

Quartz Pressure Sensor for Engine Diagnostics

Type 7013C/CA

Industrial sensor for measuring cylinder pressures in internal combustion engines. Sensor and cable together form an oil- and splash-proof unit.

Suitable for long-time measurements and arduous duties.

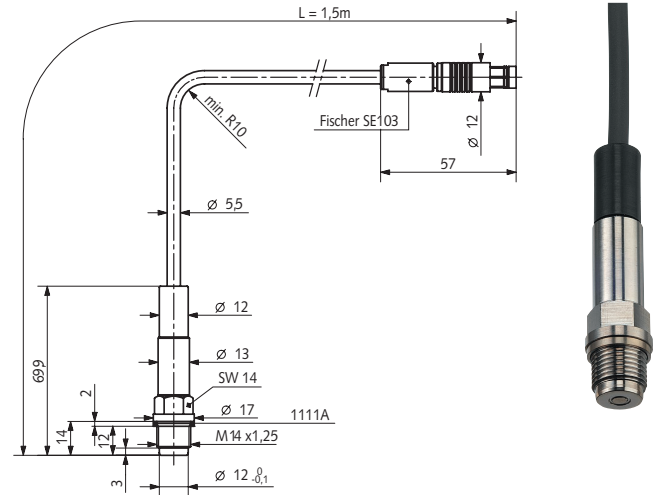
- Viton® cable, rugged
- Available with integrated impedance converter (Piezotron®), too
- Linearity excellent

Description

The use of polystable quartz elements assures security from twinning even under high mechanical stressing. As a result, the sensitivity remains largely constant between -50 ... 350 °C.

Application

Measuring in combustion chambers under severe conditions of fouling, moisture etc. Special design makes the sensor largely insensitive to combustion residues, and therefore suitable for arduous duties as well as longtime measurements.



Technical Data

Range	bar	0 ... 250
Calibrated partial ranges	bar	0 ... 50
Overload	bar	300
Sensitivity	pC/bar	≈-40
Natural frequency	kHz	≈70
Linearity, all ranges	%FSO	≤±0,5
Acceleration sensitivity		
axial	bar/g	<0,002
transverse	bar/g	<0,001
Operating temperature range	°C	-50 ... 350
Sensitivity shift		
200... ±150 °C	%	≤±3
200 ±50 °C	%	≈1
Thermal shock		
at 1 500 1/min, p _{mi} = 9 bar		
Δp	bar	≤±0,3
Δp _{mi}	%	≤±2
Insulation resistance at 20 °C	Ω	≥10 ¹³
Shock resistance	g	2 000
Tightening torque	N·m	25
Capacitance, with cable	pF	7
Weight	g	160
Plug	Type	Fischer SE 103 pos.

