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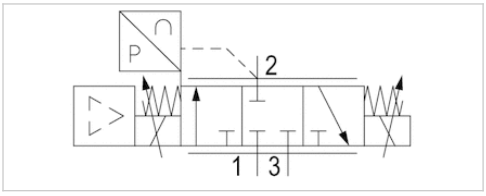
E/P pressure regulator, Series ED07

- External sensor input (pressure, flow or force sensor)
- Qn = 1300 l/min
- Electr. connection Plug, M12, 5-pin
- Signal connection input and output, Plug, M12, 5-pin



Version	Poppet valve
Mounting orientation	α = 0 ... 90° ±β = 0 ... 90°
Certificates	CE declaration of conformity
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	1 mg/m³
Nominal flow Qn	1300 l/min
Control	Analog
DC operating voltage	24 V
Voltage tolerance DC	-20% / +30%
Hysteresis	0.03 bar 0.03 bar
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.	Pressure setting rangemin./max.	Nominal input value	Actual output value	Control
		Min./max.	Min./max.	
R414009800	0 ... 10 bar	4 ... 20 mA	4 ... 20 mA	Analog

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.
If the external sensor fails, the pressure regulator can open fully and the maximum permissible pressure in your system may be exceeded.
The short-circuit-resistant switch output (X2M pin 1) switches to +Ub when the regulated pressure is within the tolerance range of ±200 mbar for at least 100 ms (applies to external sensor 0 – 10 bar).
The supply pressure is controlled when the set point is applied but the external sensor's signal is missing (e.g. wire break).
Set up appropriate measures to ensure fail-safe behavior even in case of failure of the external sensor.

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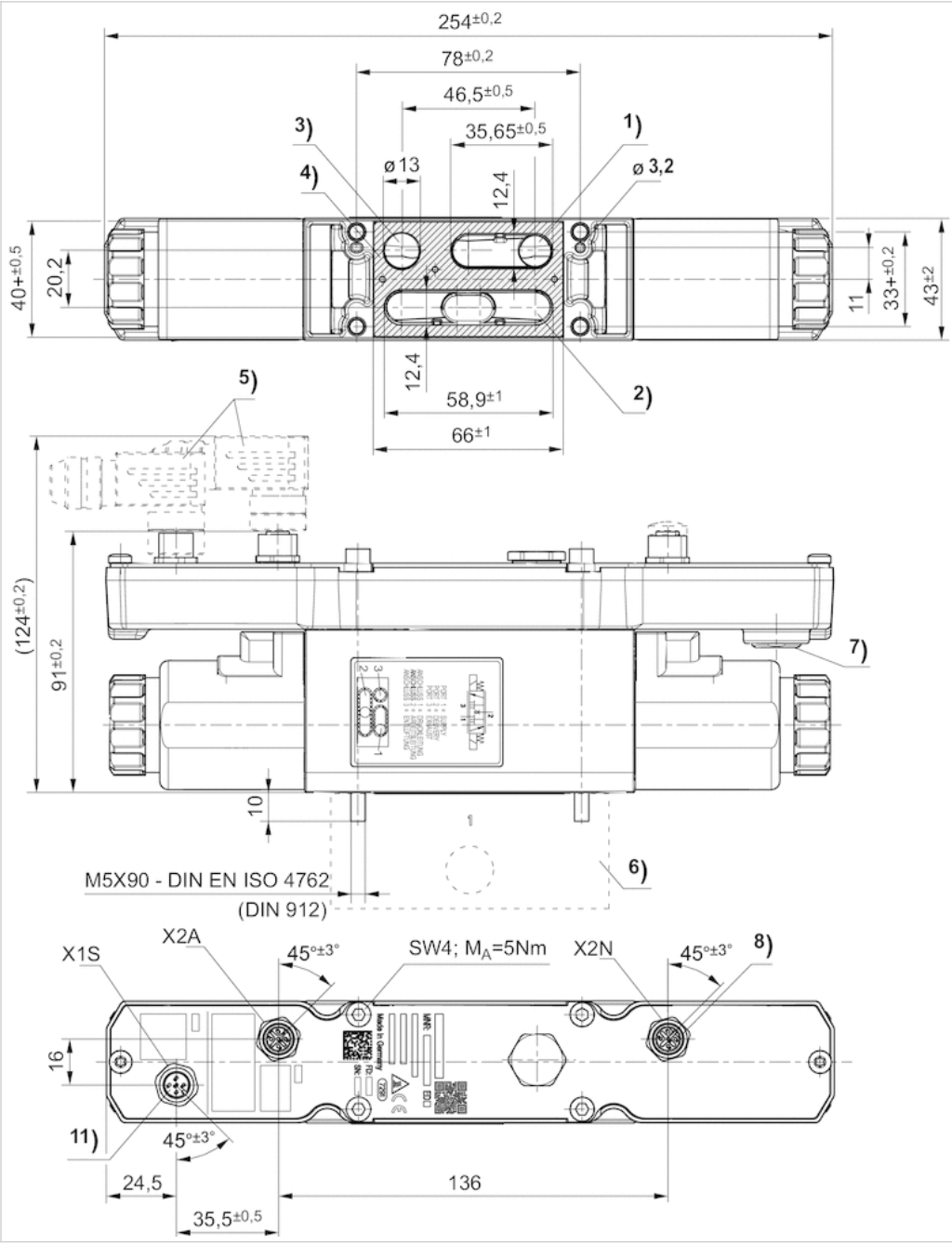
Technical information

