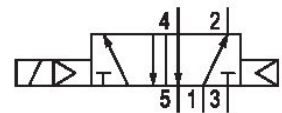


Series AV05

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

- Modular concept
- Intelligent solutions for machine safety demands
- Suits compact handling systems and complex automation solutions
- High connectivity through Multipol or Fieldbus connection
- Integration of a wide range of I/O-modules
- Low weight
- Low energy consumption
- Covers requirements of global automation technology, even under UL specifications and in ATEX-areas
- The Series AV03/AV05-BP offers the possibility of assembly into cabinets
- Easy and flexible custom specific configurations via online configurator
- OPC UA integration allows for easy access to data and analytics without changing or touching the PLC
- The integrated Digital Twin improves your productivity and efficiency



Technical data

Industry

Activation

Valve type

Switching principle

Actuating control

Sealing principle

Connection type

Manual override

Industrial

Electrically

Spool valve, positive overlapping

5/2, with air spring return

Single Solenoid

Soft seal

Plate connection

without

Pilot control exhaust

With collective pilot air exhaust

5/2-directional valve, Series AV05

R422103083

Series AV05

2025-10-23

Nominal flow Qn	700 l/min
Nominal flow Qn 1 to 2	700 l/min
Nominal flow Qn 2 to 3	600 l/min
Flow conductance b	0.38
Flow conductance C	2.54 l/(s*bar)
Min. working pressure	-0.9 bar
Max. working pressure	10 bar
Min. control pressure	3 bar
Max. control pressure	8 bar
Protection class with connection	IP65
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	16 ms
Typ. switch-off time	22 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
Tightening torque tolerance	±0,1 mT
Weight	0.061 kg

Material

Housing material	Polyamide, fiber-glass reinforced
Seal material	Acrylonitrile butadiene rubber Hydrogenated acrylonitrile butadiene rubber
Material end plate	Polyamide, fiber-glass reinforced
Part No.	R422103083

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 AV05

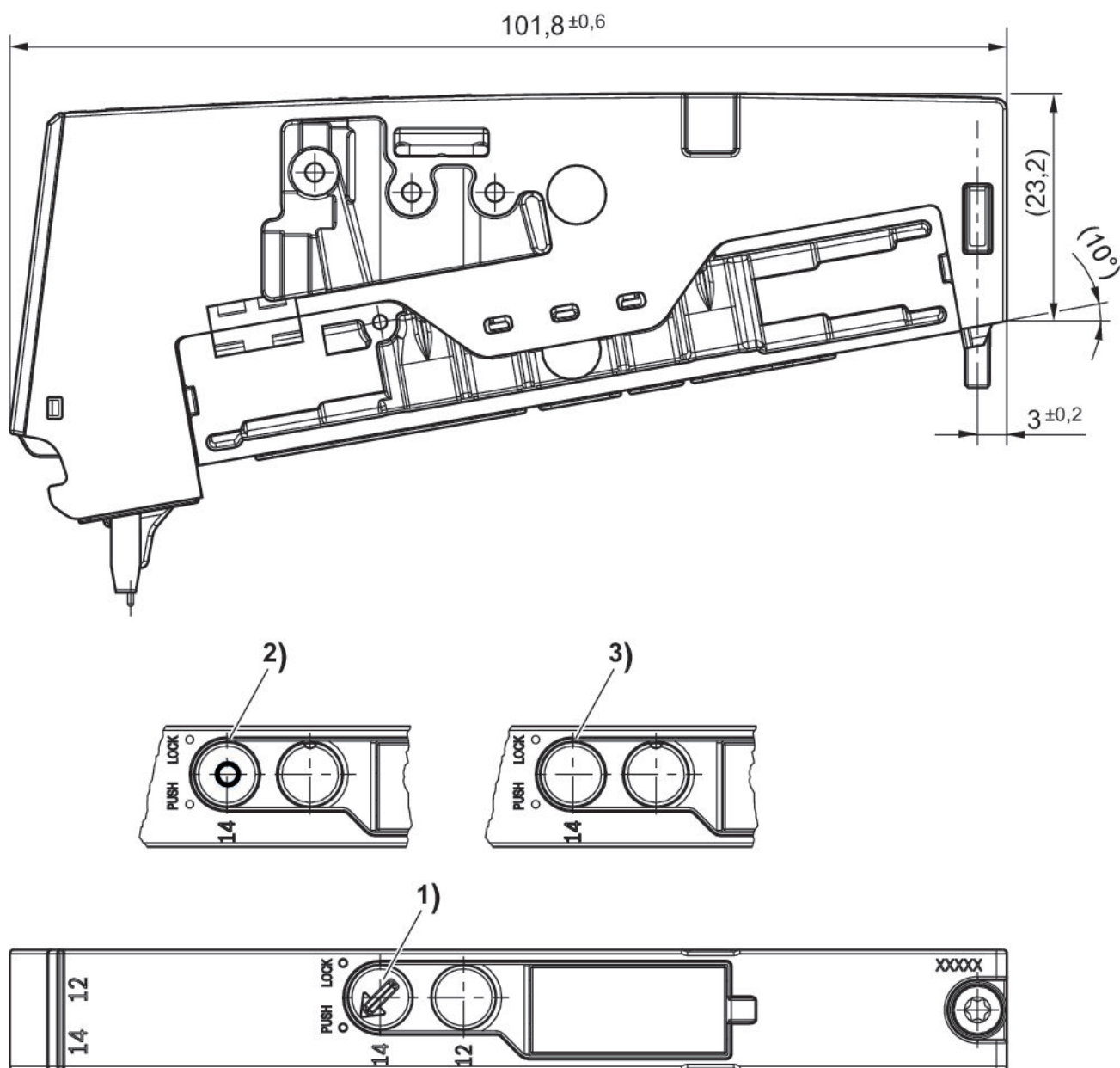
R422103083

Series AV05

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Dimensions

Double Solenoid



- 1) Manual override: with detent
- 2) manual override: without detent
- 3) Manual override: without detent