

Pressure sensor, Series PE2

- Operating pressure 0 ... 14, 0 ... 232 psi
- electronic
- Output signal analog 4 ... 20 mA
- Output signal digital 1 x PNP, 2 x PNP
- Electr. connection Plug, M12x1, 5-pin
- Compressed air connection Internal thread, G 1/4, Flange with O-ring, Ø 5x1,5



Type	electronic
Function	1 x PNP, 2 x PNP, 1x PNP and 1x analog
Mounting orientation	Any
Certificates	CE declaration of conformity, EMV
Working pressure min./max.	See table below
Ambient temperature min./max.	14 ... 167 °F
Medium temperature min./max.	14 ... 167 °F
Medium	Compressed air, Neutral gases
Measurement	Relative pressure
Display	OLED
Units displayed	bar, mbar, psi, kPa, MPa, %
Switching logic	Hysteresis function NO/NC (programmable), Window function NO/NC (programmable)
Operating pressure display	2 LED
Shock resistance max.	30 g
Vibration resistance	5 g (10 - 150 Hz)
Precision (% of full scale value)	± 1 % including temperature drift
Switching time	10 ms at loads 100 kΩ, > 10 ms at loads > 100 kΩ
Switching point	Adjustable ≥ 0.5% ... 100% FS
Resetting point	Adjustable 0% FS to SP -0.5% FS (or +0.5% FS when SP 0)
Hysteresis	adjustable
Switching/reset delay	adjustable
DC operating voltage,min./max.	15 ... 32 V DC
Analog output	1 x PNP, 1 x analog 4-20 mA
Quiescent current consumption	50 mA
Maximum load (analog current output)	600 Ω
Short circuit resistance	short circuit resistant
Mounting types	via through holes
Protection class	IP65
Electr. connection	Plug, M12x1, 5-pin
Weight	0.661 lbs

Technical data

Part No.		Type	Operating pressure range
			min./max.
R412010848		PE2-P1-G014-V10-010-M012	0 ... 14 psi
R412010849		PE2-P1-F001-V10-010-M012	0 ... 14 psi
R412010853		PE2-P2-G014-V10-010-M012	0 ... 14 psi
R412010856		PE2-PA-G014-V10-010-M012	0 ... 14 psi
R412010850		PE2-P1-G014-000-160-M012	0 ... 232 psi
R412010851		PE2-P1-F001-000-160-M012	0 ... 232 psi
R412010854		PE2-P2-G014-000-160-M012	0 ... 232 psi
R412010855		PE2-P2-F001-000-160-M012	0 ... 232 psi
R412010857		PE2-PA-G014-000-160-M012	0 ... 232 psi
R412010858		PE2-PA-F001-000-160-M012	0 ... 232 psi

Part No.	Protection against overpressure	Output signal	Output signal	Compressed air connection
		Analog	digital	
R412010848	145 psi	-	1 x PNP	Internal thread, G 1/4
R412010849	145 psi	-	1 x PNP	Flange with O-ring, Ø 5x1,5
R412010853	145 psi	-	2 x PNP	Internal thread, G 1/4
R412010856	145 psi	4 ... 20 mA	1 x PNP	Internal thread, G 1/4
R412010850	580 psi	-	1 x PNP	Internal thread, G 1/4
R412010851	580 psi	-	1 x PNP	Flange with O-ring, Ø 5x1,5
R412010854	580 psi	-	2 x PNP	Internal thread, G 1/4
R412010855	580 psi	-	2 x PNP	Flange with O-ring, Ø 5x1,5
R412010857	580 psi	4 ... 20 mA	1 x PNP	Internal thread, G 1/4
R412010858	580 psi	4 ... 20 mA	1 x PNP	Flange with O-ring, Ø 5x1,5

Part No.	Fig.
R412010848	Fig. 1
R412010849	Fig. 2
R412010853	Fig. 1
R412010856	Fig. 1
R412010850	Fig. 1
R412010851	Fig. 2
R412010854	Fig. 1
R412010855	Fig. 2
R412010857	Fig. 1
R412010858	Fig. 2

Technical information

Menu navigation is based on the VDMA specification with an additional plain text menu.

