



CREATING MEASUREMENT SOLUTIONS



Pressure transmitter

CERTIFICATIONS



Certificate DIN EN ISO 9001 : 2015



ESD-Certificate DIN EN 61340-5-1



Accredited calibration laboratory
nach DIN EN 17025

Deutsche
Akkreditierungsstelle
D-K-21102-01-00

TEMPERATURE | HUMIDITY | PRESSURE
EVERYTHING FOR YOUR PRESSURE AS-
SORTMENT FROM A SINGLE SOURCE

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B+B Thermo-Technik develops and manufactures innovative product and industry solutions with the highest quality expectations for your precise measuring tasks.

B+B Thermo-Technik has been developing and manufacturing high quality temperature probes since 1984. Closely associated with temperature measurement are the fields of humidity and pressure. This resulted in the company's programme to be expanded in 2011 to include solutions for both these specialist fields.

Simply take advantage of B+B's extensive experience and professional knowledge. B+B Thermo-Technik is located at Donaueschingen in south west Germany, and from here, its increasingly reputable products are sold all over the world.

With the aid of the latest research, development and production technologies and coupled with the certifications in accordance to DIN EN ISO 9001 : 2015 and DIN EN 61340-5-1, we are able to manufacture our products to the highest possible standards. Of course, we also offer our customers the added service of issuing test certificates within our own calibration laboratory.

probes, thermocouple connectors, humidity probes and pressure sensors are predominantly manufactured in Germany or in 100% owned subsidiaries worldwide.

This assures continual quality control, flexible reactions to both the customer's requirements and modifications, and being able to deliver promptly.

Customer - specific construction

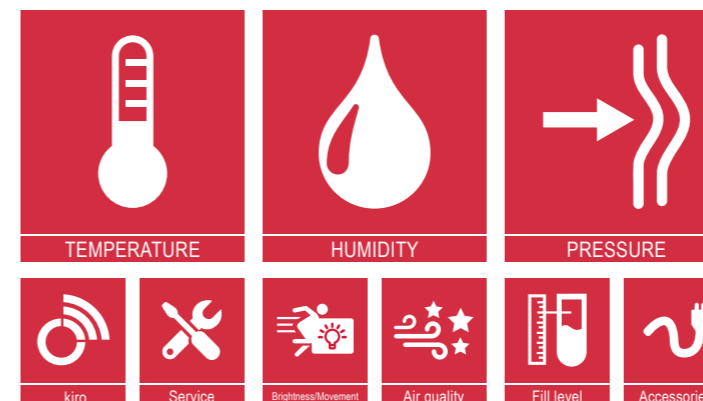
Please specify your application and we shall supply you the right product for measuring and controlling the temperature, pressure or humidity. Special emphasis is always placed on professional and close cooperation with you, thus allowing for the optimal development of your product. Our experience shows that this partnership also creates innovative concepts and fresh ideas, thereby providing new energy for the future, which is vital for both parties.

Both quality and working closely together with the customer are integral parts of B+B's corporate philosophy. This is why B+B temperature



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DELIVERY PROGRAMME



Pressure transmitter

with connection cable

Description



| Technical data | |
|--|---|
| Pressure measuring range | -1...+100 bar (relative), 0...+50 bar (absolute) |
| Sensor pressure | ceramic Al2O3 |
| Pressure measuring variant | relative or absolute |
| Remaining error linearity / hysteresis | < ±0,4% FSR |
| Process connection | G1/4" or G1/2" outside thread |
| Electrical connection | Cables with free ends / specific plugs |
| Housing material | Stainless steel 1.4305 |
| Cable construction | PVC/shield/PVC, 4 x 0,14 mm ² |
| Cable length | 2000 mm |
| Outer diameter pipe | 3,9 mm |
| Output signal | Digital I ² C, analogical 0...10 V / 4...20 mA / ratiometric |
| Power supply | +12...+30 V DC |
| Ambient temperature | -20 °C...+80 °C |
| Media temperature | -40 °C...+125 °C |
| Protection category | IP67 process side |
| Environmental data | RoHs compliant |

