

# DAC 180

## Piezoelectric High-Pressure Sensor

### Special characteristics

- High sensitivity
- Suitable for dynamic pressure changes up to 8000 bar
- Long service life and excellent long-term stability



### Description

The piezoelectric pressure sensor was developed for detecting dynamic pressure changes up to 8000 bar in hydraulic systems. The unique GaPO<sub>4</sub> sensor element allows a sensitivity of 2.3 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

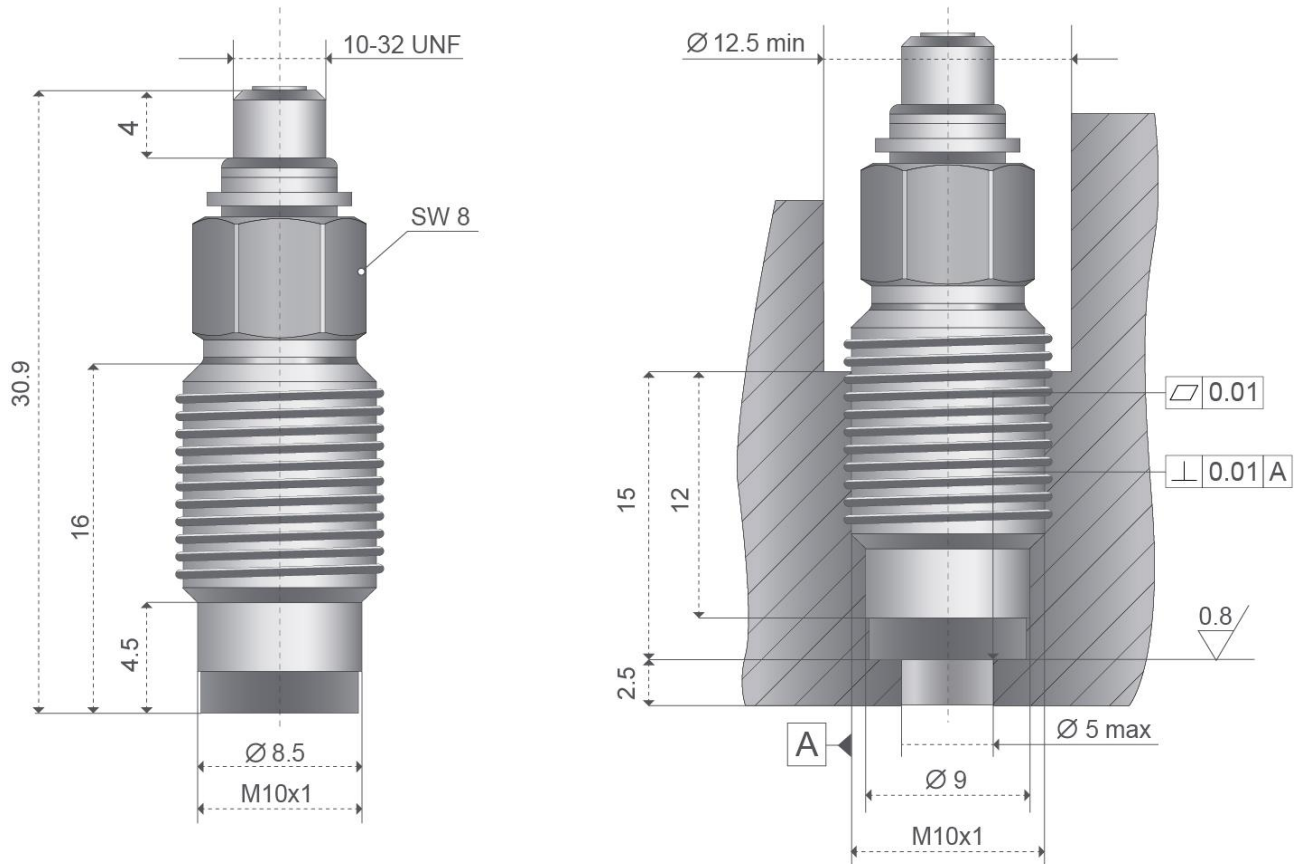
Nominal pressure range	[bar]	0 ... 8000 (0 ... 116000 psi)
Overload	[bar]	8800 (127600 psi)
Sensitivity	[pC/bar]	2.3 (0.2 pC/psi)
Linearity	[%/FSO]	≤ ± 1
Operating temperature	[°C]	-50 ... 200 (-58 ... 392 °F)
Insulation resistance at 20 °C	[Ω]	> 1*10 <sup>13</sup>
Acceleration sensitivity	(typ.)	axial: 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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## 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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