Technical information

Material	
Housing	Aluminum, Vibration-ground
Seals	Fluorocaoutchouc
Electr. connection	Aluminum with polymer insert
	At the flange connection: Nitrile butadiene rubber and fluororubber

Dimensions

Fig. 1

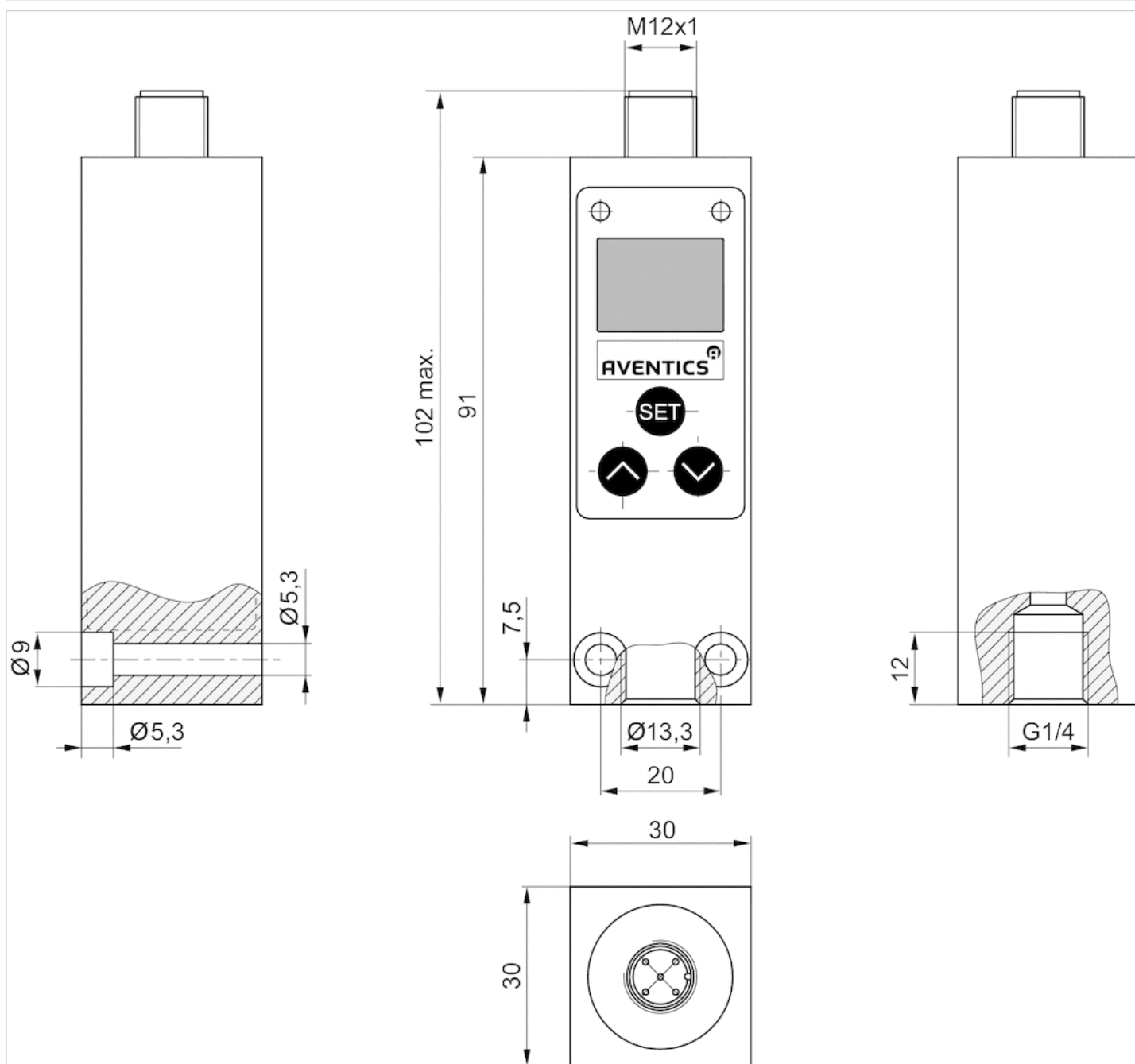
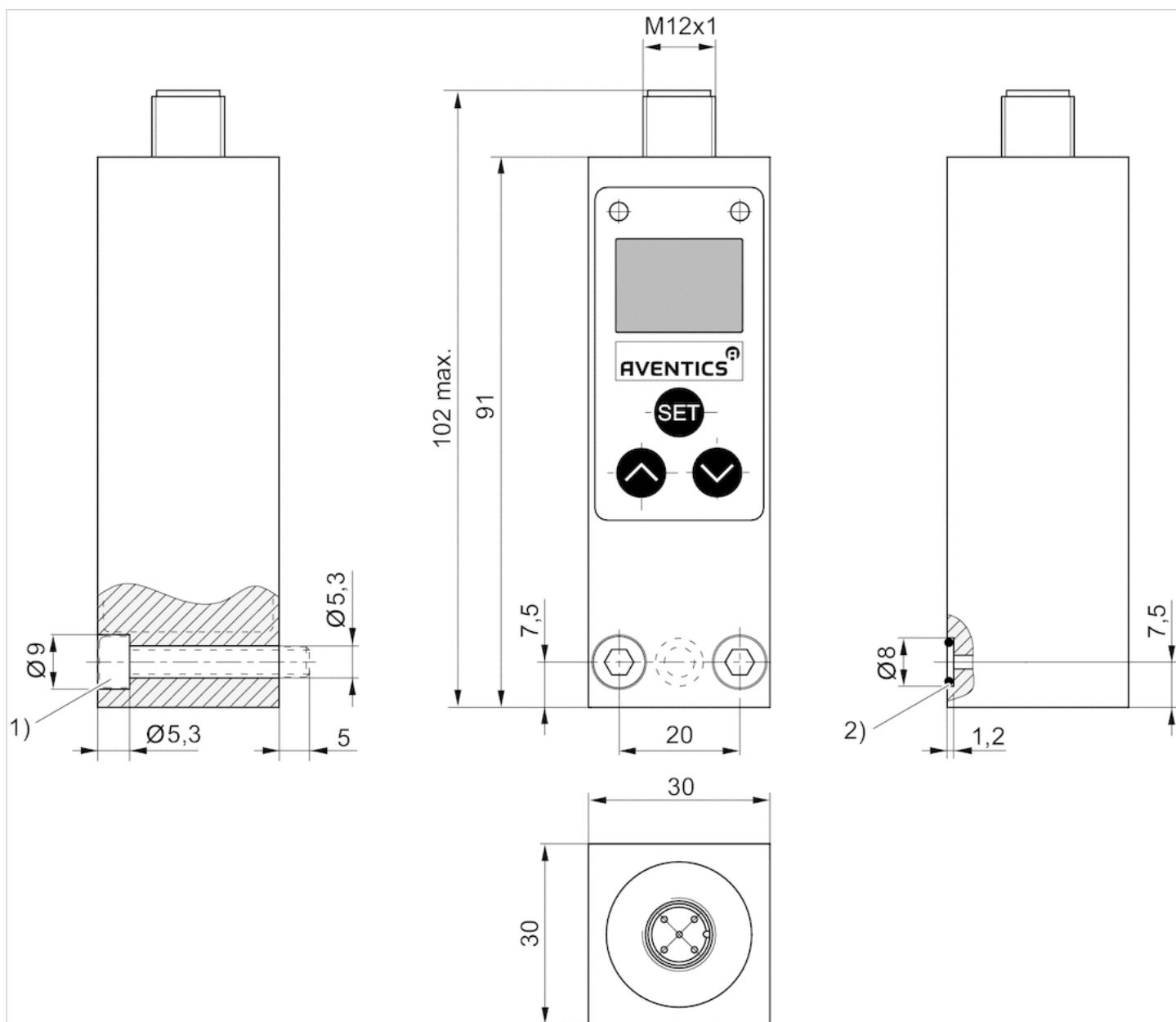


