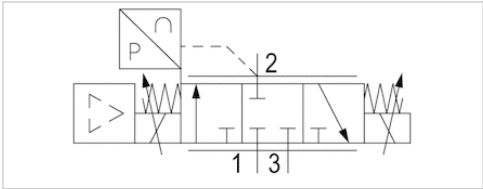
E/P pressure regulator, Series ED07

- Qn = 1300 l/min
- Electr. connection via signal connection
- Signal connection input and output, Plug, M12, 5-pin



Type	Poppet valve
Mounting orientation	α = 0 ... 90° ±β = 0 ... 90°
Certificates	CE declaration of conformity
Working pressure max	See table below
Ambient temperature min./max.	5 ... 50 °C
Medium temperature min./max.	5 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 1 mg/m³
Nominal flow Qn	1300 l/min
Control	Analog
DC operating voltage	24 V
Voltage tolerance DC	-20% / +30%
Permissible ripple	5%
Max. power consumption	1400 mA
Protection class	IP65
Weight	2,05 kg
	Nominal flow Qn with working pressure 7 bar , with secondary pressure 6 bar and Δp = 0.2 bar

Technical data

Part No.	Working pressure max	Pressure setting range min./max.	Nominal input value Min./max.
R414000686	3 bar	-1 ... 1 bar	0 ... 20 mA
R414009623	3 bar	-1 ... 1 bar	4 ... 20 mA
R414009624	3 bar	-1 ... 1 bar	0 ... 10 V
R414009630	3 bar	0 ... 1 bar	0 ... 20 mA
R414009631	3 bar	0 ... 1 bar	4 ... 20 mA
R414009633	3 bar	0 ... 1 bar	0 ... 10 V
R414009634	3 bar	0 ... 2 bar	0 ... 20 mA
R414009635	3 bar	0 ... 2 bar	4 ... 20 mA
R414009637	3 bar	0 ... 2 bar	0 ... 10 V
R414000690	8 bar	0 ... 6 bar	0 ... 20 mA
R414000691	8 bar	0 ... 6 bar	4 ... 20 mA
R414000693	8 bar	0 ... 6 bar	0 ... 10 V
R414000700	12 bar	0 ... 10 bar	0 ... 20 mA
R414000701	12 bar	0 ... 10 bar	4 ... 20 mA
R414000703	12 bar	0 ... 10 bar	0 ... 10 V
R414000770	18 bar	0 ... 16 bar	0 ... 20 mA
R414000771	18 bar	0 ... 16 bar	4 ... 20 mA
R414000773	18 bar	0 ... 16 bar	0 ... 10 V
R414000785	21 bar	0 ... 20 bar	0 ... 20 mA

Part No.	Working pressure max	Pressure setting range min./max.	Nominal input value Min./max.
R414000786	21 bar	0 ... 20 bar	4 ... 20 mA
R414000788	21 bar	0 ... 20 bar	0 ... 10 V

Part No.	Actual output value Min./max.	Control	Hysteresis	Fig.
R414000686	0 ... 20 mA	Analog	0.015 bar	Fig. 1
R414009623	4 ... 20 mA	Analog	0.015 bar	Fig. 1
R414009624	0 ... 10 V	Analog	0.015 bar	Fig. 2
R414009630	0 ... 20 mA	Analog	0.015 bar	Fig. 1
R414009631	4 ... 20 mA	Analog	0.015 bar	Fig. 1
R414009633	0 ... 10 V	Analog	0.015 bar	Fig. 2
R414009634	0 ... 20 mA	Analog	0.015 bar	Fig. 1
R414009635	4 ... 20 mA	Analog	0.015 bar	Fig. 1
R414009637	0 ... 10 V	Analog	0.015 bar	Fig. 2
R414000690	0 ... 20 mA	Analog	0.03 bar	Fig. 1
R414000691	4 ... 20 mA	Analog	0.03 bar	Fig. 1
R414000693	0 ... 10 V	Analog	0.03 bar	Fig. 2
R414000700	0 ... 20 mA	Analog	0.03 bar	Fig. 1
R414000701	4 ... 20 mA	Analog	0.03 bar	Fig. 1
R414000703	0 ... 10 V	Analog	0.03 bar	Fig. 2
R414000770	0 ... 20 mA	Analog	0.04 bar	Fig. 1
R414000771	4 ... 20 mA	Analog	0.04 bar	Fig. 1
R414000773	0 ... 10 V	Analog	0.04 bar	Fig. 2
R414000785	0 ... 20 mA	Analog	0.09 bar	Fig. 1
R414000786	4 ... 20 mA	Analog	0.09 bar	Fig. 1
R414000788	0 ... 10 V	Analog	0.09 bar	Fig. 2

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

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).

