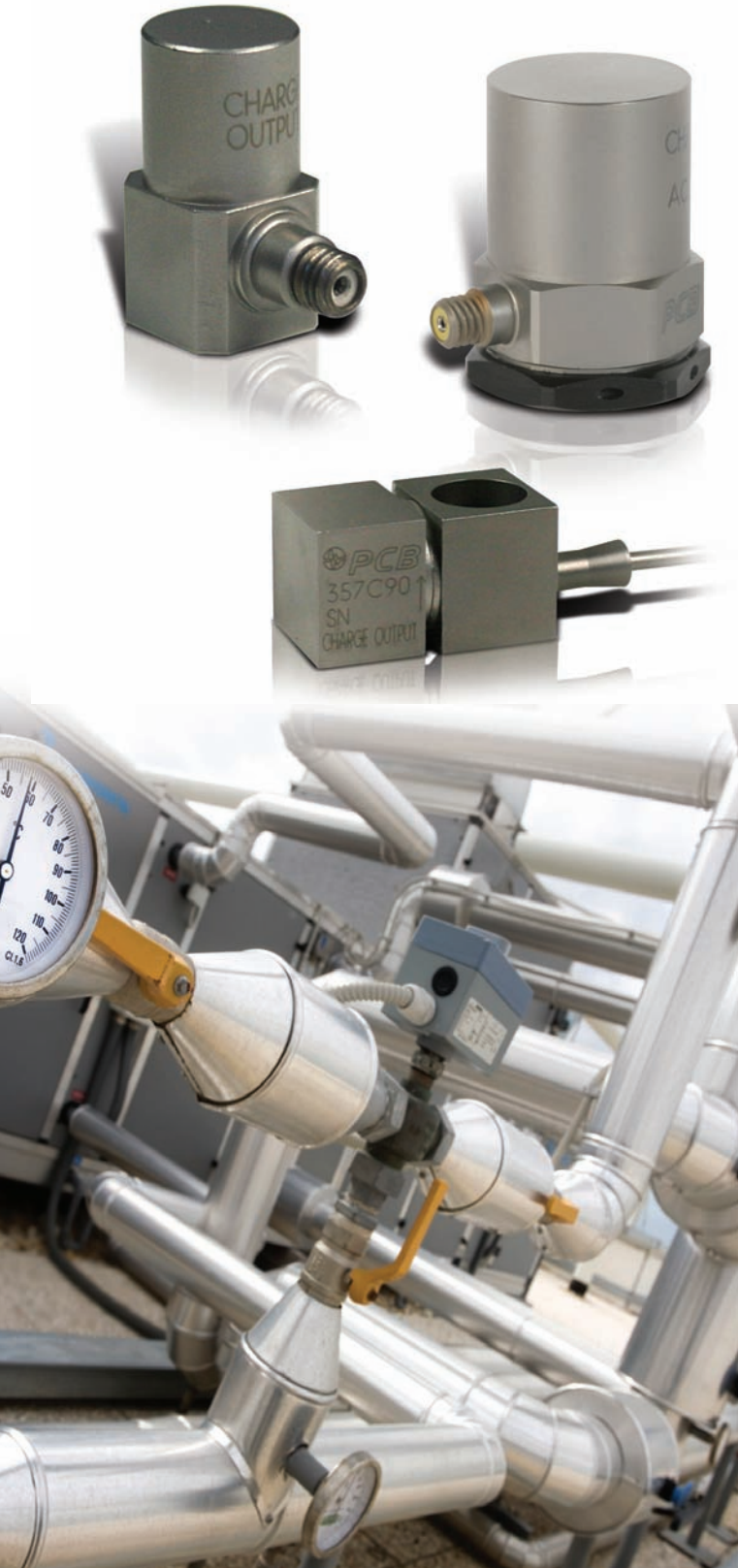


# High Temperature Accelerometers (> +500 °F/+260 °C)



## Applications

- High Temperature Vibration Measurements
- Engine Compartment Studies
- Exhaust Component Vibration Tests
- Steam Turbine Testing
- Engine Vibration Analysis

PCB®'s Charge Output accelerometers utilize piezoceramic sensing elements to directly output an electrostatic charge signal that is proportional to applied acceleration.

