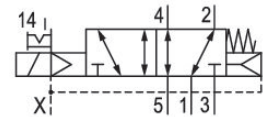


Series AV03

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 |
| Valve type | Spool valve, positive overlapping |
| Switching principle | 2/2, with spring/air spring return |
| Actuating control | Single Solenoid |
| Sealing principle | Soft seal |
| Connection type | Plate connection |
| Manual override | with detent |
| Pilot control exhaust | with directional pilot air exhaust |
| Nominal flow Qn | 300 l/min |
| Flow conductance b | 0.29 |
| Flow conductance C | 1.17 l/(s*bar) |
| Min. working pressure | -0.9 bar |
| Max. working pressure | 10 bar |
| Min. control pressure | 3 bar |
| Max. control pressure | 8 bar |

5/2-directional valve, Series AV03

2024-03-19

R422102424

| | |
|------------------------------------|---------------------------------------|
| Protection class with connection | IP65 |
| Protective circuit | Z-diode |
| Reverse polarity protection | Protected against polarity reversal |
| Operational voltage | 24 V DC |
| Operational voltage DC | 24 V |
| Voltage tolerance DC | -10% / +10% |
| | |
| Pilot | External |
| LED status display | Yellow |
| Power consumption DC | 0.55 W |
| | |
| Duty cycle | 100 % |
| Typ. switch-on time | 12 ms |
| Typ. switch-off time | 17 ms |
| | |
| Blocking principle | Base plate principle, multiple |
| Min. ambient temperature | -10 °C |
| Max. ambient temperature | 60 °C |
| Min. medium temperature | -10 °C |
| Max. medium temperature | 60 °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 | 40 µm |
| | |
| Mounting screws | Hexalobular socket (TORX) ISO 10664-8 |
| Mounting screw tightening torque | 0.5 Nm |
| Weight | 0.043 kg |

Material

| | |
|----------------------|---|
| 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 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.

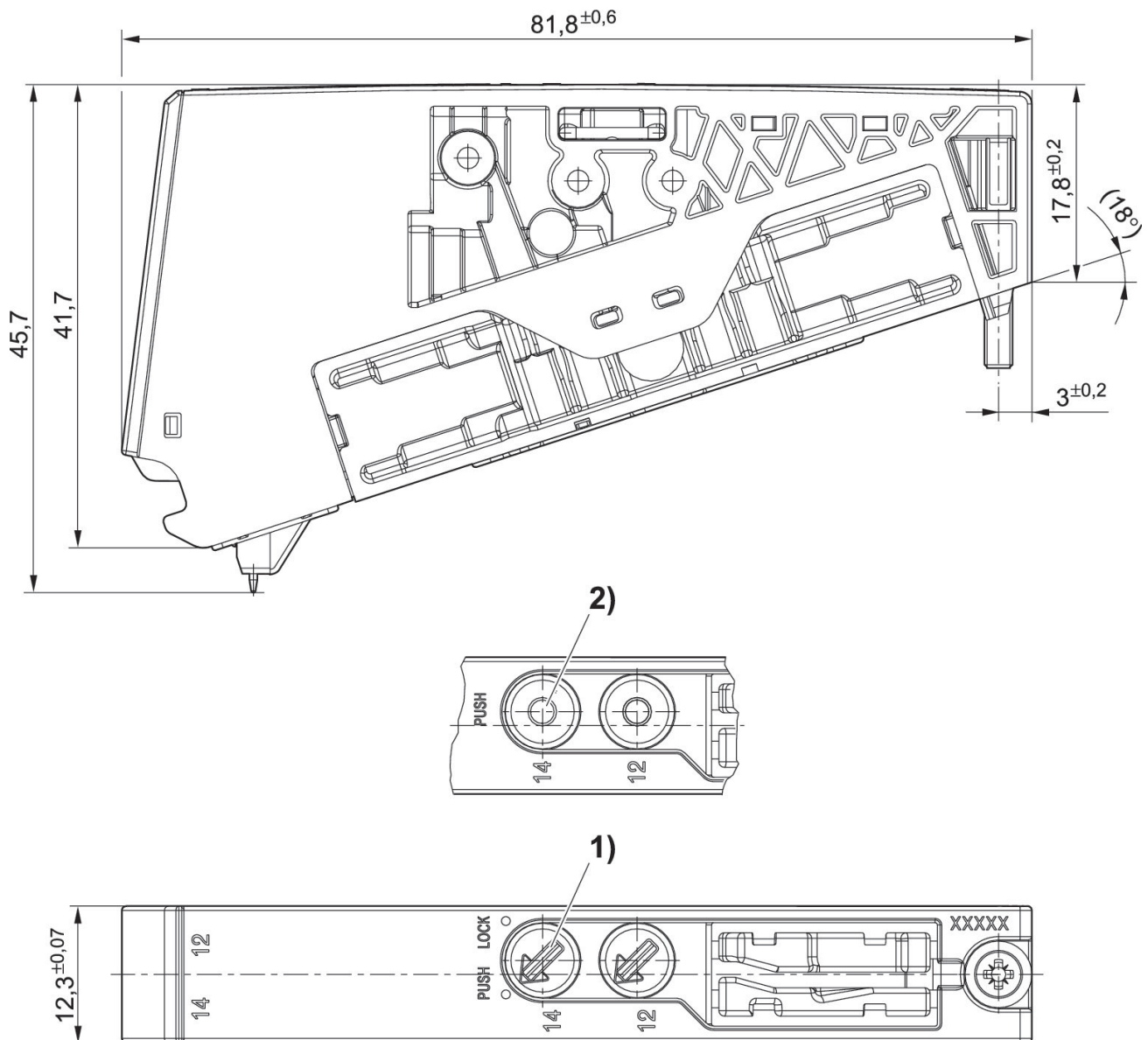
Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in <https://www.emerson.com/en-us/support>).

5/2-directional valve, Series AV03

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R422102424

Dimensions



- 1) with detent
- 2) without detent