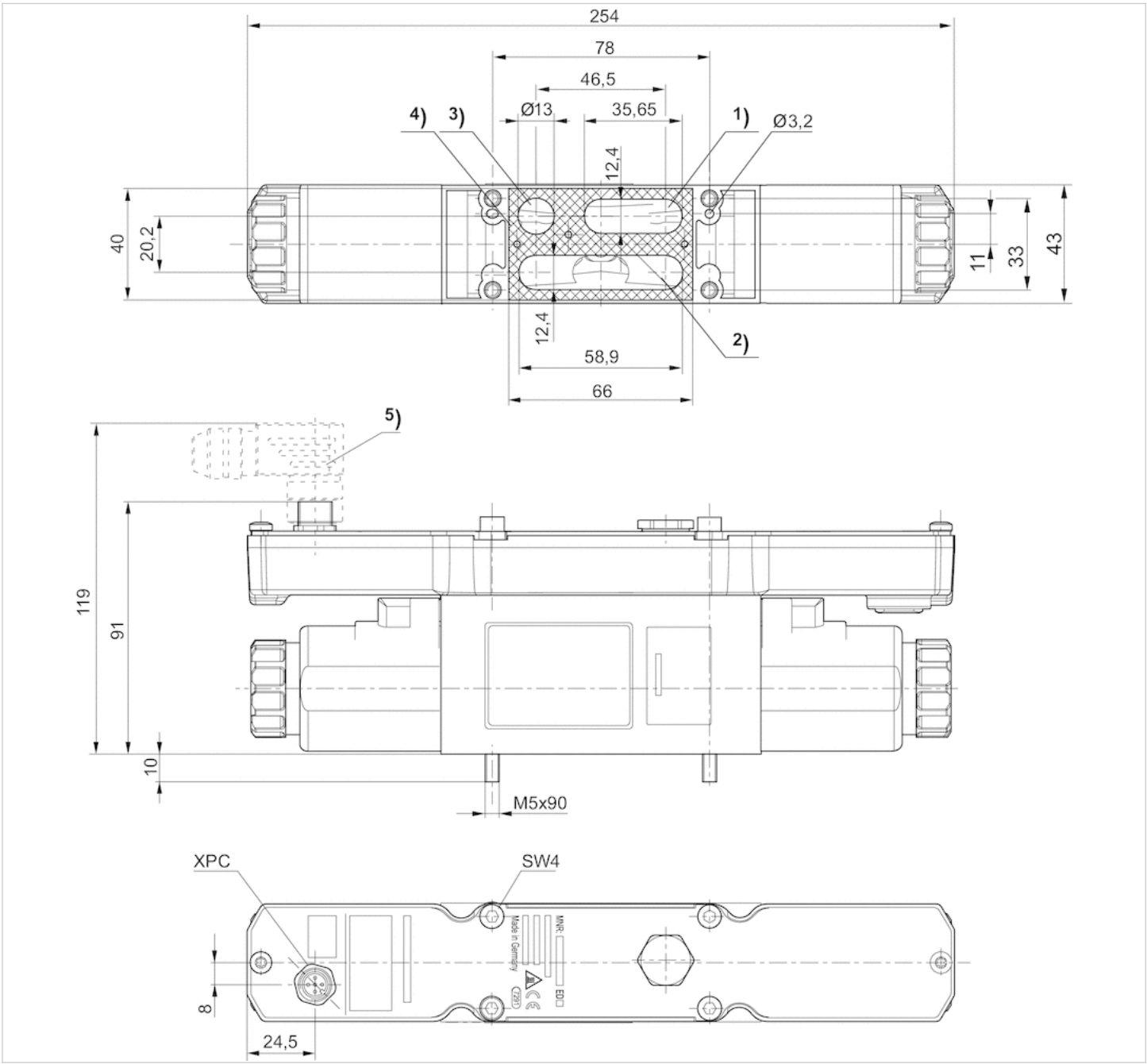
With oil-free, dry air, other installation positions are possible on request.
The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.

