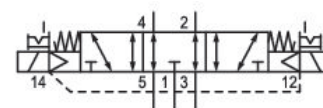


AVENTICS Series TC15 Directional valves

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 DC

Spool valve, positive overlapping

Exhausted Center

Double Solenoid

Soft seal

Pipe connection
with detent

Compressed air connection input

Compressed air connection output

Compressed air connection, exhaust

Compressed air connection pilot input

G 1/4

G 1/4

G 1/4

M5

Nominal flow Q_n

Flow conductance b

Flow conductance C

1300 l/min

0.31

5.9 l/(s*bar)

5/3-directional valve, Series TC15

0820059061

Series
TC15

2024-05-06

Min. working pressure	-0.9 bar
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	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	280 Ω
Duty cycle	100 %
Typ. switch-on time	12 ms
Typ. switch-off time	13 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	0.278 kg

Material

Housing material	Polyamide fiber-glass reinforced
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5/3-directional valve, Series TC15

0820059061

Series
TC15

2024-05-06

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. 0820059061

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>).

0820059061

2024-05-06

Technical drawing of the 3-Port 1/2" BSP 10 bar 3-Port Solenoid Valve, showing three views: top, side, and bottom.

Top View: Shows the valve body with three ports (5, 1, 3) and dimensions (24, 24, 21). The ports are labeled 5, 1, and 3. The valve body is labeled 84. The ports are labeled 82. The ports are labeled (3x) G1/4 (ISO 228).

Side View: Shows the valve body with dimensions (233,2, 113,6, 64, 195,6, 94,8, 12, 12). The solenoid coil is labeled 84. The valve body is labeled 82. The valve body is labeled max 10 bar Made in France. The valve body is labeled (3x) Ø5,5. The valve body is labeled 2,5^{+0,2}_{-0,2} Nm.

Bottom View: Shows the valve body with two G1/4 ports (2, 12) and dimensions (13,6, 13,6, 39,6, 14, 2). The ports are labeled 2 and 12. The valve body is labeled M5. The valve body is labeled (2x) G1/4 (ISO 228).