

3/2-directional valve, Dual valve, IS12-PD series, size 2

2024-03-18

R422003729

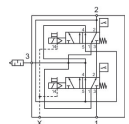
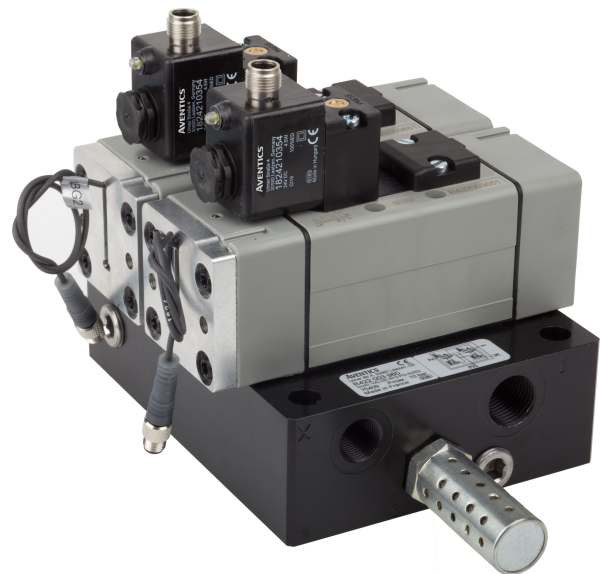
Series IS12, size 2

Qn max. [[2500] l/min]

Electr. control

Pneumatic control

Width: [[56] mm]



Technical data

Industry

Activation

Compressed air connection output

Min. working pressure

Max. working pressure

Operational voltage

Operational voltage DC

Voltage tolerance DC

Manual override

Electrical connection type

Electrical connection size

Actuating control

Sealing principle

Pilot

Standards

Pilot valve width

Valve type

Blocking principle

Connection type

Industrial

Electrically

G 1/2

1 bar

10 bar

24 V DC

24 V

-10% / +10%

with detent

Plug

M12

Single Solenoid

Soft seal

External

ISO 13849-1

30 mm

Spool valve

Double base plate principle

Plate connection

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Return	With spring return
Compressed air connection input	G 1/2
Compressed air connection, exhaust	G 1/2
Compressed air connection pilot input	Base plate DIN ISO 5599 size 2
Compressed air connection pilot exhaust	Base plate DIN ISO 5599 size 2
Power consumption DC	4.5 W
Min. control pressure	3 bar
Max. control pressure	10 bar
Min. ambient temperature	-10 °C
Max. ambient temperature	50 °C
Min. medium temperature	-10 °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
Nominal flow Qn 1 to 2	1950 l/min
Nominal flow Qn 2 to 3	3000 l/min
Protection class with connection	IP65
Compatibility index	15
Duty cycle	100 %
Typ. switch-on time	20 ms
Typ. switch-off time	50 ms
Type sensor	electronic PNP, with LED
Sensor port size	M8x1
Sensor number of poles	3-pin
Voltage drop sensor U at I _{max}	≤ 2,5 V
Vibration resistance sensor	10 - 55 Hz, 1,5 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
Weight	3.7 kg
Housing material	Polyamide Aluminum
Seal material	Acrylonitrile butadiene rubber
Part No.	R422003729

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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 dual valve includes two IS12-PD-5/2-SR valves with position detection and fulfills the safety function "safe venting" and "protection against unexpected start-up". The dual valve permits use in categories 3 and 4 in accordance with ISO 13849-1 to achieve a control system performance level (PL) of 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.

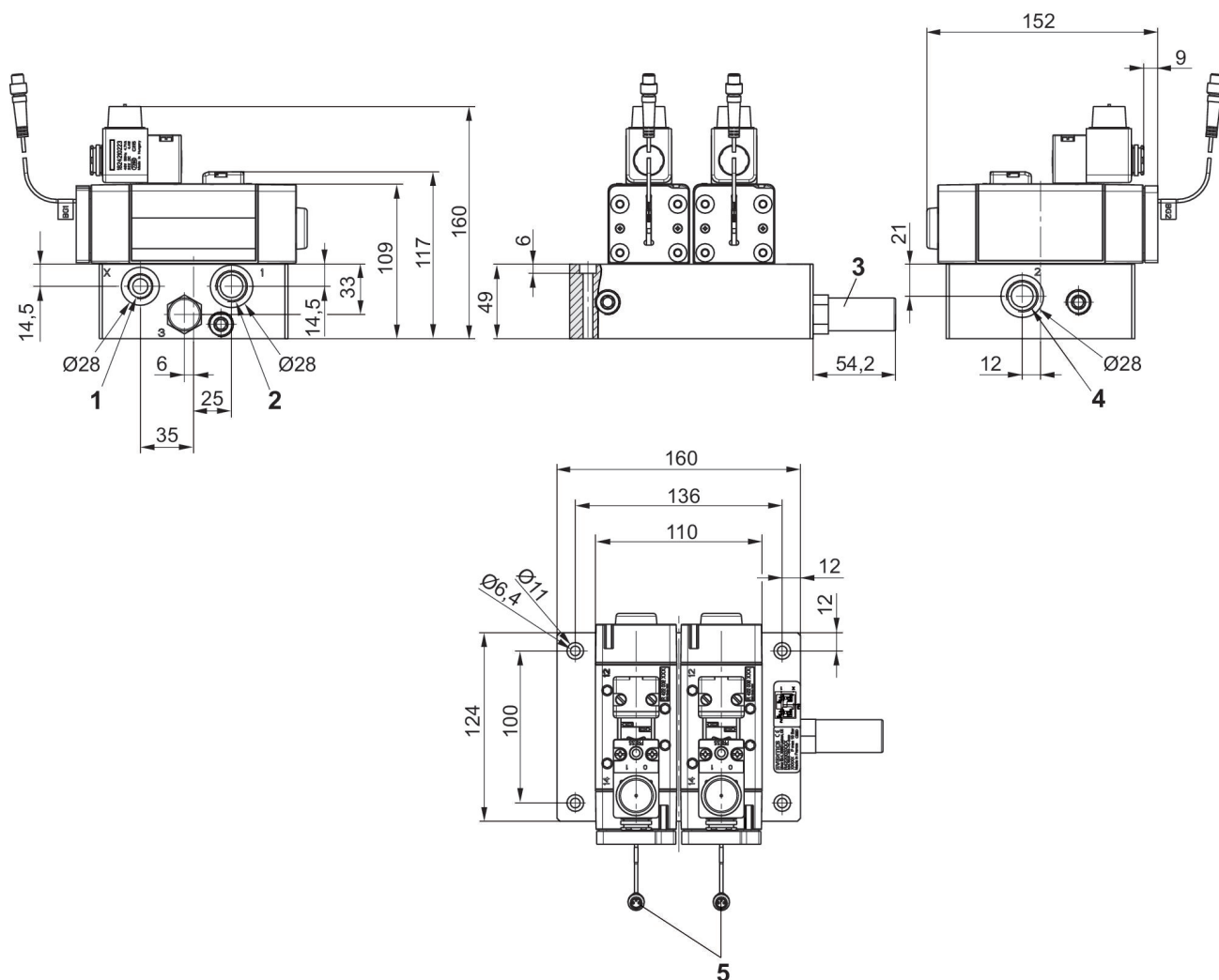
Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in <https://www.emerson.com/en-us/support>).

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Dimensions



- 1) External pilot pressure G3/8
- 2) Input pressure G1/2
- 3) Exhaust G 1/2
- 4) Output pressure G1/2
- 5) M8, 3-pin