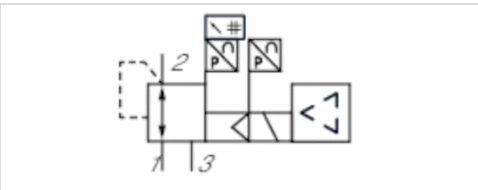


E/P pressure regulator, Series EV12

- Pressure supply, left, Display: display
- Qn = 6500 l/min
- Compressed air connection output G 1/2 G 3/8
- Electr. connection M12, 5-pin
- serial control IO-Link
- Pilot valves



Type	Poppet valve
Working pressure max	10 bar
Ambient temperature min./max.	0 ... 50 °C
Medium temperature min./max.	0 ... 50 °C
Medium	Compressed air
Max. particle size	50 µm
Oil content of compressed air	0 ... 5 mg/m³
Nominal flow Qn	6500 l/min
DC operating voltage	24 V
Voltage tolerance DC	-20% / +30%
Hysteresis	0.12 bar
Permissible ripple	5%
Max. power consumption	220 mA
Weight	1,4 kg

Technical data

Part No.	Pressure setting range min./max.	Compressed air connection
		Input
R414011384	0 ... 10 bar	G 1/2
R414011385	0 ... 10 bar	G 1/2
R414011388	0 ... 10 bar	G 1/2
R414011396	0 ... 10 bar	G 3/8
R414011397	0 ... 10 bar	G 3/8
R414011400	0 ... 10 bar	G 3/8

Part No.	Compressed air connection	Nominal input value	Actual output value	serial control
	Output	Min./max.	Min./max.	
R414011384	G 1/2	0 ... 10 V	0 ... 10 V	-
R414011385	G 1/2	4 ... 20 mA	4 ... 20 mA	-
R414011388	G 1/2	-	-	IO-Link
R414011396	G 3/8	0 ... 10 V	0 ... 10 V	-
R414011397	G 3/8	4 ... 20 mA	4 ... 20 mA	-
R414011400	G 3/8	-	-	IO-Link

Technical information

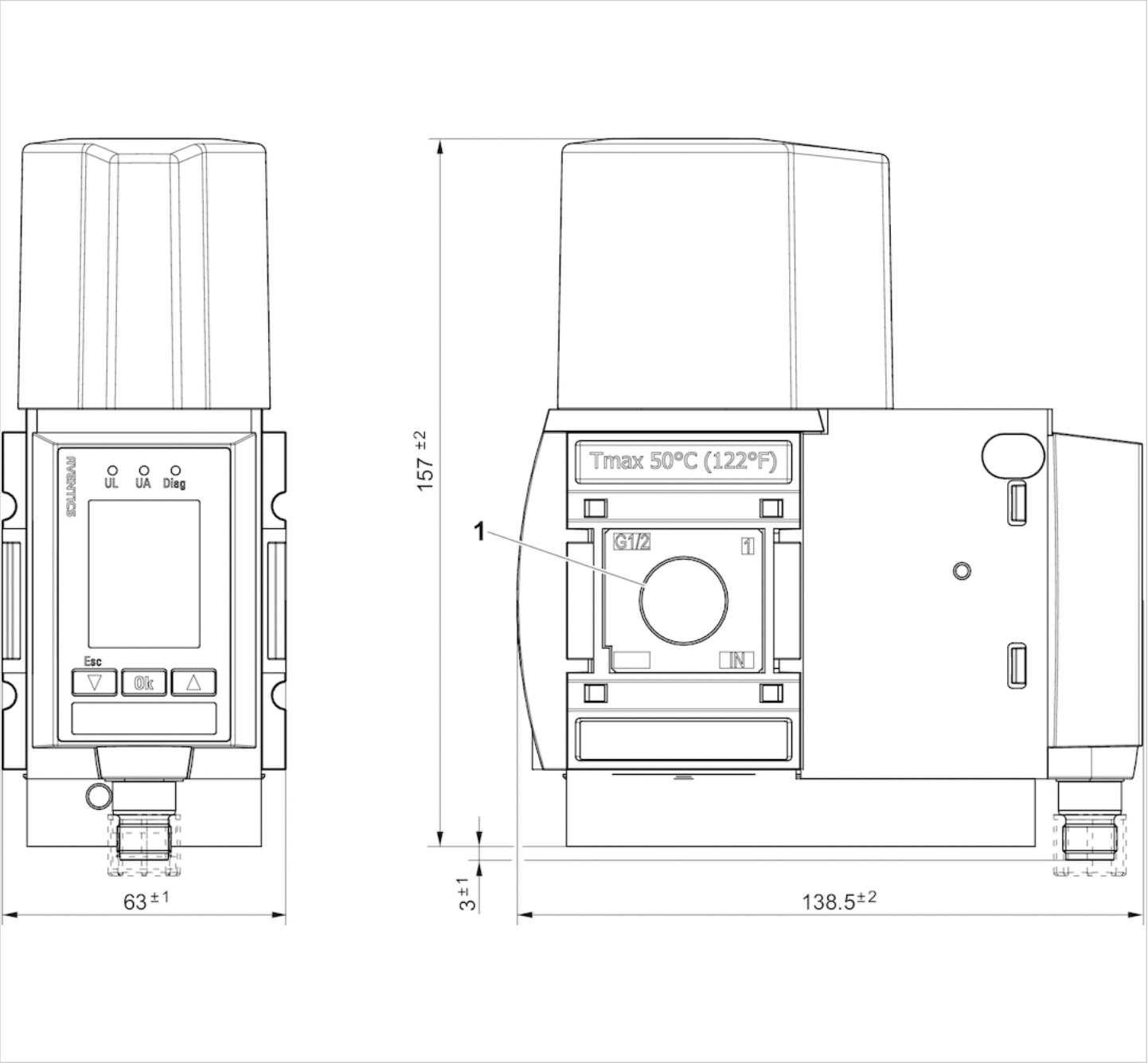
The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .
The oil content of compressed air must remain constant during the life cycle.
Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in the MediaCentre).
Power outage: maintain pressure

