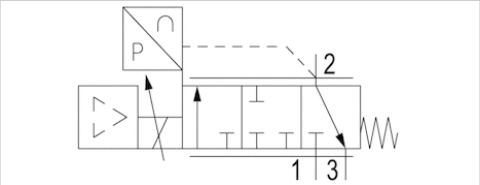
Series ED05

AVENTICS™ Series ED05

EMERSON

E/P pressure regulator, Series ED05

- Qn = 1000 l/min
- Compressed air connection output G 1/4
- Electr. connection Plug, ISO 15217, form C
- Signal connection input and output, Plug, ISO 15217, form C



Version	Poppet valve
Mounting orientation	α = 0-90° β = 0-90°
Certificates	CE declaration of conformity
Working pressure max	11 bar
Ambient temperature min./max.	0 ... 70 °C
Medium temperature min./max.	0 ... 70 °C
Compressed air connection input	G 1/4
Compressed air connection output	G 1/4
Compressed air connection, exhaust	G 1/4
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 1 mg/m³
Nominal flow Qn	1000 l/min
Control	Analog
DC operating voltage	24 V
Voltage tolerance DC	-20% / +20%
Hysteresis	0.06 bar
Permissible ripple	5%
Protection class	IP65
Weight	1.1 kg
	Nominal flow Qn with working pressure 7 bar , with secondary pressure 6 bar and Δp = 0.2 bar

Technical data

Part No.	Pressure setting range min./max.	Nominal input value	Actual output value	Control
		Min./max.	Min./max.	
5610141300	0 ... 6 bar	0 ... 20 mA	0 ... 20 mA	Analog
5610141310	0 ... 6 bar	4 ... 20 mA	4 ... 20 mA	Analog
5610141330	0 ... 6 bar	0 ... 10 V	0 ... 10 V	Analog
5610141320	0 ... 6 bar	0 ... 10 V	-	Analog
5610141500	0 ... 10 bar	0 ... 20 mA	0 ... 20 mA	Analog
5610141510	0 ... 10 bar	4 ... 20 mA	4 ... 20 mA	Analog
5610141530	0 ... 10 bar	0 ... 10 V	0 ... 10 V	Analog
5610141520	0 ... 10 bar	0 ... 10 V	-	Analog

Part No.	Fig.	
5610141300	Fig. 1	-
5610141310	Fig. 1	-
5610141330	Fig. 2	-
5610141320	Fig. 3	1)
5610141500	Fig. 1	-

Part No.	Fig.	
5610141510	Fig. 1	-
5610141530	Fig. 2	-
5610141520	Fig. 3	1)

Minimum working pressure = 0.5 bar + max. required secondary pressure, Additional pressure setting ranges available on request

1) Output 10V constant to supply a set point potentiometer.

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 the MediaCentre).

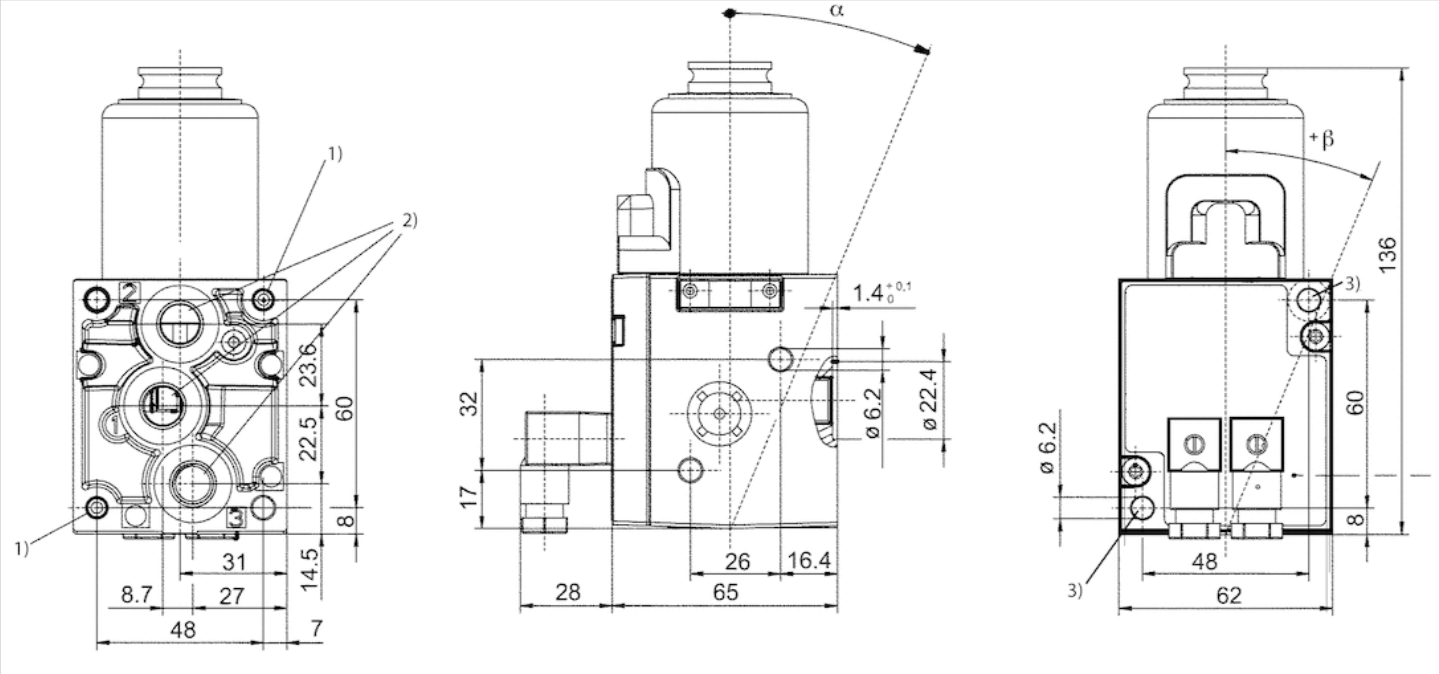
With oil-free, dry air, other installation positions are possible on request.
The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.

