


























Pressure sensor, Series PE5

- Operating pressure -1 ... 0, -1 ... 1, 0 ... 6, 0 ... 10, 0 ... 12 bar
- electronic
- Output signal analog 4 ... 20 mA
- Output signal digital 2 outputs, 1 output
- IO-Link
- Electr. connection Plug, M12x1, 4-pin
- Compressed air connection Internal thread, G 1/4, push-in fitting, Ø 4



Type	electronic
Certificates	CE declaration of conformity, cULus, RoHS, Conforms with REACH, Free of substances that impair surface wetting in the coating process
Ambient temperature min./max.	0 ... 60 °C
Medium temperature min./max.	0 ... 60 °C
Medium	Compressed air (max. 40 µm)
Max. oil content of compressed air	40 mg/m ³
Measurement	Relative pressure
Display	LCD display, 4 digits, Color setting: green or red
Units displayed	bar, psi, kPa, MPa, inHg
Switching logic	NO/NC (adjustable)
Shock resistance max.	30 g
Vibration resistance	5 g (10 - 150 Hz)
Precision (% of full scale value)	±1.5% in temperature range of 10 - 30°C, ± 2 % including temperature drift
Repeatability (% of full scale value)	± 0,2 %
Switching time	5 ms
Switching point	adjustable 0 ... 100%
Resetting point	adjustable 0 ... 100%
Hysteresis	adjustable
Delayed hysteresis	adjustable
Window function	adjustable
DC operating voltage,min./max.	17 ... 30 V DC
Analog output	0 - 10 V DC, 4 - 20 mA
Quiescent current consumption	40 mA
Analog output linearity	± 0.5% of the final value
Maximum load (analog current output)	600 Ω
Short circuit resistance	Max. 600 ohms (current output), Min. 3K ohms (voltage output)
Mounting types	Directly on hat rail and wall mounting, For panel installation using mounting kit, via double nipple
Protection class	IP65, IP67 with connections assembled
Electr. connection	Plug, M12x1, 4-pin
Weight	0,04 kg

Technical data

Part No.		Operating pressure range	Protection against overpressure	Output signal
		min./max.		Analog
R412010761		-1 ... 0 bar	5 bar	-
R412010760		-1 ... 0 bar	5 bar	-
R412010769		-1 ... 0 bar	5 bar	1 output-0 - 10 V DC-4 ... 20 mA
R412010768		-1 ... 0 bar	5 bar	1 output-0 - 10 V DC-4 ... 20 mA
R412010775		-1 ... 0 bar	5 bar	-
R412010774		-1 ... 0 bar	5 bar	-
R412010763		-1 ... 1 bar	5 bar	-
R412010762		-1 ... 1 bar	5 bar	-
R412010771		0 ... 6 bar	15 bar	1 output-0 - 10 V DC-4 ... 20 mA
R412010770		0 ... 6 bar	15 bar	1 output-0 - 10 V DC-4 ... 20 mA
R412010765		0 ... 6 bar	15 bar	-
R412010764		0 ... 6 bar	15 bar	-
R412010777		0 ... 6 bar	15 bar	-
R412010776		0 ... 6 bar	15 bar	-
R412010773		0 ... 10 bar	15 bar	1 output-0 - 10 V DC-4 ... 20 mA
R412010772		0 ... 10 bar	15 bar	1 output-0 - 10 V DC-4 ... 20 mA
R412010767		0 ... 10 bar	15 bar	-
R412010766		0 ... 10 bar	15 bar	-
R412010779		0 ... 10 bar	15 bar	-
R412010778		0 ... 10 bar	15 bar	-
R412010782		0 ... 12 bar	16 bar	-
R412010781		0 ... 12 bar	16 bar	-
R412010806		0 ... 12 bar	16 bar	-
R412010805		0 ... 12 bar	16 bar	-

Part No.	Output signal	Compressed air connection	Fig.
	digital		
R412010761	2 outputs-PNP, NPN, Push-pull	Internal thread, G 1/4	Fig. 1
R412010760	2 outputs-PNP, NPN, Push-pull	push-in fitting, Ø 4	Fig. 2
R412010769	1 output-PNP, NPN, Push-pull	Internal thread, G 1/4	Fig. 1
R412010768	1 output-PNP, NPN, Push-pull	push-in fitting, Ø 4	Fig. 2
R412010775	1 output-PNP, NPN, push-pull, 1x IO-Link	Internal thread, G 1/4	Fig. 1
R412010774	1 output-PNP, NPN, push-pull, 1x IO-Link	push-in fitting, Ø 4	Fig. 2
R412010763	2 outputs-PNP, NPN, Push-pull	Internal thread, G 1/4	Fig. 1
R412010762	2 outputs-PNP, NPN, Push-pull	push-in fitting, Ø 4	Fig. 2
R412010771	1 output-PNP, NPN, Push-pull	Internal thread, G 1/4	Fig. 1
R412010770	1 output-PNP, NPN, Push-pull	push-in fitting, Ø 4	Fig. 2
R412010765	2 outputs-PNP, NPN, Push-pull	Internal thread, G 1/4	Fig. 1
R412010764	2 outputs-PNP, NPN, Push-pull	push-in fitting, Ø 4	Fig. 2
R412010777	1 output-PNP, NPN, push-pull, 1x IO-Link	Internal thread, G 1/4	Fig. 1
R412010776	1 output-PNP, NPN, push-pull, 1x IO-Link	push-in fitting, Ø 4	Fig. 2
R412010773	1 output-PNP, NPN, Push-pull	Internal thread, G 1/4	Fig. 1
R412010772	1 output-PNP, NPN, Push-pull	push-in fitting, Ø 4	Fig. 2
R412010767	2 outputs-PNP, NPN, Push-pull	Internal thread, G 1/4	Fig. 1
R412010766	2 outputs-PNP, NPN, Push-pull	push-in fitting, Ø 4	Fig. 2
R412010779	1 output-PNP, NPN, push-pull, 1x IO-Link	Internal thread, G 1/4	Fig. 1

Part No.	Output signal	Compressed air connection	Fig.
	digital		
R412010778	1 output-PNP, NPN, push-pull, 1x IO-Link	push-in fitting, Ø 4	Fig. 2
R412010782	2 outputs-PNP, NPN, Push-pull	Internal thread, G 1/4	Fig. 1
R412010781	2 outputs-PNP, NPN, Push-pull	push-in fitting, Ø 4	Fig. 2
R412010806	1 output-PNP, NPN, push-pull, 1x IO-Link	Internal thread, G 1/4	Fig. 1
R412010805	1 output-PNP, NPN, push-pull, 1x IO-Link	push-in fitting, Ø 4	Fig. 2