Technical information

Material	
Housing	Polyamide
Base plate	Aluminum
Seals	Nitrile butadiene rubber

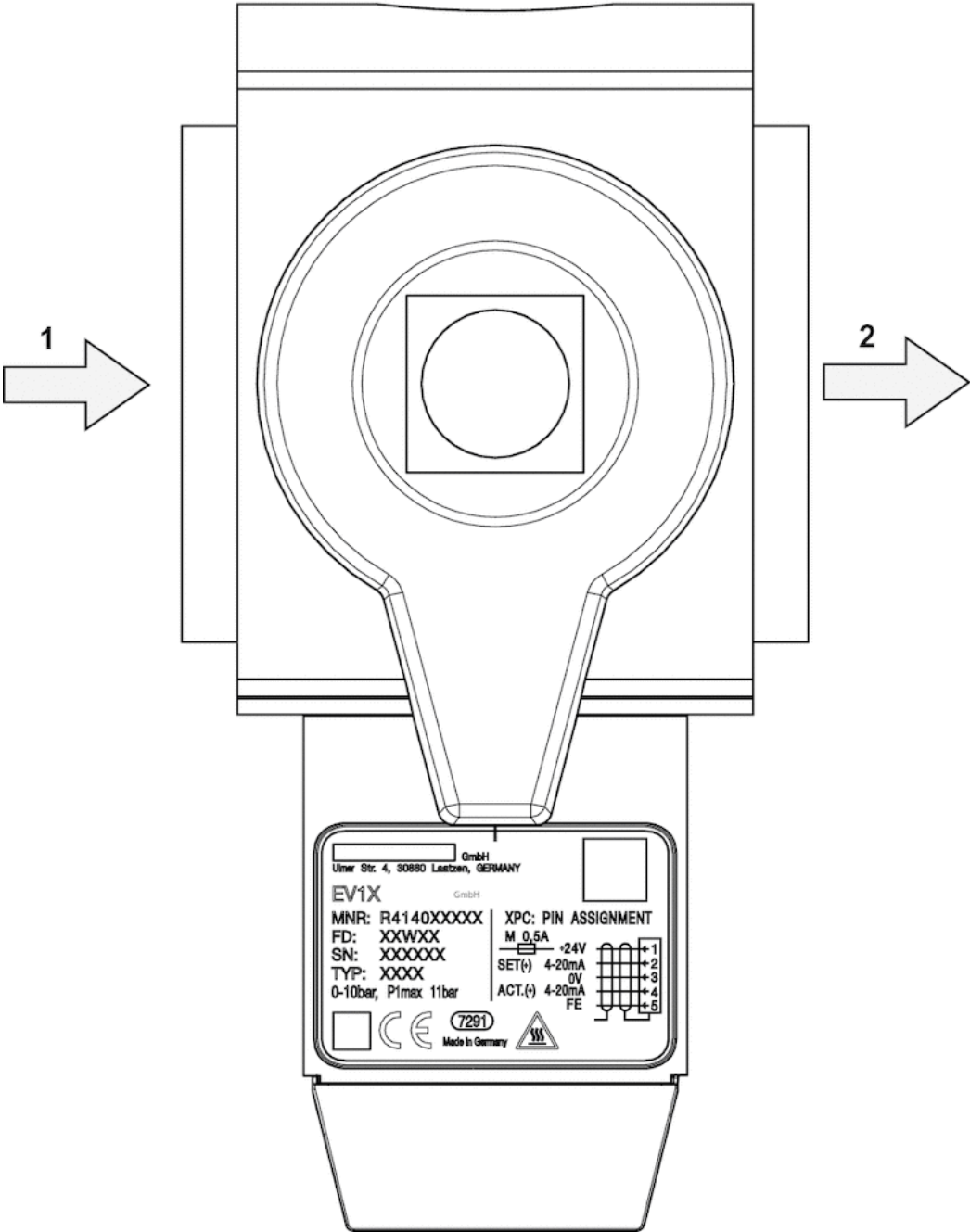
Dimensions

Dimensions, Pressure supply, left



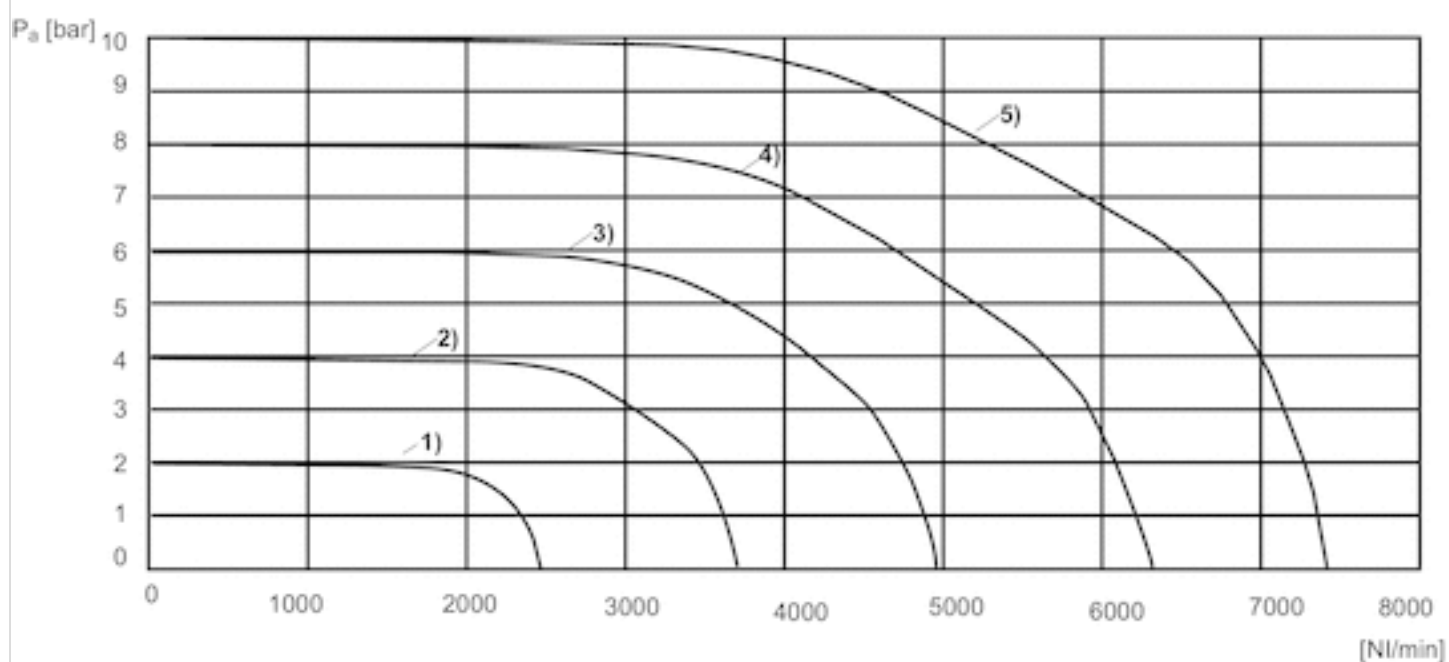
1) Connection thread

