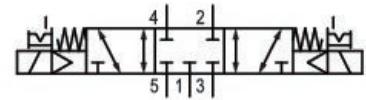


## AVENTICS Series TC08 Directional valves

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              |
| Switching principle                     | 5/3, closed center        |
| Valve function                          | Closed Center             |
| Actuating control                       | Double Solenoid           |
| Sealing principle                       | Soft seal                 |
| 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                         | 700 l/min                 |
| Flow conductance b                      | 0.34                      |
| Flow conductance C                      | 3 l/(s*bar)               |
| Min. working pressure                   | 3 bar                     |
| Max. working pressure                   | 10 bar                    |

# 5/2-directional valve, Series TC08 - inch

R422101244

Series  
TC08

2024-07-30

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|  |                                  |
|--|----------------------------------|
| Min. control pressure                        | 3 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                          | 12 V DC                          |
| Operational voltage DC                       | 12 V                             |
| Voltage tolerance DC                         | -10 % / +10 %                    |
| Pilot  | External                         |
| Pilot valve width                            | 15 mm                            |
| Power consumption DC                         | 1.9 W                            |
| Nominal resistance                           | 185 $\Omega$                     |
| Duty cycle                                   | 100 %                            |
| Typ. switch-on time                          | 14 ms                            |
| Typ. switch-off time                         | 18 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 <sup>3</sup>              |
| Max. oil content of compressed air           | 5 mg/m <sup>3</sup>              |
| Max. particle size                           | 50 $\mu$ m                       |
| Mounting on manifold strip                   | P-strip                          |
| Mounting screw tightening torque             | 2 Nm                             |
| Tightening torque tolerance                  | $\pm$ 0,2 mT                     |
| Weight                                       | 0.14 kg                          |
| <b>Material</b>                              |                                  |
| Housing material                             | Polyamide fiber-glass reinforced |
| Seal material                                | Acrylonitrile butadiene rubber   |

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|                           |                                  |
|---------------------------|----------------------------------|
| Material threaded bushing | Brass<br>Die cast zinc           |
| Material front plate      | Polyamide fiber-glass reinforced |
| Part No.                  | R422101244                       |

## 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>).