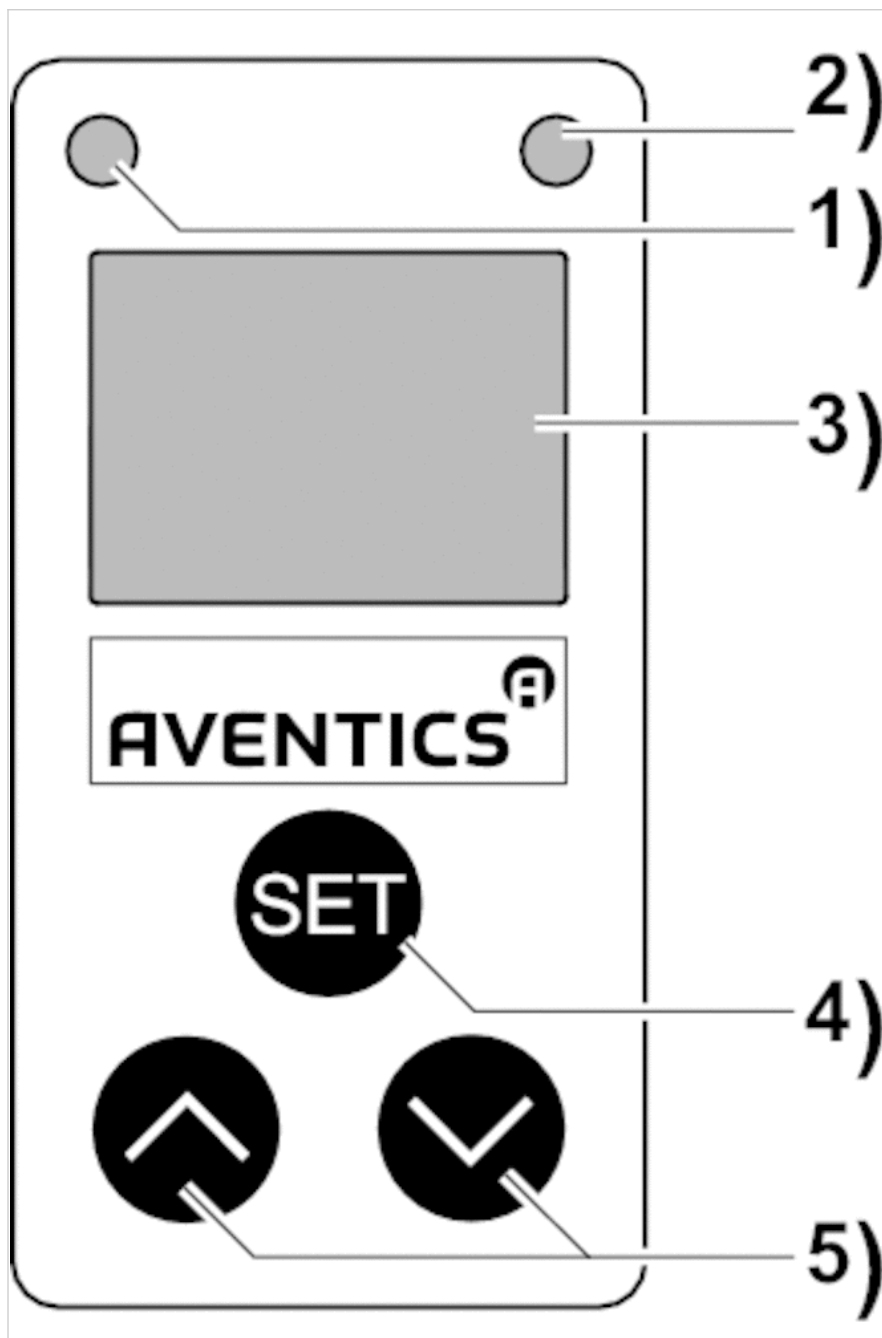
Fig. 2



1) cylinder screw M5x35 (included in scope of delivery)

2) O-ring Ø5x1,5 (included)

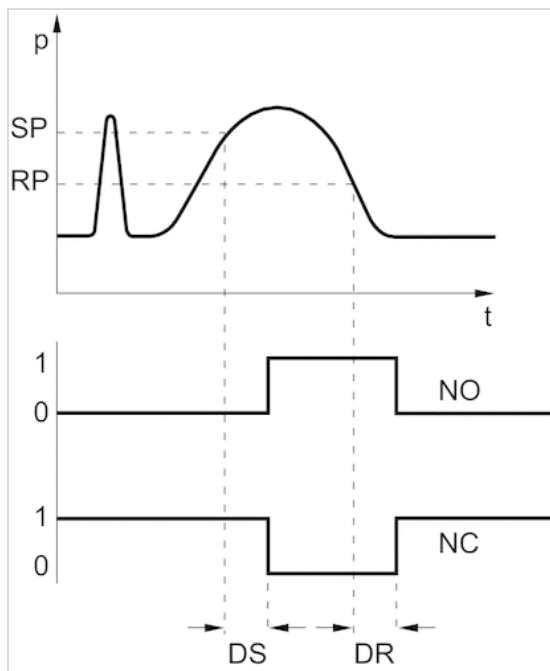
Display and operation area



- 1) LED for switch output 1
- 2) LED for switch output 2
- 3) Display (pressure, operating modes, navigation)
