

## Type 6002B

### PRIASAFE™ cavity pressure sensor

- New: mounting proof sensor with housing
- No deviation of calibrated value after mounting
- Sensor front can be machined to adapt the cavity surface
- Basis for quality monitoring and control in injection molding
- Can be connected to any charge amplifier respectively injection molding machine
- Patent pending



1. Sensor in housing



2. Calibrate sensor



3. Hardware code built in



### 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 6002B 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 <sup>1)</sup>	pC/bar	- 5
Maximum melt temperature (plastics) in the cavity <sup>2)</sup>	°C	no limitation
Maximum mold temperature <sup>3)</sup>	°C	200
Deviation of linearity	%	< ± 1
Natural frequency <sup>4)</sup>	kHz	> 80
Insulation resistance	Ω	> 10 <sup>13</sup> (at 20 °C)
<b>Remark</b>		
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).		

<sup>1)</sup> The exact sensitivity is shown on a separate calibration sheet

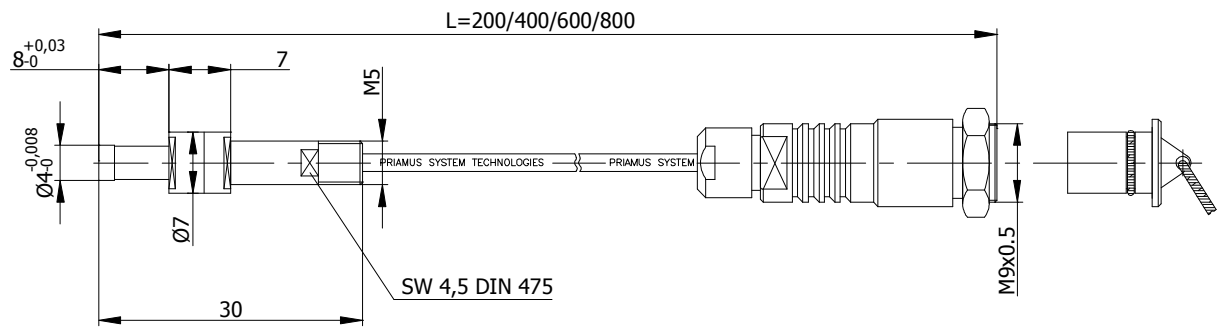
<sup>2)</sup> The plastic melt cools immediately after contacting the cavity wall. The melt temperature is therefore without any practical meaning for the sensor (thermoplastics). For thermosets and elastomers the permanent melt temperatures are usually below 200 °C

<sup>3)</sup> 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.

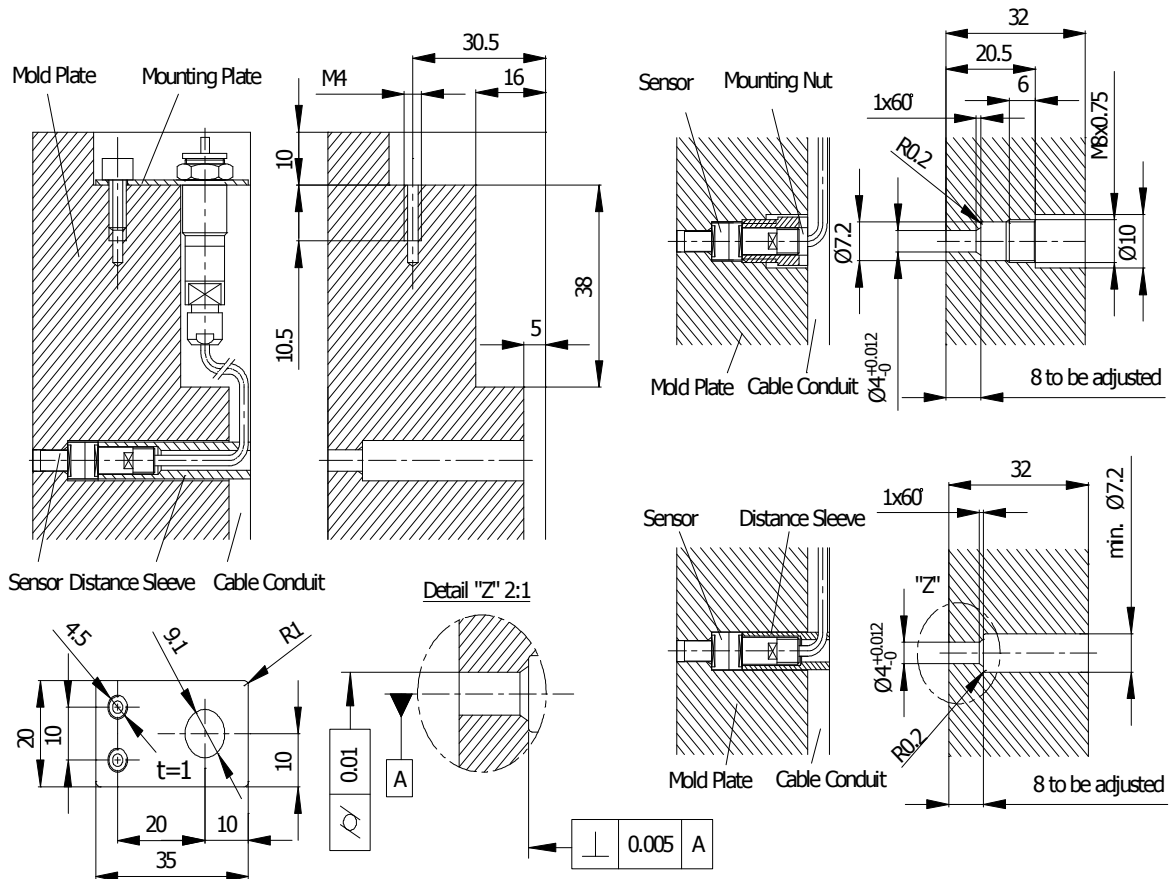
<sup>4)</sup> The actual natural frequency of the sensor is far higher than the frequency spectrum of the effective signal