Technical information

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

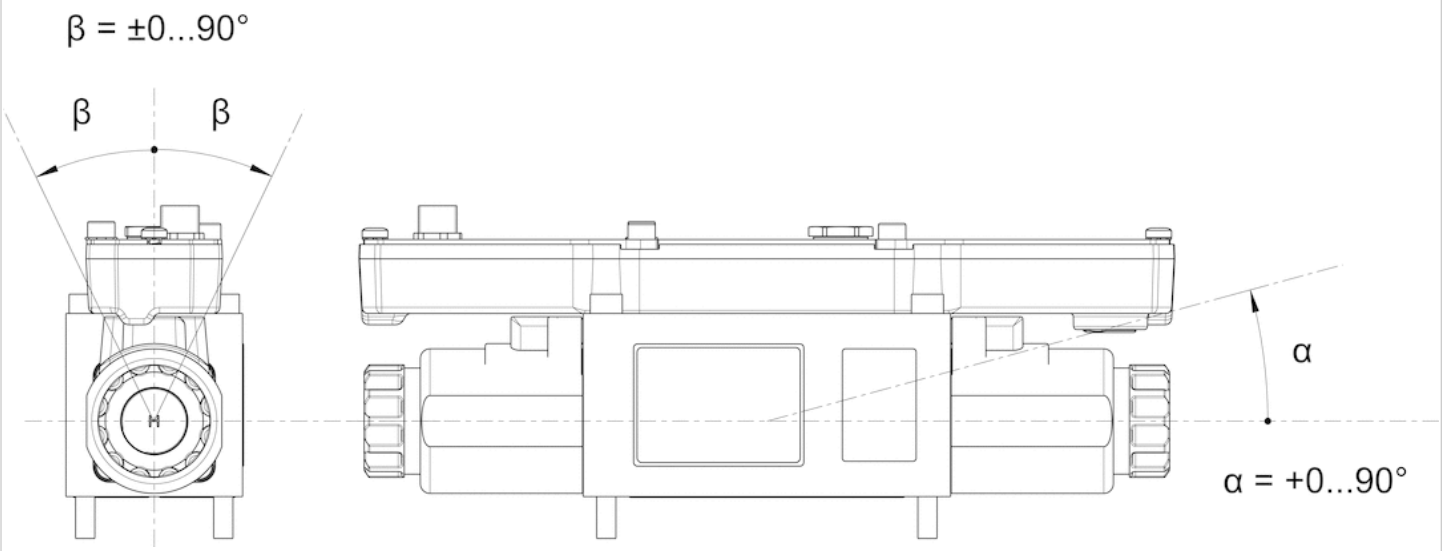
Dimensions

Dimensions



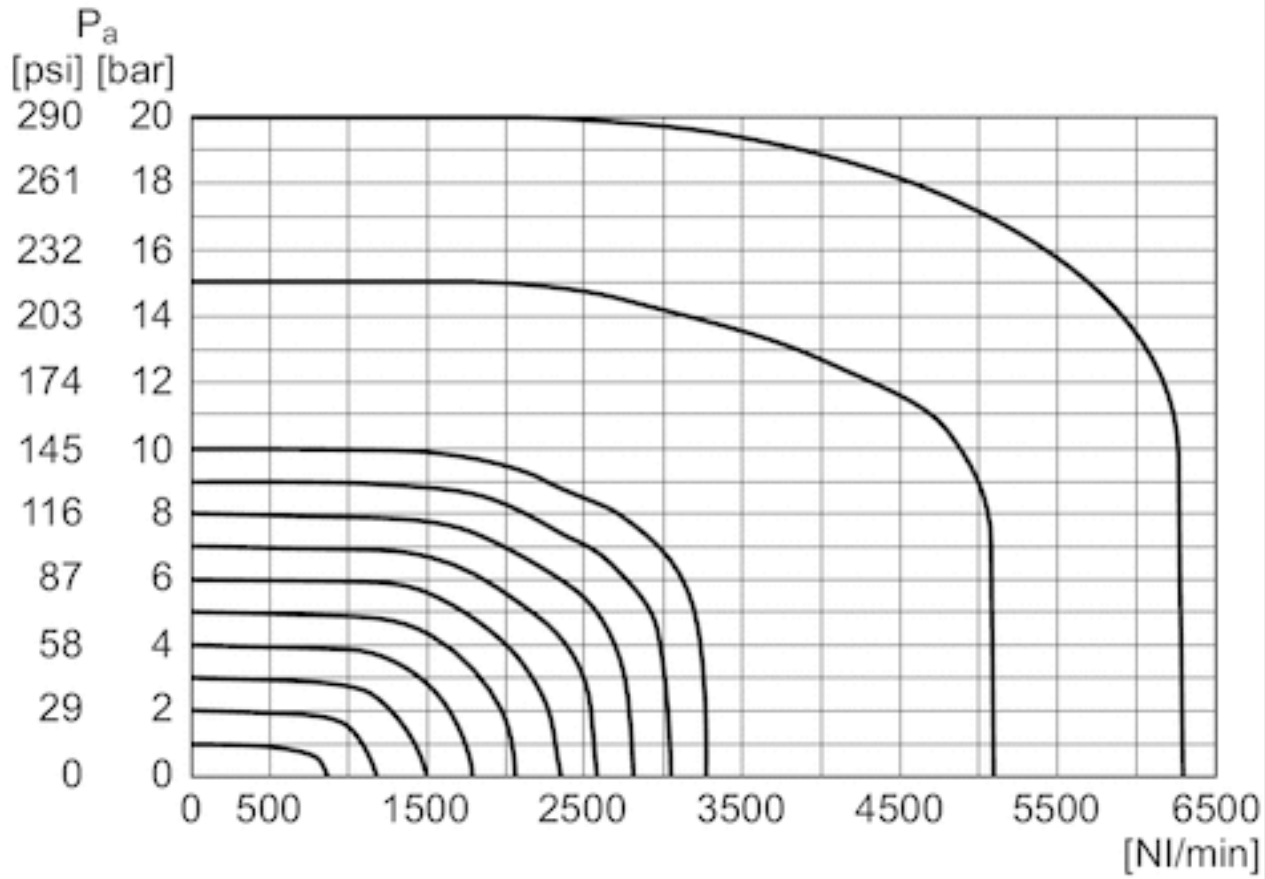
1) Operating pressure
2) Working pressure
3) Exhaust
4) Flat gasket
5) Accessories not supplied

