5/2-directional valve, Series TC08 - inch

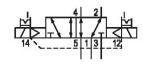
Series TC08

2024-07-30

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, negative overlapping

Switching principle 5/2, with air spring return

Actuating control Double Solenoid

Sealing principle Soft seal Manual override with detent

Standard compressed air connection according to ANSI B1.20.3

Compressed air connection input 1/8-27 NPTF
Compressed air connection output 1/8-27 NPTF
Compressed air connection, exhaust 1/8-27 NPTF

Compressed air connection pilot exhaust M5

Nominal flow Qn 800 I/min Flow conductance b 0.36

Flow conductance C 3.5 l/(s*bar)

Min. working pressure -0.9 bar

5/2-directional valve, Series TC08 - inch

Series TC08

R422101220 2024-07-30

Max. working pressure10 barMin. control pressure2 barMax. control pressure10 bar

Electrical connection type Plug

Electrical connection size ISO 15217, form C

Connector standard ISO 15217
Protection class with connection IP65
Operational voltage 12 V DC
Operational voltage DC 12 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

 $\begin{array}{ll} \mbox{Min. ambient temperature} & -10 \ ^{\circ}\mbox{C} \\ \mbox{Max. ambient temperature} & 50 \ ^{\circ}\mbox{C} \\ \mbox{Min. medium temperature} & -10 \ ^{\circ}\mbox{C} \\ \mbox{Max. medium temperature} & 50 \ ^{\circ}\mbox{C} \\ \end{array}$

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 $50 \text{ }\mu\text{m}$

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 TC08

R422101220 2024-07-30

Seal material Acrylonitrile butadiene rubber

Material threaded bushing Brass

Die cast zinc

Material front plate Polyamide fiber-glass reinforced

Part No. R422101220

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

AVENTICS

2024-07-30

Double Solenoid

R422101220

