

## 3-COMPONENT CHARGE OUTPUT FORCE SENSOR

**Performance**

	ENGLISH	SI	
Sensitivity ( $\pm 15\%$ ) (z axis)	15 pC/lb	3.37 pC/N	[2]
Sensitivity ( $\pm 15\%$ ) (x or y axis)	32 pC/lb	7.19 pC/N	[2]
Measurement Range (z axis)	1000 lb	4.45 kN	
Measurement Range (x or y axis)	500 lb	2.22 kN	
Maximum Force (z axis)	1320 lb	5.87 kN	
Maximum Force (x or y axis)	660 lb	2.94 kN	
Maximum Moment (z axis)	14 ft-lb	18.98 N-m	
Maximum Moment (x or y axis)	13 ft-lb	17.63 N-m	
Upper Frequency Limit	90 kHz	90 kHz	
Non-Linearity	$\leq 1\%$ FS	$\leq 1\%$ FS	[3]
Cross Talk (between x and y axis)	$\pm 3\%$	$\pm 3\%$	
Cross Talk (between (x or y axis) and z axis)	$\pm 5\%$	$\pm 5\%$	

**Environmental**

Temperature Range	-100 to +350 °F	-73 to +177 °C	
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**Electrical**

Capacitance (all channels)	18 pF	18 pF	[1]
Insulation Resistance (all channels)	$\geq 10^{12}$ ohm	$\geq 10^{12}$ ohm	
Output Polarity (in direction of markings)	Negative	Negative	

**Physical**

Preload	$\leq 5000$ lb	$\leq 22.25$ kN	[4]
Stiffness (z axis)	10 lb/ $\mu$ in	1.75 kN/ $\mu$ m	[1]
Stiffness (x or y axis)	4 lb/ $\mu$ in	0.7 kN/ $\mu$ m	[1]
Size (Height x Length x Width x Bolt Diameter x ID x Sensing Surface)	0.390 in x 0.950 in x 0.950 in x .313 in x 0.319 in x 0.680 in	9.90 mm x 24.1 mm x 24.1 mm x 8 mm x 8.10 mm x 17.27 mm	
Weight	0.868 oz	24.59 gm	
Housing Material	Stainless Steel	Stainless Steel	
Sealing	Hermetic	Hermetic	
Electrical Connector (Quantity, 3)	10-32 Coaxial Jack	10-32 Coaxial Jack	
Electrical Connection Position	Side	Side	

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.

**M** - Metric Mount

Supplied Accessory : Model M081A70 Mounting Stud (1)

**W** - Water Resistant Cable

Electrical Connection Position

Side

Side

**NOTES:**

[1] Typical.

[2] Sensitivites are for listed preload. Sensitivites may vary  $\pm 5\%$  depending on preload used.

[3] Zero-based, least-squares, straight line method.

[4] Preload should be at least 10 times the X and Y operating range used.

**SUPPLIED ACCESSORIES:**

Model 081A70 Mounting Stud (1)

Model 082B02 Anti-Friction Washer (1)

Model 083A10 Pilot Bushing (1)

Entered: BLS	Engineer: MKC	Sales: Jjm	Approved: DMB	Spec Number:
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