









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

- ISO 13849-1
- Safe pressurization and exhaust ■ $Q_n = 3000 \text{ l/min}$ (Exhaust)
- With spring return
- single solenoid
- Compressed air connection output G 1/2
- Electrical connection Plug, M12 Plug, EN 175301-803, form A
- Manual override with detent



Type	Spool valve
Sealing principle	Soft sealing
Blocking principle	Double base plate principle
Connection type	Plate connection
Standards	ISO 13849-1
Working pressure min./max.	See table below
Control pressure min./max.	3 ... 10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	5 µm
Oil content of compressed air	0 ... 0,01 mg/m³
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 connection	M8x1, 3-pin, with knurled screw
Operating voltage sensor DC min./max.	10 ... 30 V DC
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
Cable length sensor	0,3 m
Protection class sensor acc. to DIN EN 61140	Class III
Weight	3,7 kg

Technical data

Part No.		MO	Operational voltage DC	Voltage tolerance DC
R422003729			24 V	-10% / +10%
R422003730			24 V	-10% / +10%
R422003980			24 V	-10% / +10%
R422003982			24 V	-10% / +10%

Part No.	Power consumption DC	Pilot	Nominal flow 1 ► 2	Nominal flow 2 ► 3
R422003729	4,5 W	External	1950 l/min	3000 l/min
R422003730	4,5 W	Internal	1950 l/min	3000 l/min
R422003980	4,4 W	External	1950 l/min	3000 l/min
R422003982	4,4 W	Internal	1950 l/min	3000 l/min

Part No.	Working pressure min./max.	Compatibility index	Electrical connection Pilot valve
R422003729	1 ... 10 bar	15	Plug M12
R422003730	3 ... 10 bar	15	Plug M12
R422003980	1 ... 10 bar	15	Plug EN 175301-803, form A
R422003982	3 ... 10 bar	15	Plug EN 175301-803, form A

Nominal flow Q_n at 6 bar and Δp = 1 bar

Technical information

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 under 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 the MediaCentre).

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.

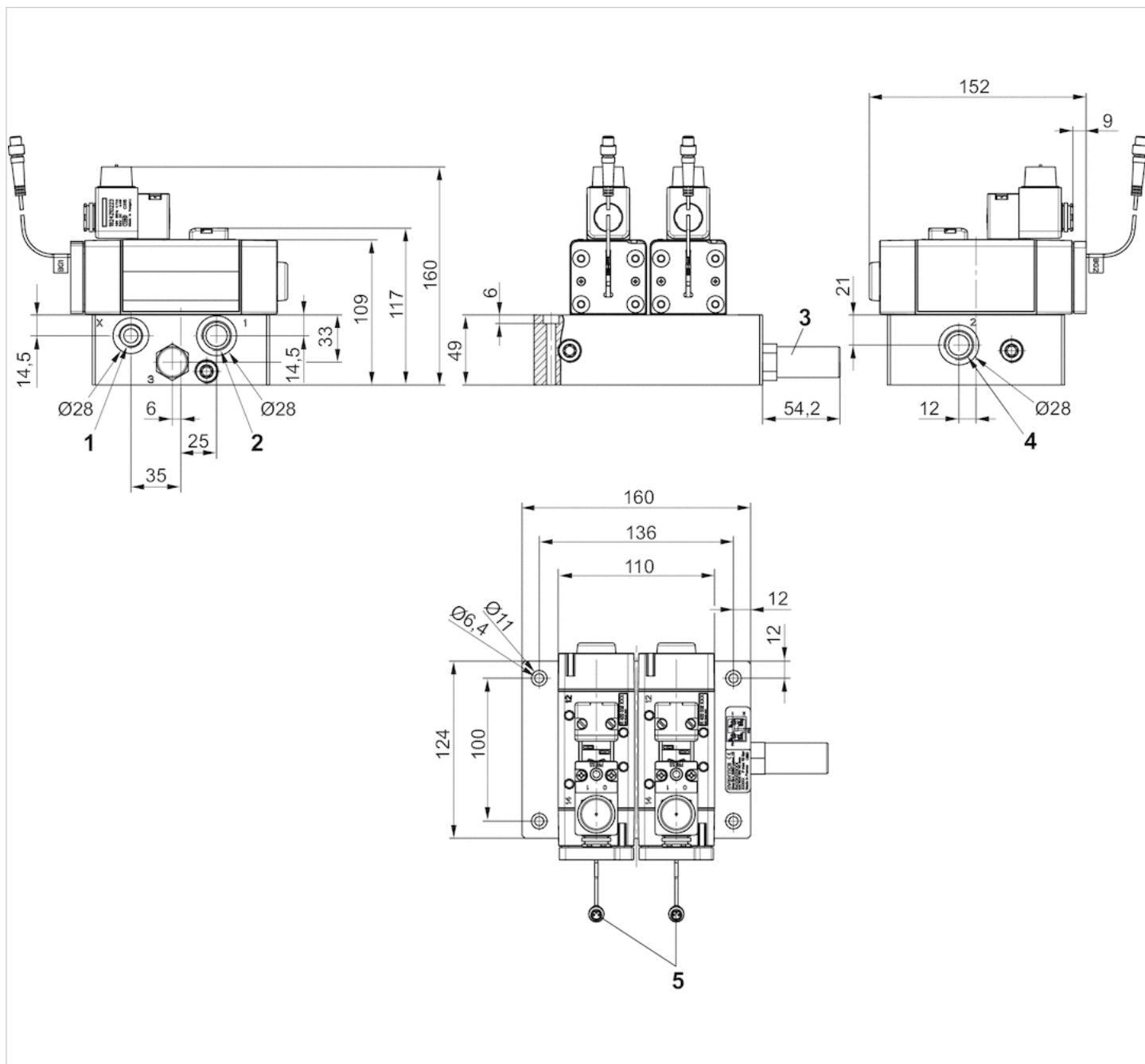
On its own, the valve with position detection is not a safety component and is not a complete safety solution. It is designed to increase the diagnostic coverage (DC) of the control system.

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.

Technical information

Housing	Polyamide Aluminum
Seals	Acrylonitrile butadiene rubber

Dimensions



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

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