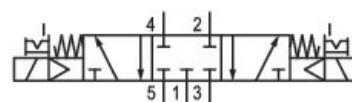


## AVENTICS Series TC15 Directional valves

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

Note

Valve type

Valve function

Actuating control

Sealing principle

Connection type

Manual override

Industrial

Electrically

Operating voltage 24 V AC, 110 V AC, 230 V AC

Spool valve, positive overlapping

Closed Center

Double Solenoid

Soft seal

Pipe connection  
with detent

Compressed air connection input

Compressed air connection output

Compressed air connection, exhaust

G 1/4

G 1/4

G 1/4

Nominal flow Q<sub>n</sub>

Flow conductance b

Flow conductance C

1300 l/min

0.31

5.9 l/(s\*bar)

Min. working pressure

3 bar

# 5/3-directional valve, Series TC15

2024-05-06

0820059003

|                                              |                     |
|----------------------------------------------|---------------------|
| Max. working pressure                        | 10 bar              |
| 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                          | 230 V AC            |
| Operational voltage AC at 50 Hz              | 230 V               |
| Voltage tolerance AC 50 Hz                   | -10% / +10%         |
| Operational voltage AC at 60 Hz              | 230 V               |
| Voltage tolerance AC 60 Hz                   | -10% / +10%         |
| Pilot                                        | Internal            |
| Coil width                                   | 15.6 mm             |
| Pilot valve width                            | 15 mm               |
| Nominal resistance                           | 14700 $\Omega$      |
| Holding power AC 50 Hz                       | 1.6 VA              |
| Holding power AC 60 Hz                       | 1.4 VA              |
| Switch-on power AC 50 Hz                     | 2.2 VA              |
| Switch-on power AC 60 Hz                     | 2 VA                |
| Duty cycle                                   | 100 %               |
| Typ. switch-on time                          | 12 ms               |
| Typ. switch-off time                         | 13 ms               |
| Generic emission standard in accordance with | EN 50081:1992       |
| 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                           | 5 $\mu$ m           |
| Mounting on manifold strip                   | P-strip             |
| Mounting screw tightening torque             | 2.5 Nm              |
| Weight                                       | 0.278 kg            |

Material

|                           |                                                                         |
|---------------------------|-------------------------------------------------------------------------|
| Housing material          | Polyamide fiber-glass reinforced                                        |
| Seal material             | Acrylonitrile butadiene rubber<br>Hydrogenated nitrile butadiene rubber |
| Material threaded bushing | Brass<br>Die cast zinc                                                  |
| Material front plate      | Polyamide fiber-glass reinforced                                        |

|          |            |
|----------|------------|
| Part No. | 0820059003 |
|----------|------------|

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>).

5/3-directional valve, Series TC15

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Dimensions

