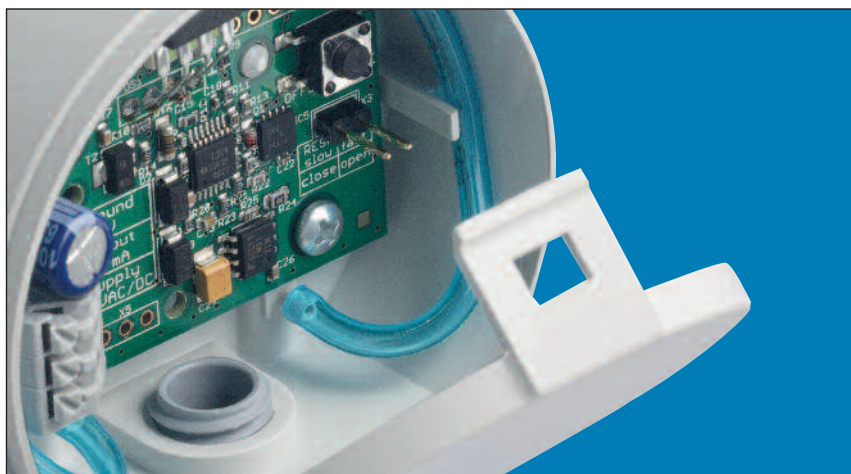


Beck.

Differential pressure transmitter 982R



Differential pressure transmitter 982R



General description

The differential pressure transmitters of the 982M series are used to measure differential pressure, overpressure and vacuum. They provide one adjustable pressure range and one output signal.

Applications

Monitoring of gaseous, non-aggressive media. Possible usage areas are:

- Building automation, air conditioning systems and clean room monitoring
- Valve and flap control
- Filter, ventilator and blower monitoring
- Control of air flows

Adjustable pressure range

The end of the pressure range can be reduced to 50% of its factory set full scale value simply by the use of a push-button.

Output signal

0 ... 10V or 4 ... 20mA. Other signals on request.

Configurable response time

The response time of the output signal can be configured using a jumper. If the jumper is in place the response time is slow (factory setting), which is useful for suppressing brief pressure peaks. If the application requires a fast response time the jumper must be removed.

Easy offset calibration

The output signal can be calibrated to zero by pressing the push-button (pressure transmitter must be depressurised).

Volume flow measurement (optional)

The shape of the output signal can be switched from linear to square root using a jumper in order to measure the volume flow via a differential pressure.

Reset

The transmitter can be reset to its factory setting, just by pressing the push-button for 10sec.

Measuring method

Piezoresistive pressure transducer

Mounting position

Can be mounted in any position. The self-compensating piezoresistive pressure transducer eliminates any possible mounting error.

Technical data

| | |
|----------------------------------|--|
| Supply voltage | 18 ... 30VAC/DC |
| Output signal | 0 ... 10V or 4 ... 20mA |
| Load for 4 ... 20mA output | 20 ... 500Ω |
| Max. current draw | < 40mA |
| Pressure medium | Air and non-aggressive gases |
| Linearity and hysteresis error | ≤ ± 1% of FS |
| Working temperature | 0 ... 50°C |
| Storage temperature | - 10 ... 70°C |
| Typical long-term stability | ≤ ± 0,5 % bis ± 2,5 % of FS/year, depending on pressure range |
| Repetition accuracy | ≤ ± 0,2 % of FS |
| Position dependence | ≤ ± 0,02 % of FS/g |
| Humidity | 0 ... 95 % rel, non-condensing |
| Response time, selectable | 0,1 - 1,0s |
| Process connection | 6mm hose connection |
| Electrical connection | Spring terminals for wires and leads up to 1,5 mm ² |
| Mounting | Screw mounting with serrated screws |
| Housing material | ABS |
| Housing dimensions | ca. Ø 66 x 28 mm |
| Weight | 50 g |
| Cable conduit for protection cap | M12x1,5 threaded connection, made of polyamide |
| Protection class EN 60529 | IP 54 |
| Conformity | EN 60770, EN 61326, 2011/65/EU (RoHS II) |

Download the declaration of conformity at:
www.beck-sensors.com

Pressure ranges

| Model | Range | Overload capacity | Bursting pressure | Temperature error |
|----------|--------------|-------------------|-------------------|-------------------------|
| 982R.623 | 0... 100 Pa | 60 kPa | 100 kPa | ≤ ± 2,5 % of full scale |
| 982R.633 | 0... 250 Pa | 60 kPa | 100 kPa | ≤ ± 2,5 % of full scale |
| 982R.643 | 0... 500 Pa | 60 kPa | 100 kPa | ≤ ± 2,5 % of full scale |
| 982R.653 | 0... 1000 Pa | 75 kPa | 125 kPa | ≤ ± 1,0 % of full scale |
| 982R.663 | 0... 2,5 kPa | 85 kPa | 135 kPa | ≤ ± 1,0 % of full scale |
| 982R.673 | 0... 5,0 kPa | 85 kPa | 135 kPa | ≤ ± 1,0 % of full scale |
| 982R.683 | 0... 10 kPa | 85 kPa | 135 kPa | ≤ ± 1,0 % of full scale |
| 982R.693 | 0... 25 kPa | 135 kPa | 275 kPa | ≤ ± 1,0 % of full scale |
| 982R.6A3 | 0... 50 kPa | 200 kPa | 400 kPa | ≤ ± 1,0 % of full scale |
| 982R.6B3 | 0... 100 kPa | 200 kPa | 400 kPa | ≤ ± 1,0 % of full scale |
| 982R.6F3 | 0... 250 kPa | 400 kPa | 800 kPa | ≤ ± 1,0 % of full scale |

Other pressure ranges on request.