- 4) Confirm menu/menu item selection
- 5) Button for menu item/parameter change selection

Diagrams

Pressure-voltage characteristics curve



SP = switching point

RP = resetting point

NO = Switching function open

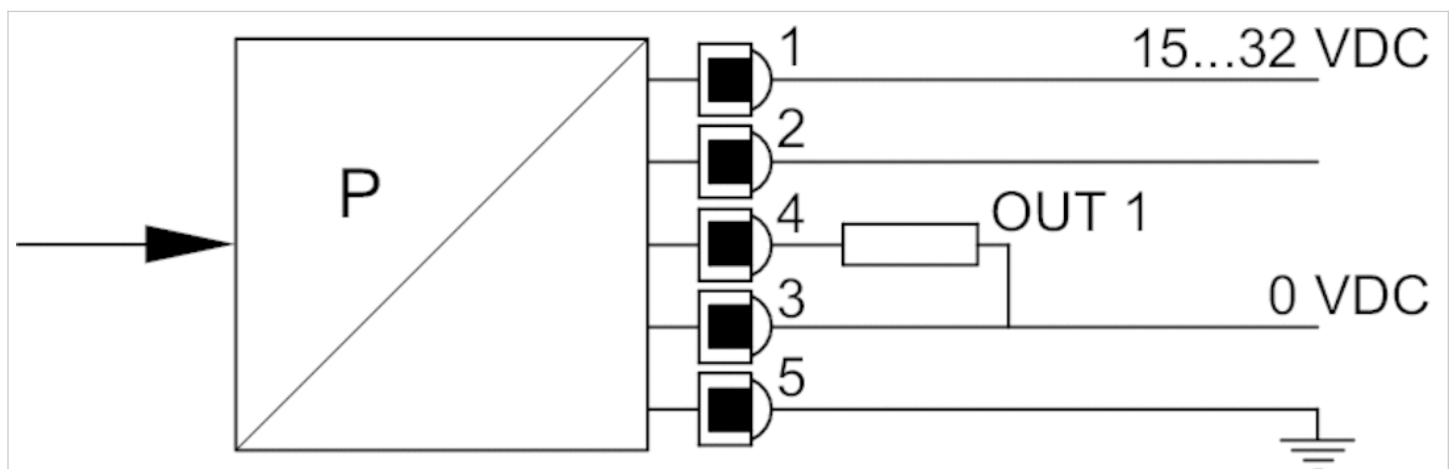
NC = Switching function closed without current

