

Specifications

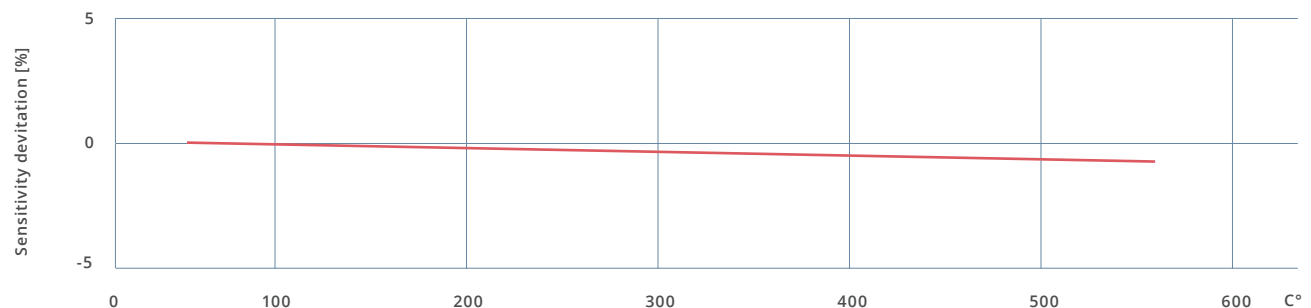
Name	CP5x1
Operating principle	Piezoelectric charge output
Sensing element	Industrially grown single-crystal GaPO ₄ (gallium phosphate)
Dynamic measuring range	0 ... 50 bar (0 ... 725 psi)
Overload pressure	> 100 bar (1450 psi)
Sensitivity (nominal)	20 pC/bar (1.3 pC/psi)
Linearity	≤ 0.5 % FSO (0 ... 50 bar, 0 ... 725 psi)
Operating temperature *	
Continuous	-55°C ... +560°C (-40°F ... +1040°F)
Short term (< 100 hours)	-55°C ... +650°C (-40°F ... +1200°F)
Internal insulation resistance	> 10 ¹⁰ Ω (25°C, 77°F), >10 ⁶ Ω (600°C, 1112°F)
Acceleration sensitivity	axial ≤ 0.8 mbar/g (0.01 psi/g) radial ≤ 0.3 mbar/g (0.004 psi/g)
Frequency range	1 Hz to 50 kHz (resonant frequency > 120 kHz)
Capacitance (nominal, incl. 1m cable)	150 pF pole/ground
Mounting torque	2 Nm
Housing material	Nickel based super alloy, hermetically welded

* Temperature of sensor head and hard line cable

Available dimensions	Type 1		Type 2
X	-		11 mm or 19.3 mm
Y	-		M5x0.8 or 10-32 UNF-2A
Cable	3,0 mm hard line cable (optional)		2 mm hard line cable
Bending radius	hard line cable: 16 mm (1 bend), 75 mm (up to 20 bends)		hard line cable: 16 mm (1 bend), 75 mm (up to 20 bends)
Connector	M4x0,35	LEMO	10-32 UNF-2A
Max. connector temperature	400°C (752°F)	165°C (329°F)	500°C (930°F)

Piezocryst reserves the right to change specifications and accessories without notice.

