

Model Number 1631-03C		STRAIN GAGE LOAD CELL			Revision: D ECN #: 43825	
Performance		ENGLISH	SI		OPTIONAL VERSIONS	
Measurement Range	1000 lb	4448 N	[5]	Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.		
Sensitivity(± 10 %)	2 mV/V	2 mV/V	[6]			
Non-Linearity	≤ 0.05 % FS	≤ 0.05 % FS				
Hysteresis	≤ 0.03 % FS	≤ 0.03 % FS				
Non-Repeatability	≤ 0.02 %RO	≤ 0.02 %RO				
Resonant Frequency	3.2 kHz	3.2 kHz				
Creep(in 20 minutes)	≤ 0.08 %	≤ 0.08 %				
Environmental				NOTES:		
Overload Limit	1500 lb	6672 N		[1]Nominal.		
Load Limit(Side Force, F _x or F _y)	100 lb	445 N	[3]	[2]Calibrated at 10 VDC, usable 5 to 20 VDC or VAC RMS.		
Load Limit(Bending Moment, M _x or M _y)	200 in-lb	22.6 Nm	[3]	[3]Singularly applied, i.e. no other extraneous loads.		
Load Limit(Axial Torque, M _z)	200 in-lb	22.6 Nm	[3]	[4]Over compensated operating temperature range.		
Temperature Range(Operating)	0 to +200 °F	-18 to +93 °C		[5]FS - Full Scale.		
Temperature Range(Compensated)	+70 to +170 °F	+21 to +77 °C		[6]RO - Rated Output.		
Temperature Effect on Output(Maximum)	± 0.0005 %Reading/°F	± 0.0015 %Reading/°C	[4]	[7]See Outline Drawing 46138 for Complete Dimensions		
Temperature Effect on Zero Balance(Maximum)	± 0.0015 %FS/°F	± 0.027 %FS/°C	[4]			
Electrical						
Bridge Resistance	350 Ohm	350 Ohm	[1]			
Excitation Voltage(Recommended)	10 VDC	10 VDC	[2]			
Insulation Resistance	>5x10 ⁹ Ohm	>5x10 ⁹ Ohm				
Zero Balance	± 1 % FS	± 1 % FS				
Output Polarity	+Tension	+Tension				
Physical						
Size (Length x Height x Width)	2.0 in x 3.0 in x 1.0 in	51.0 mm x 76.2 mm x 25.4 mm	[7]			
Weight	0.43 lb	195 g				
Mounting Thread	1/2-20 Thread	No Metric Equivalent				
Housing Material	Aluminum	Aluminum				
Sensing Element	Strain Gage	Strain Gage				
Deflection at Full Scale Capacity	0.0025 in	0.05 mm				
Electrical Connector	10 ft - Integrated Cable	10 ft - Integrated Cable				
Electrical Connection Position	Side	Side				
<i>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.</i>						

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PCB Load & Torque, Inc.
24350 Indoplex Circle
Farmington Hills, MI 48335
UNITED STATES
Phone: 866-684-7107
Fax: 716-684-0987
E-Mail: linfo@pcbloadtorque.com
Web site:
http://www.pcbloadtorque.com