

Model Number

123A

## CHARGE OUTPUT PRESSURE SENSOR

Revision: G

ECN #: 22945

**Performance**

	ENGLISH	SI	
Sensitivity ( $\pm 20\%$ )	1.1 pC/psi	0.159 pC/kPa	
Measurement Range	3 kpsi	20,685 kPa	
Maximum Pressure	5 kpsi	34,475 kPa	
Resolution	20 mpsi	0.138 kPa	[1]
Resonant Frequency	$\geq 25$ kHz	$\geq 25$ kHz	[2]
Rise Time (Reflected)	$\leq 20$ $\mu$ sec	$\leq 20$ $\mu$ sec	[2]
Non-Linearity	$\leq 1\%$ FS	$\leq 1\%$ FS	[3]

**Environmental**

Acceleration Sensitivity	$\leq 0.002$ psi/g	$\leq 1.41E-3$ kPa/(m/s <sup>2</sup> )
Temperature Range (Operating)	-450 to +500 °F	-268 to +260 °C
Temperature Coefficient of Sensitivity	$\leq 0.01\%$ /°F	$\leq 0.018\%$ /°C
Maximum Flash Temperature	10,000 °F	5538 °C
Maximum Shock	10,000 g pk	98,070 m/s <sup>2</sup> pk

**Electrical**

Output Polarity (Positive Pressure)	Negative	Negative
Capacitance	18 pF	18 pF
Electrical Isolation	$\geq 10^8$ ohm	$\geq 10^8$ ohm
Insulation Resistance (at room temp)	$\geq 10^{12}$ ohm	$\geq 10^{12}$ ohm

**Physical**

Sensing Element	Quartz	Quartz
Sensing Geometry	Compression	Compression
Housing Material	17-4 Stainless Steel	17-4 Stainless Steel
Diaphragm	Invar	Invar
Sealing	Epoxy	Epoxy
Electrical Connector	Integral Cable	Integral Cable
Cable Length	4 ft	1.2 m
Helium Flow Rate (at 1,500 psi)	40 scf/hr	1.13 m <sup>3</sup> /hr
Water Flow Rate (at 50 psi)	1.2 gal/min	4.5 L/min
Weight	4.23 oz	120 gm

All specifications are at room temperature unless otherwise specified.

In the interest of constant product improvement, we reserve the right to change specifications without notice.

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**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.

**NOTES:**

- [1] Resolution dependent on range setting and cable length used in charge system.  
 [2] With helium flow.  
 [3] Zero-based, least-squares, straight line method.

**SUPPLIED ACCESSORIES:**

Model 065A15 Seal, .624" OD x .553" ID x .080", brass (3)  
 Model 070A08 Cable adaptor (micro 10-32 jack to BNC jack) (1)

Entered: BLS	Engineer: RF	Sales: Jmm	Approved: MEW	Spec Number:
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