Pressure supply, left



Diagrams

Flow characteristic curve



1) $P_v = 3$ bar

2) $P_v = 5$ bar

3) $P_v = 7$ bar

4) $P_v = 9$ bar

5) $P_v = 11$ bar

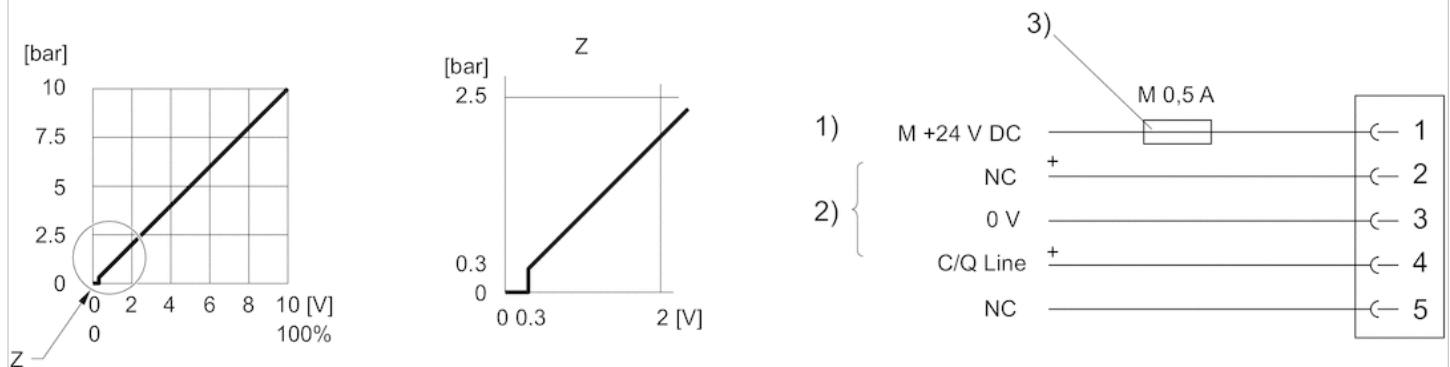
P_v = Supply pressure

P_a = Working pressure

$P_v = P_a + 1$

