5/2-directional valve, Series 502

R502A2B40MA00F1

General series information AVENTICS Series 502 Directional Control Valves

■ The AVENTICS Series 502 is a line of general purpose automation valves designed for directional control and piloting applications requiring higher flow rates; less power consumption; and exceptionally easy on-site installation, configuration, and modification. The compact (18 mm), modular 502 Series is ideally suited for automotive and tire, food and beverage, pharmaceutical, and packaging machinery applications. The valve has the flexibility of meeting the ISO 15407-2 standard while maintaining its high-flow characteristics. In addition, no other valve in its class offers such a broad range of pressure regulator, pressure shut-off, and exhaust flow control accessories.





Technical data

Industry

Activation

Electrically

Valve type

Sealing principle

Connection type

Manual override

Industrial

Electrically

Spool valve, positive overlapping

soft seal

Plate connection

without detent

Pilot control exhaust with directional pilot air exhaust

Nominal flow Qn 630 I/min

Working pressure min.

Working pressure max

Control pressure min.

Control pressure max.

8 bar

Control pressure max.

8 bar



Protection class with connection IP65

Protective circuit TVS diode

Reverse polarity protection Protected against polarity reversal

Operational voltage 24 V DC
Voltage tolerance DC -15% / +10%

Pilot External
LED status display Yellow
Power consumption DC 1.1 W

Duty cycle 100 %
Typ. switch-on time 14 ms
Typ. switch-off time 14 ms

Blocking principle Single base plate principle, can be assembled

into blocks

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

Oil content of compressed air min. 0 mg/m³
Oil content of compressed air max. 5 mg/m³
Max. particle size 50 µm

mounting screws with hexagon socket

Mounting screw tightening torque 2 Nm
Weight 0.167 kg

Material

Housing material Die cast zinc

Seal material Nitrile butadiene rubber

Polyurethane

Material front plate Polyamide
Material end plate Polyamide

Part No. R502A2B40MA00F1



Technical information

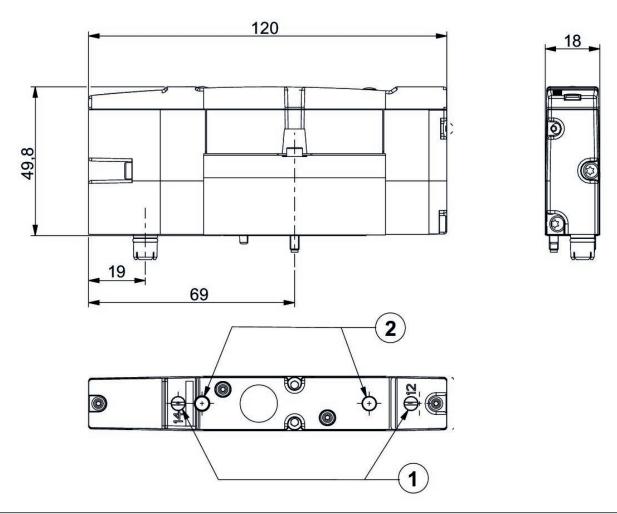
At operating voltage 24 V DC, power consumption for coil (cold) = 1.3 W, coil (hot) = 1.1 W

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.

Dimensions





2) LED

