

5/2-directional valve, Series TC15

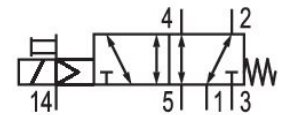
0820058361

Series
TC15

2024-05-06

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 | Industrial |
| Activation | Electrically |
| Note | Operating voltage 24 V DC |
| Valve type | Spool valve, positive overlapping |
| Actuating control | Single Solenoid |
| Sealing principle | Soft seal |
| Connection type | Pipe connection |
| Manual override | without detent |
| Compressed air connection input | G 1/4 |
| Compressed air connection output | G 1/4 |
| Compressed air connection, exhaust | G 1/4 |
| Compressed air connection pilot input | M5 |
| Nominal flow Qn | 1500 l/min |
| Flow conductance b | 0.33 |
| Flow conductance C | 6.8 l/(s*bar) |
| Min. working pressure | -0.9 bar |

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| | |
|---------------------------------------|---------------------|
| Max. working pressure | 10 bar |
| Min. control pressure | 3 bar |
| Max. control pressure | 10 bar |
| | |
| Electrical connection type | Plug |
| Electrical connection size | M8 |
| Electrical connection number of poles | 4-pin |
| Connector standard | DIN EN 60947-5-2 |
| Protection class acc. to DIN EN 61140 | Class III |
| 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 |
| LED status display | Yellow |
| Power consumption DC | 2.2 W |
| Nominal resistance | 280 Ω |
| | |
| Duty cycle | 100 % |
| Typ. switch-on time | 12 ms |
| Typ. switch-off time | 35 ms |
| | |
| 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 | 5 μm |
| | |
| Mounting on manifold strip | P-strip |
| Mounting screw tightening torque | 2.5 Nm |
| Weight | 0.235 kg |

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Material

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

Part No. 0820058361

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>).

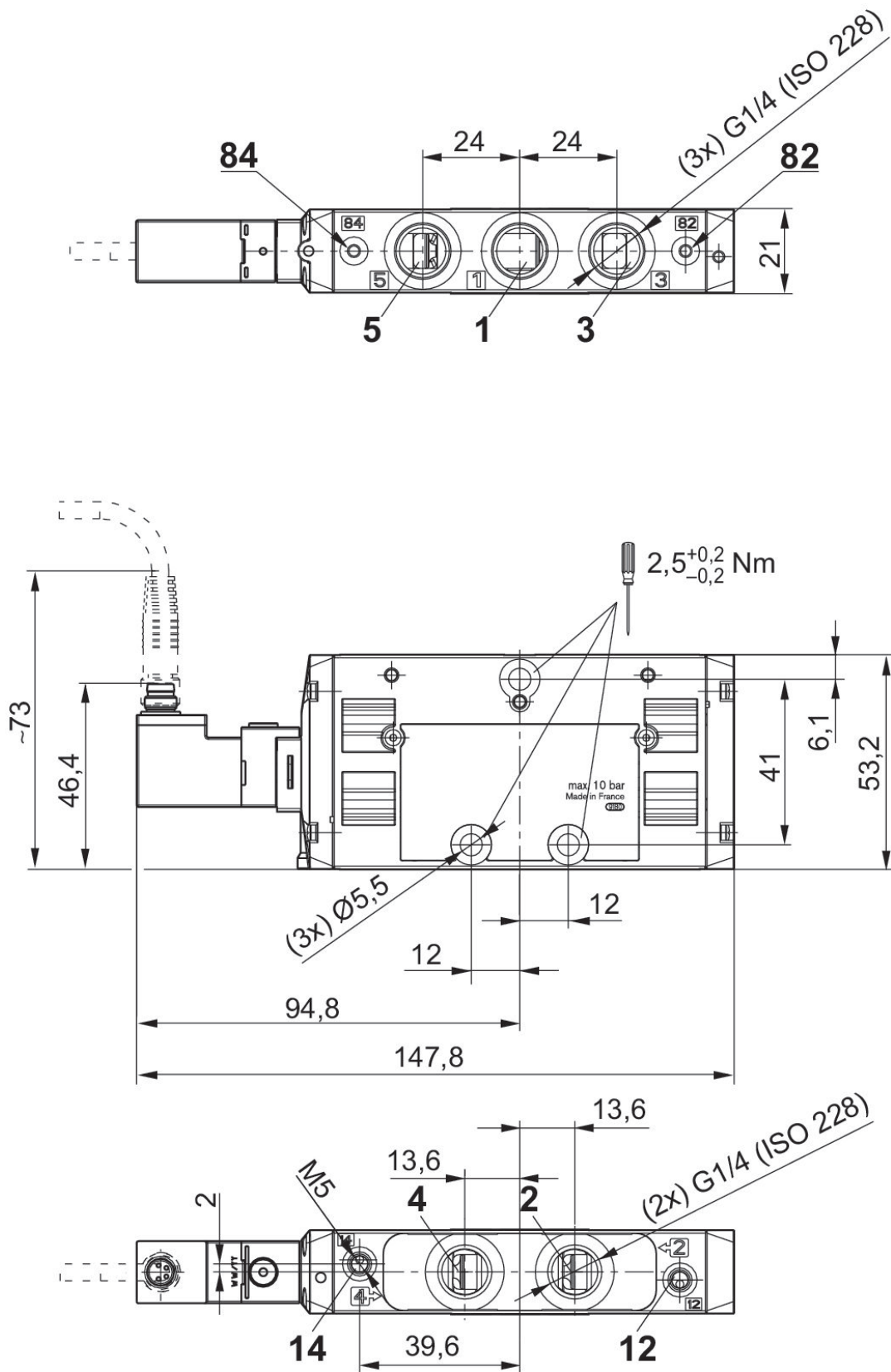
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Dimensions Single Solenoid



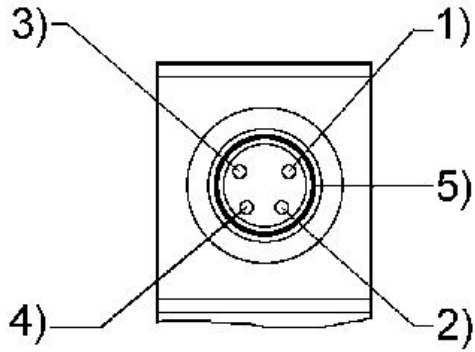
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PIN assignment and cable colors for
valve plug connectors



PIN assignment: 1) PIN not assigned 2) PIN not assigned 3) 0 V 4) 24 V 5)
LED Cable colors 1) Brown 2) White 3) Blue 4) Black