Technical information

Material	
Housing	Die-cast aluminum Steel
Seals	Hydrogenated acrylonitrile butadiene rubber

Dimensions

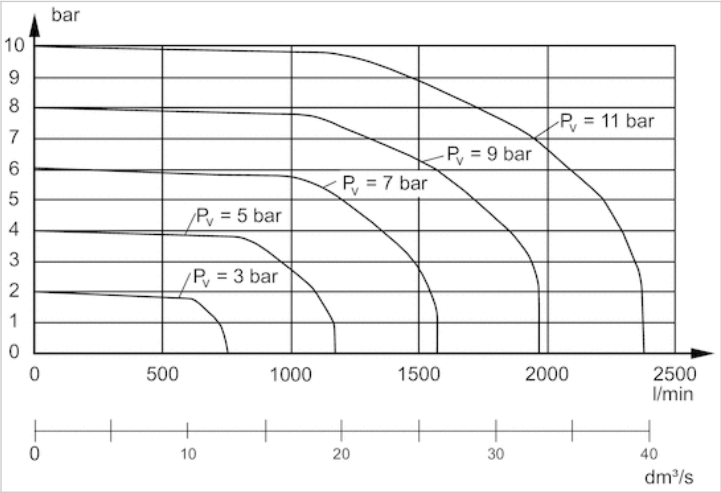
Dimensions



1) Core hole 15 mm deep for self-tapping screws M6
2) Universal threaded connection, suitable for G1/4 according to ISO 228/1:2000 and 1/4-27 NPTF
3) Through hole

