

5/2-directional valve, Series 740, single solenoid

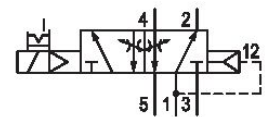
Series 740

R432016657

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

Industrial

Activation

Electrically

Valve type

Diaphragm poppet valve

Switching principle

5/2, with air spring return

Sealing principle

Soft seal

Connection type

Pipe connection

Manual override

with detent
without detent

Compressed air connection type

Internal thread

Compressed air connection input

3/8"

Compressed air connection output

3/8"

Compressed air connection, exhaust

M14x1

Nominal flow Q_n

700 l/min

Min. working pressure

1.4 bar

Max. working pressure

10 bar

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Connector standard	EN 175301-803:2006
Protection class with connection	IP65
Reverse polarity protection	Protected against polarity reversal
Operational voltage	12 V DC
Operational voltage DC	12 V
Voltage tolerance DC	-10 % / +10 %

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

Duty cycle	100 %
Typ. switch-on time	16 ms
Typ. switch-off time	36 ms

Blocking principle	Plate principle Single base plate principle
Can be assembled into blocks	Can be assembled into blocks
Valve plug connector	Without valve plug connector
Throttle	with throttle
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	0.317 kg

Material

Housing material	Polyarylamide Polyoxymethylene
Seal material	Acrylonitrile butadiene rubber

Part No.	R432016657
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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.

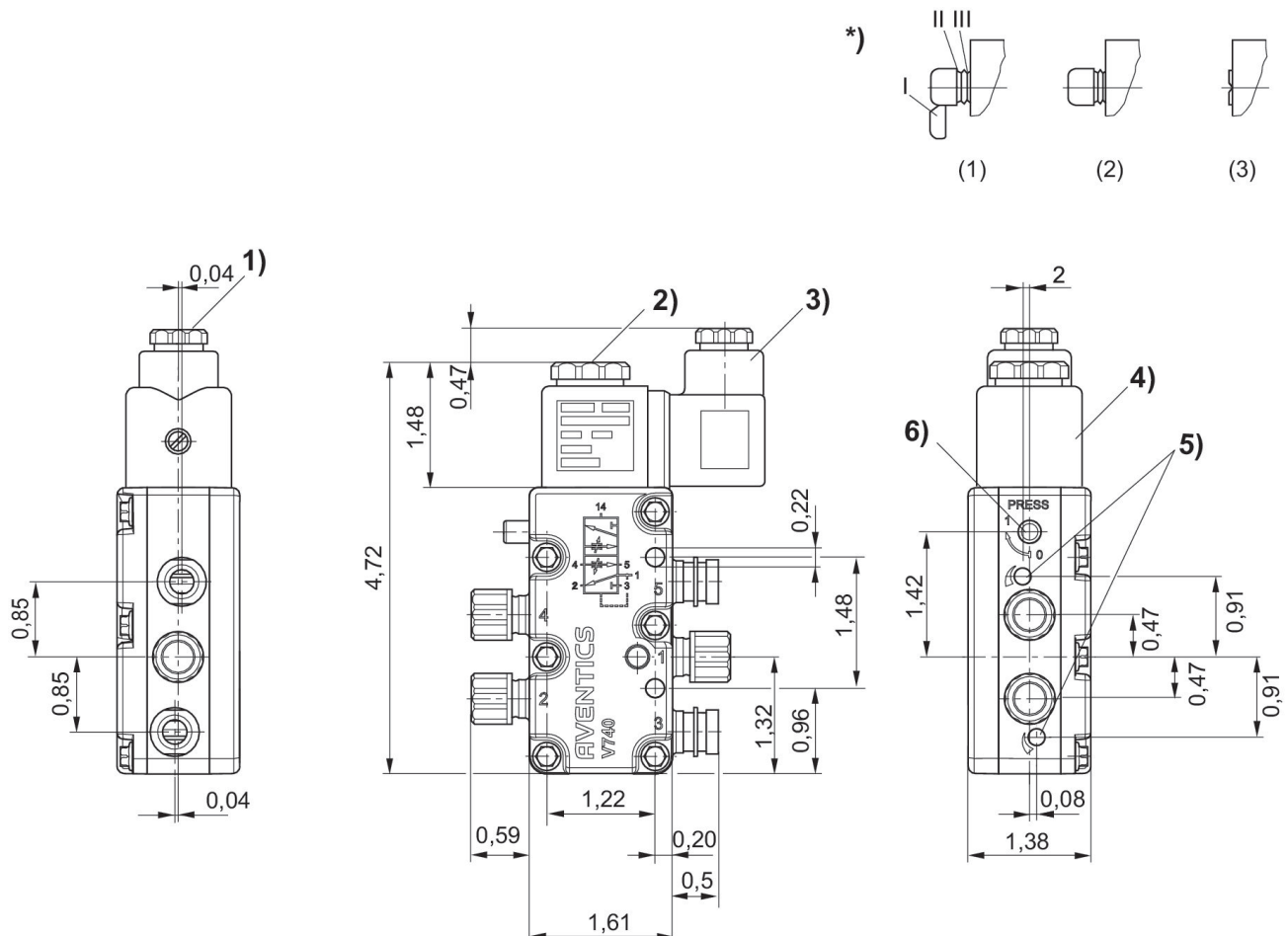
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

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) Gland fitting M16x1.5
- 2) M5 internal thread accessible under cap
- 3) Valve plug connector can be rotated at 90° intervals
- 4) Coil can be plugged at 45° intervals

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5) Flow control screw for exhausts 5 (R) and 3 (S)

6) Manual override and position indicator

*) Manual override:

Manual actuation: (1) with detent - push and turn into position 1 (2) without detent - remove segment I - push only

Actuation with tool: (3) with detent - remove segments up to II - push with tool and turn into position 1