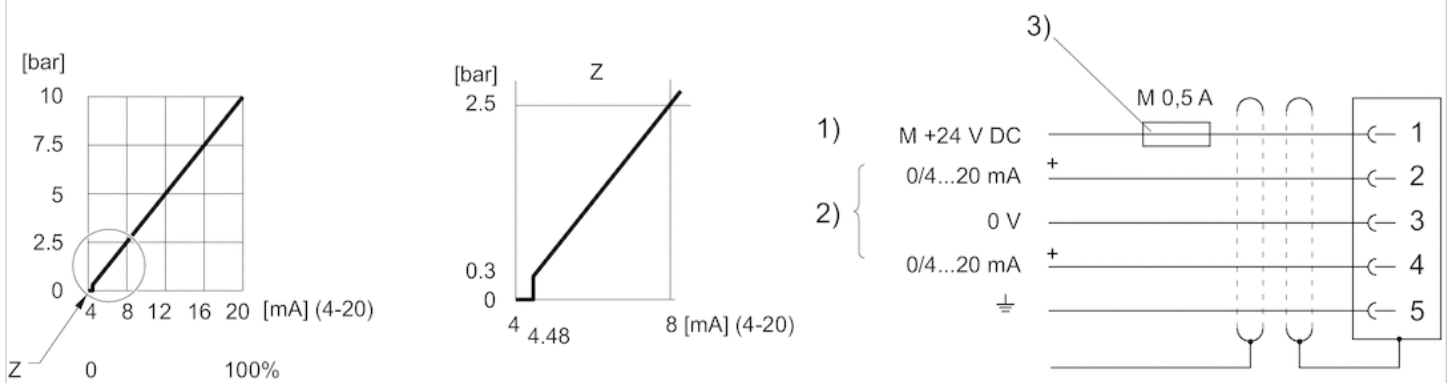
Circuit diagram

Characteristic curve and plug assignment for IO-Link version



- 1) power supply
- 2) C/Q Line (pin 4) Not connected (NC) (pin 2) are related to 0 V (pin 3).
- 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.