## Dimensions

### Type 6002B...



## Mounting dimensions



subject to technical amendments

### Scope of delivery

Article	Type	Article	Type
Mounting plate	6581A	Identification label	-
Mounting nut	6541A		

### Accessories

Article	Type	Article	Type
Mounting / extraction tool for distance sleeve	6561A	Connecting cable	1051A... / 1065A...
Mounting / extraction tool for mounting nut	6562A	Extension cable	1061A...
Dummy	6501A	Distance sleeve	6522A

### Order codes

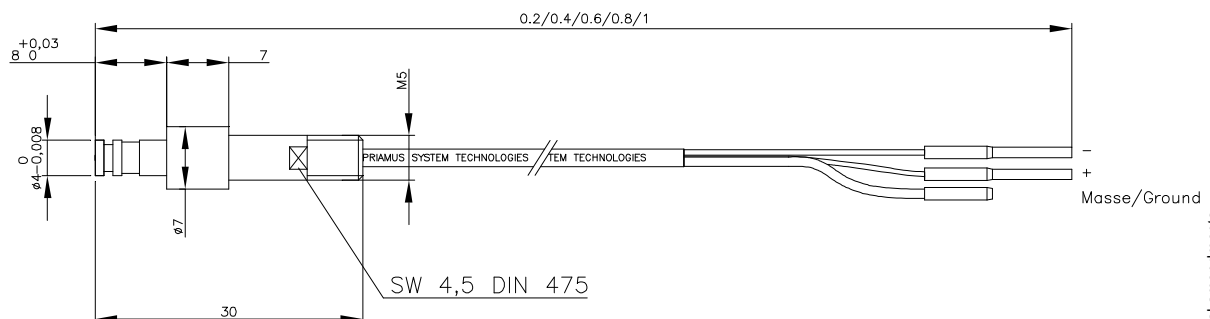
Sensor: Type 6002B  
 Sensor including connecting cable type 1003A...: Type 6002B0,2 / 0,4 / 0,6 / 0,8

## Type 6002B-M

Type 6002B-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

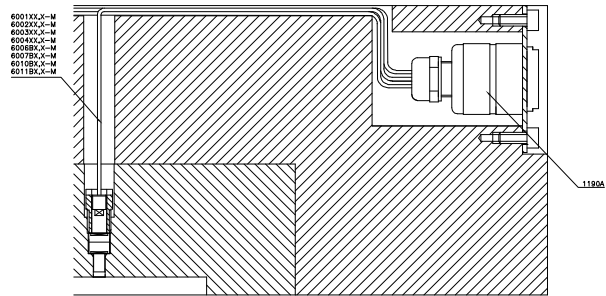
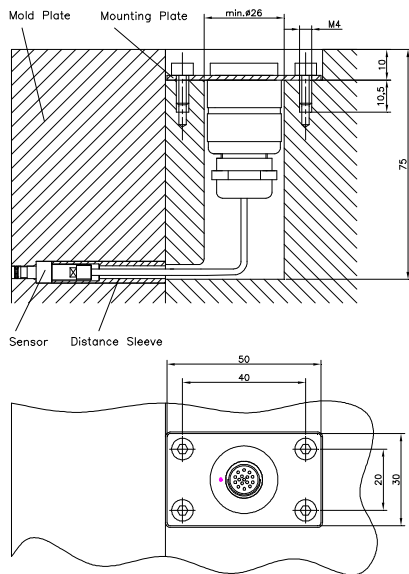
### Dimensions



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 plate	6581A	Identification label	-
Mounting nut	6541A		

## Accessories

Article	Type	Article	Type
Distance sleeve	6522A	Fischer multi pin connector (16-pin)	1190B
Mounting / extraction tool for distance sleeve	6561A	Ejector tool for crimp contacts	1310A
Mounting / extraction tool for mounting nut	6562A	Crimping pliers	1311A
Connecting cable	1053A 1054A 1055A 1056A	Crimping contacts	1312A
Dummy	6501A		

## Order codes

Sensor inclusive connecting cable  
type 1003Ax,x-M / 1005Ax,x-M:

Type 6002B0,2-M / Type 6002B0,4-M  
Type 6002B0,6-M / Type 6002B0,8-M

subject to technical amendments