

# 2x3/2-directional valve, Series TC15 - inch

R422102260

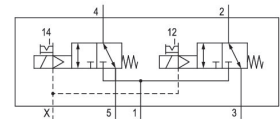
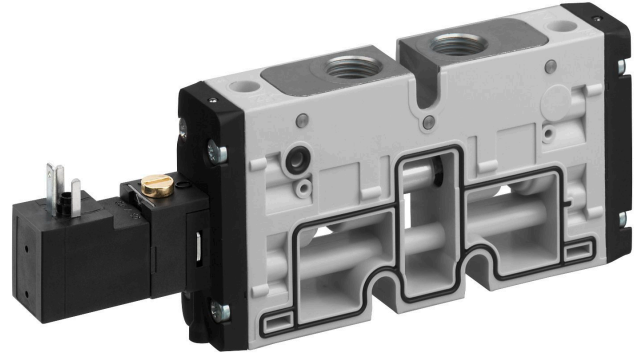
Series  
TC15

2024-07-30

- $Q_n = 1100 \text{ l/min} \dots 1500 \text{ l/min}$
- 2x3/2, 5/2, 5/3 Spool valves with polyamide housing
- Pneumatic connection G1/4, 1/4-18 NPTF
- Working pressure min./max. -0.9/10 bar
- Voltage 12 V DC, 24 V DC, 24 V AC, 110 V AC, 230 V AC
- Electrical connection ISO form C, M8 3-pin; M8 4-pin

## AVENTICS Series TC15 Valve systems

The AVENTICS Series TC15 valve system is the perfect choice for applications calling for lightweight valves with high flow rate in a small space. With valves operated either pneumatically or electrically, the valve system can be modularly expanded to up to 12 valves. Valves can be exchanged without dismantling the valve block.



## Technical data

|                                  |                                                    |
|----------------------------------|----------------------------------------------------|
| Industry                         | Industrial                                         |
| Activation                       | Electrically                                       |
| Valve type                       | Spool valve, positive overlapping                  |
| Valve function                   | NC/NC                                              |
| Actuating control                | Double Solenoid                                    |
| Sealing principle                | Soft seal                                          |
| Connection type                  | Plate connection<br>Pipe connection<br>with detent |
| Manual override                  |                                                    |
| Compressed air connection output | 1/4 - 18 NPTF                                      |
| Nominal flow $Q_n$               | 1100 l/min                                         |
| Flow conductance b               | 0.25                                               |
| Flow conductance C               | 5.9 l/(s*bar)                                      |
| Min. working pressure            | -0.9 bar                                           |
| Max. working pressure            | 10 bar                                             |
| Min. control pressure            | 3 bar                                              |

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|                                              |                              |
|----------------------------------------------|------------------------------|
| 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                     |
| Coil width                                   | 15.6 mm                      |
| Pilot valve width                            | 15 mm                        |
| Power consumption DC                         | 2 W                          |
| Nominal resistance                           | 185 $\Omega$                 |
| Duty cycle                                   | 100 %                        |
| Typ. switch-on time                          | 12 ms                        |
| Typ. switch-off time                         | 16 ms                        |
| Generic emission standard in accordance with | EN 50081-2:1993              |
| Blocking principle                           | Plate principle              |
| Can be assembled into blocks                 | Can be assembled into blocks |
| 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                    |
| Weight                                       | 0.25 kg                      |

## Material

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

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|                      |                                  |
|----------------------|----------------------------------|
|                      | Die cast zinc                    |
| Material front plate | Polyamide fiber-glass reinforced |
| Part No.             | R422102260                       |

## 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>).