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

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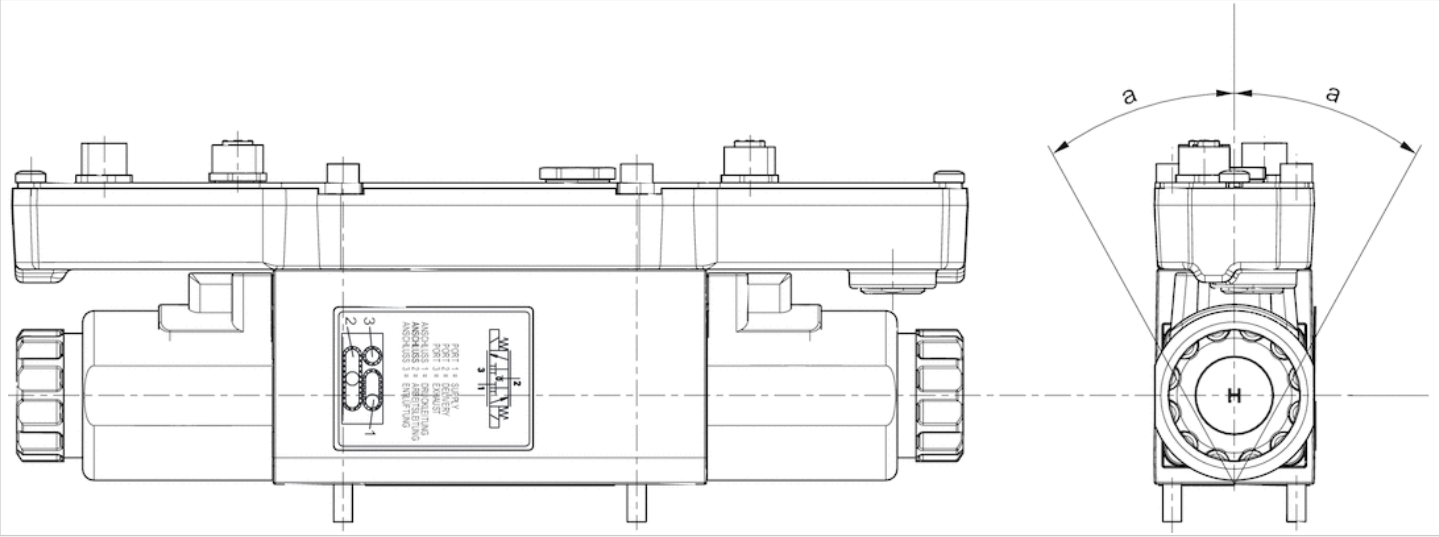
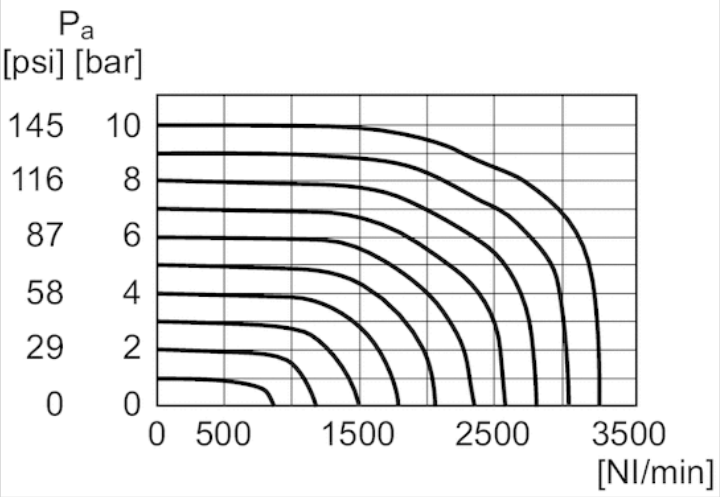
6) Base plate not included in the scope of delivery
7) Gore membrane
8) Plug

