


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]	Entered: AP Engineer: PE Sales: JC Approved: JSD Spec Number:	
Insulation Resistance	>5x10 ⁹ Ohm	>5x10 ⁹ Ohm		Date: 2/16/2015 Date: 2/16/2015 Date: 2/16/2015 Date: 2/16/2015 45998	
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]	 <p>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</p>	
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.</i>					
<i>In the interest of constant product improvement, we reserve the right to change specifications without notice.</i>					