

Model Number
261B01

3-COMPONENT ICP® FORCE SENSOR

Revision: B
ECN #: 55103

Performance	ENGLISH	SI	
Sensitivity(± 20 %)(Z Axis)	2.5 mV/lb	0.56 mV/N	
Sensitivity(± 20 %)(X or Y Axis)	10 mV/lb	2.25 mV/N	
Measurement Range(Z Axis)	1,000 lb	4.45 kN	
Measurement Range(X or Y Axis)	500 lb	2.22 kN	
Maximum Force(Z Axis)	1,320 lb	5.87 kN	
Maximum Force(X or Y Axis)	660 lb	2.94 kN	
Maximum Moment(Z Axis)	14 ft-lb	19.0 Nm	
Maximum Moment(X or Y Axis)	13 ft-lb	17.6 Nm	
Broadband Resolution(Z axis)	0.006 lb-rms	0.027 N-rms	[1]
Broadband Resolution(X or Y axis)	0.002 lb-rms	0.0089 N-rms	[1]
Low Frequency Response(- 5 %)(Z-Axis)	0.01 Hz	0.01 Hz	
Low Frequency Response(- 5 %)(X or Y Axis)	0.001 Hz	0.001 Hz	
Non-Linearity	≤ 1 % FS	≤ 1 % FS	[2]
Cross Talk(between X and Y Axis)	± 3 %	± 3 %	
Cross Talk(between (X or Y Axis) and Z Axis)	± 5 %	± 5 %	
Environmental			
Temperature Range	-65 to +250 °F	-54 to +121 °C	
Electrical			
Full Scale Output(Z Direction)	± 2.5 VDC	± 2.5 VDC	
Full Scale Output(X and Y Direction)	± 5 VDC	± 5 VDC	
Discharge Time Constant(Z Axis)	≥ 50 sec	≥ 50 sec	
Discharge Time Constant(X or Y Axis)	≥ 500 sec	≥ 500 sec	
Excitation Voltage(all channels)	20 to 30 VDC	20 to 30 VDC	
Constant Current Excitation(all channels)	2 to 20 mA	2 to 20 mA	
Output Impedance	≤ 100 Ohm	≤ 100 Ohm	
Output Bias Voltage	8 to 14 VDC	8 to 14 VDC	
Spectral Noise(1 Hz)(X & Y)	0.0003 lb/√Hz	0.00134 N/√Hz	
Spectral Noise(10 Hz)(X & Y)	0.00015 lb/√Hz	0.000668 N/√Hz	
Spectral Noise(100 Hz)(X & Y)	0.00005 lb/√Hz	0.000223 N/√Hz	
Spectral Noise(1,000 Hz)(X & Y)	0.000015 lb/√Hz	0.0000668 N/√Hz	
Spectral Noise(1 Hz)(Z)	0.0015 lb/√Hz	0.0068 N/√Hz	
Spectral Noise(10 Hz)(Z)	0.00055 lb/√Hz	0.00245 N/√Hz	
Spectral Noise(100 Hz)(Z)	0.0002 lb/√Hz	0.000891 N/√Hz	
Spectral Noise(1,000 Hz)(Z)	0.000055 lb/√Hz	0.000245 N/√Hz	
Output Polarity	Positive	Positive	
Electrical Isolation	≥ 10 ⁸ Ohm	≥ 10 ⁸ Ohm	
Physical			
Stiffness(X or Y Axis)	1.9 lb/μin	330 N/μm	[1]
Stiffness(Z Axis)	4.9 lb/μin	860 N/μm	[1]
Stiffness(RX or RY Axis)	7.5E5 lbf*/in/radian	8.5E4 N*/m/radian	[1][3]
Stiffness(RZ Axis)	3.4E5 lbf*/in/radian	3.8E4 N*/m/radian	[1][3]
Coupled Stiffness(X-RY or Y-RX Axis)	1.0 lbf*/in/μin	4.4 N*/m/μm	[1][3]
Weight	13.60 oz	386 gm	
Housing Material	Stainless Steel	Stainless Steel	
Sealing	Hermetic	Hermetic	
Electrical Connector	4-Pin	4-Pin	
Electrical Connection Position	Side	Side	

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
- W** - Water Resistant Cable

NOTES:

- [1]Typical.
- [2]Zero-based, least-squares, straight line method.
- [3]See PCB White Paper WPL_88_1121 for details.
- [4]See PCB Declaration of Conformance PS023 for details.



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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