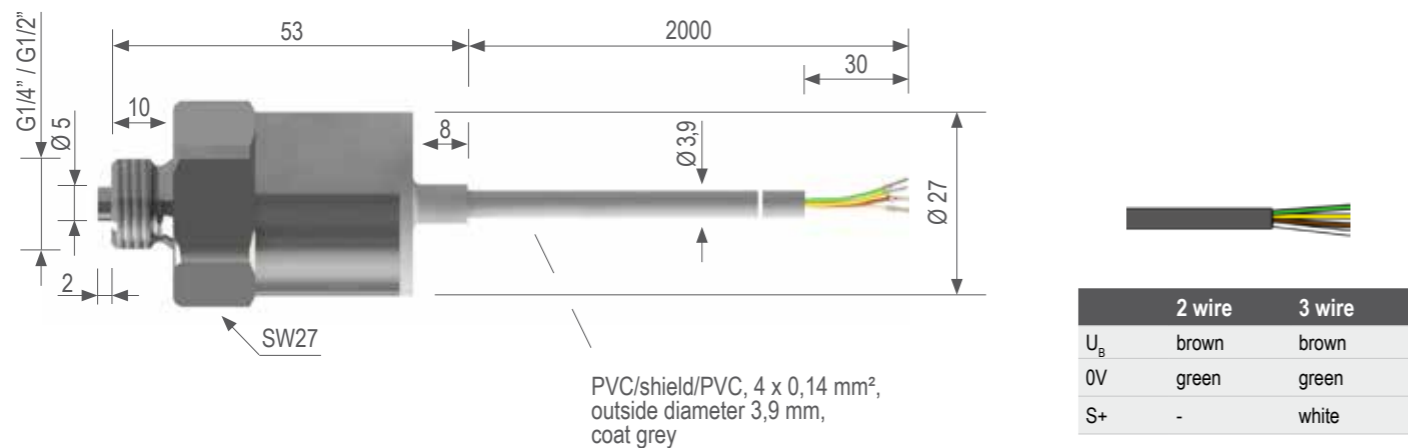
Performance features:

- Best price-performance-ratio
- Aluminium and stainless steel versions
- Absolute and relative pressure variants
- Optional bucking protection at the line crossing
- Customer-specific options possible

Areas of application:

- Respiratory and anaesthesia equipment
- Dialysis and infusion devices
- Laboratory equipment and insufflators

Dimensions



Pressure transmitter

with connection cable

| Absolute pressure | Pressure range in bar | Process connection | Product number for output signal | | |
|-------------------|-----------------------|--------------------|----------------------------------|---------------|------------------|
| | | | 0 ... 10 V | 4 ... 20 mA | I ² C |
| 0-1 | G1/2" | | 0550 2182-001 | 0550 2282-001 | 0550 2382-001 |
| | G1/4" | | 0550 2192-001 | 0550 2292-001 | 0550 2392-001 |
| 0-2 | G1/2" | | 0550 2182-002 | 0550 2282-002 | 0550 2382-002 |
| | G1/4" | | 0550 2192-002 | 0550 2292-002 | 0550 2392-002 |
| 0-5 | G1/2" | | 0550 2182-003 | 0550 2282-003 | 0550 2382-003 |
| | G1/4" | | 0550 2192-003 | 0550 2292-003 | 0550 2392-003 |
| 0-10 | G1/2" | | 0550 2182-004 | 0550 2282-004 | 0550 2382-004 |
| | G1/4" | | 0550 2192-004 | 0550 2292-004 | 0550 2392-004 |
| 0-20 | G1/2" | | 0550 2182-005 | 0550 2282-005 | 0550 2382-005 |
| | G1/4" | | 0550 2192-005 | 0550 2292-005 | 0550 2392-005 |
| 0-50 | G1/2" | | 0550 2182-006 | 0550 2282-006 | 0550 2382-006 |
| | G1/4" | | 0550 2192-006 | 0550 2292-006 | 0550 2392-006 |