Technical information

Alternative pressure connection (G1/4) on the rear side (closed with plug)

Display color selectable, red or green

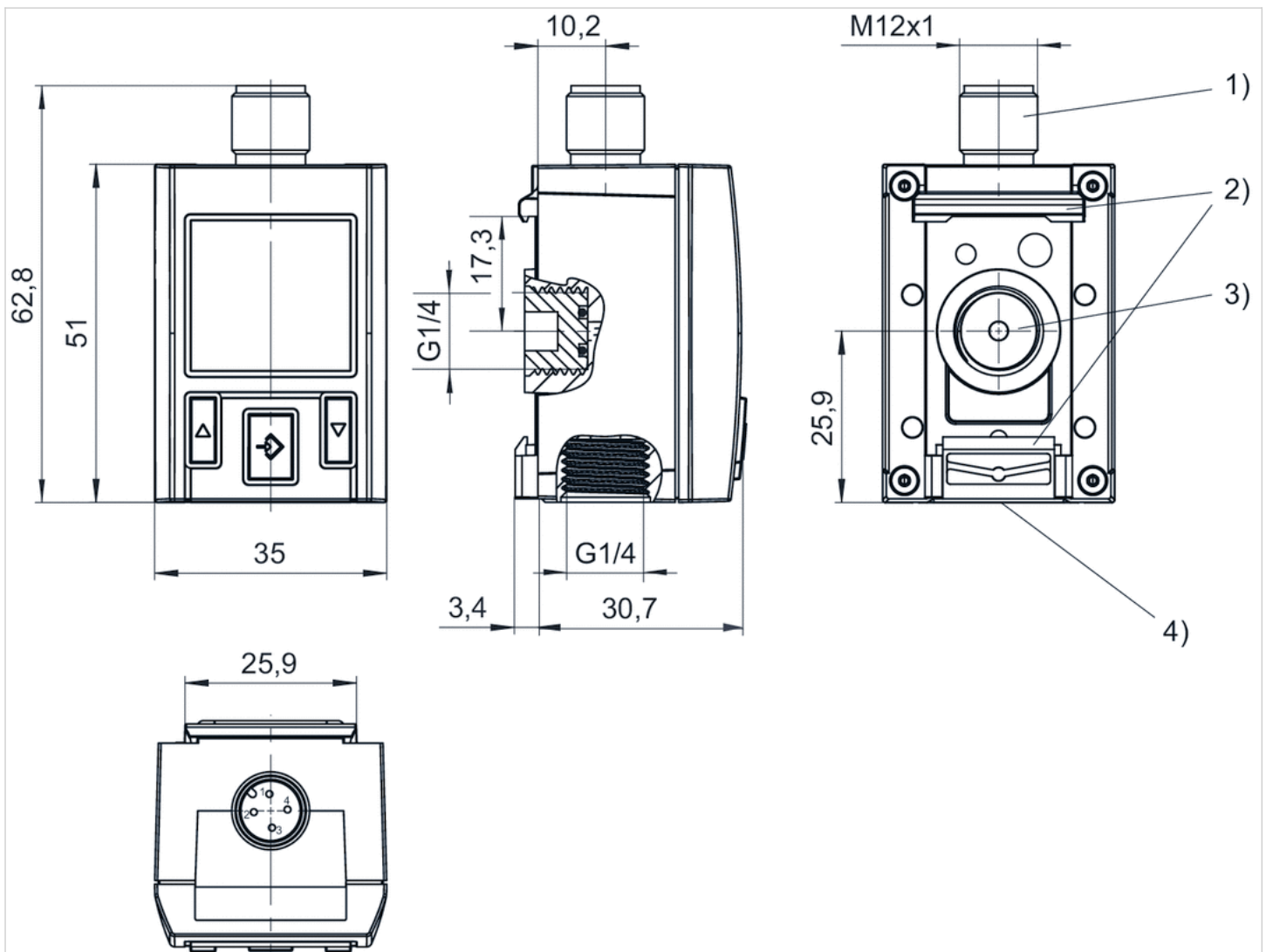
The IO-Link device description (IODD) for the PE5 pressure sensor is available for download in the Media Centre.

Technical information

Material	
Housing	Polycarbonate
Seals	Acrylonitrile butadiene rubber
Blanking plug	Polyoxymethylene
Electr. connection	Aluminum, black anodized

