

## DAC 160

### Piezoelectric High-Pressure Sensor

#### Special characteristics

- ▶ Single crystal of gallium phosphate GaPO<sub>4</sub>
- ▶ Very high pressures up to 6000 bar
- ▶ High sensitivity
- ▶ Excellent long-term stability



#### Description

The DAC 160 was developed for detecting dynamic pressure changes up to 6000 bar in hydraulic systems. The unique GaPO<sub>4</sub> sensor element allows a sensitivity of 3 pC/bar. It is therefore ideal for resolving small pressure fluctuations across the entire pressure range. The front-sealing sensor in conjunction with the compression fitting is not influenced by either installation or installation position.

#### Applications

Hydraulic systems

Pipe monitoring (water hammer effect)

Valves

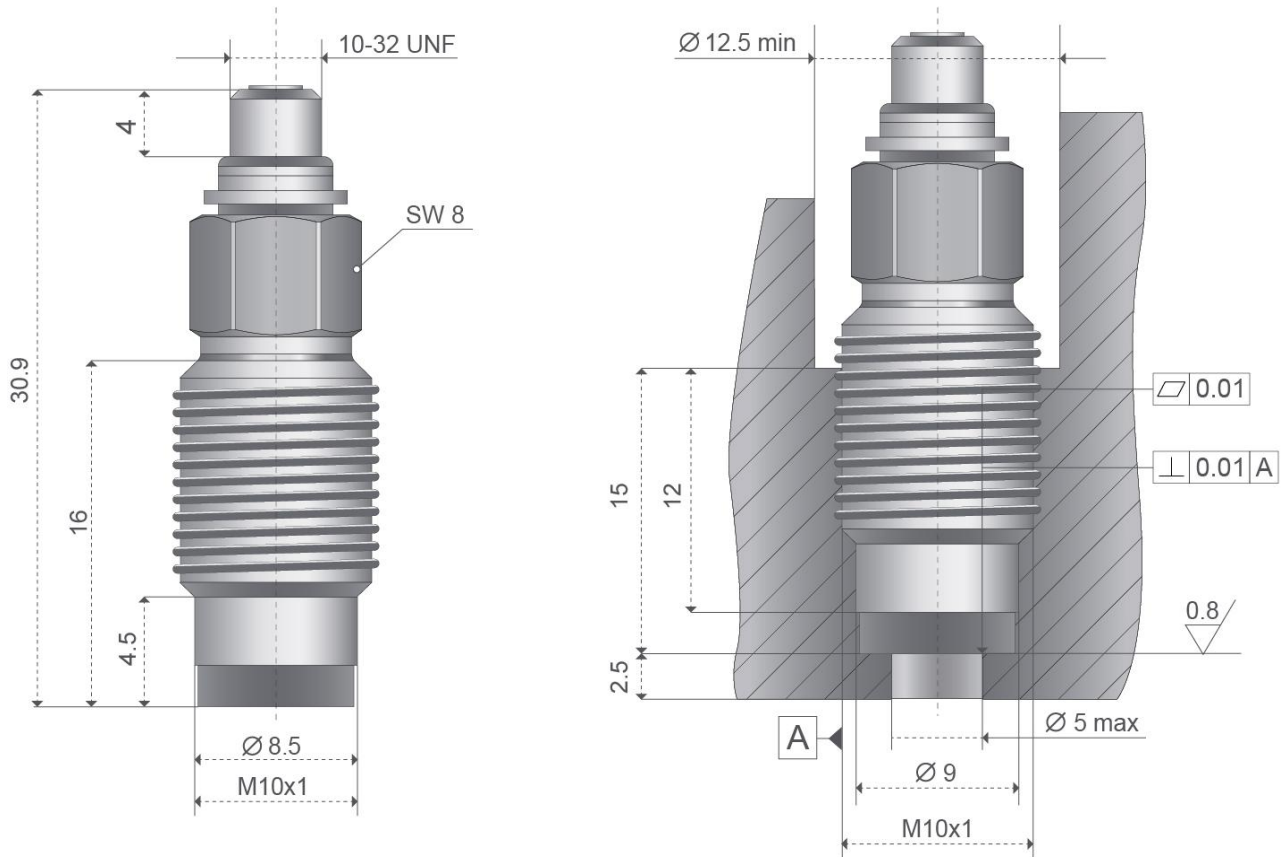
| Technical Data                 |          |   |
|--------------------------------|----------|---|
| Nominal pressure range         | [bar]    | 0 ... 6000 (0 ... 87000 psi)                    |
| Overload                       | [bar]    | 6600 (95700 psi)                                |
| Sensitivity                    | [pC/bar] | 3 (0.2 pC/psi)                                  |
| Linearity                      | [%/FSO]  | ≤ ± 1   |
| Operating temperature          | [%/°C]   | -50 ... 200 (-58 ... 392 °F)                    |
| Insulation resistance at 20 °C | [Ω]      | > 1*10 <sup>13</sup>                            |
| Acceleration sensitivity       | (typ.)   | axial: < 0.002 bar/g      radial: < 0.005 bar/g |
| Shock (axial/transverse)       |          | 25,000 g/ 10,000 g                              |
| Natural frequency              | [kHz]    | > 240   |
| Capacitance                    | [pF]     | 8   |
| Tightening torque              | [Nm]     | 20  |
| Thermal sensitivity            | [%/°C]   | ± 0.02  |
| Increase time                  | [μs]     | 1   |
| Plug                           |          | 10-32 UNF                                       |
| Weight (without cable)         | [g]      | approx. 12                                      |

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Technical Data

## Dimensions in mm and mounting



All cables can be removed.

UNF piezo input cable (1 m) and 10 x seal rings are included in the scope of supply.

## Accessories

| Name                    | quantity | BDS-order number |
|-------------------------|----------|------------------|
| Piezo Input cable UNF   | 2 m      | BDU0065          |
| Piezo Input cable UNF   | 3 m      | BDU0066          |
| M4/0.35 to BNC coupling | piece    | BDU2077          |

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