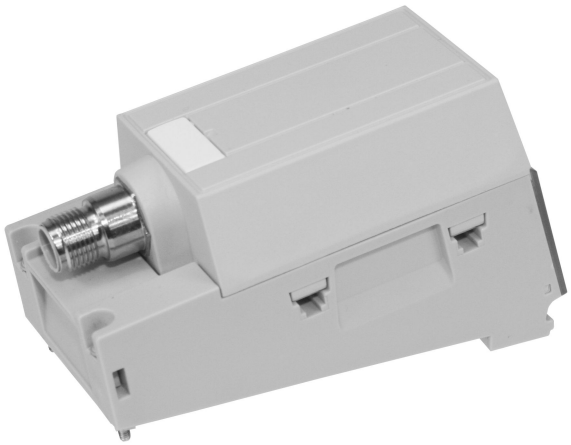
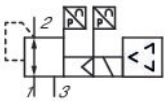
E/P pressure regulator, Series AV05-EP

2024-08-07

R414007404

Series AV05-EP





Technical data

Type	For multipole control Display: LED
Min. regulation range	0.5 bar
Max. regulation range	6 bar
Min. working pressure	0 bar
Max. working pressure	11 bar
Hysteresis	< 0,05 bar
Repetitive precision	< 0,04 bar
Medium	Compressed air
Min. ambient temperature	-10 °C
Max. ambient temperature	60 °C
Min. medium temperature	-10 °C
Max. medium temperature	60 °C
Operational voltage DC	24 V
Max. current consumption	180 mA
Protection class	IP65
Max. particle size	40 µm
Min. oil content of compressed air	0 mg/m³
Max. oil content of compressed air	5 mg/m³
Type	Piloted pressure regulator

Mounting orientation	Any
Electrical connection size	M12
Electrical connection number of poles	5-pin
Electrical connection coding	A-coded
Actual output value	4 ... 20 mA
Nominal input value	4 ... 20 mA
Pilot control exhaust	With collective pilot air exhaust
Industry	Industrial
Weight	0.24 kg

Material

Housing material	Polyarylamide
Seal material	Nitrile butadiene rubber
Part No.	R414007404

Technical information

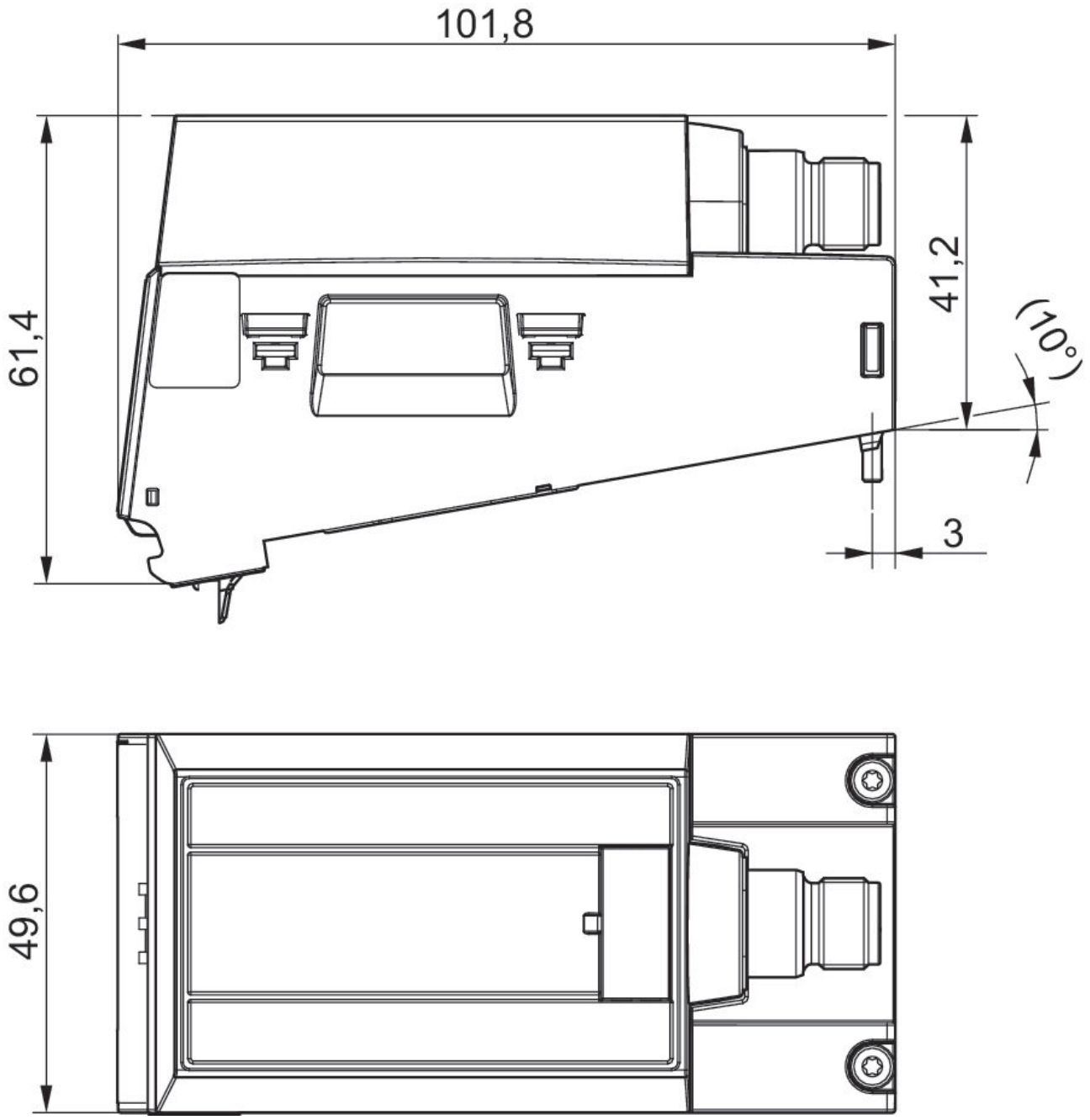
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

