

Model Number
116B03

CHARGE OUTPUT PRESSURE SENSOR

Revision: M
ECN #: 54502

Performance

	ENGLISH	SI	
Sensitivity(± 15 %)	6 pC/psi	0.870 pC/kPa	
Measurement Range	100 psi	690 kPa	
Maximum Pressure(static)	3,000 psi	20,685 kPa	
Resonant Frequency	≥ 55 kHz	≥ 55 kHz	
Rise Time(Reflected)	≤ 9 μ sec	≤ 9 μ sec	
Non-Linearity	≤ 1 % FS	≤ 1 % FS	[1]

Environmental

Acceleration Sensitivity	≤ 0.029 psi/g	≤ 0.0204 kPa/(m/s ²)	
Temperature Range(Operating)	-400 to 750 °F	-240 to 399 °C	[2]
Temperature Coefficient of Sensitivity	≤ 0.04 %/°F	≤ 0.072 %/°C	
Maximum Flash Temperature	3,000 °F	1,649 °C	
Maximum Shock	2,000 g pk	19,620 m/s ² pk	

Electrical

Output Polarity(Positive Pressure)	Negative	Negative	
Capacitance	30 pF	30 pF	[3]
Insulation Resistance(at 600°F[315°C])	> 10 ⁹ Ohm	> 10 ⁹ Ohm	
Insulation Resistance(at 750°F[399°C])	> 10 ⁸ Ohm	> 10 ⁸ Ohm	
Insulation Resistance(at room temp)	> 10 ¹¹	> 10 ¹¹	

Physical

Sensing Element	Quartz	Quartz	
Housing Material	316L Stainless Steel	316L Stainless Steel	
Diaphragm	316L Stainless Steel	316L Stainless Steel	
Sealing	Welded Hermetic	Welded Hermetic	
Electrical Connector	10-32 Coaxial Jack	10-32 Coaxial Jack	
Weight	.717 oz	20.3 gm	

OPTIONAL VERSIONS

Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.

E - Emralon coating		
Electrical Isolation	(Case) 10 ⁸ Ohm	(Case) 10 ⁸ Ohm
Coating	Emralon	Emralon
Temperature Range	-65 to 275 °F	-54 to 135 °C

P - Positive Output Polarity

NOTES:

- [1]Zero-based, least-squares, straight line method.
- [2]When used with blocking capacitor and hardline cable.
- [3]Typical.
- [4]See PCB Declaration of Conformance PS158 for details.

SUPPLIED ACCESSORIES:

Model 060A12 Clamp nut, 9/16-18-2A thd, 9/16" hex (1)
 Model 060A14 Metric clamp nut, M14 x 1.25-6g thd, 14 mm hex, stainless steel (1)
 Model 065A37 Seal ring 0.497 OD x 0.437 ID x 0.025 thk Brass (3)
 Model PCS-17 Frequency response of 106B and 116B series from 20 Hz to 50 kHz.
 Model PCS-3 Calibration of high-temperature Models 112A04 and 112A05, Series 112B and Series 116B

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All specifications are at room temperature unless otherwise specified.
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