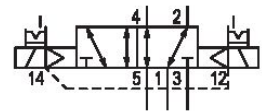


AVENTICS Series TC08 Directional valves

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

Activation

Valve type

Switching principle

Actuating control

Sealing principle

Manual override

Industrial

Electrically

Spool valve, negative overlapping

5/2, with air spring return

Double Solenoid

Soft seal

with detent

Standard compressed air connection

Compressed air connection input

Compressed air connection output

Compressed air connection, exhaust

Compressed air connection pilot exhaust

according to ANSI B1.20.3

1/8-27 NPTF

1/8-27 NPTF

1/8-27 NPTF

M5

Nominal flow Qn

Flow conductance b

Flow conductance C

800 l/min

0.36

3.5 l/(s*bar)

Min. working pressure

-0.9 bar

5/2-directional valve, Series TC08 - inch

Series
TC08

R422101221

2024-07-30

Max. working pressure	10 bar
Min. control pressure	2 bar
Max. control pressure	10 bar
Electrical connection type	Plug
Electrical connection size	ISO 15217, form C
Connector standard	ISO 15217
Protection class with connection	IP65
Operational voltage	24 V DC
Operational voltage DC	24 V
Voltage tolerance DC	-10 % / +10 %
Pilot	External
Pilot valve width	15 mm
Power consumption DC	2 W
Nominal resistance	185 Ω
Duty cycle	100 %
Typ. switch-on time	10 ms
Typ. switch-off time	10 ms
Generic emission standard in accordance with	EN 50081-2:1993
Generic immunity standard in accordance with	EN 50082-2
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/m ³
Max. oil content of compressed air	5 mg/m ³
Max. particle size	50 μm
Mounting on manifold strip	P-strip
Mounting screw tightening torque	2 Nm
Tightening torque tolerance	±0,2 mT
Weight	0.172 kg

Material

Housing material Polyamide fiber-glass reinforced

5/2-directional valve, Series TC08 - inch

Series
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Seal material	Acrylonitrile butadiene rubber
Material threaded bushing	Brass Die cast zinc
Material front plate	Polyamide fiber-glass reinforced
Part No.	R422101221

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>).

Dimensions in inches

5/2-directional valve, Series TC08 - inch

R422101221

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Double Solenoid

