

Type 6006BA

PRIASAFE™ Miniature cavity pressure sensor

- Mounting proof sensor with housing
- No deviation of calibrated value after mounting
- Very small dimensions
- Sensor front can be machined to adapt the cavity surface
- Can be connected to any charge amplifier respectively injection molding machine
- Patent pending
- With separable cable



Description

A cavity pressure sensor is a highly sensitive measuring instrument that can – if not mounted properly – give wrong measuring results. A possible cause is the so called force shunt which generates a sensitivity loss of the sensor when the sensor front touches the bore.

To prevent this, the cavity pressure sensor type 6006BA is mounted into a housing and then calibrated. This procedure has the advantage that the sensitivity does not change after the sensor has been installed into the mold because it is “protected” by the housing. In a second step the determined sensitivity will be saved inside the sensor by a hardware code. With the help of this hardware code the sensor sensitivity can then be automatically detected without being influenced by the sensor installation. The sensor is therefore easy to use, safe and most suitable for industrial production.

Technical data

| | | |
|---|--------|----------------------------------|
| Measuring range | bar | 0 ... 2000 |
| Overload | bar | 2500 |
| Sensitivity ¹⁾ | pC/bar | - 2 |
| Maximum melt temperature (plastics) in the cavity ²⁾ | °C | no limitation |
| Maximum mold temperature ³⁾ | °C | 200 |
| Deviation of linearity | % | < ± 1 |
| Natural frequency ⁴⁾ | kHz | > 80 |
| Insulation resistance | Ω | > 10 ¹³ (at 20 °C) |

Remark

The sensors including connecting cable can be cleaned in an ultrasonic bath together with the mold inserts if a sealed protecting cap is used (cleaning agent: aqueous tenside solution).

- ¹⁾ The exact sensitivity is shown on a separate calibration sheet
- ²⁾ The plastic melt cools immediately after contacting the cavity wall. The melt temperature is therefore without any practical meaning for the sensor (thermoplastics). For thermosets and elastomers the permanent melt temperatures are usually below 200 °C
- ³⁾ The permanent temperature of the sensor body can be higher than the specified value of the mold temperature. The temperature at the cable connector however is limited. In practice there are no mold temperatures higher than 200 °C expected.
- ⁴⁾ The actual natural frequency of the sensor is far higher than the frequency spectrum of the effective signal

Scope of delivery

| Article | Type | Article | Type |
|----------------|-------|----------------------|------|
| Mounting plate | 6581A | Identification label | - |
| Mounting nut | 6544A | | |

Accessories

| Article | Type | Article | Type |
|---|-------|------------------|---------------------|
| Mounting / extraction tool for sensors | 6569A | Connecting cable | 1051A... / 1065A... |
| Mounting / extraction tool for mounting nut | 6567A | Extension cable | 1061A... |
| Dummy | 6512A | Distance sleeve | 6523A |

Order codes

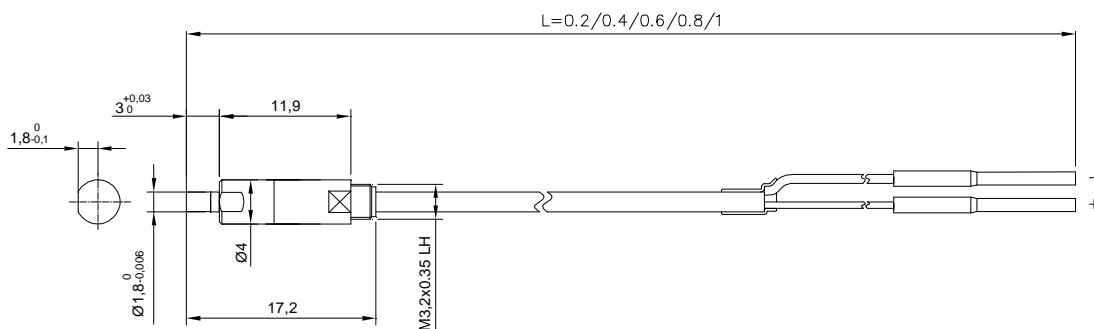
Sensor: Type 6006BA
 Sensor incl. connecting cable type 1008A...: Type 6006BA0,2 / 0,4 / 0,6 / 0,8 / 1,0 / 1,2

Type 6006BA-M

Type 6006BA-M has been developed especially to be connected to the multi pin connector type 1190B and has the following advantages:

- Easy handling
- Cost-effective (less cables are being needed)
- Can be assembled by the user
- Can be combined with sensors and quick disconnects
- Self-explanatory due to a clever color system
- Sensitivity detection

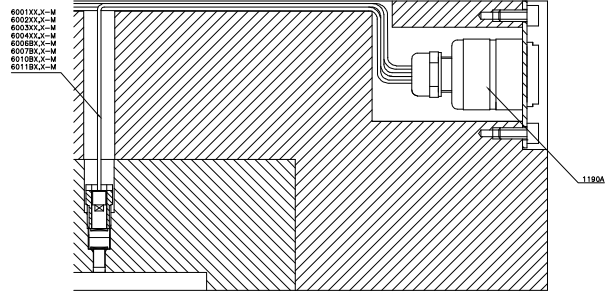
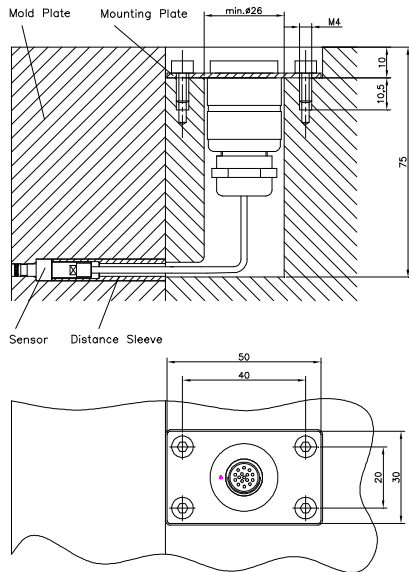
Dimensions



To mount the multi pin connector we recommend calculating 50 – 100 mm cable length.

Mounting dimensions multi pin connector

Connection sample



Scope of delivery

| Article | Type | Article | Type |
|--------------|-------|----------------------|------|
| Mounting nut | 6544A | Identification label | - |

Accessories

| Article | Type | Article | Type |
|---|----------------------------------|--------------------------------------|-------|
| Distance sleeve | 6523A | Fischer multi pin connector (16-pin) | 1190B |
| Mounting / extraction tool for sensors | 6569A | Ejector tool for crimp contacts | 1310A |
| Mounting / extraction tool for mounting nut | 6567A | Crimping pliers | 1311A |
| Connecting cable | 1053A 1054A 1055A 1056A | Crimping contacts | 1312A |
| Dummy | 6512A | | |

Order codes

Sensor incl. connecting cable
Type 1008Ax,x-M

Type 6006BA0,2-M / Type 6006BA0,4-M / Type 6006BA0,6-M
Type 6006BA0,8-M / Type 6006BA1,0-M / Type 6006BA1,2-M

subject to technical amendments