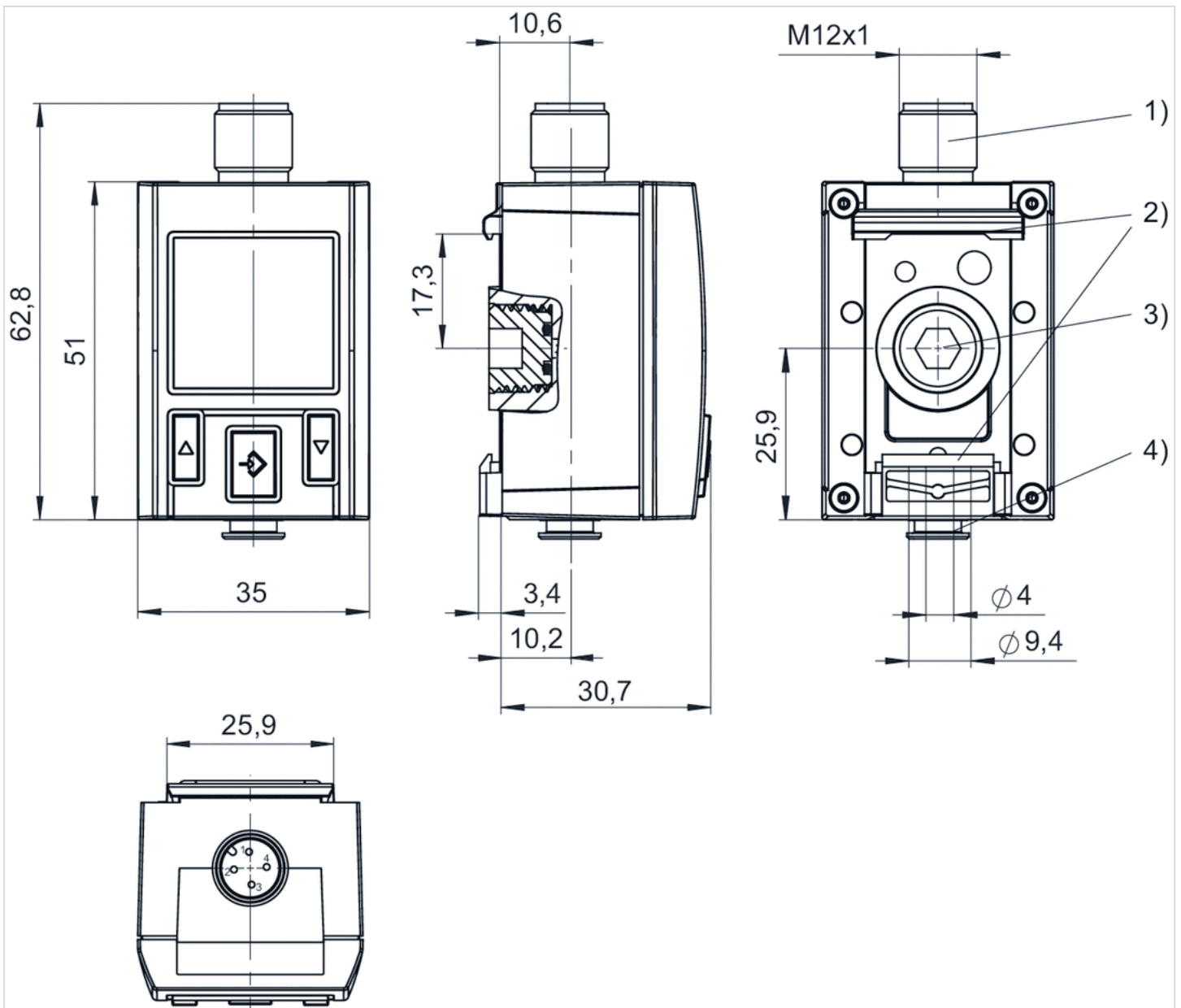
Dimensions

Fig. 1



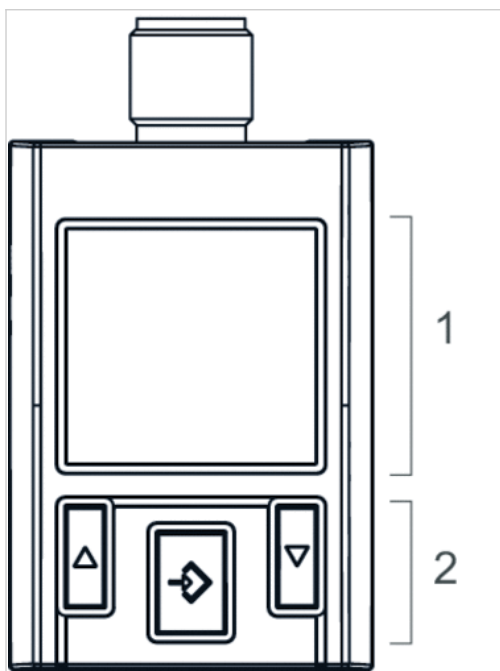
- 1) M12x1 electrical connection
- 2) Mounting for hat rail and wall mounting
- 3) Alternative pressure connection (G1/4) closed with plug
- 4) Pressure connection G1/4

Fig. 2



- 1) M12x1 electrical connection
- 2) Mounting for hat rail and wall mounting
- 3) Alternative pressure connection (G1/4) closed with plug
- 4) Pressure connection, tubing $\phi 4$ mm

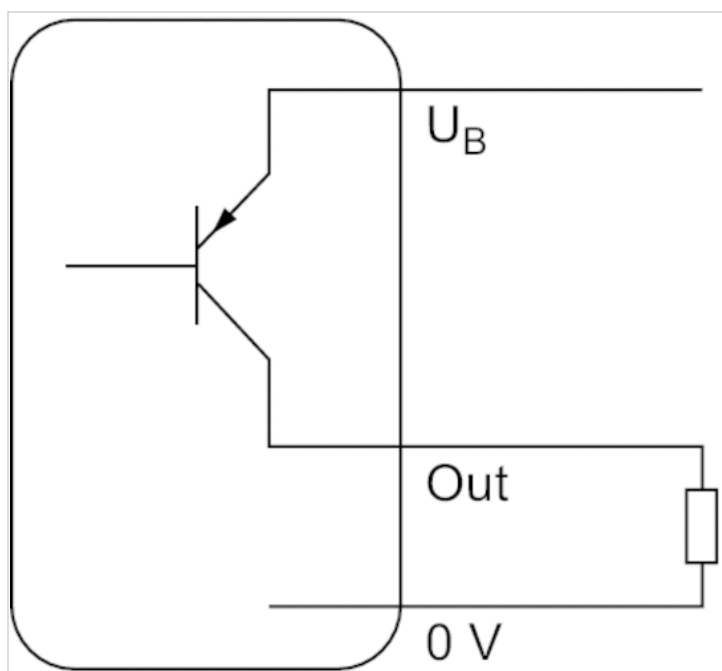
Display and operation area



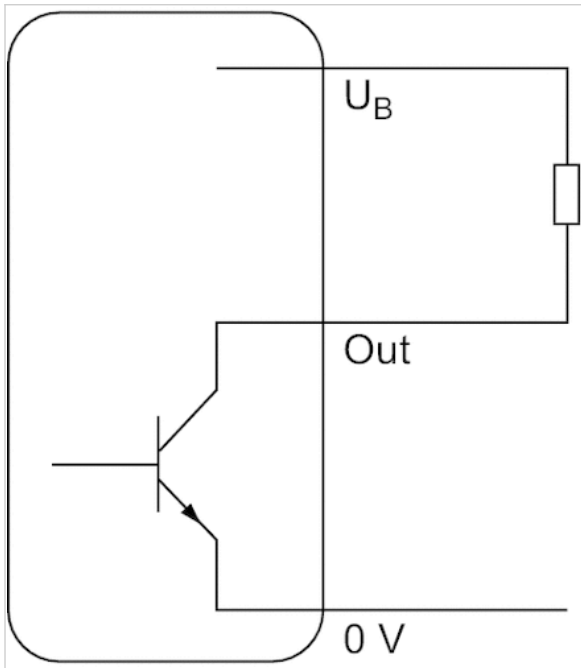
- 1) LCD display
- 2) Control panel with 3 buttons

