

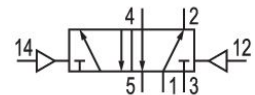
5/2-directional valve, Series 521, with air spring return

52100078

2025-10-15

AVENTICS Series 521 Mini-Spool Valves

The AVENTICS Series 521 is a line of solenoid air-operated, mini-spool valves that are ideal for piloting pneumatic cylinders. The valves have high-quality coils resistant to heat and moisture and suitable for high ambient temperatures and harsh environments. They can be mounted on joinable subbases for manifold applications. The AVENTICS Series 521 valves are suitable for automotive, case packing, packaging, and tire manufacturing applications.



Technical data

Industry	Industrial
Activation	Pneumatically
Valve type	Spool valve
Switching principle	5/2, double air pilot
Sealing principle	Soft seal
Connection type	Pipe connection
Compressed air connection input	G 1/4
Compressed air connection output	G 1/4
Nominal flow Qn	1050 l/min
Min. working pressure	0 bar
Max. working pressure	8 bar
Min. control pressure	1.5 bar
Max. control pressure	8 bar
Pilot	External
Min. ambient temperature	5 °C
Max. ambient temperature	50 °C

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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 screw	M3
Weight	0.11 kg

Material

Housing material	Aluminum, anodized
Seal material	Nitrile butadiene rubber
Material, front cover	Polyoxymethylene
Material threaded bushing	Aluminum
Part No.	52100078

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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Fig. 1 is a technical drawing of a mechanical part, showing a side view. The part is a rectangular block with a central horizontal slot. The drawing includes the following dimensions and features:

- Dimensions:**
 - Overall width: 14
 - Overall height: 4
 - Distance from the left face to the center of the first hole: 5
 - Distance between the centers of the first and second holes: 1
 - Distance between the centers of the second and third holes: 44
 - Distance from the center of the third hole to the right face: 12
- Features:**
 - Three circular holes are shown, each with a center mark.
 - Threaded holes are indicated at the left and right faces, labeled $G1/8$ and $G1/4$ respectively.
 - A small rectangular feature is located on the right face, labeled 4.