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).

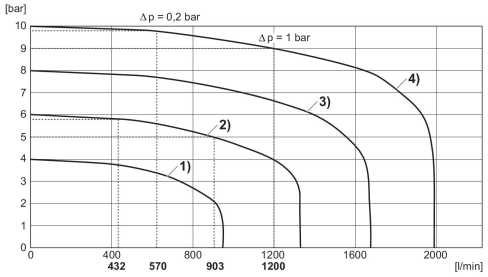
Dimensions



Port for plug M12x1

Flow characteristic curve

Single pressure control



1) Pv = [[5] bar], controlled: [[4] bar]
2) Pv = [[7] bar], controlled: [[6] bar]
3) Pv = [[9] bar], controlled: [[8] bar]
4) Pv = [[11] bar], controlled: [[10] bar]

Flow characteristic curve

Pressure zone control

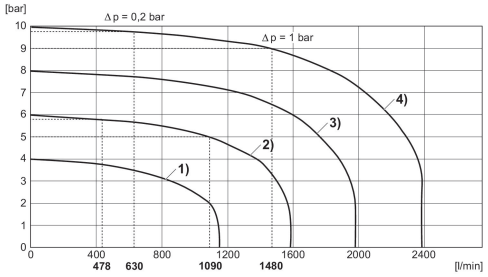


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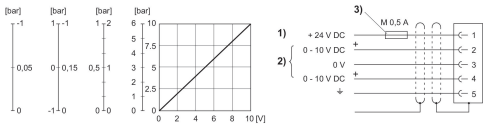
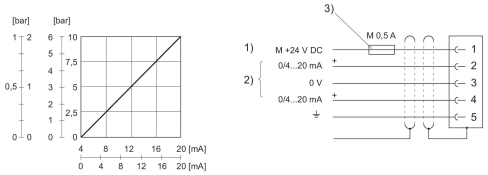
Fig. 2

Characteristic and pin assignment for voltage control with actual output value



1) Supply voltage 2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V. Min. load resistance of nominal value output = 1 kΩ. 3) The operating voltage must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.

Characteristic and pin assignment for current control with actual output value



1) power supply
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3). Nominal input value (ohmic load 100 Ω), actual output value: external ohmic load < 300 Ω. If the power supply is switched off, the nominal input value is high-ohmic.
3) The power supply must be protected by an external M 0.5 A fuse. Connect the plug via a shielded cable to ensure EMC.