Diagrams

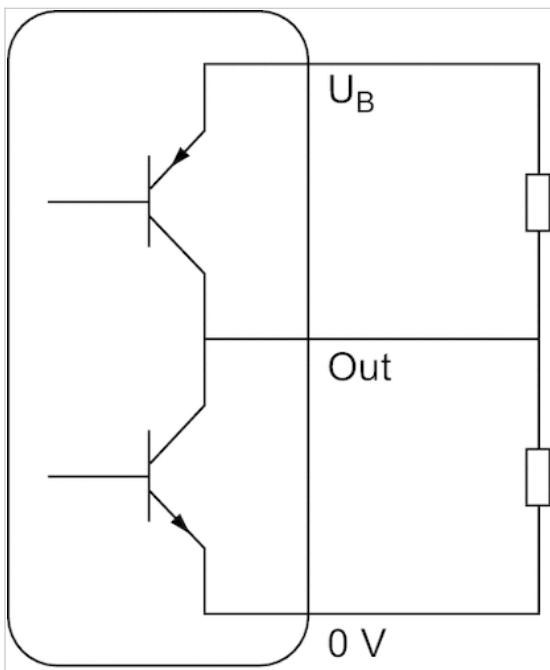
Operating mode PNP



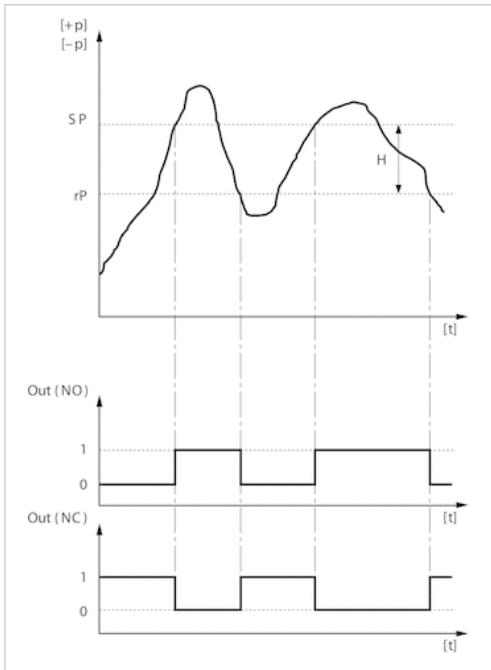
Operating mode NPN



Operating mode Push-pull

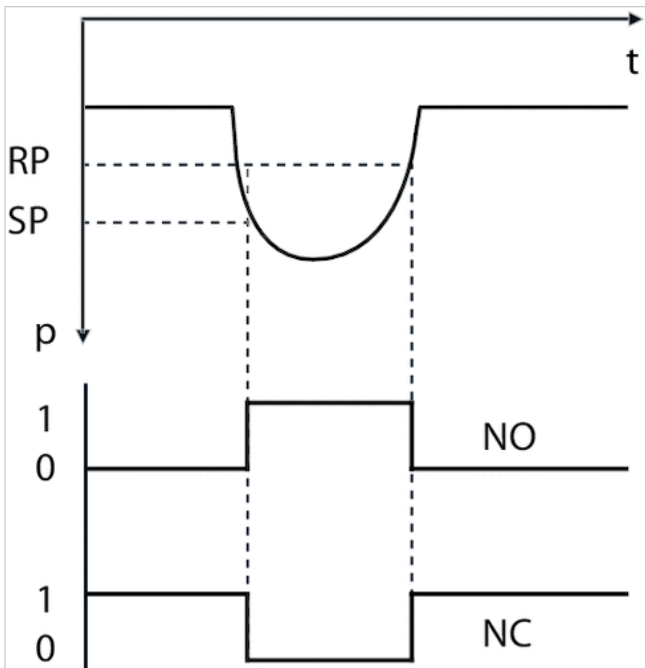


Hysteresis function: switching and resetting behavior dependent on pressure p and time t In case

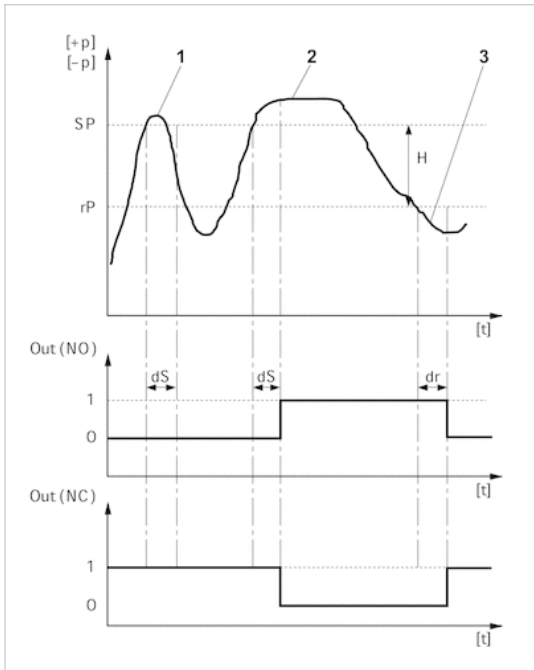


H: Hysteresis
 SP = switching point RP = resetting point
 Out (NC): switch output, break contact Out (NO): switch output, make contact

Hysteresis function: switching and resetting behavior dependent on pressure p and time t In case



Delayed hysteresis function: switching and resetting behavior depending on pressure p and time



H: Hysteresis

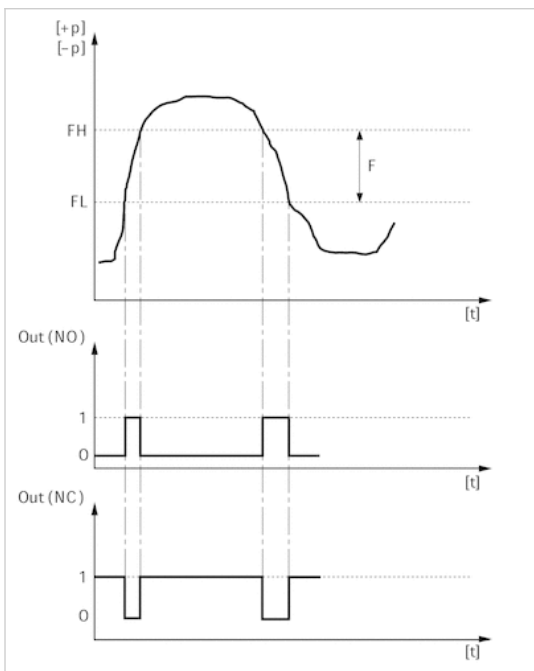
SP = switching point RP = resetting point

Out (NC): switch output, break contact Out (NO): switch output, make contact

dS: switching delay dr = reset delay

1) period of pressure over the switching point dS : pressure sensor does not switch
 2) Period of pressure over the switching point $> dS$: pressure sensor switches
 3) Period of pressure under the resetting point $> dr$: pressure sensor switches