DS = Delay for the switching point

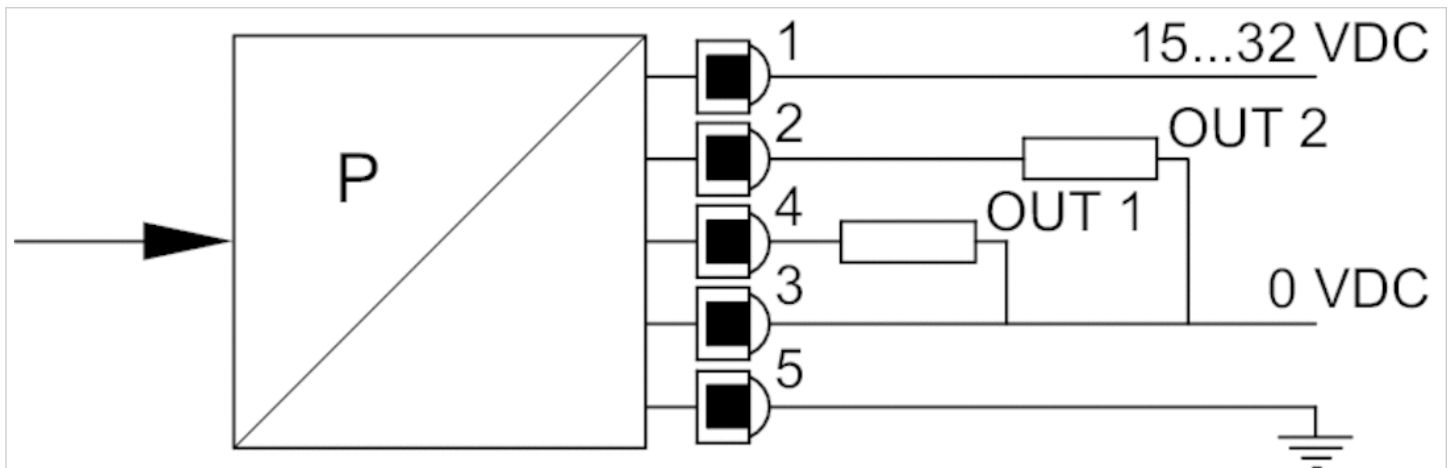
DR = Delay for the resetting point

Circuit diagram

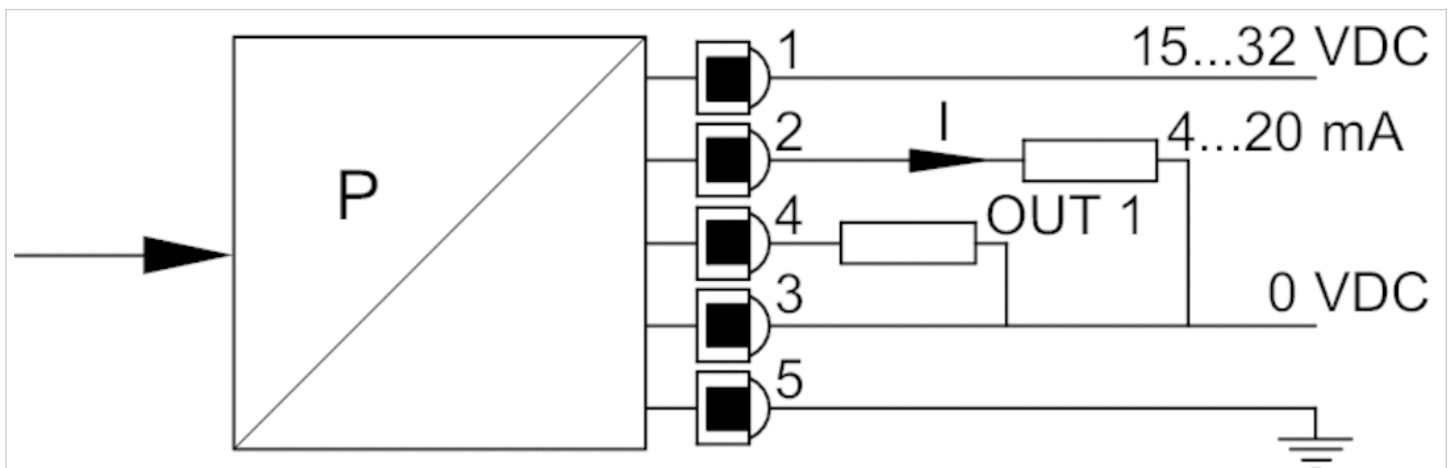
Block diagram 1 x PNP



Block diagram 2 x PNP

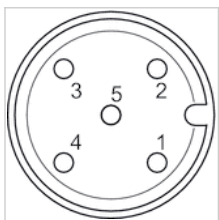


Block diagram 1x PNP and 1x analog



Pin assignments

Pin assignments



pin 1: signal + UB, color: brown pin 2: signal: out 2 (PNP)/analog 4 - 20 mA, color: white pin 3: signal: 0 volt, color: blue pin 4: signal: out 1 (PNP), color: black pin 5: signal: FE, color: gray

Double nipple, Series PE5

- External thread



Weight

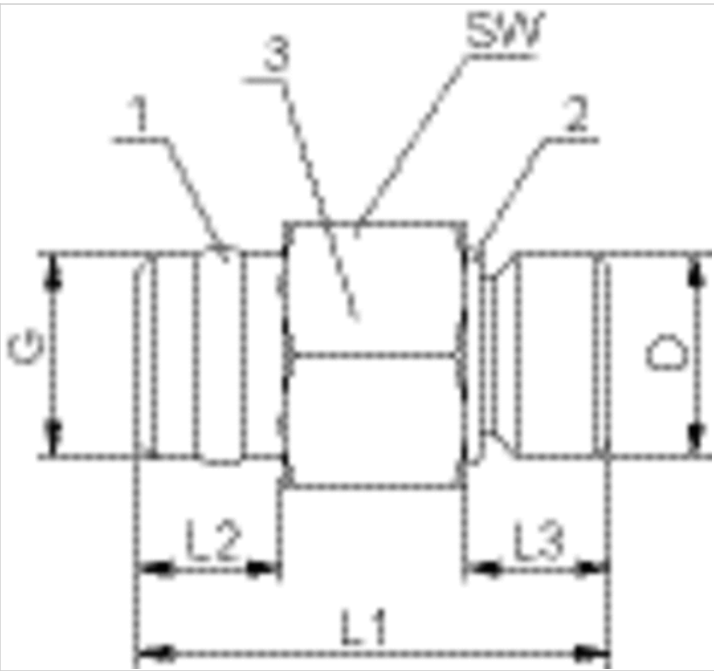
0.088 lbs

Technical data

Part No.	Port G	Port D	Delivery unit
R412010015	G 1/4	G 1/8	2 piece
R412010016	G 1/4	G 1/4	2 piece

Dimensions

Dimensions



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

Dimensions

Part No.	Port G	Port D	L1	L2	L3	SW
R412010015	G 1/4	G 1/8	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
- with cable
- shielded



Ambient temperature min./max.	-13 ... 176 °F
Operational voltage	48 V, AC/DC
Protection class	IP67
Wire cross-section	0 in²
Weight	See table below

