



## CAUTION Precautions on Using the Pressure Sensor

### ■ Machining

- 1) Pins can be cut in the same way as ordinary ejector pins. Because the pin is rotated in the flange, oblique cut and shaping cannot be performed. It must be cut flat.
- 2) The flange section into which the sensor is assembled is not waterproof. Conduct dry cut or dry grinding because if cutting coolant enters in the flange, the sensor may short-circuit and be damaged.
- 3) For machining, hold the pin. Clamping the flange could damage the internal sensor and make it impossible to perform measurement. In addition, be careful not to apply excessive vibration.  
The flange has a built-in sensor and therefore cannot be cut. (Rotation-stop machining prohibited.)
- 4) Never perform cutting with a sander, grinder, etc. because it could damage the sensor.
- 5) Never machine the side of the pin because it could lead to buckling and short service life.
- 6) The pressure sensor is structured so that when pressure is applied to it the pin strokes in the vertical direction (in the direction in which it becomes short).  
The table below lists the standard strokes when a load corresponding to pressure 100 MPa is applied.  
When projections are prohibited in the molded article, set the length according to the stroke.

[Example of actual measurements]

| Pin diameter [mm]                   | φ0.8  | φ1.0  | φ1.2  | φ1.5  | φ2.0  | φ2.5  | φ3.0  |
|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|
| Load corresponding to 100 MPa [kgf] | 5.13  | 8.01  | 11.5  | 18.0  | 32.0  | 50.1  | 72.1  |
| Stroke [mm]                         | 0.050 | 0.040 | 0.040 | 0.055 | 0.073 | 0.080 | 0.076 |

- 7) Full-length machining can also be accepted as an optional order. (Additional fee: ¥1,200)

### ■ Installation and Use

- 8) The sensor can be used for ejector applications the same as ordinary ejector pins.
- 9) The sensor (flange) has the heat resistance up to 150°C.  
If the flange may be exposed to the temperature higher than that, cooling of the sensor is needed.
- 11) Be careful not to pull the sensor cable during measurement. It could affect the measurements.
- 12) Because the ejector pin shape is used, all you have to do for use is to replace the existing ejector pin with the pressure sensor. If the ejector plate is a counterbore type, it needs to be machined to make a groove to pass the cable. (Refer to the reference diagram for mounting the pressure sensor.)

### ■ Measurement

- 13) The measurement range is up to 100 MPa. Be careful not to apply higher pressure than that as it could damage the sensor.  
Refer to the above table for the load (kgf) corresponding to 100 MPa.
- 14) To implement accurate measurement, the pressure sensor requires the setting of output sensitivity.  
Use the pressure sensor after inputting the six digits of the sensitivity classification provided on the pressure sensor cable into the measurement software.  
\* Even if pin diameters are the same, "sensitivity classification" may be different in individual sensors.
- 15) The pressure sensor cannot be connected directly to any commercially available measuring devices or measuring devices of other sensor manufacturers. Our measuring amplifier and relay box are required.