Calibration and Thermal Sensitivity

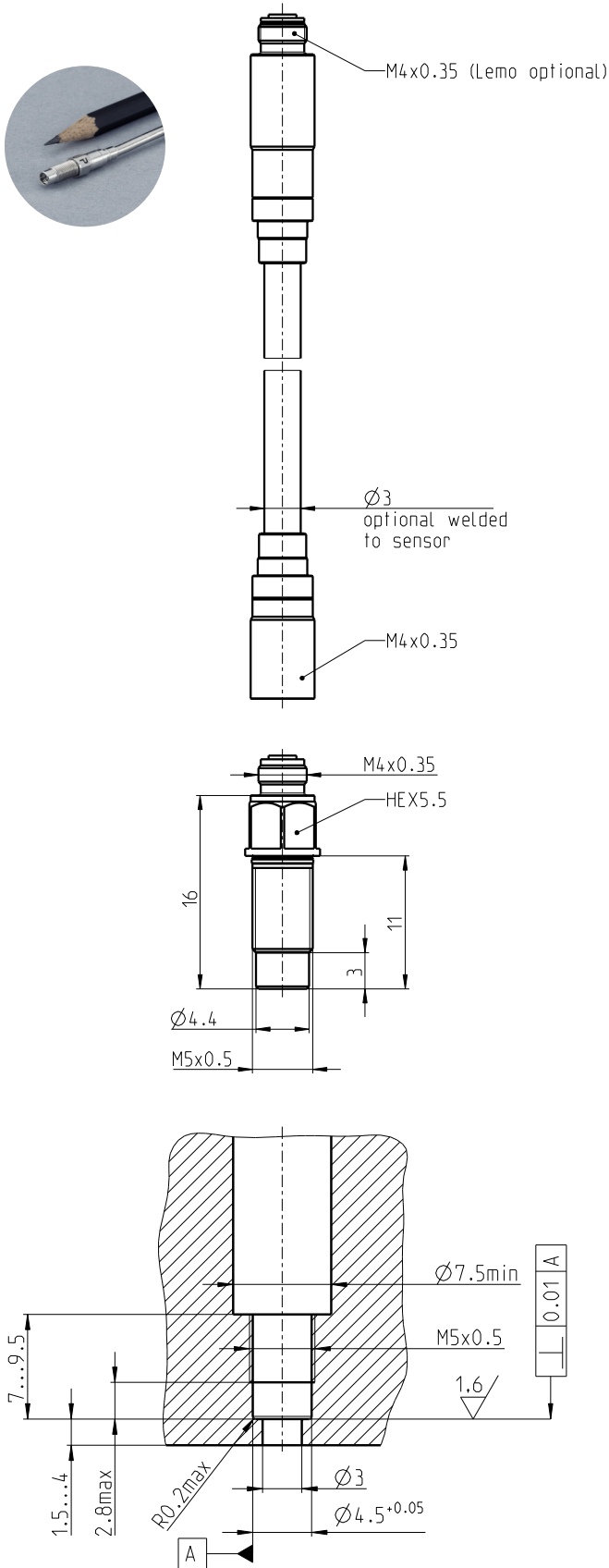


ISO 9001 certified calibration at +20°C with dead weight tester (3, 6, 8, 10, 12, 20, 30, 50 bar).

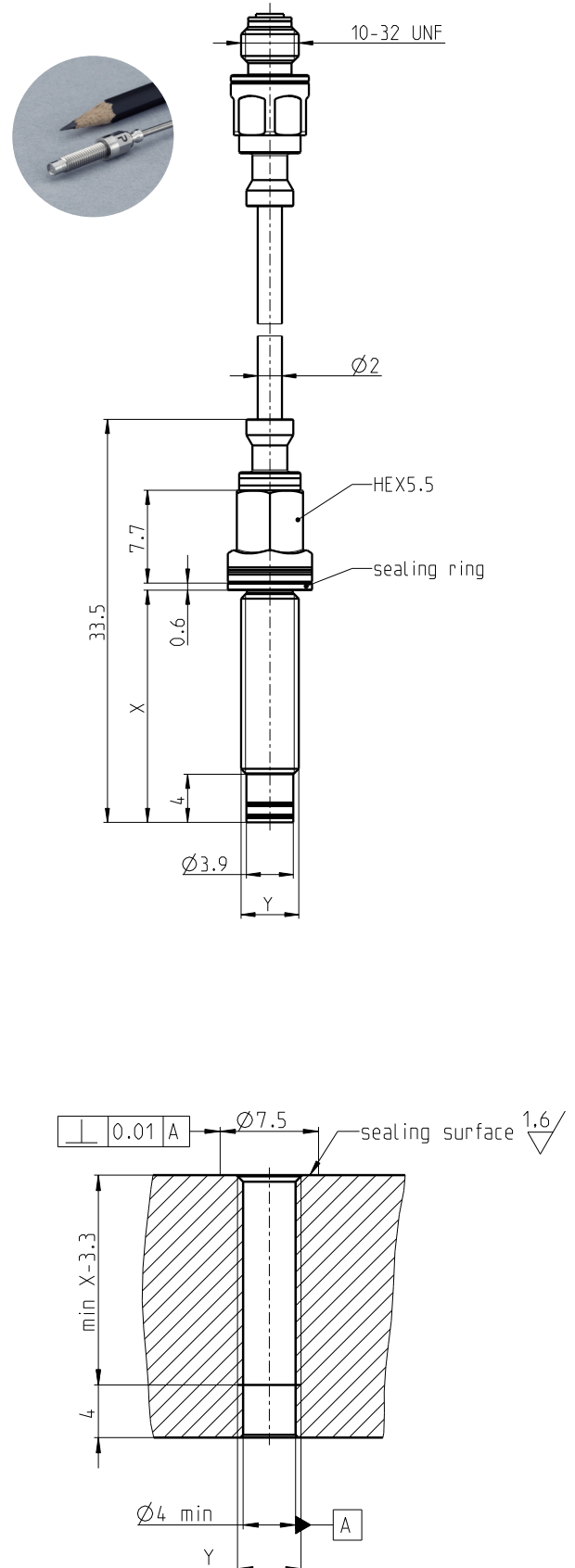
Sensitivity and linearity are determined according to DIN16086

Sensor & Mount Dimensions

Type 1



Type 2



All dimensions are in mm.

ATEX Certification

The CP5x1 series is Ex approved and therefore suitable for hazardous environments.

Europe	LCIE 17 ATEX 3027 X
International	IECEx LCIE 17.0024X

Scope of Supply

Name	Type 1	Type 2
Sensor	CP5x1 - Type 1	CP5x1 - Type 2
Extension cable	1m Teflon™ M4x0.35 to UNF cable	1m Teflon™ UNF to UNF cable
Coupling	UNF to BNC coupling	UNF to BNC coupling
Calibration sheet	✓	✓

Accessoires

Name	Type 1	Type 2
Hardline Cable	3.2mm Hardline Cable M4x0.35 welded to Sensor	2mm Hardline 10-32 UNF extension cable 450°C max
Extension Cable	1 ... 10m Teflon coated cable	
Mounting Tool	✓	✓
Machining Tool for Mount	✓	-

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Customer support

Contact us by E-mail or phone:

info@piezocryst.com
+43 316 787 530

Visit us at our website:

www.piezocryst.com

Piezocryst
Advanced Sensorics GmbH
Hans-List-Platz 1 | 8020 Graz
Austria