Mounting orientation



Diagrams

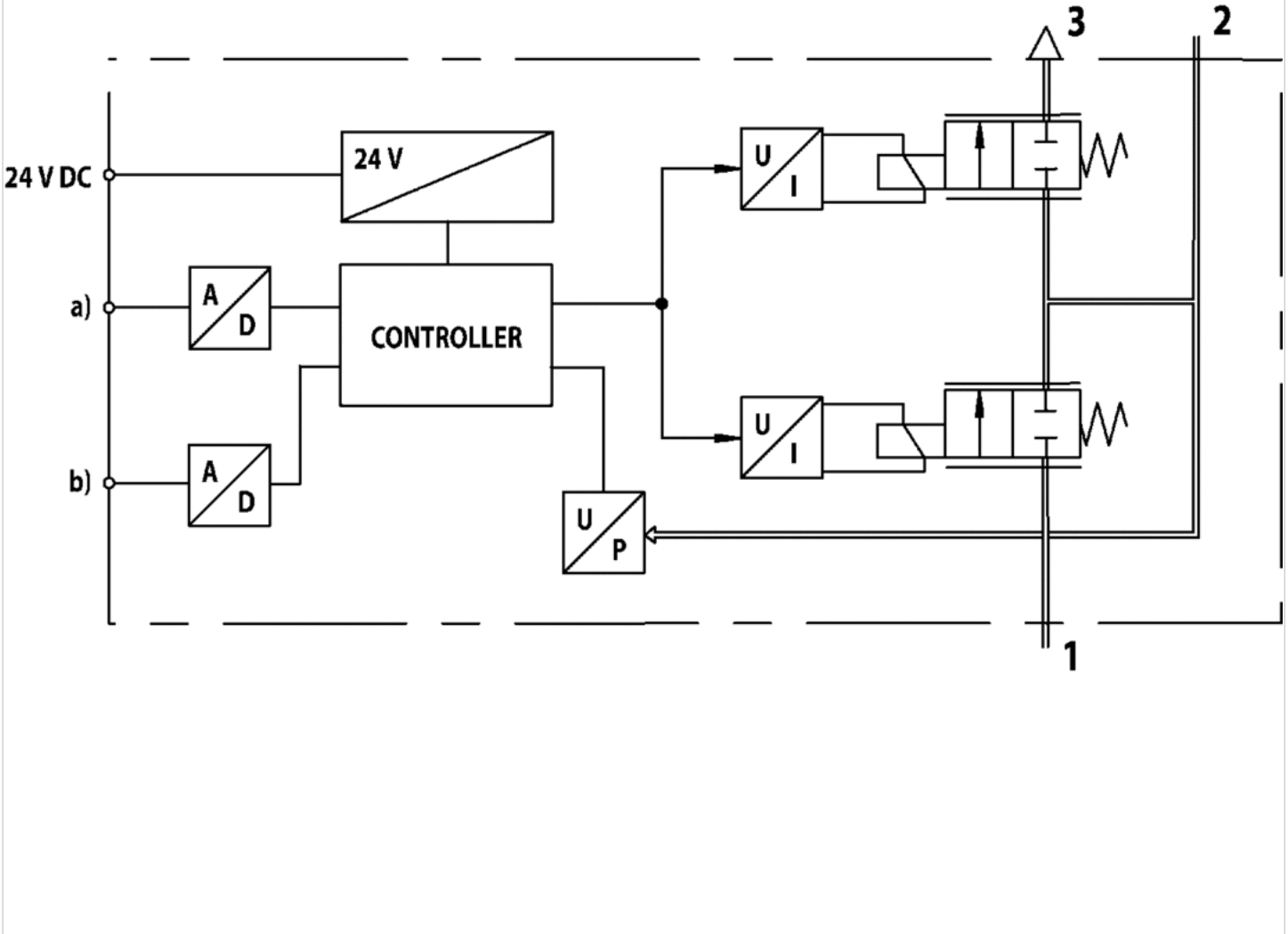
Flow diagram



Pa = Working pressure

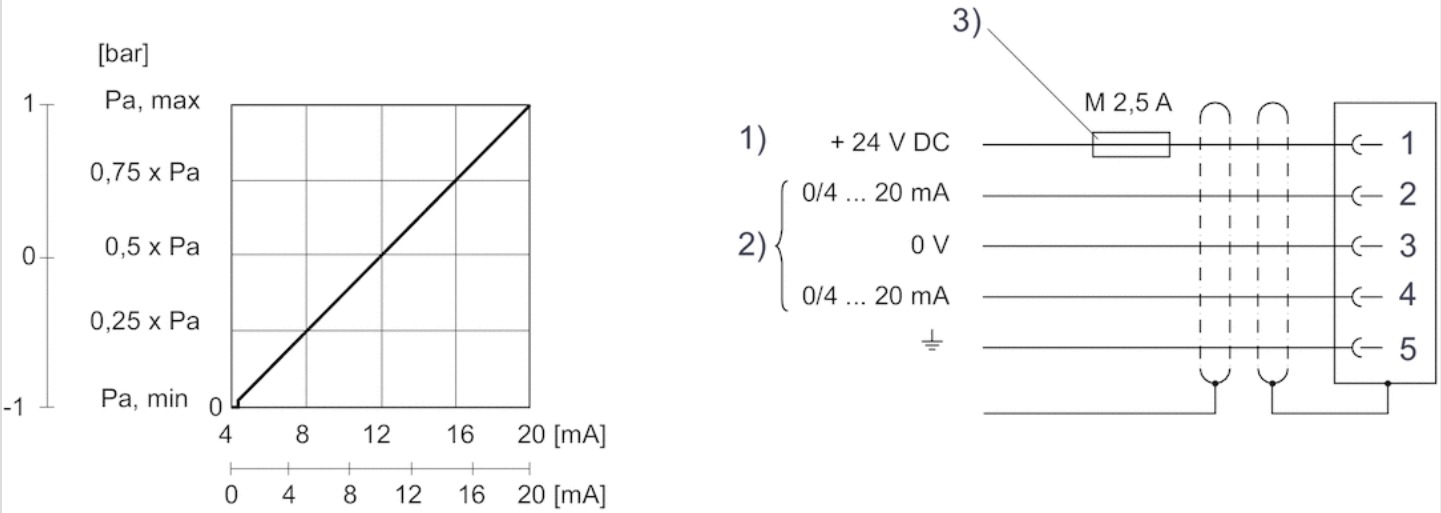
Circuit diagram

Functional diagram



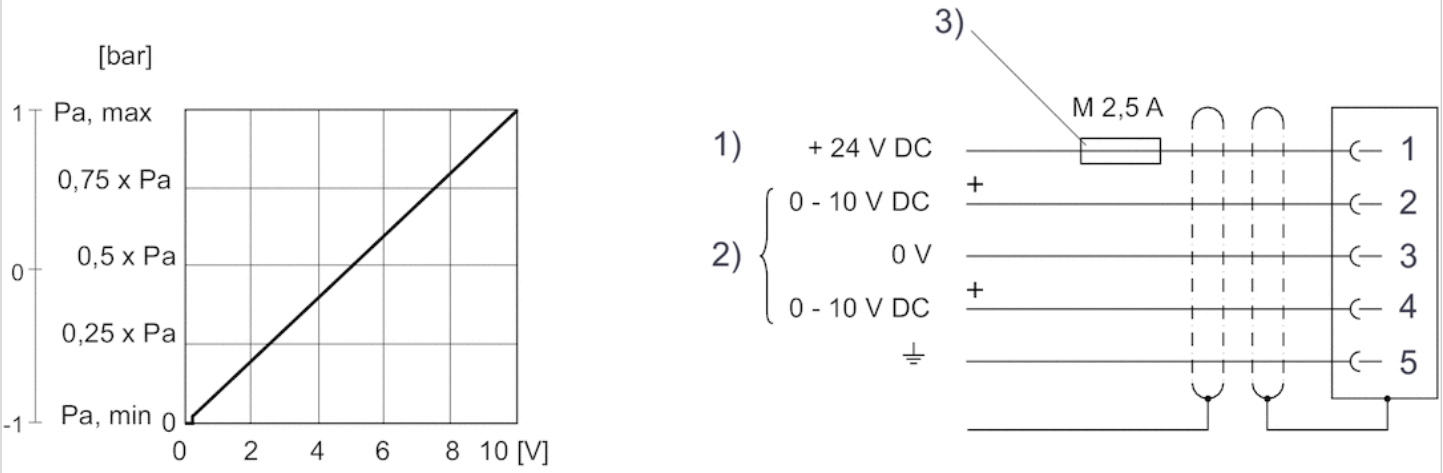
a) Nominal input value b) Actual output value