| Relative pressure | Pressure range in bar | Process connection | Product number for output signal | | |
|-------------------|-----------------------|--------------------|----------------------------------|---------------|------------------|
| | | | 0 ... 10 V | 4 ... 20 mA | I ² C |
| -1-1 | G1/2" | | 0550 1182-001 | 0550 1282-001 | 0550 1382-001 |
| | G1/4" | | 0550 1192-001 | 0550 1292-001 | 0550 1392-001 |
| 0-1 | G1/2" | | 0550 1182-002 | 0550 1282-002 | 0550 1382-002 |
| | G1/4" | | 0550 1192-002 | 0550 1292-002 | 0550 1392-002 |
| 0-1,6 | G1/2" | | 0550 1182-003 | 0550 1282-003 | 0550 1382-003 |
| | G1/4" | | 0550 1192-003 | 0550 1292-003 | 0550 1392-003 |
| 0-2,5 | G1/2" | | 0550 1182-004 | 0550 1282-004 | 0550 1382-004 |
| | G1/4" | | 0550 1192-004 | 0550 1292-004 | 0550 1392-004 |
| 0-4 | G1/2" | | 0550 1182-005 | 0550 1282-005 | 0550 1382-005 |
| | G1/4" | | 0550 1192-005 | 0550 1292-005 | 0550 1392-005 |
| 0-6 | G1/2" | | 0550 1182-006 | 0550 1282-006 | 0550 1382-006 |
| | G1/4" | | 0550 1192-006 | 0550 1292-006 | 0550 1392-006 |
| 0-10 | G1/2" | | 0550 1182-007 | 0550 1282-007 | 0550 1382-007 |
| | G1/4" | | 0550 1192-007 | 0550 1292-007 | 0550 1392-007 |
| 0-16 | G1/2" | | 0550 1182-008 | 0550 1282-008 | 0550 1382-008 |
| | G1/4" | | 0550 1192-008 | 0550 1292-008 | 0550 1392-008 |
| 0-25 | G1/2" | | 0550 1182-009 | 0550 1282-009 | 0550 1382-009 |
| | G1/4" | | 0550 1192-009 | 0550 1292-009 | 0550 1392-009 |
| 0-40 | G1/2" | | 0550 1182-010 | 0550 1282-010 | 0550 1382-010 |
| | G1/4" | | 0550 1192-010 | 0550 1292-010 | 0550 1392-010 |
| 0-60 | G1/2" | | 0550 1182-011 | 0550 1282-011 | 0550 1382-011 |
| | G1/4" | | 0550 1192-011 | 0550 1292-011 | 0550 1392-011 |
| 0-100 | G1/2" | | 0550 1182-012 | 0550 1282-012 | 0550 1382-012 |
| | G1/4" | | 0550 1192-012 | 0550 1292-012 | 0550 1392-012 |

Customer-specific process connections and higher measurement ranges up to 600 bar on request.

Pressure transmitter with M12 connection

Description



Technical data

| | |
|--|---|
| Pressure measuring range | -1...+100 bar (relative), 0...+50 bar (absolute) |
| Sensor pressure | ceramic Al2O3 |
| Pressure measuring variant | Relative or absolute |
| Remaining error linearity / hysteresis | < ±0,4% FSR |
| Process connection | G1/4" or G1/2" outside thread |
| Electrical connection | M12, 4-pole |
| Housing material | Stainless steel 1.4305 |
| Output signal | Digital I ² C, analogical 0...10 V / 4...20 mA / ratiometric |
| Power supply | +12...+30 V DC |
| Ambient temperature | -20 °C...+80 °C |
| Media temperature | -40 °C...+125 °C |
| Protection category | Absolute pressure to IP67 when plugged in |
| Environmental data | RoHs compliant |

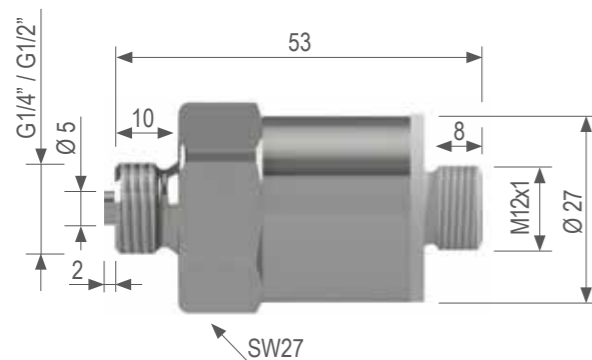
Performance features:

