4/2-directional valve, Series 840

5728409990 2023-11-27

4/2 diaphragm poppet valves with plastic housing

Series 840

The AVENTICS Series 740/840 feature directional valves with soft, abrasion-free diaphragm technology. The simple, reliable and robust design is suitable for all air qualities and ensures high repeatability and unsurpassed service life. Due to its high resilience, the corrosion-resistant polyamide housing is also suited for dusty and damp environments.





Technical data

Industry Industrial Activation Electrically

Valve type Diaphragm poppet valve Switching principle 4/2, with air spring return

Actuating control Single Solenoid

Sealing principle Soft seal

Connection type Pipe connection

Manual override with detent

Compressed air connection input 1/4"

Compressed air connection output 1/4"

Compressed air connection, exhaust 1/4"

Compressed air connection pilot exhaust Ø 4,5

Nominal flow Qn 200 I/min

Min. working pressure

Max. working pressure

1.5 bar

10 bar

Min. control pressure

1.5 bar

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Max. control pressure 10 bar

Electrical connection type Plug

Electrical connection size EN 175301-803, form C Connector standard EN 175301-803, form C

Protection class with connection IP65

Reverse polarity protection Protected against polarity reversal

Operational voltage 110 V AC
Operational voltage AC at 50 Hz 110 V
Operational voltage AC at 60 Hz 110 V

Voltage tolerance AC 60 Hz -10% / +15%

Pilot Internal
Coil width 20 mm
Pilot valve width 22.5 mm
Holding power AC 50 Hz 3 VA
Holding power AC 60 Hz 2.4 VA
Switch-on power AC 50 Hz 4.2 VA
Switch-on power AC 60 Hz 3.4 VA

Duty cycle 100 %
Typ. switch-on time 17 ms
Typ. switch-off time 19 ms

Min. ambient temperature -15 °C

Max. ambient temperature 50 °C

Min. medium temperature -15 °C

Max. medium temperature 50 °C

Medium Compressed air

Min. oil content of compressed air 0 mg/m³ Max. oil content of compressed air 1 mg/m³ Max. particle size 50 μ m

Mounting on manifold strip PRS strip Weight 0.104 kg

Material

Housing material Polyoxymethylene

Seal material Acrylonitrile butadiene rubber

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Part No. 5728409990

Technical information

Versions with voltage of less than 50 V DC do not have a protective ground.

The maximum operating pressure depends on the ambient temperature. The following values are applicable -15 $^{\circ}$ C ... 50 $^{\circ}$ C = Operating pressure [[1.5] bar] ... [[8] bar] possible -15 $^{\circ}$ C ... 40 $^{\circ}$ C = Operating pressure [[1.5] bar] ... [[10] bar] possible.

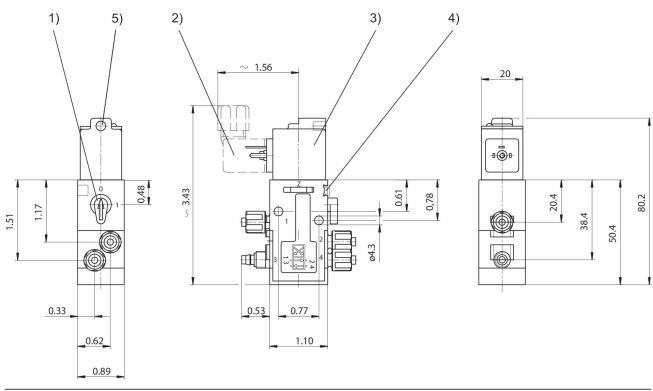
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

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 in inches



¹⁾ Manual override 2) Valve plug connector 3) Coil can be rotated at 180° intervals

⁴⁾ Mounting space for name plate 5) Hole for M5 fitting or silencer Ø 4.5 mm