Diagrams

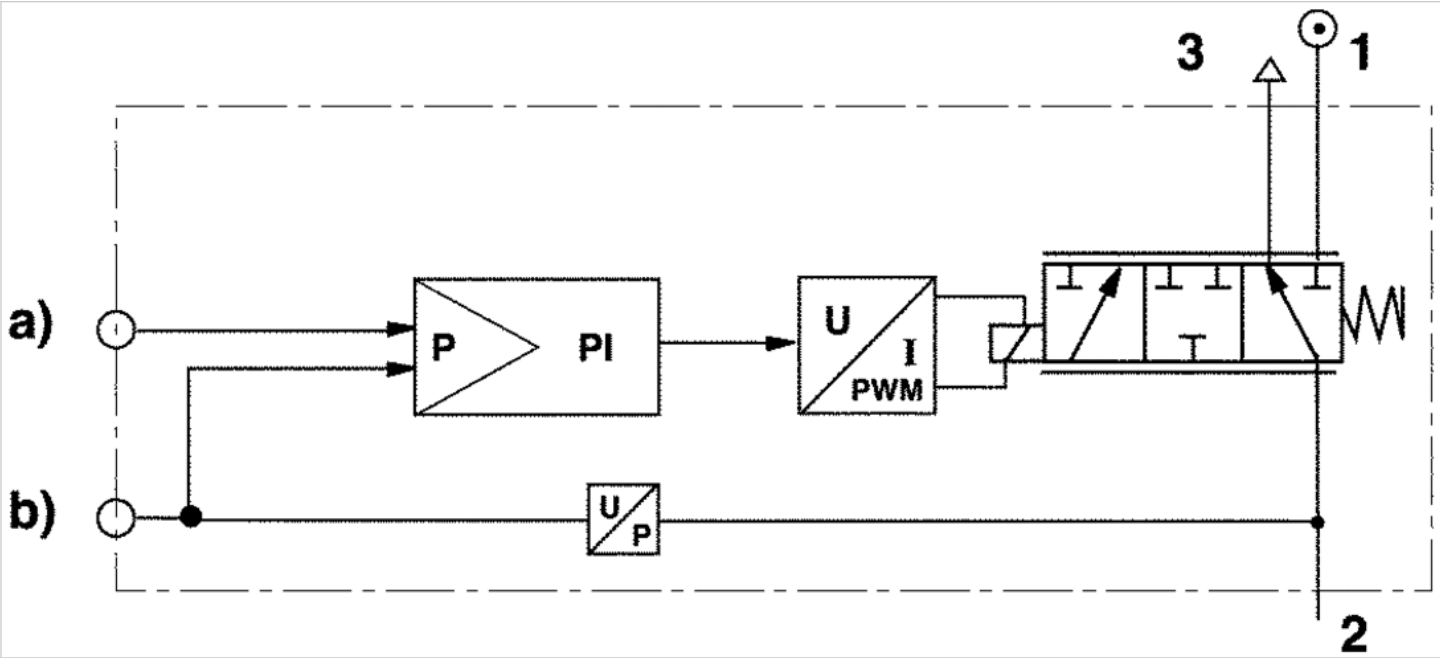
Flow diagram



Connect the plug via a shielded cable to ensure EMC

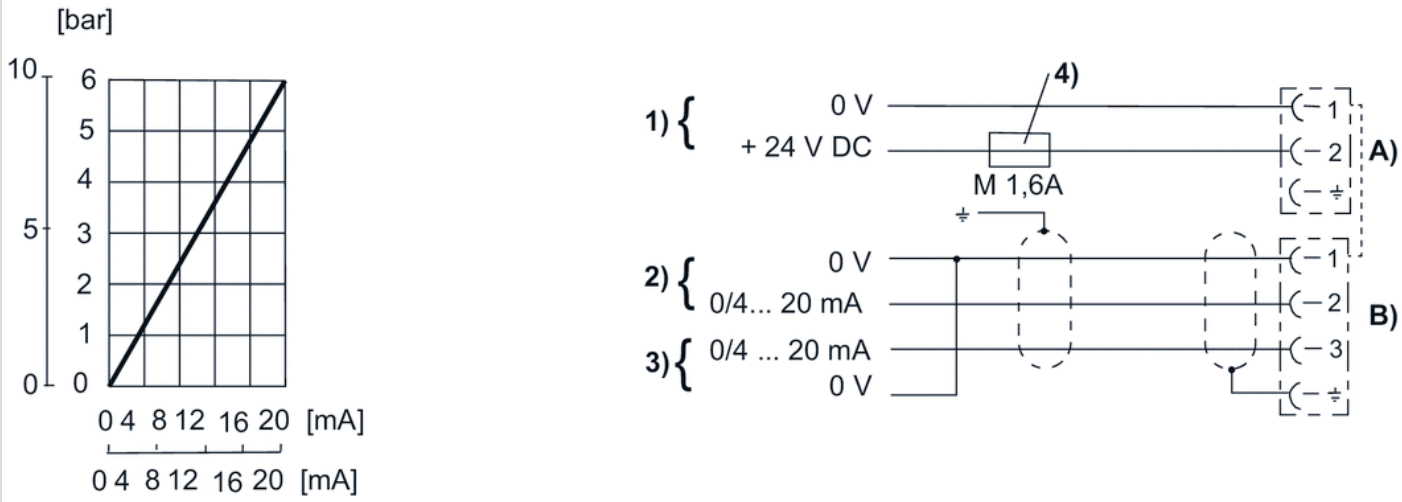
Circuit diagram

Functional diagram



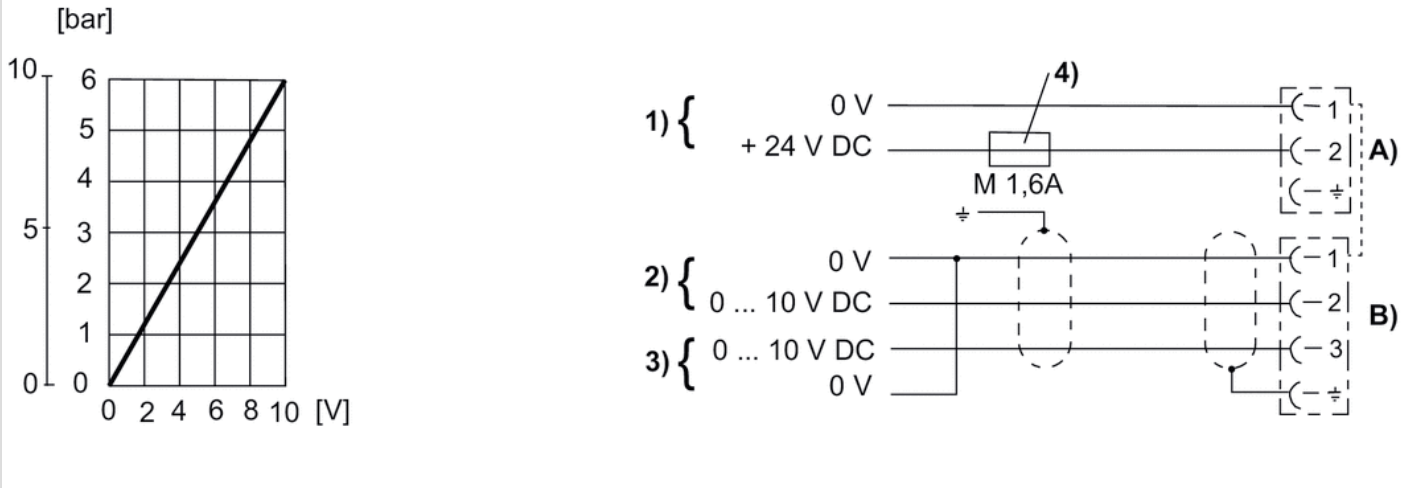
a) Nominal input value b) Actual output value
The E/P pressure control valve modulates the pressure corresponding to an analog electrical nominal input value.
1) Operating pressure
2) Working pressure
3) Exhaust

Fig. 1, Characteristic and pin assignment for current control with actual output value



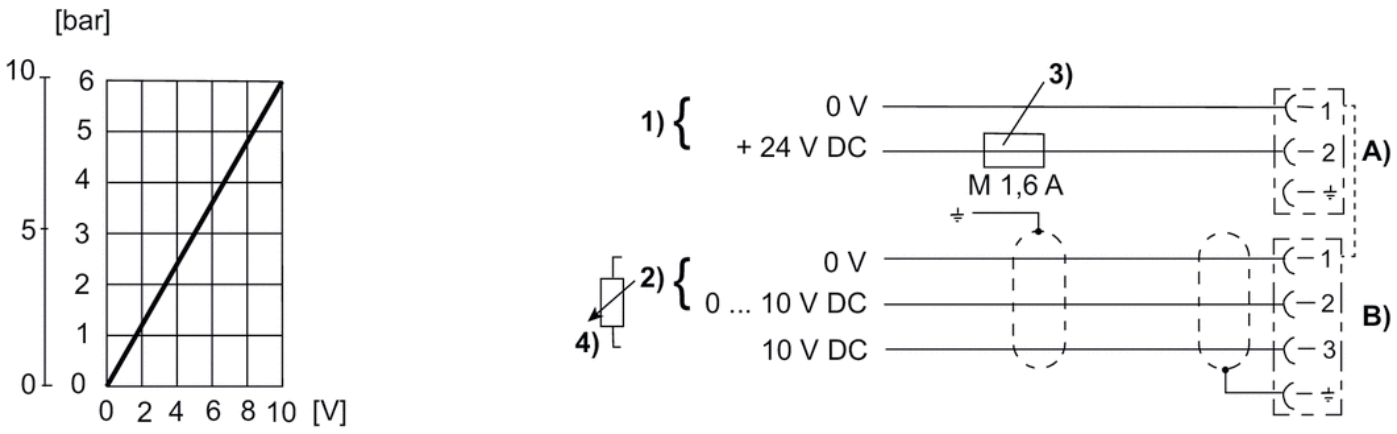
1) Operational
voltage
2) Input current nominal value (ohmic load 100 Ω, max. 50 mA.)
The voltage at the nominal input value may not exceed 12 V.
4) actual output value (max. total resistance of downstream devices 300 Ω).
3) The operating voltage must be protected by an external M 1.6 A fuse.
Connect plug 2 via a shielded cable to ensure EMC.
A) Plug 1 B) Plug 2

Fig. 2, Characteristic and pin assignment for voltage control with actual output value



1) Operational
voltage
2) Nominal input value voltage
3) Actual output value (min. external ohmic load 1 kΩ)
4) The operating voltage must be protected by an external M 1.6 A fuse.
Connect plug 2 via a shielded cable to ensure EMC.
A) Plug 1 B) Plug 2

Fig. 3, Characteristic and pin assignment for potentiometer control without actual output value



1) Operational voltage
2) Nominal input value voltage
3) The operating voltage must be protected by an external M 1.6 A fuse. Connect plug 2 via a shielded cable to ensure EMC.
A) Plug 1 B) Plug 2
4) Potentiometer control (0 - 2 kΩ (min.), 0 - 10 kΩ (max.))