This kind of piezometer has a filter made of sintered metal at front face. The piezoresistive piezometer is used to monitor pore-water pressures.

The pressure sensor of the standard piezometer is encapsulated in a waterproof housing with a diameter of 30 mm and a length of 160 mm. The piezometer converts pore-water pressure to an output signal proportional to the measured value via a filter and via the diaphragm of the pressure sensor.

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>General Specifications</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions, Ø / length:</td>
<td>30x160 mm</td>
</tr>
<tr>
<td>Material:</td>
<td>V4A 1.4571</td>
</tr>
<tr>
<td>Weight:</td>
<td>450 g</td>
</tr>
<tr>
<td>Protection class:</td>
<td>IP 68</td>
</tr>
</tbody>
</table>

| Filter type:                   | Sintered metal |
| Filter area:                   | 5.5 cm²       |
| Density:                       | 4.9 - 5.3 g/cm³|
| Porosity:                      | 33 - 38 %     |
| Specific flow coefficient:     | 3 x 10⁻¹² (laminar) |
|                                | 8 x 10⁻⁷ (turbulent) |
| Porometer, Ø pore size:        | 6 μm         |

**Filter:**
- Sinter metal filter (PP3 SS) for installation in sand fills resp. groundwater measuring points

**Accessories**
- Push-in sleeve for Type PP4 RS E
- Cable type PUD (blue)
  - type PEHD standard (black) and type PEHD with ventilation tube (black)
- Overvoltage protection
Art.No.: 69.xx.01
AU PIEZORESISTIVE PRESSURE SENSOR, 4-CONDUCTOR SYSTEM

Supply  Constant current 1 mA
Optional supply  4 mA or 10 VDC
Output signal  0 – 250 mV
Overload protection (1 – 50 bar)  50 % f.s.
Linearity incl. hysteresis  < 0.5 % f.s.
Linearity incl. hysteresis (opt.)  < 0.1 % f.s.
Thermal zero drift  < 0.03 °C/°C
Operating temperature range +5 to +80 °C
Storage temperature range (dry)  -40 to +100 °C
Long-term temperature-dependent drift 0.25 mV/K
Overvoltage protection on application Precision protection USS

Add-ons and finishes
Resistance to seawater and brackish water 1.4439 or similar
Environmental protection: Gel pad to protect the membrane against aggressive chemicals and extreme pH values
Climate tested: If required, we can prepare a temperature test for your batch or individual sensor to provide a precise temperature quotient for your evaluation.
* PW4 RF only: With additional M36x1.5 union for press-in sleeve

All of our sensors are calibrated in defined environmental parameters. This calibration result is included with the actual device in the form of a comprehensive calibration sheet. More extensive calibrations can be arranged at any time.

Art.No.: 69.xx.02
AI PIEZORESISTIVE PRESSURE SENSOR AS ABOVE WITH BUILT-IN AMPLIFIER AND OPTIONAL TEMPERATURE SENSOR

Supply  15 to 30 V
Output signal  4 – 20 mA
Overload protection (1 – 50 bar)  50 % f.s.
Linearity incl. hysteresis  < 0.5 % f.s.
Linearity incl. hysteresis (opt.)  < 0.1 % f.s.
Operating temperature range +5 to +60 °C
Storage temperature range -15 to +100 °C
Temperature coefficient  < 0.01 °C/°C f.s.
Burden (Us-9V):  20 mA
Initialisation time after witching on  6 seconds
Overvoltage protection integrated precision protection

With optional AD 590 temperature sensor, output signal 1 μA/K

Quality labels
HIGH QUALITY SENSORS
Standard product line. High quality and attractively priced
INTELLIGENT SENSORS
With controller technology, self-compensation and direct display
QUALITY QUANTITY QUOTE
Range of sensors for major customers with communicated quality/quantity quote
VOLTAGE OUTPUT
Standard 0-250 mV / extended 0-1 V
CURRENT OUTPUT
Standard 4-20 mA / extended 0-20 mA
VIBRATING WIRE
Operating frequency 2.0 - 3.3 kHz
LONG VIBRATING WIRE
Operating frequency 0.7 - 1 kHz
FIBRE OPTIC
Glass fibre measurement system
WIRELESS
Wireless data transmission
CONTROLLER
Digital chain instrumentation
PRODUCT INNOVATION