Characteristic and pin assignment for current control with actual output value



1) power supply

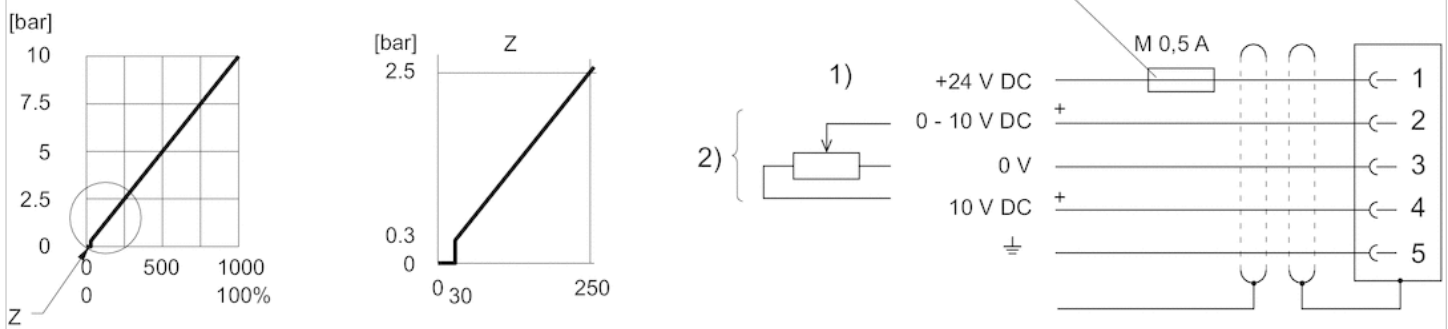
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3).

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.

Characteristic and pin assignment for voltage control with actual output value



1) power supply

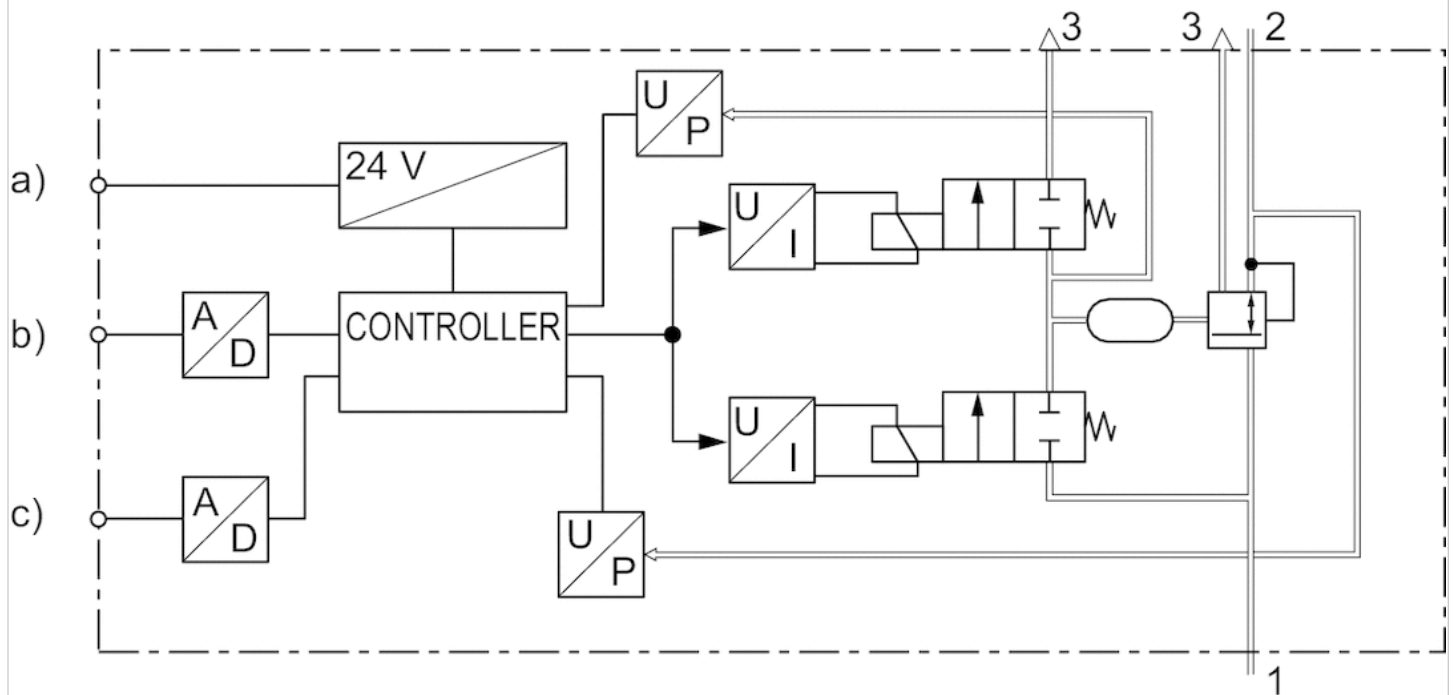
2) Actual value (pin 4) and nominal value (pin 2) are related to 0 V (pin 3).

