type sensor	electronic PNP, with LED
Electrical connection for sensor	Plug
Sensor port size	M8
Sensor number of poles	3-pin
Voltage drop sensor U at I _{max}	≤ 2,5 V
Vibration resistance sensor	10 - 55 Hz, 1 mm
Shock resistance sensor	30 g / 11 ms
Protection class sensor acc. to DIN EN 61140	Class III
Sensor	with knurled screw
Cable length sensor	0.3 m
Mounting screws	M5 with hexagon socket
Weight	0.41 kg
Housing material	Polyamide Aluminum
Seal material	Acrylonitrile butadiene rubber
Part No.	R422102678

Technical information

When the valve is not actuated, the sensor sends a signal through pin 4 of the sensor connection.

When the valve is actuated, the sensor does not send a signal through pin 4 of the sensor connection.

The valve with position detection is possible to be used in categories 3 and 4 according to ISO 13849 in order to reach a Performance Level (PL) of the control system up to PL = e.

On its own, the valve with position detection is not a safety component and is not a complete safety solution. It is designed to increase the diagnostic coverage (DC) of the control system.

For use in categories 3 to 4, additional requirements of DIN EN ISO 13849-1:2008-12 (e.g. CCF, DC, PLr, software, systematic errors) are taken into consideration by the user.

The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

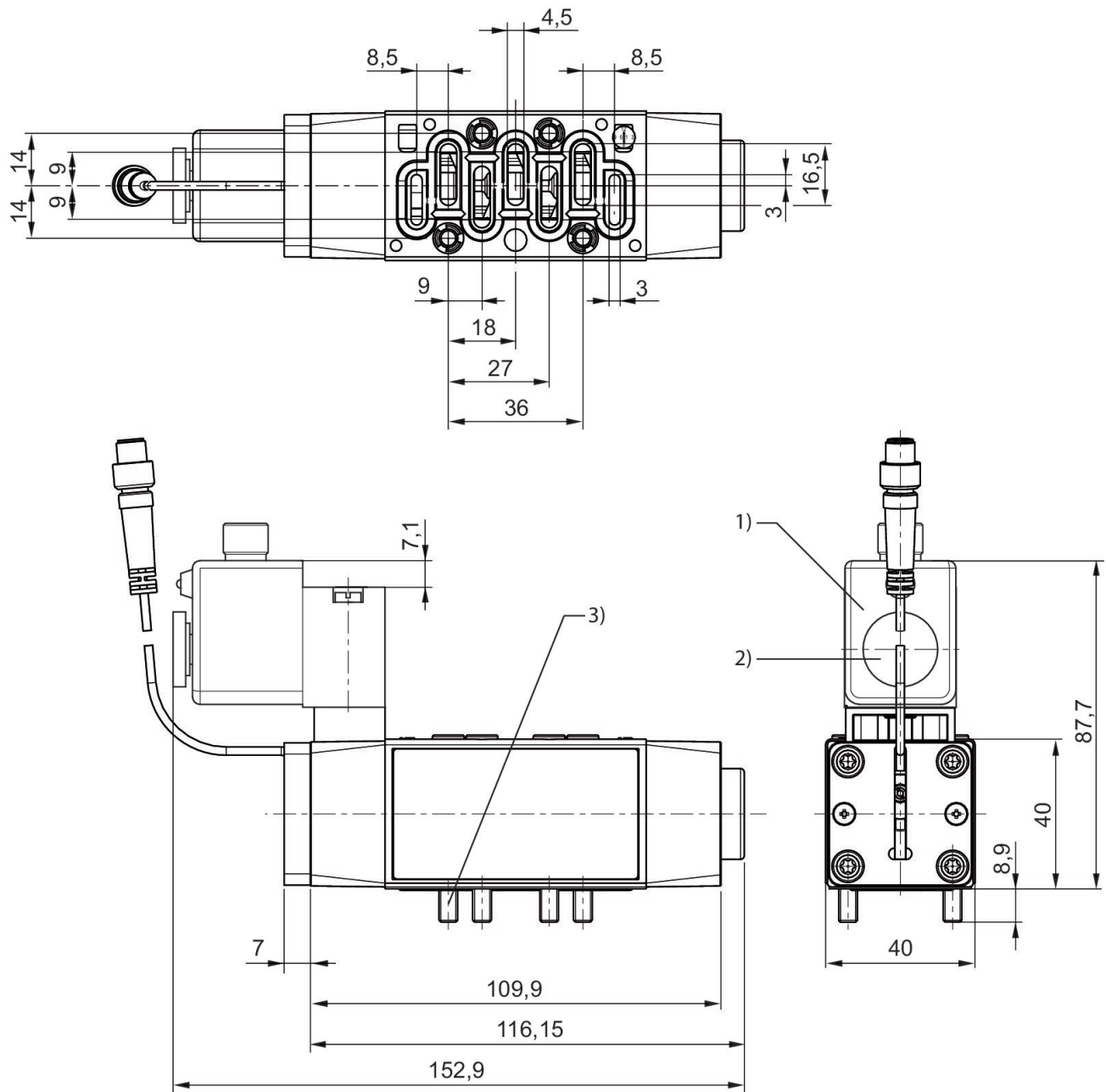
The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

The oil content of compressed air must remain constant during the life cycle.

Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in <https://www.emerson.com/en-us/support>).

Dimensions

Fig. 2



1) Adjustable coil 5x45°

2) Tightening torque for lock nut: 0.6 ± 0.2 Nm

3) Tightening torque for mounting screws: 2.2 ± 0.2 Nm

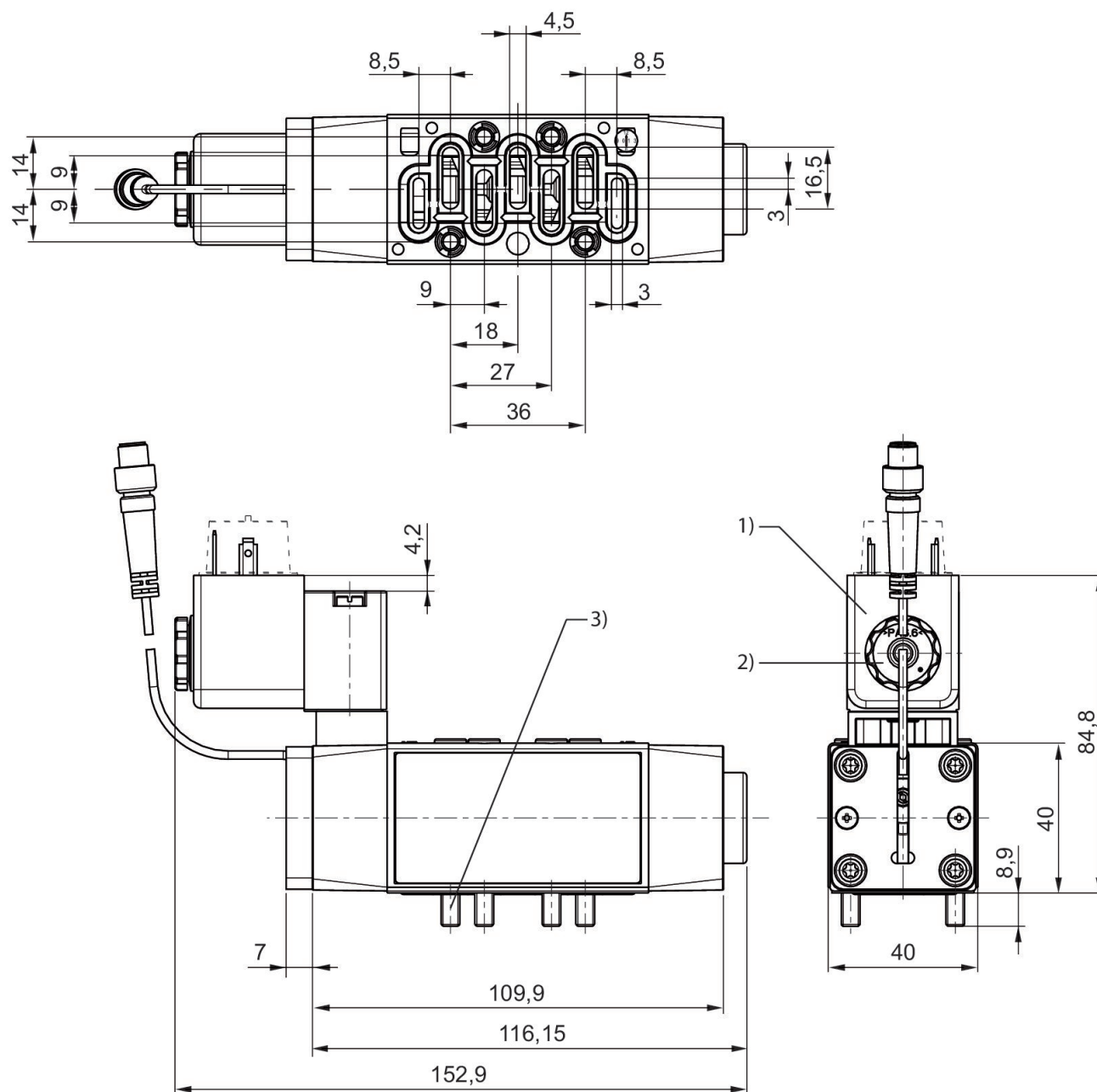
Dimensions

5/2-directional valve, Series IS12-PD, size 1

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R422102678

Fig. 1



1) Adjustable coil 5x45°

2) Tightening torque for lock nut: $0.6 + 0.2 \text{ Nm}$

3) Tightening torque for mounting screws: $2.2 \pm 0.2 \text{ Nm}$