Window function: switching and resetting behavior depending on pressure p and time t



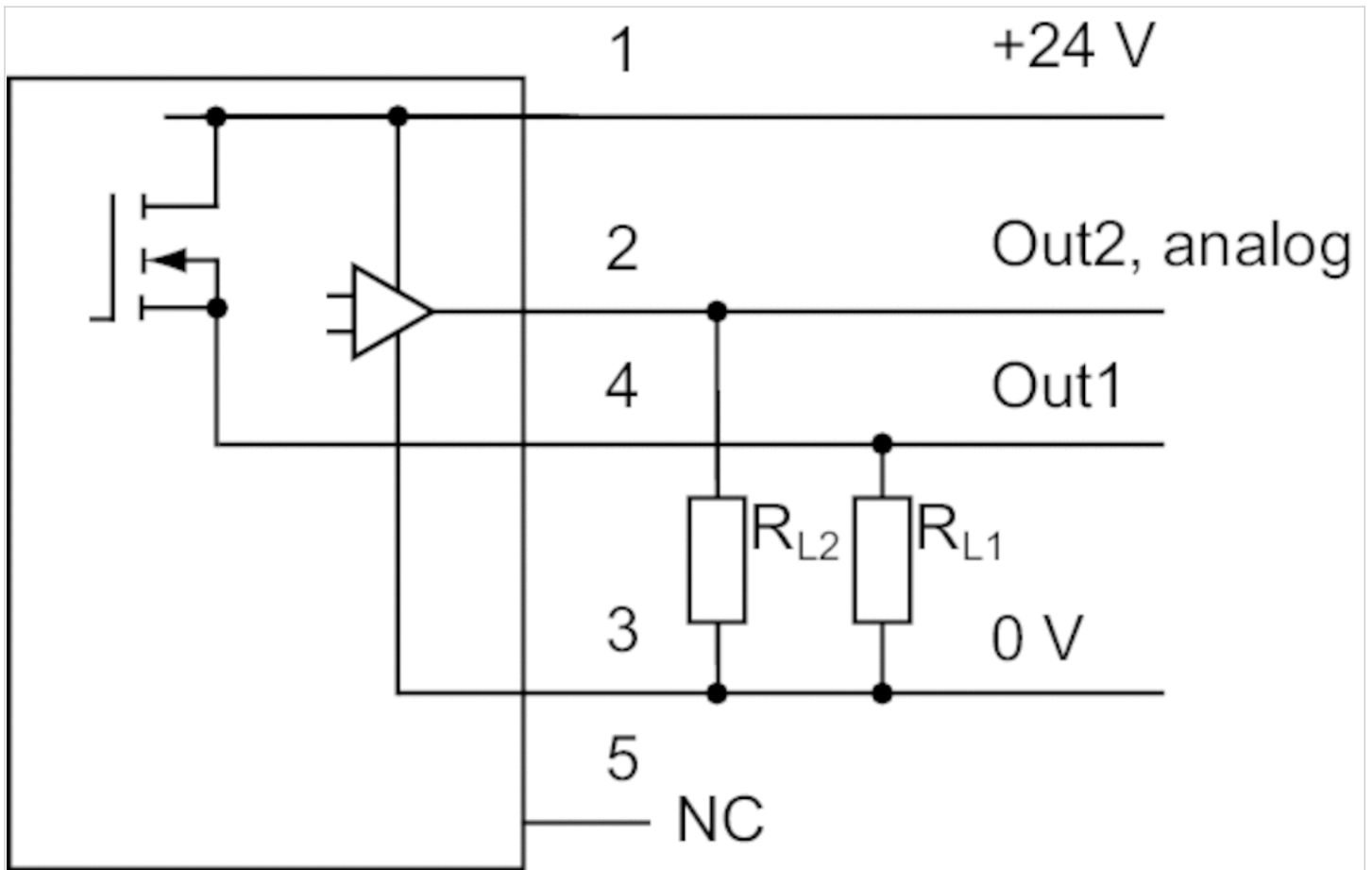
FH: pressure band, upper value

FL: pressure band, lower value

Out (NC): switch output, break contact Out (NO): switch output, make contact

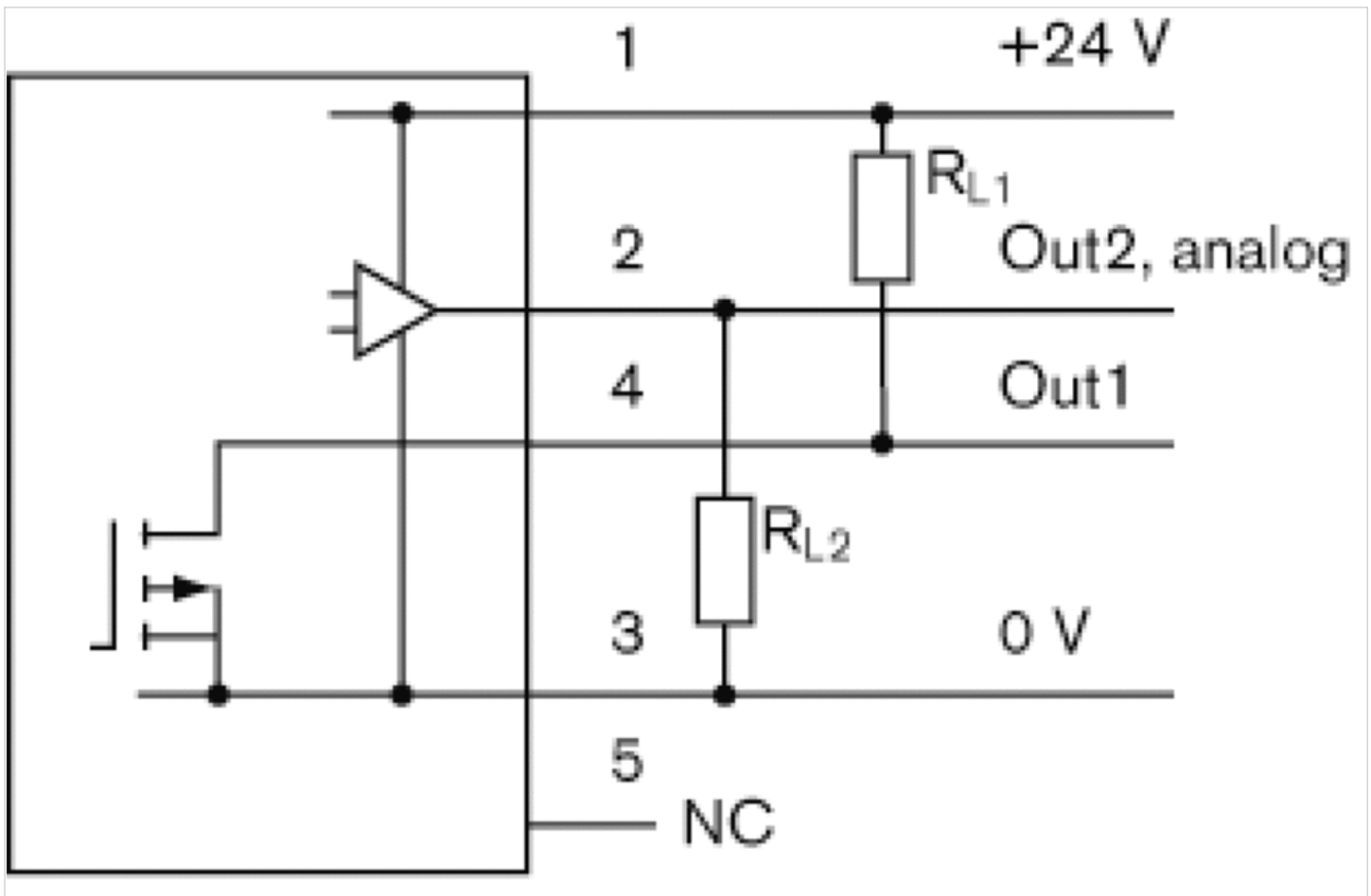
circuit diagram

Block diagram 1x PNP and 1x analog



RL = storable position

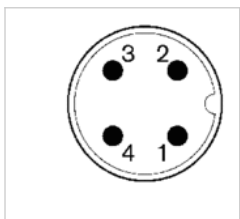
Block diagram 1x NPN and 1x analog



RL = storable position

Pin assignments

Pin assignments M12x1



- Pin 1: operational voltage + UB
- Pin 2: switch output Out2, analog: A or V, digital: PNP, NPN, push-pull
- Pin 3: 0 V
- Pin 4: switch output Out1, digital: PNP, NPN, push-pull

Double nipple, Series PE5



Weight

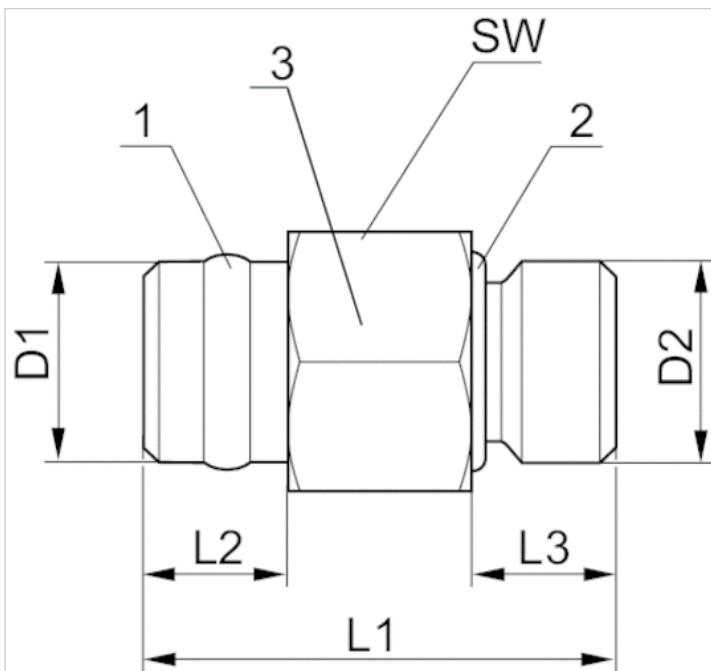
0,04 kg

Technical data

Part No.	Delivery unit
R412010015	2 piece
R412010016	2 piece

Dimensions

Dimensions



- 1) sealing ring Polytetrafluorethylen
- 2) O-ring - acrylonitrile butadiene rubber
- 3) Housing - brass, nickel-plated

Dimensions

Part No.	D1	D2	L1	L2	L3	SW