- Standard industrial connector M12
- Robust, media-resistant industrial design made of stainless steel
- Absolute and relative pressure variants
- Toolless assembly and easy to maintain
- Protection class IP67 when plugged in
- Customer-specific options possible

Areas of application:

- Respiratory and anaesthesia equipment
- Laboratory equipment and insufflators
- Pneumatic applications

Dimensions



| | 2 wire | 3 wire |
|----------------|--------|--------|
| U _B | 1 | 1 |
| 0V | 3 | 3 |
| S+ | - | 4 |

Pressure transmitter with M12 connection

| Pressure range in bar | Process connection | Product number for output signal | | |
|-----------------------|--------------------|----------------------------------|---------------|------------------|
| | | 0 ... 10 V | 4 ... 20 mA | I ² C |
| 0-1 | G1/2" | 0550 2180-001 | 0550 2280-001 | 0550 2380-001 |
| | G1/4" | 0550 2190-001 | 0550 2290-001 | 0550 2390-001 |
| 0-2 | G1/2" | 0550 2180-002 | 0550 2280-002 | 0550 2380-002 |
| | G1/4" | 0550 2190-002 | 0550 2290-002 | 0550 2390-002 |
| 0-5 | G1/2" | 0550 2180-003 | 0550 2280-003 | 0550 2380-003 |
| | G1/4" | 0550 2190-003 | 0550 2290-003 | 0550 2390-003 |
| 0-10 | G1/2" | 0550 2180-004 | 0550 2280-004 | 0550 2380-004 |
| | G1/4" | 0550 2190-004 | 0550 2290-004 | 0550 2390-004 |
| 0-20 | G1/2" | 0550 2180-005 | 0550 2280-005 | 0550 2380-005 |
| | G1/4" | 0550 2190-005 | 0550 2290-005 | 0550 2390-005 |
| 0-50 | G1/2" | 0550 2180-006 | 0550 2280-006 | 0550 2380-006 |
| | G1/4" | 0550 2190-006 | 0550 2290-006 | 0550 2390-006 |

| Pressure range in bar | Process connection | Product number for output signal | | |
|-----------------------|--------------------|----------------------------------|---------------|------------------|
| | | 0 ... 10 V | 4 ... 20 mA | I ² C |
| -1-1 | G1/2" | 0550 1180-001 | 0550 1280-001 | 0550 1380-001 |
| | G1/4" | 0550 1190-001 | 0550 1290-001 | 0550 1390-001 |
| 0-1 | G1/2" | 0550 1180-002 | 0550 1280-002 | 0550 1380-002 |
| | G1/4" | 0550 1190-002 | 0550 1290-002 | 0550 1390-002 |
| 0-1,6 | G1/2" | 0550 1180-003 | 0550 1280-003 | 0550 1380-003 |
| | G1/4" | 0550 1190-003 | 0550 1290-003 | 0550 1390-003 |
| 0-2,5 | G1/2" | 0550 1180-004 | 0550 1280-004 | 0550 1380-004 |
| | G1/4" | 0550 1190-004 | 0550 1290-004 | 0550 1390-004 |
| 0-4 | G1/2" | 0550 1180-005 | 0550 1280-005 | 0550 1380-005 |
| | G1/4" | 0550 1190-005 | 0550 1290-005 | 0550 1390-005 |
| 0-6 | G1/2" | 0550 1180-006 | 0550 1280-006 | 0550 1380-006 |
| | G1/4" | 0550 1190-006 | 0550 1290-006 | 0550 1390-006 |
| 0-10 | G1/2" | 0550 1180-007 | 0550 1280-007 | 0550 1380-007 |
| | G1/4" | 0550 1190-007 | 0550 1290-007 | 0550 1390-007 |
| 0-16 | G1/2" | 0550 1180-008 | 0550 1280-008 | 0550 1380-008 |
| | G1/4" | 0550 1190-008 | 0550 1290-008 | 0550 1390-008 |
| 0-25 | G1/2" | 0550 1180-009 | 0550 1280-009 | 0550 1380-009 |
| | G1/4" | 0550 1190-009 | 0550 1290-009 | 0550 1390-009 |
| 0-40 | G1/2" | 0550 1180-010 | 0550 1280-010 | 0550 1380-010 |
| | G1/4" | 0550 1190-010 | 0550 1290-010 | 0550 1390-010 |
| 0-60 | G1/2" | 0550 1180-011 | 0550 1280-011 | 0550 1380-011 |
| | G1/4" | 0550 1190-011 | 0550 1290-011 | 0550 1390-011 |
| 0-100 | G1/2" | 0550 1180-012 | 0550 1280-012 | 0550 1380-012 |
| | G1/4" | 0550 1190-012 | 0550 1290-012 | 0550 1390-012 |

