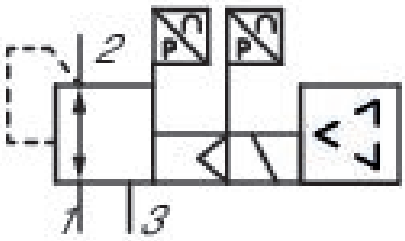
# E/P pressure regulator, Series AV03-EP

## R414007366

Series AV03-EP


## Technical data

Regulation range min.
0.5 bar

Regulation range max.
6 bar

Working pressure min.
0 bar

Working pressure max
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

DC operating voltage
24 V

Max. power consumption
180 mA

Protection class
IP65

Max. particle size
40 µm

Oil content of compressed air min.
0 mg/m³

Oil content of compressed air max.
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
0.21 kg

## Material

Housing material
Polyarylamide

Seal material
Nitrile butadiene rubber

Part No.
R414007366

## Technical information

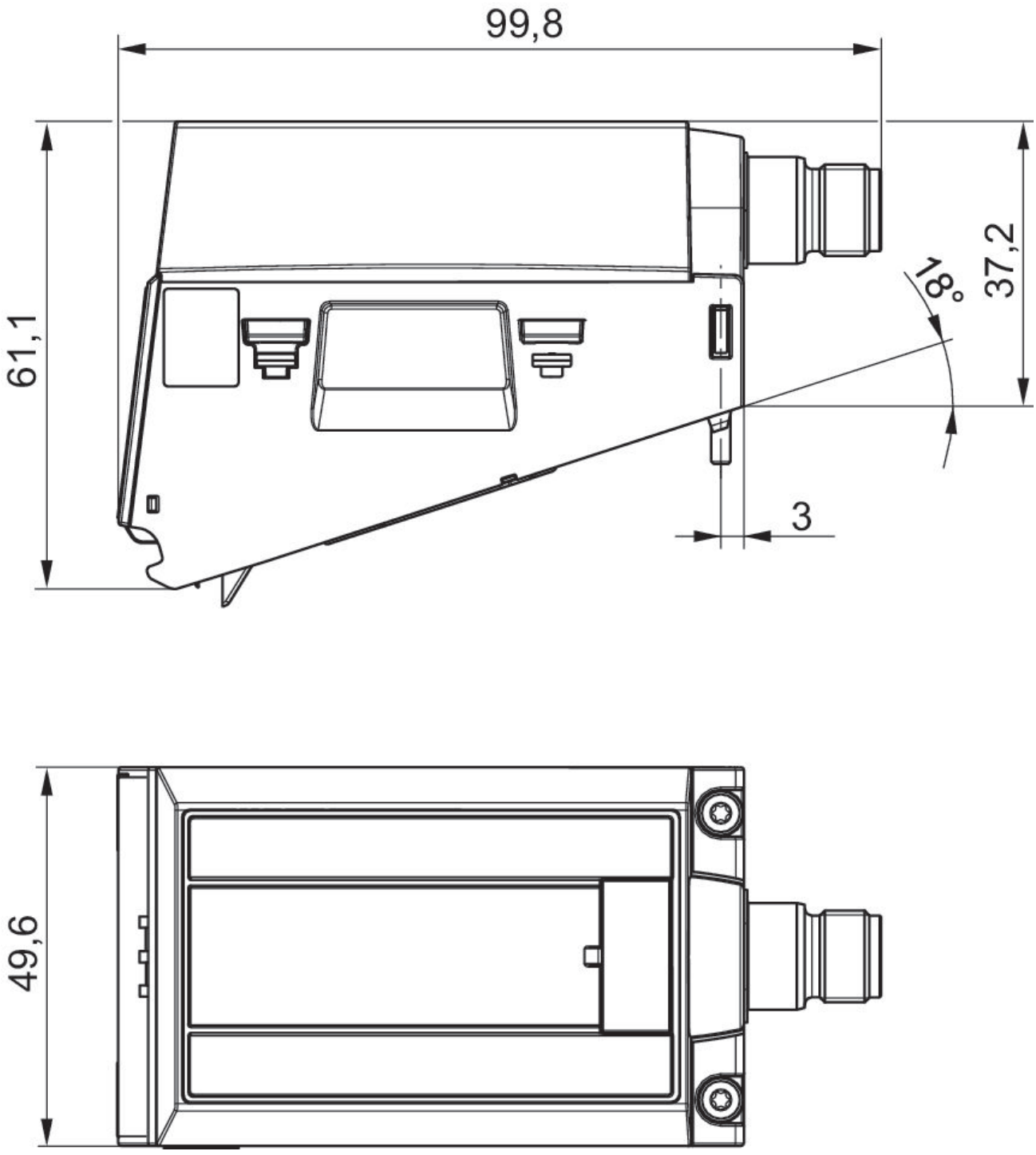
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

The oil content of compressed air must remain constant during the life cycle.

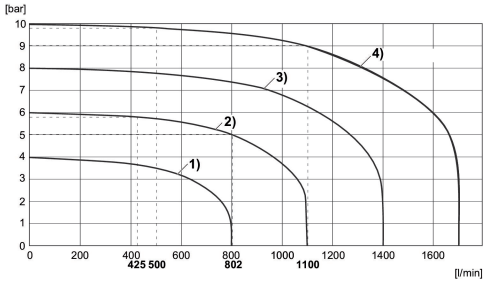
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in https://www.emerson.com/en-us/support).

## Dimensions



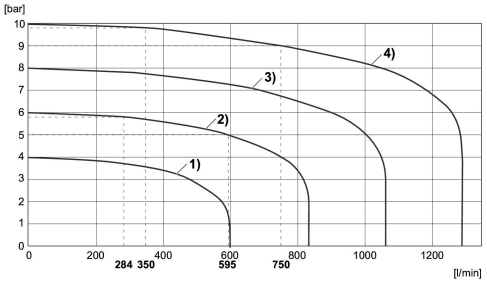

Port for plug M12x1

## Flow characteristic curve
### Pressure zone control



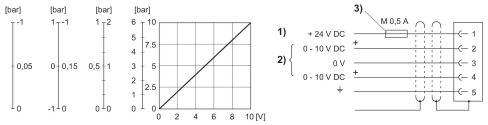

1) Pv = [[5] bar], controlled: [[4] bar]
2) Pv = [[7] bar], controlled: [[6] bar]
3) Pv = [[9] bar], controlled: [[8] bar]
4) Pv = [[11] bar], controlled: [[10] bar]

## Flow characteristic curve
### Single pressure control



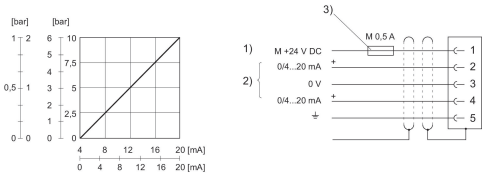

1) Pv = [[5] bar], controlled: [[4] bar]
2) Pv = [[7] bar], controlled: [[6] bar]
3) Pv = [[9] bar], controlled: [[8] bar]
4) Pv = [[11] bar], controlled: [[10] bar]

## 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.