Order matrix

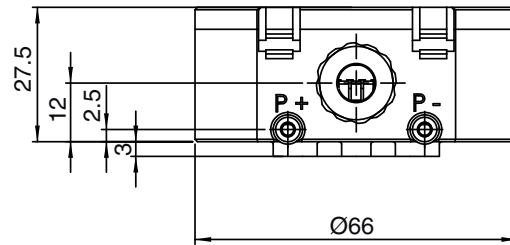
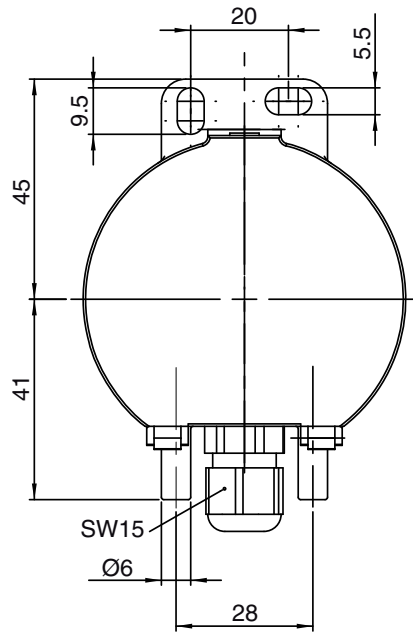
| | | | | | | | |
|----------------------------------|--|-----------------|---------------|---|---|---|---|
| Configurable pressure ranges | 0... 100 Pa | (0... 1,0 mbar) | 982R.6 | 2 | | | |
| | 0... 250 Pa | (0... 2,5 mbar) | | 3 | | | |
| | 0... 500 Pa | (0... 5,0 mbar) | | 4 | | | |
| | 0... 1000 Pa | (0... 10 mbar) | | 5 | | | |
| | 0... 2,5 kPa | (0... 25 mbar) | | 6 | | | |
| | 0... 5,0 kPa | (0... 50 mbar) | | 7 | | | |
| | 0... 10,0 kPa | (0... 100 mbar) | | 8 | | | |
| | 0... 25,0 kPa | (0... 250 mbar) | | 9 | | | |
| | 0... 50,0 kPa | (0... 500 mbar) | | A | | | |
| | 0... 100 kPa | (0... 1,0 bar) | | B | | | |
| 0... 250 kPa | (0... 2,5 bar) | F | | | | | |
| Pressure unit | Pascal | | | 3 | | | |
| | mbar | | | 1 | | | |
| Output signal and supply voltage | 0 ... 10 V, 3-wire, linear, 24 VAC/VDC | | | | 7 | | |
| | 4 ... 20 mA, 3-wire, linear, 24 VAC/VDC | | | | D | | |
| | 0 ... 10 V, 3-wire, square rooted, 24 VAC/VDC | | | | L | | |
| | 4 ... 20 mA, 3-wire, square rooted, 24 VAC/VDC | | | | P | | |
| Display | not available | | | | | 0 | |
| Electrical connection via | spring terminals | | | | | | 6 |

Accessories

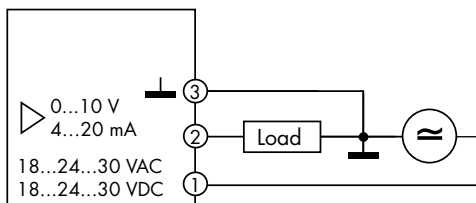
| | |
|---|------------------|
| Climaset® consisting of 2 m PVC hose and 2 plastic pipes | Artikel-Nr. 6555 |
| Climaset® consisting of 2 m Silicone hose and 2 plastic pipes | Artikel-Nr. 6557 |
| Climaset® consisting of 2 m PVC hose and 2 angled metal pipes | Artikel-Nr. 6550 |
| Climaset® consisting of 2 m Silicone and 2 angled metal pipes | Artikel-Nr. 6556 |
| Duct connecting pipe for Climaset® 6555 | Artikel-Nr. 6551 |
| Angled metal pipe for Climaset® 6550 | Artikel-Nr. 6552 |
| Rubber grommet for Climaset® 6550 | Artikel-Nr. 6553 |
| Roll with 100 m PVC hose | Artikel-Nr. 6424 |
| Roll with 100 m Silicone hose | Artikel-Nr. 6425 |

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Dimensions



Terminal assignments 3-wire version



| | |
|---|----------------------------------|
| 3 | Ground GND |
| 2 | Output signal 0...10 V/4...20 mA |
| 1 | Supply voltage 18...30 VAC/VDC |

