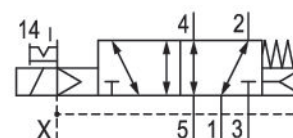


5/2-directional valve, Series AV03

R422102424

General series information Series AV03

- The AVENTICS Series AV03/AV05 provide a reliable basis for both compact handling systems and complex automation solutions. Within machine safety the Series AV03/AV05 offers intelligent solutions that significantly reduce your effort in creating a safe design. With the integration of the fieldbus and I/O-modules of the Series AES, also all requirements for distributed control are available. The Series AV03/AV05 is easy to configure, easy to use and easy to extend as well as IIoT futureproof thanks to the integration of OPC UA and the Digital Twin



Technical data

Industry
Industrial

Activation
Electrically

Nominal flow Qn
300 l/min

Switching principle
5/2

Working pressure min.
-0.9 bar

Working pressure max
10 bar

Valve type
Spool valve, positive overlapping

Connection type
Plate connection

DC operating voltage
24 V

Voltage tolerance DC
-10% / +10%

Manual override
with detent

Actuating control
Single Solenoid

Sealing principle
Soft Seal

Pilot
External

Return
with spring/air spring return

Blocking principle
Base plate principle, multiple

Control pressure min.
3 bar

Control pressure max.
8 bar

Min. ambient temperature
-10 °C

Max. ambient temperature
60 °C

Min. medium temperature
-10 °C

Max. medium temperature
60 °C

Medium
Compressed air

Max. particle size
40 µm

Oil content of compressed air min.
0 mg/m³

Oil content of compressed air max.
5 mg/m³

Pilot control exhaust
with directional pilot air exhaust

Flow conductance b
0.29

Flow conductance C
1.17 l/(s*bar)

Power consumption DC
0.55 W

LED status display
Yellow

Duty cycle
100 %

Typ. switch-on time
12 ms

Typ. switch-off time
17 ms

Protection class with connection
IP65

Protective circuit
Z-diode

Reverse polarity protection
Protected against polarity reversal

mounting screws
Hexalobular socket (TORX) ISO 10664-8

Mounting screw tightening torque
0.5 Nm

Weight
0.043 kg

Housing material
Polyamide fiber-glass reinforced

Seal material
Acrylonitrile butadiene rubber
Hydrogenated acrylonitrile butadiene rubber

Material front plate
Polyamide fiber-glass reinforced

Material end plate
Polyamide

Part No.
R422102424

Technical information

The pilot type (external/internal) is not implemented in the valve, but in the end plate of the valve system.

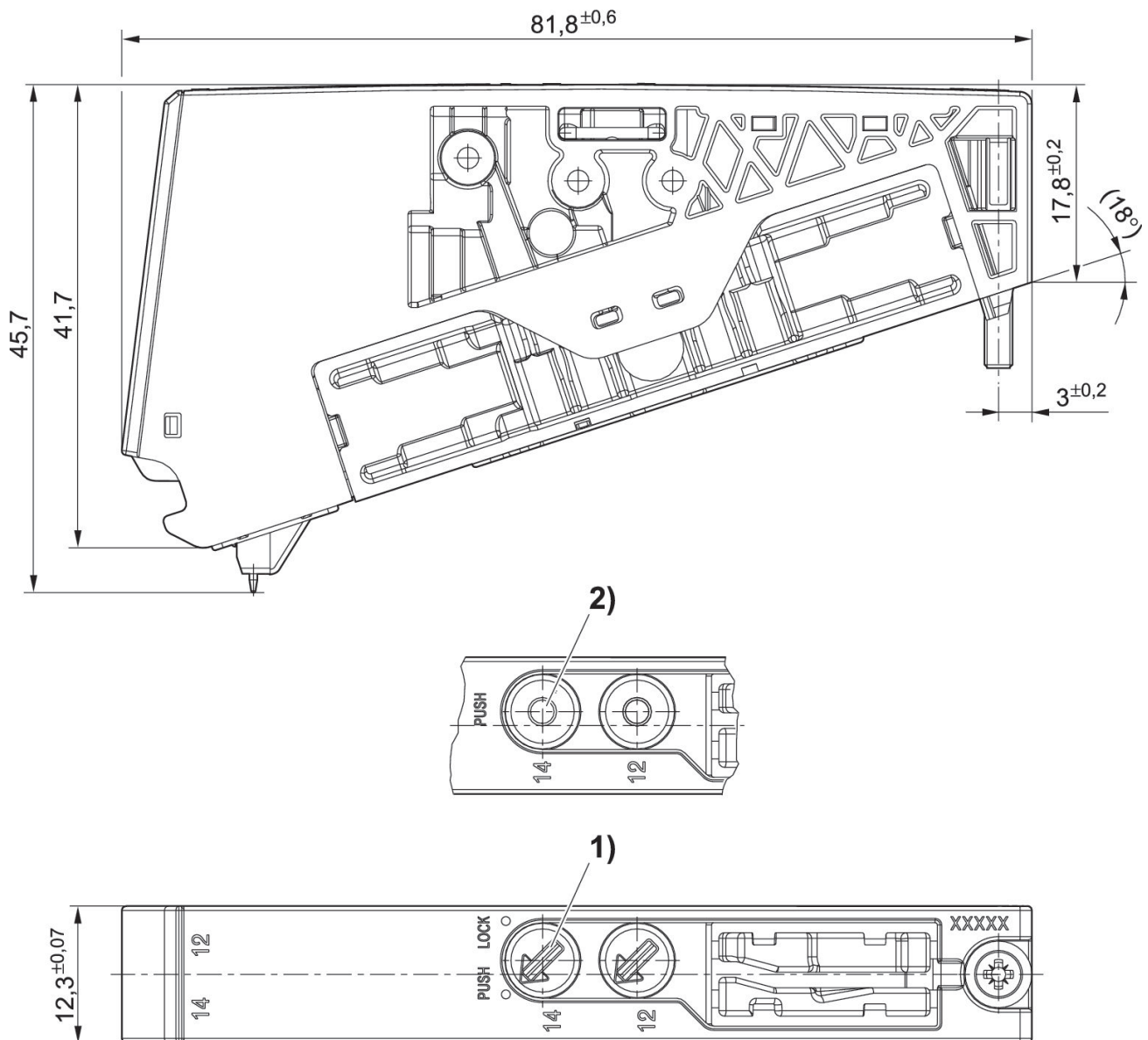
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

The pressure dew point must be at least 15 °C under 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



- 1) with detent
- 2) without detent