Charge Output accelerometers do not contain built-in signal conditioning electronics. As a result, external signal conditioning is required to interface their generated measurement signals to readout or recording instruments. The sensor's charge output signals can be conditioned with either a laboratory style, adjustable charge amplifier or, for an economical approach, with an in-line, fixed charge converter.

Since there are no electronics built into Charge Output accelerometers, they can operate and survive exposure to very high temperatures (up to +1200 °F/+649 °C for some models). In addition, Charge Output accelerometers are used for thermal cycling requirements or to take advantage of existing charge amplifier signal conditioning equipment.

It is important to note that measurement resolution and low-frequency response for charge output, acceleration sensing systems are dependent upon the noise floor and discharge time constant characteristics of the signal conditioning and readout devices used.



# High Temperature Single Axis Accelerometers

## High Temperature, Single Axis Accelerometers

				
Model Number	357B69	357C90	357B61	357B53
Sensitivity	3.5 pC/g	5 pC/g	10 pC/g	100 pC/g
Measurement Range	± 500 g pk	± 1000 g pk	± 1000 g pk	± 150 g pk
Broadband Resolution	[1]	[1]	[1]	[1]
Frequency Range (± 5%)	6 kHz [2]	2.5 kHz [2]	5 kHz [2]	3 kHz [2]
Resonant Frequency	≥ 35 kHz	≥ 14 kHz	≥ 24 kHz	≥ 12 kHz
Temperature Range	-65 to +900 °F -54 to +482 °C	-67 to +1200 °F -55 to +649 °C	-65 to +900 °F -54 to +482 °C	-95 to +550 °F -71 to +288 °C
	</= 10 <sup>9</sup> rad </= 10 <sup>10</sup> N/cm <sup>2</sup>	</= 10 <sup>9</sup> rad </= 10 <sup>10</sup> N/cm <sup>2</sup>	</= 10 <sup>9</sup> rad </= 10 <sup>10</sup> N/cm <sup>2</sup>	</= 10 <sup>9</sup> rad </= 10 <sup>10</sup> N/cm <sup>2</sup>
Sensing Element	Ceramic/Compression	Ceramic/Shear	Ceramic/Compression	Ceramic/Shear
Electrical Connector	10-32 Coaxial Jack	Integral Cable	10-32 Coaxial Jack	10-32 Coaxial Jack
Electrical Ground Isolation	No	Yes	No	Yes
Housing Material	Inconel	Inconel	Inconel	Titanium
Sealing	Hermetic	Hermetic	Hermetic	Hermetic
Weight	16 gm	75 gm	30 gm	51 gm
Size	0.45 x 0.875 in 11.4 in x 22.2 mm	0.66 x 1.26 x 0.66 in 16.7 x 32 x 16.7 mm	5/8 x 1 in 5/8 in x 25.4 mm	3/4 x 1.13 in 3/4 in x 28.7 mm
Mounting	10-32 Thread	Through-hole	10-32 Thread	10-32 Thread
<b>Supplied Accessories</b>				
Cable	023A10	—	023A10	—
Mounting Stud/Screw	081A107, M081A107	081A108	081A107, M081A107	081B05, M081B05
<b>Additional Version</b>				
Alternate Connector Position	—	—	—	357B54 - Top
<b>Additional Accessories</b>				
Adhesive Mounting Base	080A12	—	080A12	080A12
Magnetic Mounting Base	080A27	—	080A27	080A27
Triaxial Mounting Adaptor	080B11	—	080B11	080B11
Mating Cable Connector	FZ	FZ	FZ	FZ
Recommended Cable	023	023	023	023
<b>Note</b>				
[1] Resolution is dependent upon cable length and signal conditioner [2] Low Frequency response determined by external electronics				

Hochwertige Messtechnik und Beratung aus einer Hand

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