

DAC 120

Piezoelectric High-Pressure Sensor

Special characteristics

- ▶ Very high pressures up to 2000 bar
- ▶ High sensitivity
- ▶ Excellent long-term stability



Description

The DAC 120 was developed for detecting dynamic pressure changes up to 2000 bar in hydraulic systems. The unique GaPO₄ sensor element allows a sensitivity of 5.2 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

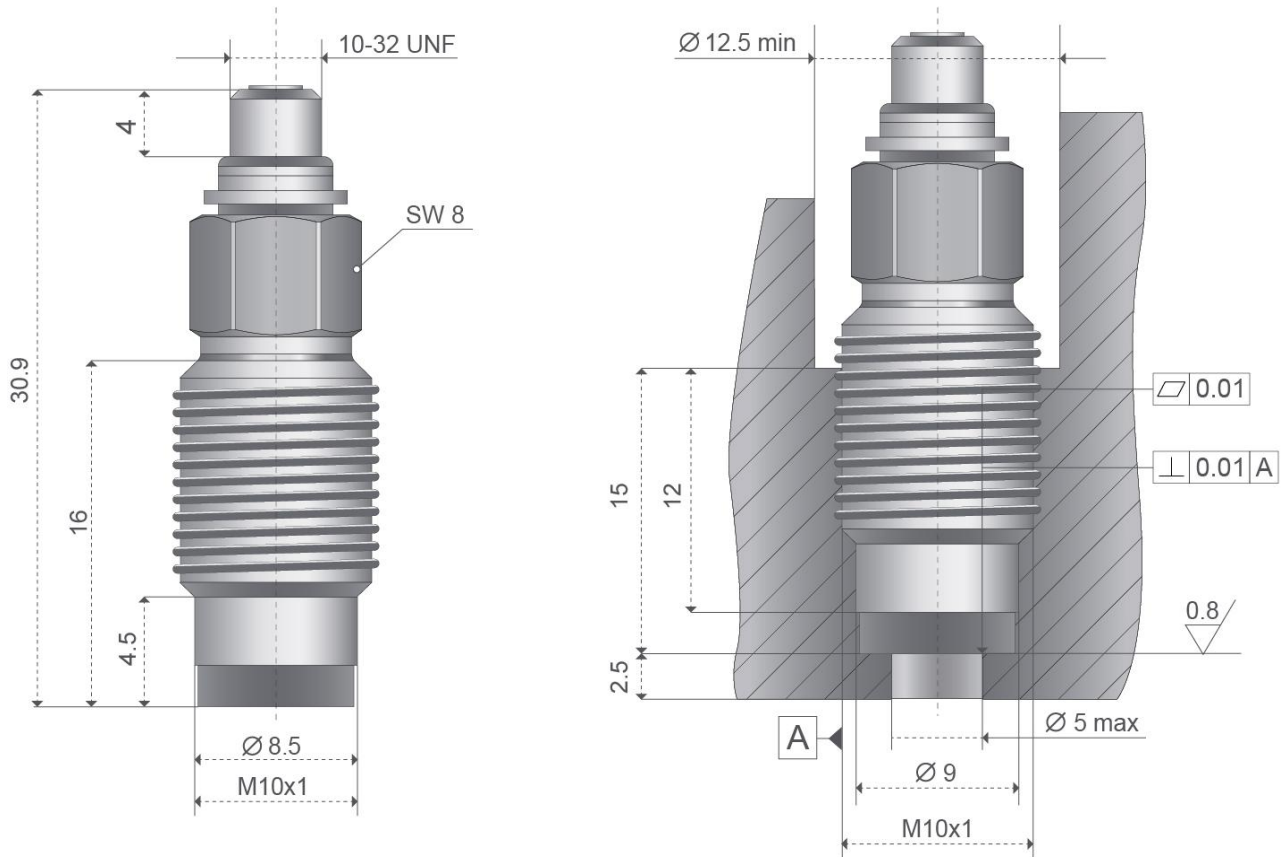
Nominal pressure range	[bar]	0 ... 2000 (0 ... 29000 psi)
Overload	[bar]	2200 (31900 psi)
Sensitivity	[pC/bar]	5.2 (0.36 pC/psi)
Linearity	[%/FSO]	≤ ± 1
Operating temperature	[%/°C]	-50 ... 200 (-58 ... 392 °F)
Insulation resistance at 20 °C	[Ω]	> 1*10 ¹³
Acceleration sensitivity	(typ.)	axial: < 0.002 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		± 0.02
Increase time	[μs]	1
Plug		10-32 UNF
Weight (without cable)	[g]	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