The E/P pressure control valve modulates the pressure corresponding to an analog electrical nominal input value.
1) Operating pressure
2) Working pressure
3) Exhaust

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



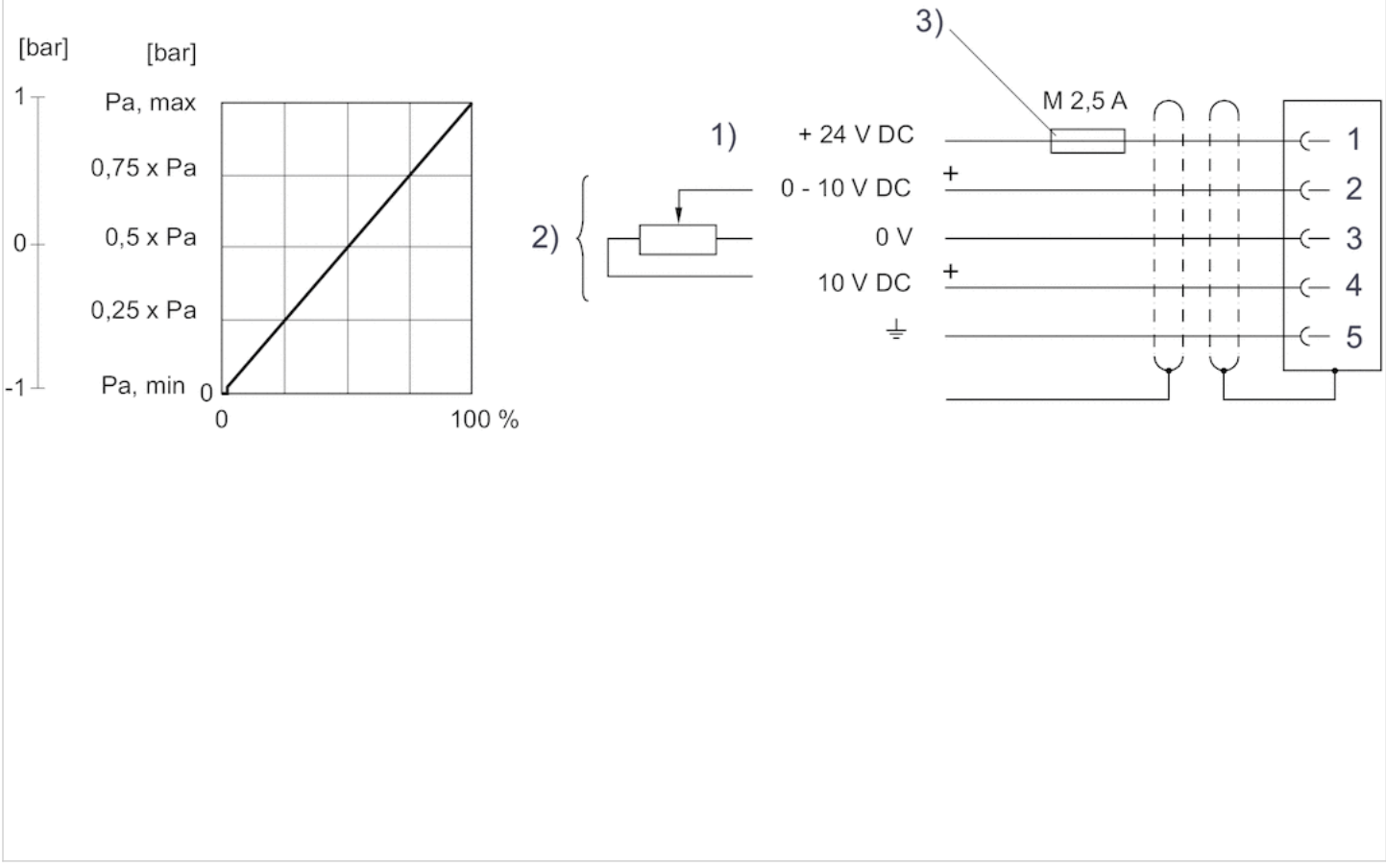
1) Supply Voltage
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (control voltage).
Nominal input value current (ohmic load 100 Ω). Actual output value (max. total resistance of downstream devices 300 Ω).
3) The operating voltage must be protected by an external M 2.5 A fuse.
Connect the plug via a shielded cable to ensure EMC.

