

DAC 160

Piezoelectric High-Pressure Sensor

Special characteristics

- ▶ Single crystal of gallium phosphate GaPO_4
- ▶ 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_4 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

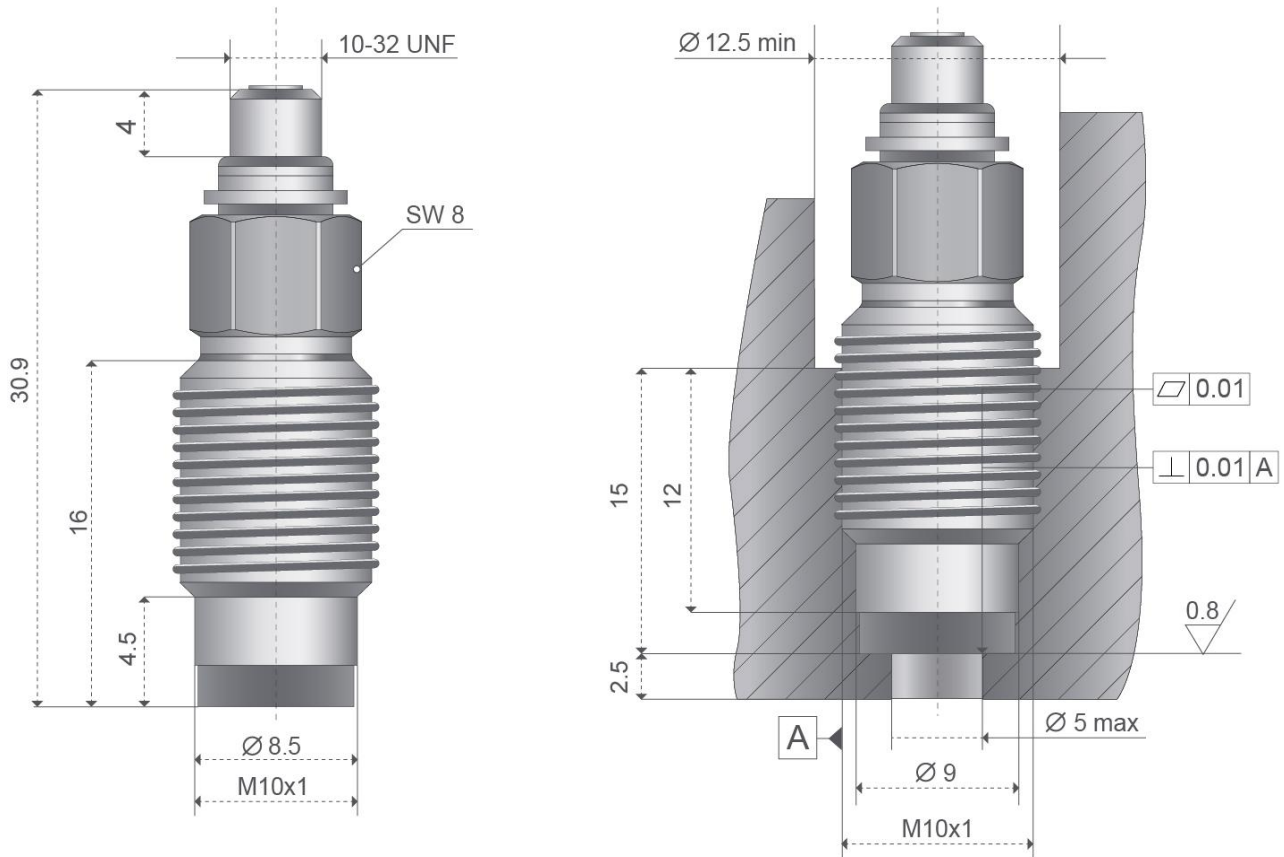
Technical Data		
Nominal pressure range	[bar]	0 ... 6000 (0 ... 87000 psi)
Overload	[bar]	6600 (95700 psi)
Sensitivity	[pC/bar]	3 (0.2 pC/psi)
Linearity	[%/FSO]	$\leq \pm 1$
Operating temperature	[%/°C]	-50 ... 200 (-58 ... 392 °F)
Insulation resistance at 20 °C	[Ω]	$> 1 \cdot 10^{13}$
Acceleration sensitivity	(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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