Model	Number			
2180				

CHARGE OUTPUT FORCE SENSOR

Revision: P ECN #: 48697

Performance	<u>ENGLISH</u>	<u>SI</u>	
Sensitivity(± 15 %)	18 pC/lb	4047 pC/kN	
Measurement Range(Compression)	≤ 5000 lb	≤ 22.24 kN	
Measurement Range(Tension)	≤ 500 lb	≤ 2.224 kN	
Maximum Static Force(Compression)	8000 lb	35.59 kN	
Maximum Static Force(Tension)	500 lb	2.224 kN	
Upper Frequency Limit	36 kHz	36 kHz	[2][3]
Non-Linearity	≤ 1 % FS	≤ 1 % FS	[4]
Environmental			
Temperature Range	-300 to +400 °F	-184 to +204 °C	
Temperature Coefficient of Sensitivity	≤ 0.03 %/°F	≤ 0.054 %/°C	
Electrical			
Capacitance	14 pF	14 pF [1]	
Insulation Resistance	≥ 1E12	≥ 1E12	
Physical			
Stiffness	6 lb/μin	1.05 kN/μm	
Size (Hex x Height x Sensing Surface)	0.625 in x 0.625 in x 0.500 in	15.88 mm x 15.88 mm x 12.7 mm	
Weight	0.79 oz	22.4 gm	
Housing Material	Stainless Steel	Stainless Steel	
Sealing	Hermetic	Hermetic	
Electrical Connector	10-32 Coaxial Jack	10-32 Coaxial Jack	
Electrical Connection Position	Side	Side	
Mounting Thread	10-32 Female	10-32 Female	



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.

P - Positive Output Polarity

Output Polarity(Compression) Positive Positive

W - Water Resistant Cable

NOTES:

- [1] Typical.
- [2] Estimated using rigid body dynamics calculations.
- [3] Low frequency response and system noise dependent on choice of external signal conditioning electronics.
- [4] Zero-based, least-squares, straight line method.
- [5] See PCB Declaration of Conformance PS158 for details.

SUPPLIED ACCESSORIES:

Model 080A81 Thread Locker (1)

Model 081B05 Mounting Stud (10-32 to 10-32) (2)

Model 084A03 Impact Cap (1)

Model M081A62 Mounting stud, 10-32 to M6 x 1, BeCu with shoulder (2)

Entered: LK	Engineer: RPF	Sales: RWM	Approved: BAM	Spec Number:
Date: 9/24/2018	Date: 9/24/2018	Date: 9/24/2018	Date: 9/24/2018	9481



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