

Pressure sensors Compact

with internal diaphragm

Accuracy 1 %

Standard output: 4...20 mA; 2-wire system
or 0...10 VDC; 3-wire system



Description

The pressure sensors Compact are top of the range pressure sensors.

Compact, sturdy and long-term stable, they are particularly suitable for mobile conveying and lifting systems.

The compact design with G 1/4 B pressure connection enables space-saving and low-weight installation. The materials and technology used make these pressure sensors insensitive to chemically aggressive media and mechanical load.

Accuracy of 1% means routine checks of the transducer are unnecessary.

Measuring ranges from 250 mbar up to 1000 bar, graded in accordance with EN, offer a wide range of possible applications.

The short response time of the pressure sensor of <1ms enables peak pressures to be measured. Mini-Hirschmann plugs, round connector M12 x 1 or cable outlets are used to pick up the electrical output signals.

The Compact pressure sensors meet the electromagnetic compatibility (EMC) acc. to EN 61326.

Features

- compact design
- pressure connection G ¼ B
- high peak pressure resistance
- high alternating load resistance
- high long-term stability
- corrosion resistant stainless steel design
- high mechanical load rating
- for dynamic and static load measurements

Measuring ranges

Gauge pressure

negative -1...0 bar to - 0,25...0 bar

positive 0...0,25 bar to 0...1000 bar

Applications

Conveying and lifting systems,
Hydraulics and pneumatics;
General mechanical engineering.

Model: P3272

Technical data

Model	P3272		options
Pressure type	negative or positive gauge pressure		negative and positive gauge pressure
Output signal	4...20 mA - 2-wire		0..20 mA; 0...5 VDC; 0..10 VDC; with 3-wire
Accuracy	± 1 % of F.S. 1)		
Meas. ranges acc. to EN	0 ... 0,25 bar to 0 ... 25 bar	0 ... 40bar to 0 ... 1000 bar	other measuring ranges on request
Sensor element	piezoresistive	thin film	
Repeatability	≤ ± 0,05 % of F.S.		
Stability (annual)	≤ ± 0,2 % of F.S. in rated conditions		
Case	Stainless steel		
Pressure connection	G 1/4 B acc. to EN 837		G1/4 A, 1/4 NPT,
Wetted parts	stainless steel		
Overload limit	≤ 16 bar 3,5 x ; ≤ 600 bar 2 x ; > 600 bar 1,5 x		
Electrical connection	Mini-Hirschmann plug G4a1MMT round connector M12x1, 4-pin		Cable outlet 1 m cable
Power supply	10...30 VDC, (14...30 VDC for output 0...10 V)		
Power consumption	output 4...20 mA		
Load	$\leq \frac{UB - 10V}{0,020A}$ for current output > 10 kΩ for voltage output		
Temp compens. range	0... 80°C		
Temperature influence	– mean TC zero point ± 0,3 % /10 K – mean TC span ± 0,2 % /10 K		
Response time	≤ 1 ms (within 10 % to 90 % of F.S.)		
Protection type acc. to IEC 60 529	IP 65 IP 67 for round cable connector M12x1		IP 67 for cable outlet
Emission 2)	acc. to EN 61326		
Interference 2)	acc. to EN 61326		
Electrical protection type	Polarity and short circuit protection		
temperature ranges	– storage -40 100 °C – medium -30 100 °C – ambient -30 85 °C		
Weight	approx. 0,10 kg		

of F.S. = of full scale value

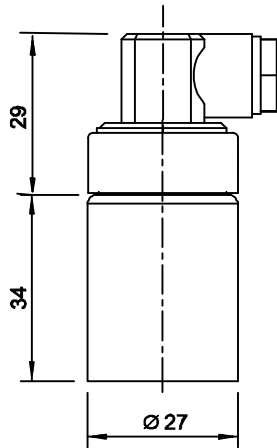
1) Terminal point adjustment incl. linearity, hysteresis and repeatability

2) Declaration of conformity on request

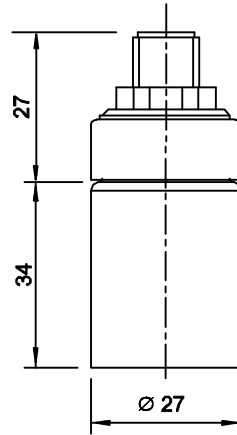
Dimensions (mm)