R412010015	G 1/8	G 1/4	30	10	8.5	17
R412010016	G 1/4	G 1/4	30	10	8.5	17

Round plug connector, Series CON-RD

- Socket, M12x1, 5-pin, A-coded, angled, 90°
- open cable ends
- for DeviceNet
- with cable
- unshielded



Ambient temperature min./max.	-40 ... 85 °C
Operating voltage DC, max.	48 V DC
Operational voltage AC, max.	48 V AC
Protection class	IP65
Wire cross-section	0,34 mm ²
Weight	See table below

1	—	BN
2	—	WH
3	—	BU
4	—	BK
5		

Technical data

Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
1834484259	4 A	4	5,2 mm	3 m	0,126 kg
1834484260	4 A	4	5,2 mm	5 m	0,195 kg
1834484261	4 A	4	5,2 mm	10 m	0,38 kg

Technical information

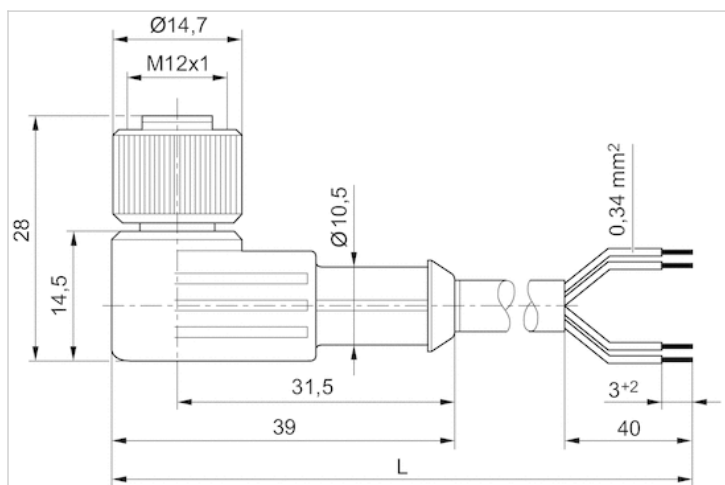
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Cable sheath	Polyurethane

Dimensions

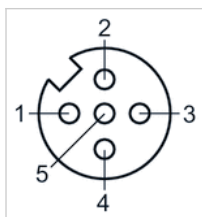
Dimensions



L = length

Pin assignments

Pin assignment socket



(1) BN=brown (2) WH=white (3) BU=blue (4) BK=black
(5) not assigned

Round plug connector, Series CON-RD

- Socket, M12x1, 5-pin, A-coded, angled, 90°
- open cable ends
- with cable
- shielded