Customer-specific process connections and higher measurement ranges up to 600 bar on request.

Pressure transmitter with DIN valve plug

Description



Technical data

| | |
|--|---|
| Pressure measuring range | -1...+100 bar (relative), 0...+50 bar (absolute) |
| Sensor pressure | ceramic Al2O3 |
| Pressure measuring variant | Relative or absolute |
| Remaining error linearity / hysteresis | < ±0,4% FSR |
| Process connection | G1/4" or G1/2" outside thread |
| Electrical connection | Magnetic valve plug according to DIN 43650, DIN plug 4-pole |
| Housing material | Stainless steel 1.4305 |
| Output signal | Digital I ² C, analogical 0...10 V / 4...20 mA / ratiometric |
| Power supply | +12...+30 V DC |
| Ambient temperature | -20 °C...+80 °C |
| Media temperature | -40 °C...+125 °C |
| Protection category | Absolute pressure to IP67 process side |
| Environmental data | RoHs compliant |

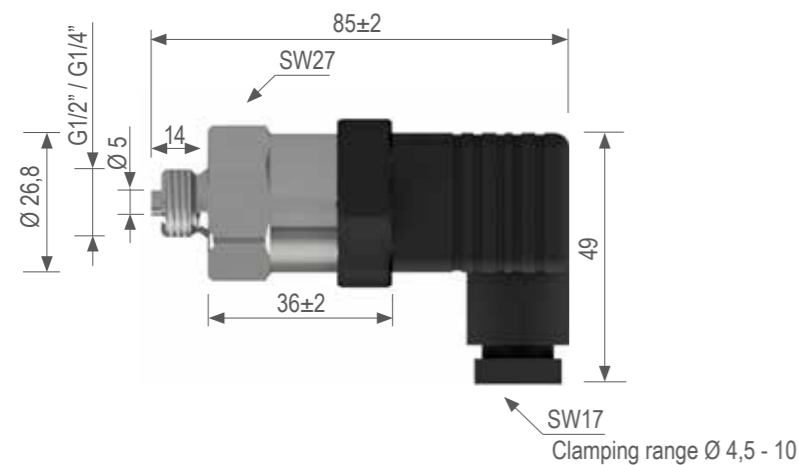
Performance features:

- DIN-Valve plug 4 Pol.
- Robust and Maintenance
- Absolute and relative pressure variants
- Protection class IP67 process side
- Best price-performance-ratio

Areas of application:

- Respiratory and anaesthesia equipment
- Laboratory equipment and insufflators
- Pneumatic applications

Dimensions



| | 2 wire | 3 wire |
|----------------|--------|--------|
| U _B | 1 | 1 |
| 0V | 2 | 2 |
| S+ | - | 3 |