Mounting orientation



Diagrams

Flow diagram



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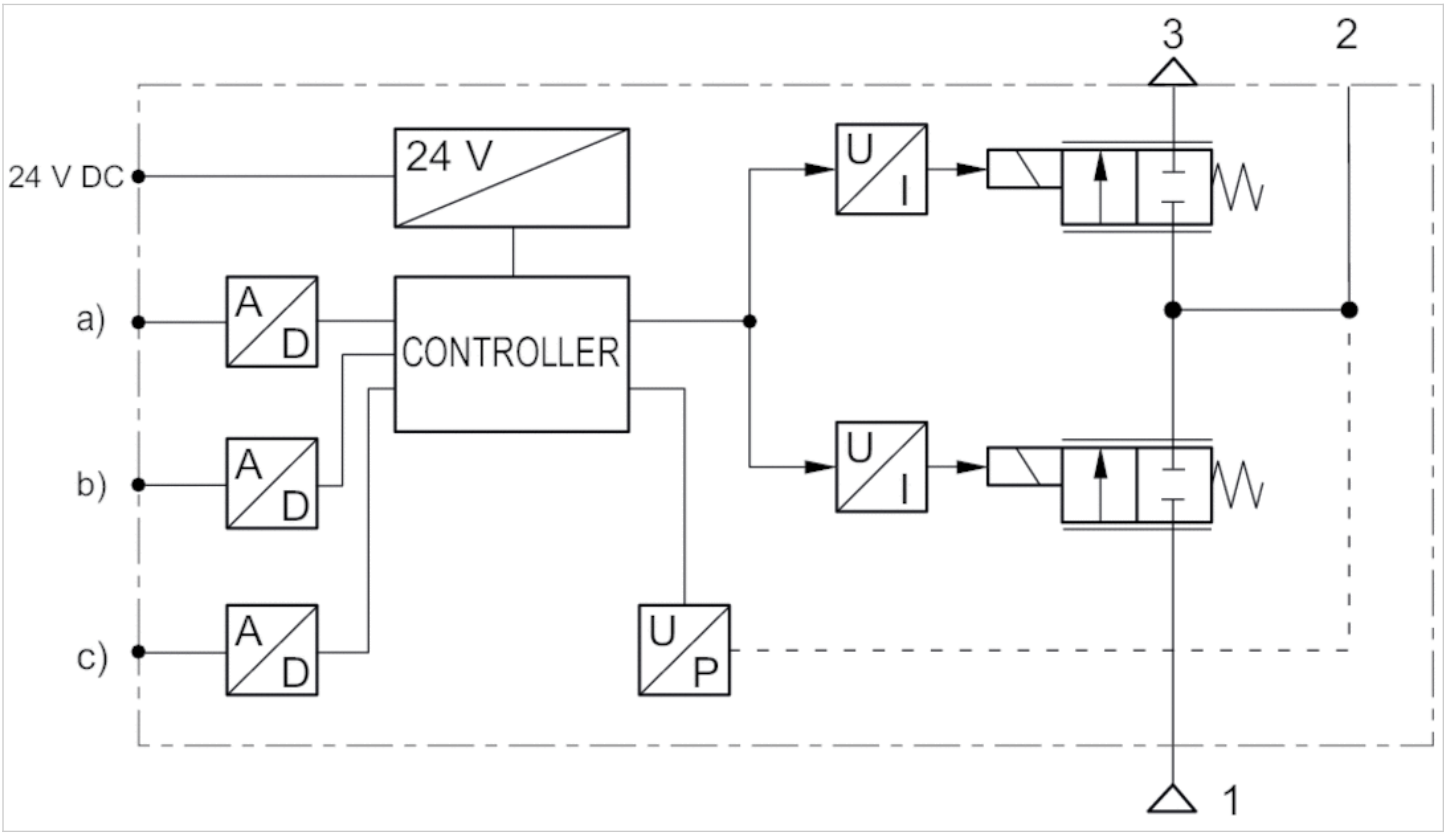
Circuit diagram

Functional diagram



a) Nominal input value (w)b) Actual output value (x)c) External sensor input (ext)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
Connect plugs X2A and X2N via a shielded cable to ensure EMC.