Technical data

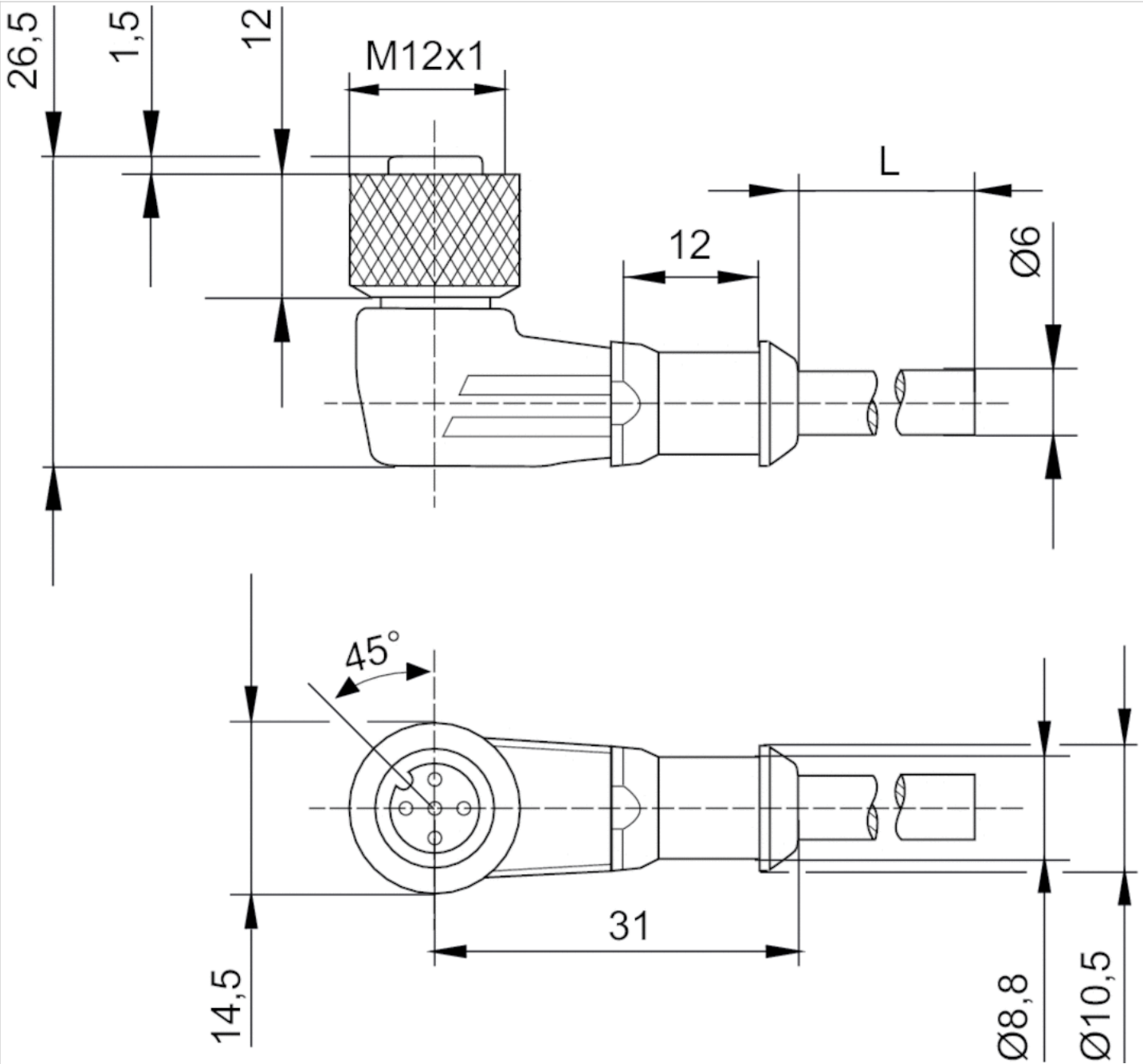
Part No.	Max. current	Number of wires	Cable-Ø	Cable length	Weight
R419800109	4 A	5	0.24 inch	8.2 ft.	0.337 lbs
R419800110	4 A	5	0.24 inch	16.4 ft.	0.628 lbs
R419800546	4 A	5	0.24 inch	32.81 ft.	1.19 lbs

Technical information

Material	
Housing	Thermoplastic elastomer
Cable sheath	Polyurethane

Dimensions

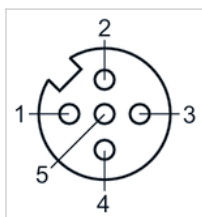
Dimensions



L = length

Pin assignments

Pin assignment socket



- (1) BN=brown
- (2) WH=white
- (3) BU=blue
- (4) BK=black
- (5) GRN-Y=green-yellow

Round plug connector, Series CON-RD

- Plug, M12x1, 5-pin, A-coded, straight, 180°
- open cable ends, 5-pin
- with cable
- unshielded



Protection class
Weight

IP68
See table below
The delivered product may vary from that in the illustration.

Technical data

Part No.	Number of wires	Cable length	Weight
8946203432	5	6.56 ft.	0.214 lbs
8946203442	5	16.4 ft.	0.503 lbs

