

# 5/3-directional valve, Series 501

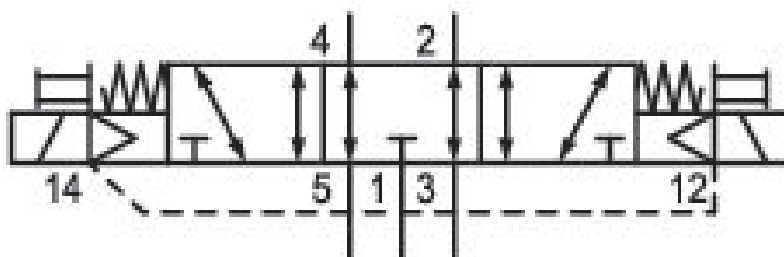
## R501A2B50MA00F1

General series information  
AVENTICS Series 501 Directional Control Valves

- The AVENTICS Series 501 is a line of general purpose automation valves designed for directional control and piloting applications requiring compact size, high flow capability, and energy savings. Engineers can achieve the flow of a 15 mm to 20 mm valves in a more compact package, saving space, cost, and energy in their machine designs. In addition, no other valve in its class offers such a broad range of pressure regulator, pressure shut-off, and exhaust flow control accessories. The 501 Series valve's pressure shut —off option permits users to replace individual valves without stopping their production process — reducing line downtime and mair



- 2x3/2, 5/2, 5/3 spool valves



### Technical data

Industry	Industrial
Activation	Electrically
Valve type	Spool valve, positive overlapping
Valve function	Exhausted Center
Actuating control	Double Solenoid
Sealing principle	soft seal
Connection type	Plate connection
Manual override	without detent
Pilot control exhaust	with directional pilot air exhaust
Nominal flow Qn	365 l/min

Working pressure min.	2 bar
Working pressure max	8 bar
Control pressure min.	2 bar
Control pressure max.	8 bar
Protection class with connection	IP65
Protective circuit	Varistor
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	0.68 W
Duty cycle	100 %
Typ. switch-on time	27 ms
Typ. switch-off time	12 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/m <sup>3</sup>
Oil content of compressed air max.	5 mg/m <sup>3</sup>
Max. particle size	50 µm
mounting screws	with hexagon socket
Mounting screw tightening torque	0.45 Nm
Weight	0.93 kg
<b>Material</b>	
Housing material	Die cast zinc
Seal material	Nitrile butadiene rubber

Material front plate	Polyurethane
Material end plate	Polyamide
Part No.	R501A2B50MA00F1

### 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>).

### Dimensions