Case

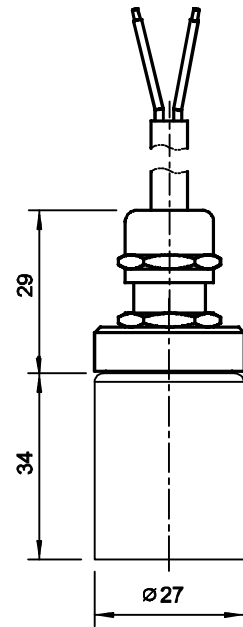
Mini-Hirschmann plug



Round cable connector M12x1

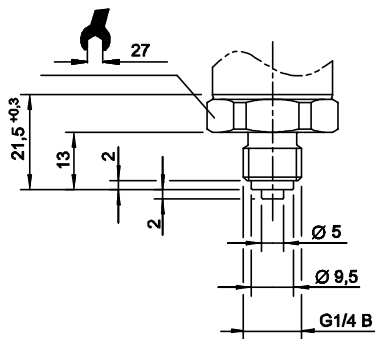


Cable outlet

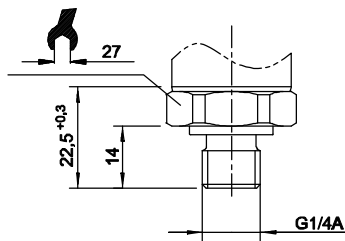


Pressure connections

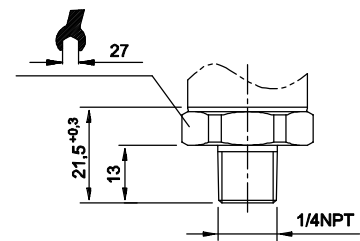
G 1/4 plug acc. to EN 837



G 1/4 plug acc. to DIN 3852-E

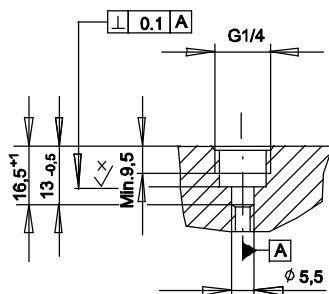


1/4 NPT

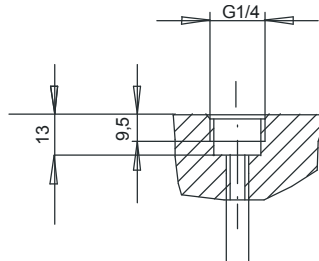


Screw in aperture

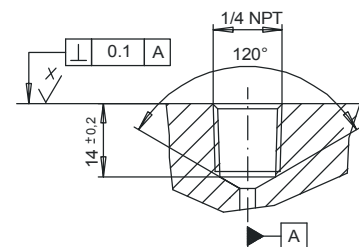
G 1/4



G 1/4



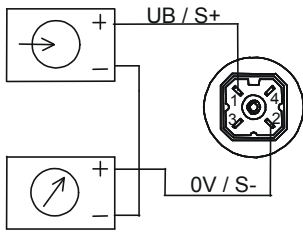
1/4 NPT



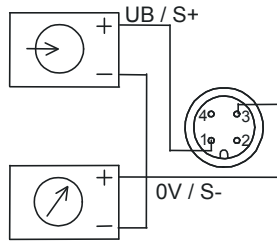
Electrical connection

2 - wire

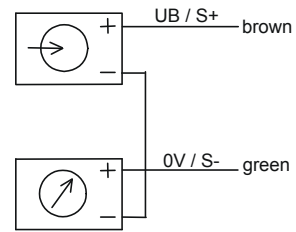
Mini-Hirschmann plug



Round cable connector M12x1

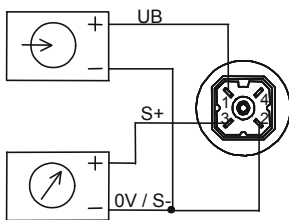


Cable outlet

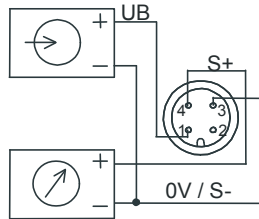


3-wire

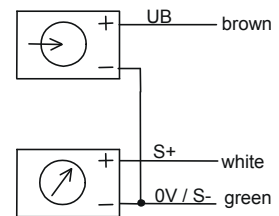
Mini-Hirschmann plug



Round cable connector M12x1



Cable outlet



Connection table for rectangular connector or cable outlet

	4...20 mA (2 - wire)			0...10VDC (3 - wire)		
	Mini plug	Plug M12x1	Cable outlet	Mini plug	Plug M12x1	Cable outlet
Supply: UB	1	1	brown	1	1	brown
Supply: 0V	2	3	green	2	3	green
Signal: S+	-	-	-	3	4	white
Signal: S-	-	-	-	2	3	green

Ordering information

1. Model
2. Measuring range
3. Output signal
4. Options

Subject to technical changes