Nominal input value ($R = 1 \text{ M}\Omega$), actual output value: min. load resistance $> 10 \text{ K}\Omega$. 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.

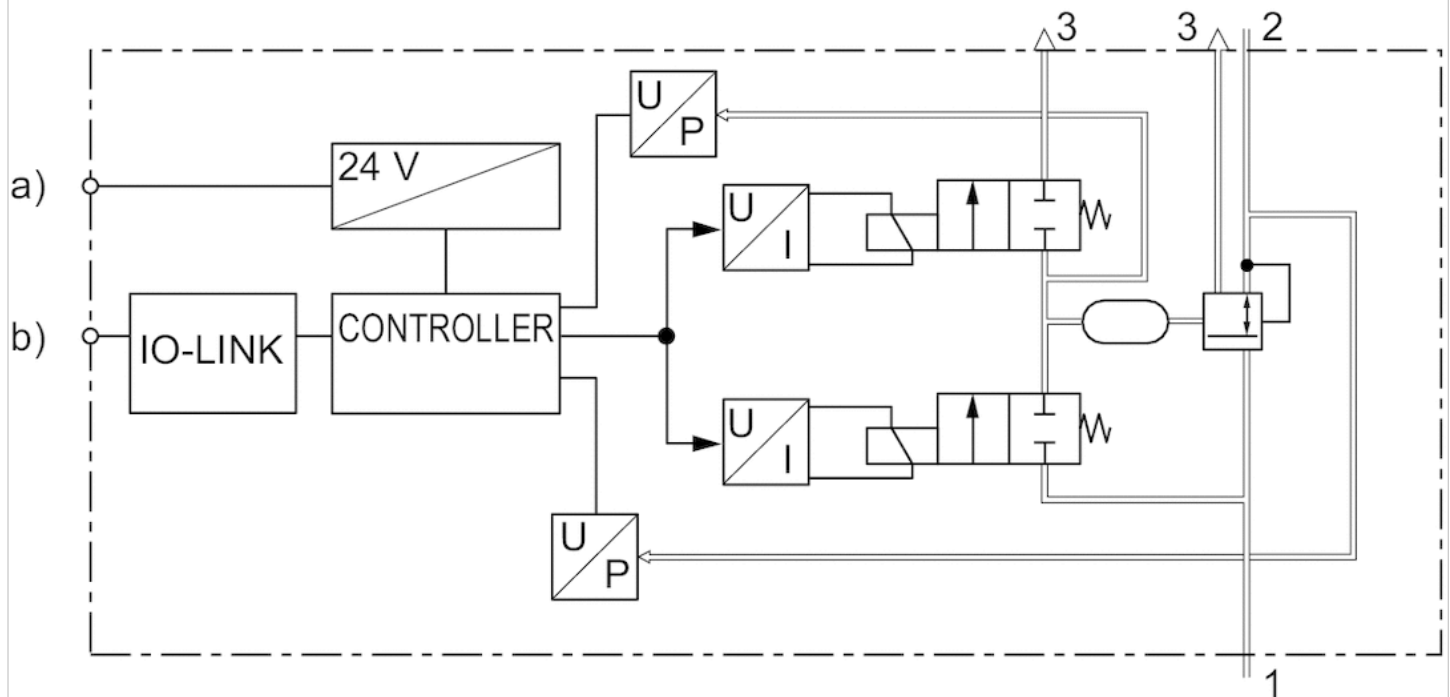
Connect the plug via a shielded cable to ensure EMC.