Ambient temperature min./max.	-25 ... 80 °C
Operating voltage DC, max.	48 V DC
Operational voltage AC, max.	48 V AC
Protection class	IP67
Wire cross-section	0,34 mm ²
Weight	See table below

Technical data

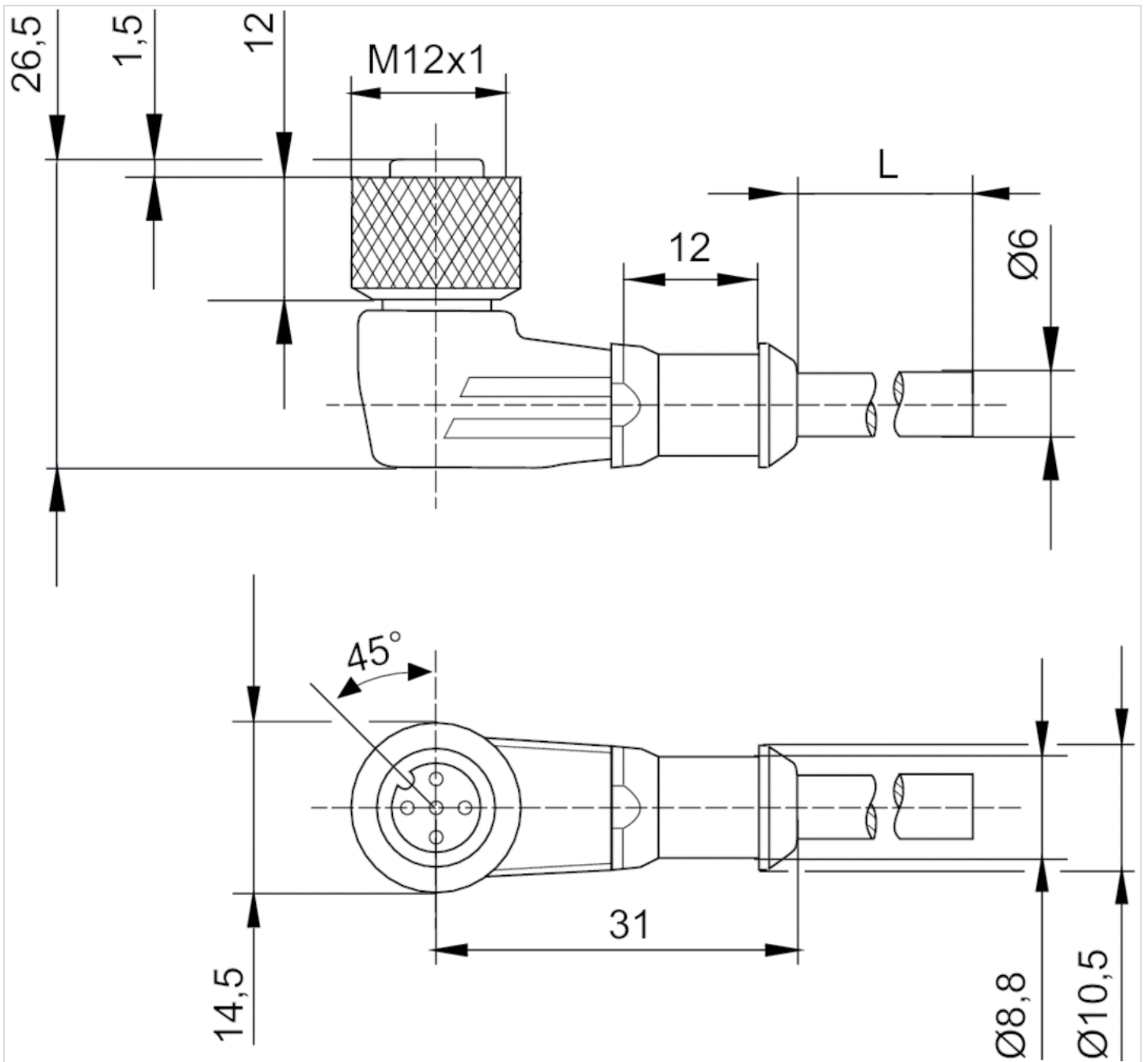
Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
R419800109	4 A	5	6 mm	2,5 m	0,145 kg
R419800110	4 A	5	6 mm	5 m	0,27 kg

Technical information

Material	
Housing	Thermoplastic elastomer
Cable sheath	Polyurethane

Dimensions

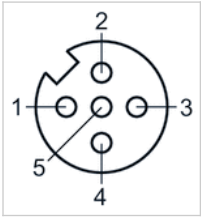
Dimensions



L = length

Pin assignments

Pin assignment socket



(1) BN=brown (2) WH=white (3) BU=blue (4) BK=black
(5) not assigned

Double nipple

- External thread
- G 1/4
- External thread
- G 1/8, G 1/4
- FPT-S-RDO



Working pressure min./max.

0 ... 16 bar

Ambient temperature min./max.

-20 ... 80 °C

Technical data

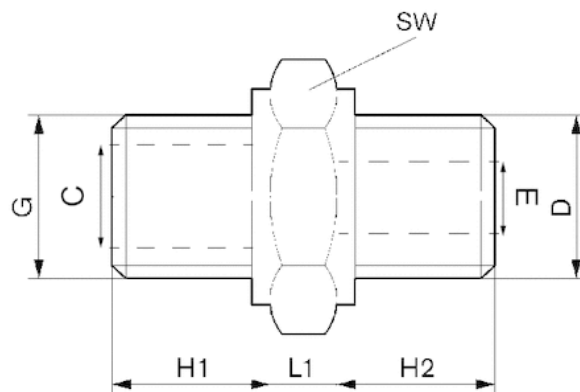
Part No.	Port G	Port D	Delivery unit	Material
1823391016	G 1/4	G 1/8	10 piece	Brass
1823391017	G 1/4	G 1/4	10 piece	Brass

Technical information

Material	
Material	Brass, nickel-plated
Seal	Polyvinyl chloride, hard

Dimensions

Dimensions



Dimensions

Part No.	Port D	Port G	ØC	ØE	H1	H2	L1	SW
1823391016	G 1/8	G 1/4	8	5	10	7	5	17
1823391017	G 1/4	G 1/4	8	7.5	10	10	5	17