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



1) Supply Voltage
2) Actual value (pin 4) and target value (pin 2) are related to 0 V.
If the supply voltage is switched off, the voltage input value is high-ohmic.
Input resistance under supply voltage: 1 MΩ
Voltage output (actual value): external working resistance 10 kΩ
3) The operating voltage must be protected by an external M 2.5 A fuse.
Connect the plug via a shielded cable to ensure EMC.

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



1) Supply Voltage
2) Actual value (pin 2) is related to 0 V.
If the supply voltage is switched off, the voltage input value is high-ohmic.
Input resistance under supply voltage: 1 MΩ
3) The operating voltage must be protected by an external M 2.5 A fuse.
Connect the plug via a shielded cable to ensure EMC.

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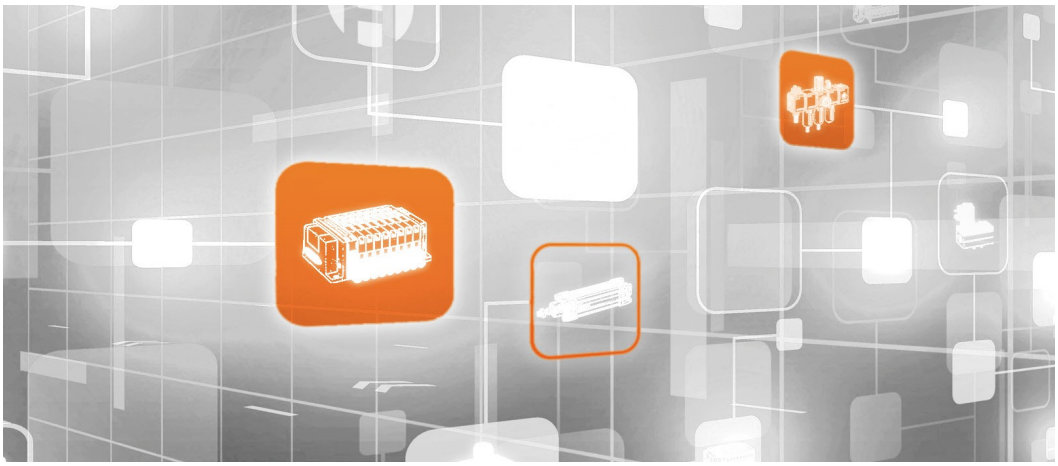

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