Functional diagram



- a) Voltage supply
- b) Nominal value
- c) Actual output value

Functional diagram, IO-Link

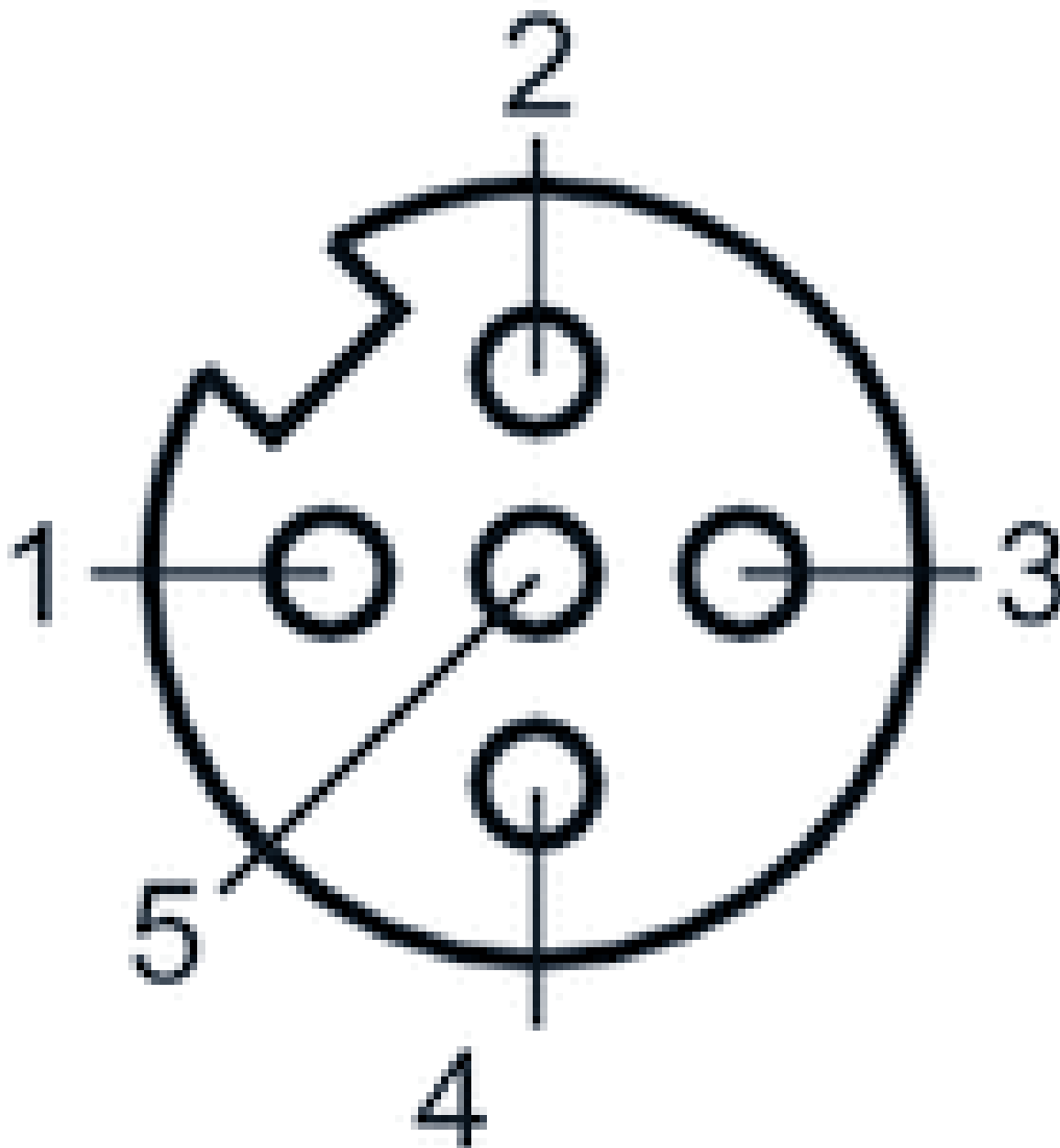


a) Supply Voltage

b) C/Q Line

Pin assignments

Plug assignment



- 1) 24 V DC
- 2) Nominal input value
- 3) GND
- 4) Actual output value
- 5) Ground

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