

5/2-directional valve, Series TC08, with detent, double Solenoid

R422100972

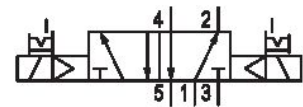
Series
TC08

2024-10-17

- Excellent ratio of installation space and flow rate
- Large selection of electrical connections
- Electrical or pneumatic operated
- Long service life
- Adjustable coil with four 90° positions

AVENTICS Series TC08 Directional valves

The AVENTICS Series TC08/TC15 includes a wide range of spool valves with housings made of high-performance polymers with robust and flexible metal inserts. It is designed for flow rate performances from 800 to 1500 l/min. These directional valves are easy to assemble, making them ideal for applications requiring the highest efficiency in limited spaces.



Technical data

Industry	Industrial
Activation	Electrically
Valve type	Spool valve, positive overlapping
Switching principle	5/2, double solenoid
Actuating control	Double Solenoid
Sealing principle	Soft seal
Connection type	Pipe connection
Manual override	with detent
Compressed air connection input	G 1/8
Compressed air connection output	G 1/8
Compressed air connection, exhaust	G 1/8
Nominal flow Qn	800 l/min
Flow conductance b	0.36
Flow conductance C	3.5 l/(s*bar)
Min. working pressure	2 bar
Max. working pressure	10 bar

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Min. control pressure 2 bar

Max. control pressure 10 bar

Electrical connection type Plug
Electrical connection size M8
Electrical connection number of poles 3-pin
Connector standard DIN EN 60947-5-2
Protection class acc. to DIN EN 61140 Class III
Protection class with connection IP65
Operational voltage 24 V DC
Operational voltage DC 24 V
Voltage tolerance DC -10 % / +10 %

Pilot Internal
Coil width 15.6 mm
Pilot valve width 15 mm
LED status display Yellow
Power consumption DC 2.2 W
Nominal resistance 280 Ω

Duty cycle 100 %
Typ. switch-on time 10 ms
Typ. switch-off time 10 ms

Min. ambient temperature -10 °C
Max. ambient temperature 50 °C
Min. medium temperature -10 °C
Max. medium temperature 50 °C
Medium Compressed air
Min. oil content of compressed air 0 mg/m³
Max. oil content of compressed air 5 mg/m³
Max. particle size 5 μm

Mounting on manifold strip P-strip
Mounting screw tightening torque 2 Nm
Weight 0.172 kg

Material

Housing material Polyamide fiber-glass reinforced

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Seal material	Acrylonitrile butadiene rubber
	Polyurethane
Material threaded bushing	Brass
	Die cast zinc
Material front plate	Polyamide fiber-glass reinforced

Part No. R422100972

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 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>).

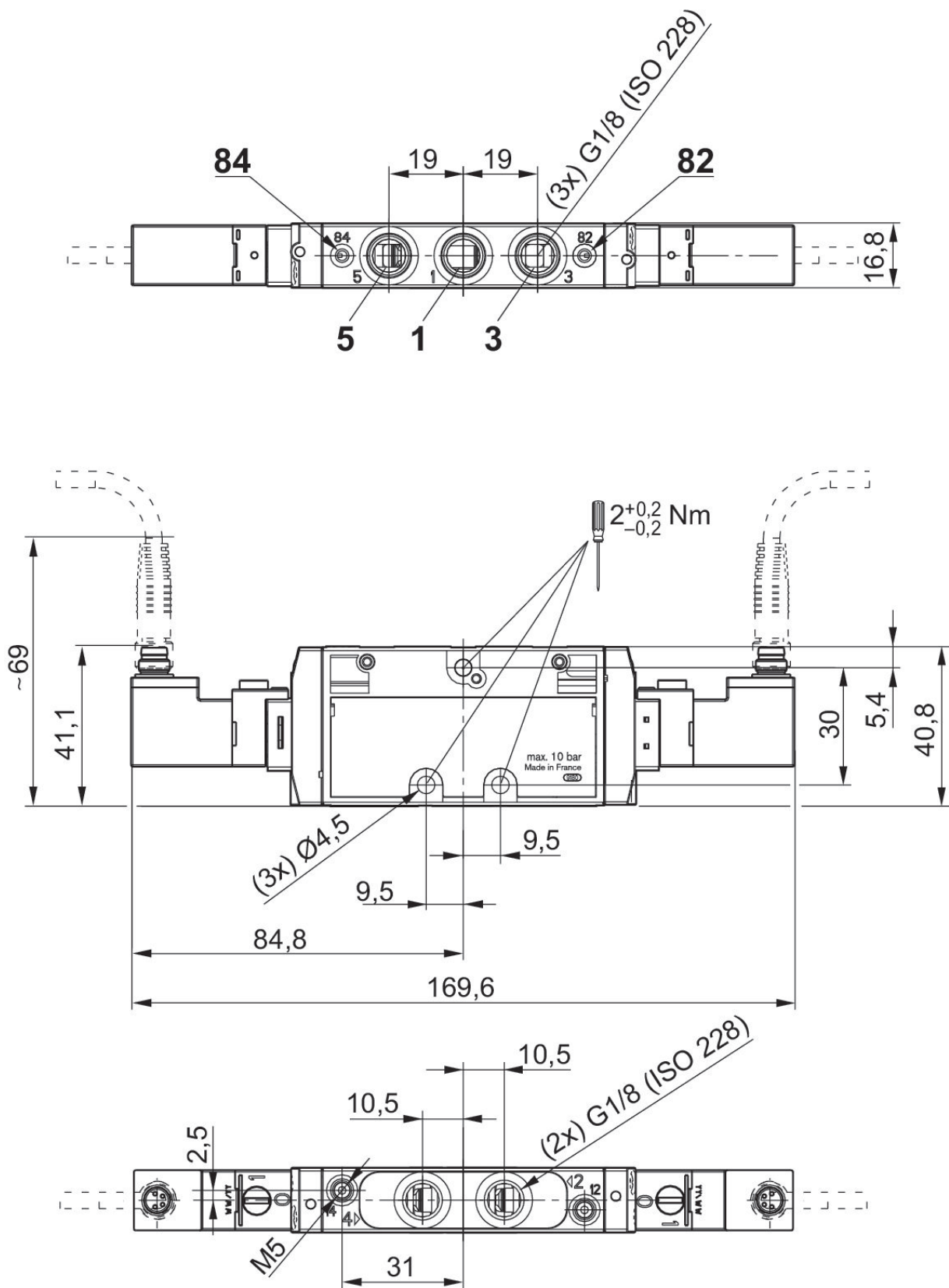
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Dimensions

Double Solenoid



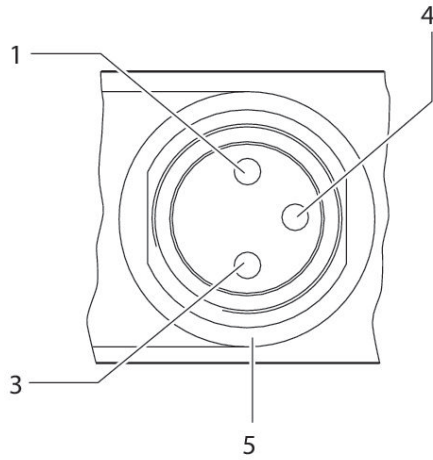
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PIN assignment and cable colors for
valve plug connectors



PIN assignment: 1) PIN not assigned 3) 0 V 4) 24 V 5) LED Cable color 1) Brown 3) Blue 4) Black
Note: Bi-polar protective circuit to prevent overvoltage