with self-clinching screw

Technical information

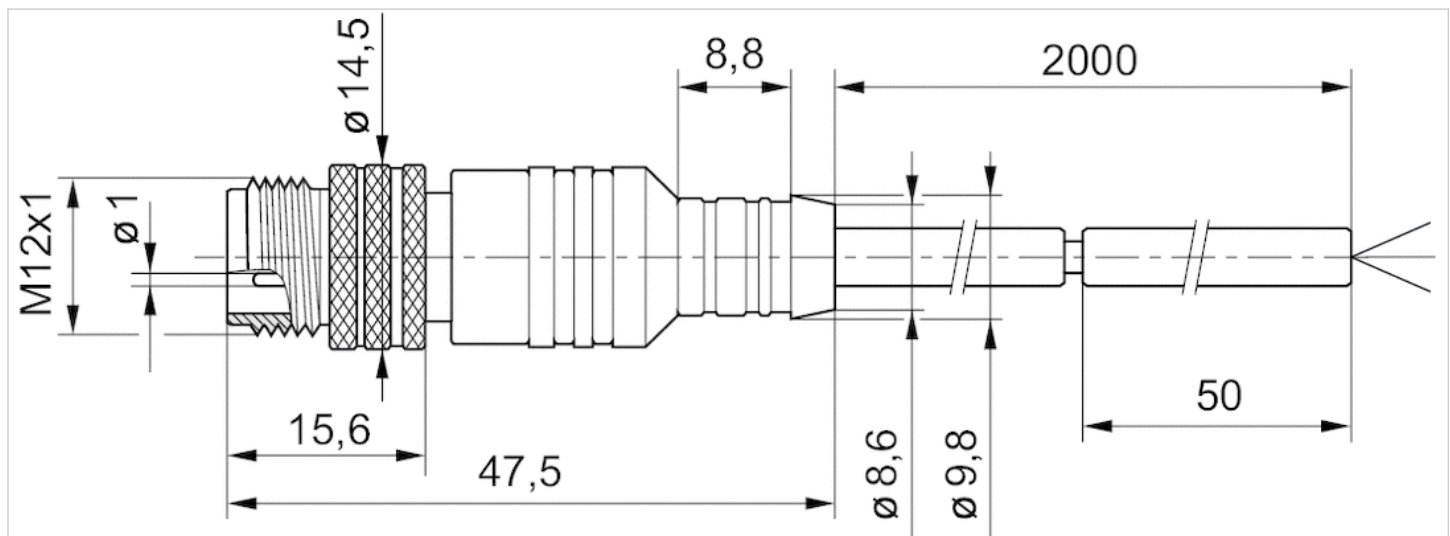
The specified protection class is only valid in assembled and tested state.

Technical information

Material	
Cable sheath	Polyvinyl chloride

Dimensions

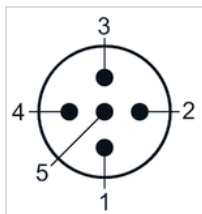
Dimensions



L = length

Pin assignments

Plug pin assignment



- (1) BN=brown
- (2) WH=white
- (3) BU=blue
- (4) BK=black
- (5) GRN-Y=green-yellow

Double nipple

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



Working pressure min./max.
0 ... 232 psi

Ambient temperature min./max.
-4 ... 176 °F

Technical data

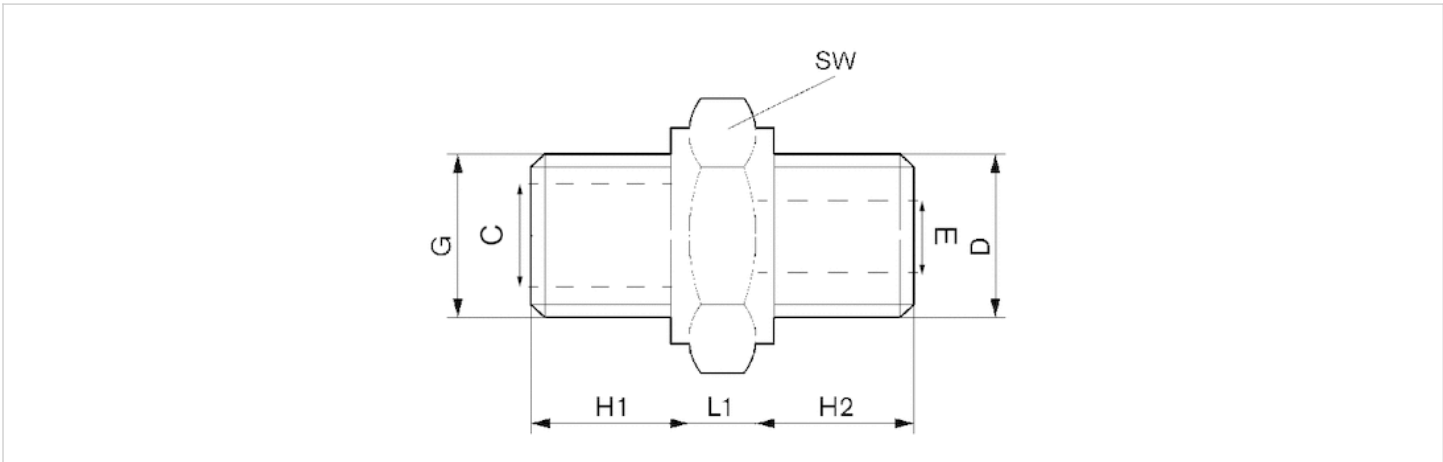
Part No.	Port G	Port D	Delivery unit
1823391016	G 1/4	G 1/8	10 piece
1823391017	G 1/4	G 1/4	10 piece

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