

Model Number 1631-01C	STRAIN GAGE LOAD CELL			Revision: E ECN #: 43825
Performance	ENGLISH	SI		OPTIONAL VERSIONS
Measurement Range	500 lb	2224 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	2.2 kHz	2.2 kHz		
Creep(in 20 minutes)	≤ 0.08 %	≤ 0.08 %		
Environmental				NOTES:
Overload Limit	750 lb	3336 N		[1]Nominal.
Load Limit(Side Force, F _X or F _Y)	50 lb	222.4 N	[3]	[2]Calibrated at 10 VDC, usable 5 to 20 VDC or VAC RMS.
Load Limit(Bending Moment, M _X or M _Y)	100 in-lb	11.3 Nm	[3]	[3]Singularly applied, i.e. no other extraneous loads.
Load Limit(Axial Torque, M _Z)	100 in-lb	11.3 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)	± 0.0008 %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]	Entered: AP
Excitation Voltage(Recommended)	10 VDC	10 VDC	[2]	Engineer: PE
Insulation Resistance	>5x10 ⁹ Ohm	>5x10 ⁹ Ohm		Sales: JC
Zero Balance	± 1 % FS	± 1 % FS		Approved: JSD
Output Polarity	+Tension	+Tension		Spec Number:
Physical				Date: 2/16/2015
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]	Date: 2/16/2015
Weight	0.43 lb	195 g		Date: 2/16/2015
Housing Material	Aluminum	Aluminum		Date: 2/16/2015
Sensing Element	Strain Gage	Strain Gage		45997
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>				
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