Pressure transmitter with DIN valve plug

| Pressure range in bar | Process connection | Product number for output signal | | |
|-----------------------|--------------------|----------------------------------|---------------|------------------|
| | | 0 ... 10 V | 4 ... 20 mA | I ² C |
| 0-1 | G1/2" | 0550 2181-001 | 0550 2281-001 | 0550 2381-001 |
| | G1/4" | 0550 2191-001 | 0550 2291-001 | 0550 2391-001 |
| 0-2 | G1/2" | 0550 2181-002 | 0550 2281-002 | 0550 2381-002 |
| | G1/4" | 0550 2191-002 | 0550 2291-002 | 0550 2391-002 |
| 0-5 | G1/2" | 0550 2181-003 | 0550 2281-003 | 0550 2381-003 |
| | G1/4" | 0550 2191-003 | 0550 2291-003 | 0550 2391-003 |
| 0-10 | G1/2" | 0550 2181-004 | 0550 2281-004 | 0550 2381-004 |
| | G1/4" | 0550 2191-004 | 0550 2291-004 | 0550 2391-004 |
| 0-20 | G1/2" | 0550 2181-005 | 0550 2281-005 | 0550 2381-005 |
| | G1/4" | 0550 2191-005 | 0550 2291-005 | 0550 2391-005 |
| 0-50 | G1/2" | 0550 2181-006 | 0550 2281-006 | 0550 2381-006 |
| | G1/4" | 0550 2191-006 | 0550 2291-006 | 0550 2391-006 |

| Pressure range in bar | Process connection | Product number for output signal | | |
|-----------------------|--------------------|----------------------------------|---------------|------------------|
| | | 0 ... 10 V | 4 ... 20 mA | I ² C |
| -1-1 | G1/2" | 0550 1181-001 | 0550 1281-001 | 0550 1381-001 |
| | G1/4" | 0550 1191-001 | 0550 1291-001 | 0550 1391-001 |
| 0-1 | G1/2" | 0550 1181-002 | 0550 1281-002 | 0550 1381-002 |
| | G1/4" | 0550 1191-002 | 0550 1291-002 | 0550 1391-002 |
| 0-1,6 | G1/2" | 0550 1181-003 | 0550 1281-003 | 0550 1381-003 |
| | G1/4" | 0550 1191-003 | 0550 1291-003 | 0550 1391-003 |
| 0-2,5 | G1/2" | 0550 1181-004 | 0550 1281-004 | 0550 1381-004 |
| | G1/4" | 0550 1191-004 | 0550 1291-004 | 0550 1391-004 |
| 0-4 | G1/2" | 0550 1181-005 | 0550 1281-005 | 0550 1381-005 |
| | G1/4" | 0550 1191-005 | 0550 1291-005 | 0550 1391-005 |
| 0-6 | G1/2" | 0550 1181-006 | 0550 1281-006 | 0550 1381-006 |
| | G1/4" | 0550 1191-006 | 0550 1291-006 | 0550 1391-006 |
| 0-10 | G1/2" | 0550 1181-007 | 0550 1281-007 | 0550 1381-007 |
| | G1/4" | 0550 1191-007 | 0550 1291-007 | 0550 1391-007 |
| 0-16 | G1/2" | 0550 1181-008 | 0550 1281-008 | 0550 1381-008 |
| | G1/4" | 0550 1191-008 | 0550 1291-008 | 0550 1391-008 |
| 0-25 | G1/2" | 0550 1181-009 | 0550 1281-009 | 0550 1381-009 |
| | G1/4" | 0550 1191-009 | 0550 1291-009 | 0550 1391-009 |
| 0-40 | G1/2" | 0550 1181-010 | 0550 1281-010 | 0550 1381-010 |
| | G1/4" | 0550 1191-010 | 0550 1291-010 | 0550 1391-010 |
| 0-60 | G1/2" | 0550 1181-011 | 0550 1281-011 | 0550 1381-011 |
| | G1/4" | 0550 1191-011 | 0550 1291-011 | 0550 1391-011 |
| 0-100 | G1/2" | 0550 1181-012 | 0550 1281-012 | 0550 1381-012 |
| | G1/4" | 0550 1191-012 | 0550 1291-012 | 0550 1391-012 |

Customer-specific process connections and higher measurement ranges up to 600 bar on request.