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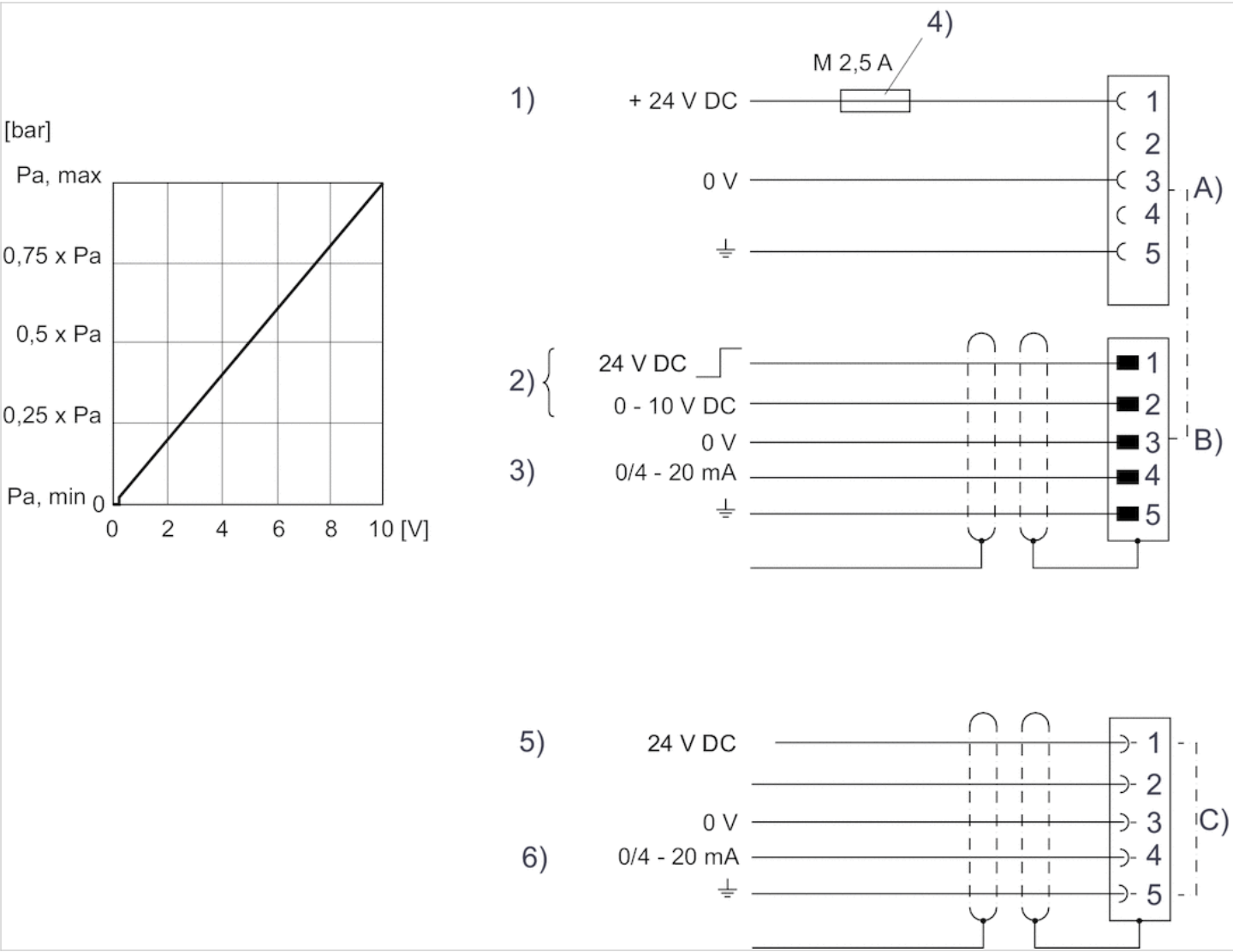
Characteristic and pin assignment for current control with actual output value and external



1) Supply voltage 2) Switch output (pin 1) and set point (pin 2) are related to 0 V. 3) Actual value (pin 4) is related to 0 V (external resistance min. 10 kiloohms) 4) The supply voltage must be protected by an external fuse M 2.5 A. Connect plugs X2A and 2XN via a shielded cable to ensure EMC. If a supply voltage of 1 megaohm is applied, the voltage input value is high-ohmic.
5) Supply voltage for external sensor6) External sensor input is related to 0 V.If the supply voltage is switched off, the voltage input value is high-ohmic. If the supply voltage is switched on, the voltage input value is 1 megaohm.