Wall mounting and hat rail

- for Series PE5



Weight

0,004 kg

Technical data

Part No.	Delivery unit
R412010405	1 piece

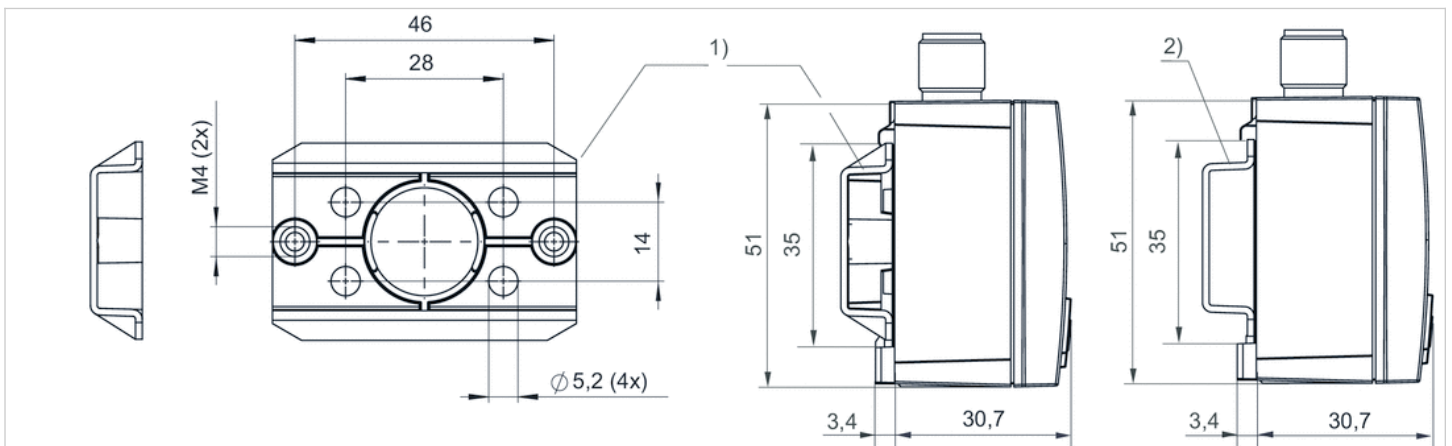
Screws included in scope of delivery: 2 x M5x20, DIN EN ISO 4762

Technical information

Material	
Housing	Polyamide

Dimensions

Dimensions



- 1) Wall mounting
- 2) DIN rail

Control panel installation kit

- for Series PE5



Ambient temperature min./max.

0 ... 60 °C

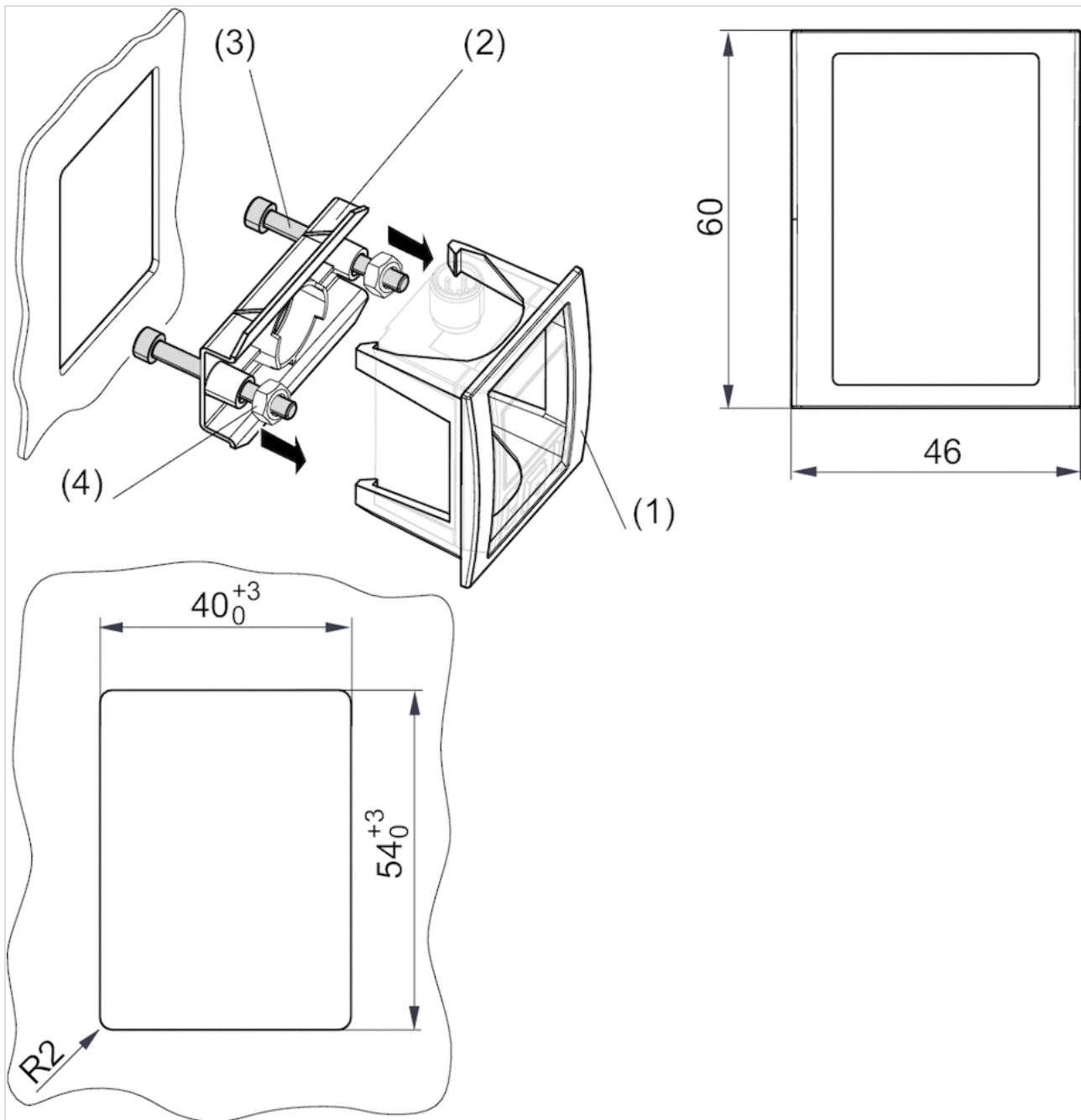
Technical data

Part No.	Delivery unit
R412010406	1 piece

Technical information

Material	
Housing	Acrylonitrile butadiene styrene
Seal	Polyurethane

Dimensions



1 front frame (1), 1 wall mounting (2), 2 attachment screws M4x40 (3), 2 hexagonal nuts (4)
Panel plate thickness max. 5.0 mm