Accessories

Pressure sensor module

Description



Technical data

| | |
|--|---|
| Pressure measuring range | -1...+16 bar |
| Sensor pressure | Pressure measuring cell ceramic |
| Pressure measuring variant | Relative |
| Remaining error linearity / hysteresis | < ±0,3% FSR |
| Media connection | Hose closure 6/4 mm |
| Electrical connection | 5-pole pin bar, RM 2,54 mm |
| Housing material | Aluminium |
| Output signal | Digital I ² C, analogical 0...5 V DC |
| Power supply | +6...+15 V DC |
| Environmental data | RoHs compliant |

Technical data

| | |
|--|---|
| Pressure measuring range | 0...+2 bar |
| Sensor pressure | Pressure measuring cell piezoresistive |
| Pressure measuring variant | Absolute, difference |
| Remaining error linearity / hysteresis | < ±0,3% FSR |
| Media connection | Hose closure 6/4 mm |
| Electrical connection | 5-pole pin bar, RM 2,54 mm |
| Output signal | Digital I ² C, analogical 0...5 V DC |
| Power supply | +6...+15 V DC |
| Environmental data | RoHs compliant |

| Relative pressure | Pressure range in bar | Sensor | Product number |
|-------------------|-----------------------|---------------------------------|-----------------------------|
| | -1-0 | Pressure measuring cell ceramic | DRMOD-I ² C-RV0 |
| | -1-1 | Pressure measuring cell ceramic | DRMOD-I ² C-RV1 |
| | 0-1,6 | Pressure measuring cell ceramic | DRMOD-I ² C-R1B6 |
| | 0-2,5 | Pressure measuring cell ceramic | DRMOD-I ² C-R2B5 |
| | 0-4 | Pressure measuring cell ceramic | DRMOD-I ² C-R4B |
| | 0-6 | Pressure measuring cell ceramic | DRMOD-I ² C-R6B |
| | 0-10 | Pressure measuring cell ceramic | DRMOD-I ² C-R10B |
| | 0-16 | Pressure measuring cell ceramic | DRMOD-I ² C-R16B |

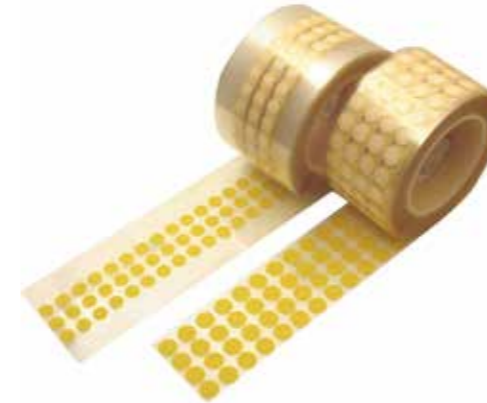
| Absolute pressure | Pressure range in mbar | Sensor | Product number |
|-------------------|------------------------|--|------------------------------|
| | 100-110 kPa, 100-1100 | Pressure measuring cell piezoresistive | DRMOD-I ² C-PA1B1 |

| Differential | Pressure range in mbar | Sensor | Product number |
|--------------|------------------------|---|------------------------------|
| | 0-10 kPa, 0-100 | Pressure measuring cell, piezoresistive | DRMOD-I ² C-PD0B1 |
| | 0-50 kPa, 0-500 | Pressure measuring cell, piezoresistive | DRMOD-I ² C-PD0B5 |
| | 0-100 kPa, 0-1000 | Pressure measuring cell, piezoresistive | DRMOD-I ² C-PD1B1 |
| | 0-200 kPa, 0-2000 | Pressure measuring cell, piezoresistive | DRMOD-I ² C-PD2B |

Accessories

Pressure equalization membrane

Description



Technical data

| | |
|---------------------|--|
| Application | -37...+121 °C |
| Pressure of water | > 1 bar, ASTM D751 |
| Material | PTFE |
| Oil repellent | class 8 (Scale 0 to 8), AATCC 118-1992 |
| Depth | 0,13 mm |
| Pore size | 0,7 µm |
| Outer diameter | 6,7 - 17 mm |
| Inner diameter | 5,3 - 13 mm |
| Protection category | IP67 |
| Packing unit | 12 Pieces |

Pressure equalization membrane

Product number

| | |
|--------------------|----------|
| Ø AD 6,7 / ID 5,3 | DAM-AD7 |
| Ø AD 10,2 / ID 5,5 | DAM-AD10 |
| Ø AD 12,7 / ID 7,1 | DAM-AD12 |
| Ø AD 17 / ID 13 | DAM-AD17 |

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