

GENERAL CHARACTERISTICS

The pressure sensor measures pressures in liquids and gases. The strong allmetal construction enables the device to be universally employed throughout industry. The pressure sensor consists of a measurement probe (four strain gauges in thickfilm technology accommodated on a ceramic substrate) and the evaluation electronic which converts the bridge signal into a 4..20 mA signal proportional to the pressure. The sensor requires less than 2 mA for a supply so that a two-wire connection can be realised. This type of connection enables line breakage monitoring. Medium access to the diaphragm is provided by an 8mm diameter hole. The pressure cell is safely protected from mechanical damage by this method of construction.

- * 4..20mA, two-wire connection
- * ceramic measuring cell in AL₂O₃
- * strong all-metal housing
- * rotating plug connection (infinitely variable)

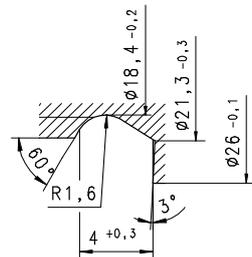
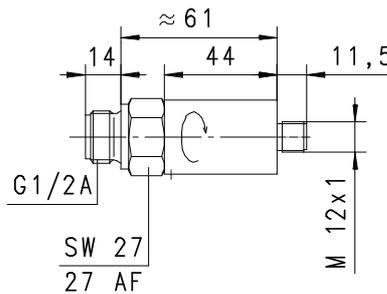
male thread G1/2A stainless steel



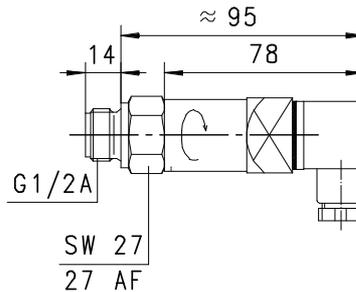
TECHNICAL DATA

| | | |
|---------------------------------|---|-------|
| measurement ranges | (relative pressure, differential pressure to environment) | |
| relative pressure | range | burst |
| | 0 - 1 | 4 |
| burst pressure (bar) | 0 - 2 | 6 |
| | 0 - 5 | 15 |
| | 0 - 10 | 40 |
| | 0 - 20 | 60 |
| | 0 - 50 | 150 |
| | 0 - 100 | 280 |
| | 0 - 200* | 400 |
| | 0 - 400* | 1050 |
| | * for gas applications only on request | |
| accuracy | 1% / of 60°C 0,02% /°C | |
| reproducibility | 0.5% | |
| operating temp. for electronics | 0..80°C | |
| operating temperature | max. 80°C (with option goose-neck option 125°C max.) | |
| weight | 0.3kg | |

with connection at locking plugs M12x1, 4pole

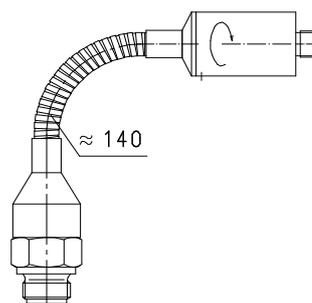


with plug DIN 43650-A



recess
DIN 3852 Bl.2

"goose-neck" option for higher temperatures



MOUNTING

The sensors are screwed into a sleeve or a T-piece in the pipework using a suitable sealing material (Teflon tape, Sikurite seal, etc.). The mounting of the sensor should not cause any significant change of cross-section in the pipe system. When tightening the sensor, be sure to only use the proper hexagonal wrench (27mm AF). Avoid points of installation subject to high pressure shocks (see overload limit).

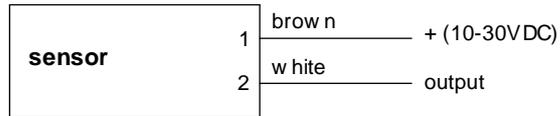
After sealing you can turn the sensor into the correct position for the cable connection. A mechanical block limits the total range turnable of 360°.

MATERIALS

pressure transducer stainless steel 1.4571, Al₂O₃, viton
other materials brass nickel plated, PP, NBR

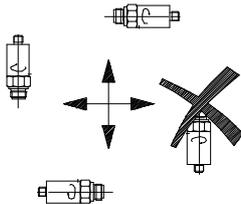
ELECTRICAL DATA

| | |
|------------------|---|
| supply voltage | 10..30 V DC ±10% |
| analogue output | 4..20 mA |
| max. load | 700Ω at 24 V (100Ω at 10V - 1kΩ at 30V, linear to the operation voltage) |
| connection | for locking plug M12x1, 4pole or plug DIN 43650-A |
| protection class | IP 67 locking plug IP 65 plug DIN 43650-A |

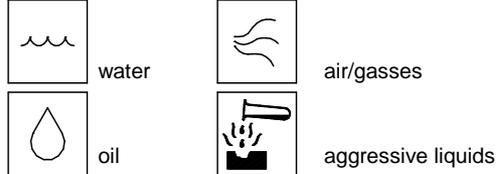


Before carrying out the electrical installation, make sure that the supply voltage corresponds to the data specification.

MOUNTING POSITION



METERING SUBSTANCES



NOMENCLATURE

| EPS1- | 001 | R | K | 015 | S | | basic type specification |
|-------|-----|---|---|-----|---|---|--|
| | 001 | | | | | ● | 0 - 1 bar |
| | 002 | | | | | ● | 0 - 2 bar |
| | 005 | | | | | ● | 0 - 5 bar |
| | 010 | | | | | ● | 0 - 10 bar |
| | 020 | | | | | ● | 0 - 20 bar |
| | 050 | | | | | ● | 0 - 50 bar |
| | 100 | | | | | ● | 0 - 100 bar |
| | 200 | | | | | ● | 0 - 200 bar |
| | | R | | | | ● | relative pressure |
| | | | K | | | ● | material medium contact stainless steel 1.4571 |
| | | | | 015 | | ● | connection G1/2A |
| | | | | | S | ● | connection at locking plugs M12x1, 4-pole |
| | | | | | B | ● | plug DIN 43650-A |
| | | | | | H | ○ | with goose-neck |

ACCESSORY

locking plug

| K | PU- | 02 | S | G | basic type specification |
|------|-----|----|---|---|-----------------------------|
| K | | | | | ● ready-made cable |
| KB04 | | | | | ● self makable cable 4-pole |
| | PU- | | | | ● material PUR |
| | | 02 | | | ● length 2 m |
| | | 05 | | | ● length 5 m |
| | | 10 | | | ● length 10 m |
| | | | S | | ● moulded-on plug |
| | | | | G | ● straight plug |
| | | | | W | ● angled plug 90° |



COMBINATIONS

omni-P1

local electronic unit,
2xNPN and PNP switch
4(0)...20mA output
graphical LCD display
with flashing LED
program ring



Flex-P1

switch- or frequency output
0..10V or 4..20mA
PNP, NPN

All technical changes reserved

●BASIC Standard ○BASIC Programme option □VARIO Special option ⊕ PLUS Accessories ✗ not recommendable