

5/4-directional valve, Series 740, double solenoid

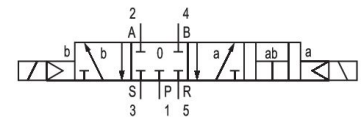
R432016674

Series 740

2025-10-20

AVENTICS Series 740 Directional valves

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

Activation

Note

Valve type

Switching principle

Valve function

Sealing principle

Connection type

Manual override

Industrial

Electrically

Switching position 4 (coils a and b = actuated)

Diaphragm poppet valve

5/4, closed center

Closed Center

Soft seal

Pipe connection

without detent

Compressed air connection type

Compressed air connection input

Compressed air connection output

Compressed air connection, exhaust

plug-in with tube nut

3/8"

3/8"

M14x1

Nominal flow Q_n

700 l/min

Min. working pressure

3 bar

Max. working pressure

10 bar

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Electrical connection type	Plug
Electrical connection size	EN 175301-803, form A
Connector standard	EN 175301-803:2006
Protection class with connection	IP65
Reverse polarity protection	Protected against polarity reversal
Operational voltage	24 V DC
Operational voltage DC	24 V
Voltage tolerance DC	-10 % / +10 %

Pilot	Internal
Coil width	30 mm
Compatibility index	52
Power consumption DC	2.7 W

Duty cycle	100 %
Typ. switch-on time	20 ms
Typ. switch-off time	54 ms

Blocking principle	Single base plate principle Plate principle
Can be assembled into blocks	Can be assembled into blocks
Valve plug connector	Without valve plug connector
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/m ³
Max. oil content of compressed air	5 mg/m ³
Max. particle size	50 µm

Mounting on manifold strip	PRS strip
Weight	0.551 kg

Material

Housing material	Polyoxymethylene
Seal material	Acrylonitrile butadiene rubber

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Part No.

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Technical information

ATEX optional: ATEX version can be produced by combining the basic valve without coil with an ATEX coil. ATEX ID: see ATEX coils catalog page.

NOTE: In order to ensure the operating function of the valve, do not fall below the minimum operating pressure of 3 bar!

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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Technical drawing of the AVENTICS V740 valve assembly, showing three views: front view (left), top view (middle), and side view (right). The drawing includes detailed dimensions in inches and callouts for various components.

Front View (Left):

- Overall height: 2.48
- Port spacing (between three ports): 0.87
- Port diameter: 0.04
- Callout 1: Points to the top and bottom mounting flanges.
- Callout 6: Points to the central port.

Top View (Middle):

- Overall width: 1.61
- Overall height: 7.36
- Port spacing (between three ports): 0.87
- Port diameter: 0.04
- Callout 1: Points to the top and bottom mounting flanges.
- Callout 2: Points to the top and bottom mounting flanges.
- Callout 3: Points to the side mounting flanges.
- Callout 6: Points to the central port.

Side View (Right):

- Overall width: 1.38
- Overall height: 37.5
- Port spacing (between three ports): 0.87
- Port diameter: 0.04
- Callout 1: Points to the top and bottom mounting flanges.
- Callout 2: Points to the top and bottom mounting flanges.
- Callout 3: Points to the side mounting flanges.
- Callout 6: Points to the central port.

1) gland fitting M16x1,5 2) M5 internal thread accessible under cap 3) el. connector can be fixed at 90° intervals 4) coil can be mounted at 45° intervals 5) throttle screw for exhausts 5 (R) and 3 (S) 6) manual override and position indicator