

Model Number 1102-05a	STRAIN GAGE LOAD CELL				Revision: E ECN #: 43815
Performance	ENGLISH	SI			OPTIONAL VERSIONS
Measurement Range	25 lb	111 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	≤ 0.05 % FS	≤ 0.05 % FS			
Non-Repeatability	≤ 0.02 %RO	≤ 0.02 %RO			
Eccentric Load Sensitivity	≤ .25 %/in	≤ .25 %/25.4mm			
Resonant Frequency	2.10 kHz	2.10 kHz			
Creep(in 20 minutes)	≤ .025 %	≤ .025 %			
Static Error Band	≤ .05 % FS	≤ .05 % FS			
Environmental					NOTES:
Overload Limit	37.5 lb	167 N			[1]Nominal.
Load Limit(Side Force, F _X or F _Y)	25 lb	111 N	[3]		[2]Calibrated at 10 VDC, usable 5 to 20 VDC or VAC RMS.
Load Limit(Bending Moment, M _X or M _Y)	25 in-lb	2.82 Nm	[3]		[3]Singularly applied, i.e. no other extraneous loads.
Load Limit(Axial Torque, M _Z)	35 in-lb	4 Nm	[3]		[4]Over compensated operating temperature range.
Temperature Range(Operating)	-65 to +200 °F	-54 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)	± 0.0015 %Reading/°F	± 0.0027 %Reading/°C	[4]		[7]See Outline Drawing 51277 for Complete Dimensions
Temperature Effect on Zero Balance(Maximum)	± 0.0008 %FS/°F	± 0.0015 %FS/°C	[4]		
Electrical					OPTIONAL ACCESSORIES:
Bridge Resistance	700 Ohm	700 Ohm	[1]		Model 181-012A PT06A-10-6S(SR)
Excitation Voltage(Recommended)	10 VDC	10 VDC	[2]		Model 8311-01-10A CABLE
Insulation Resistance	5x10 ⁹ Ohm	5x10 ⁹ Ohm			
Zero Balance	≤ 1 % FS	≤ 1 % FS			
Output Polarity	+Tension	+Tension			
Physical					
Size (Diameter x Height)	2.75 in x 1.50 in	69.9 mm x 38.1 mm	[7]		
Weight	0.67 lb	304 g			
Mounting Thread	1/4-28 Female	No Metric Equivalent			
Housing Material	Painted Aluminum	Painted Aluminum			
Sensing Element	Strain Gage	Strain Gage			
Deflection at Full Scale Capacity	0.003 in	0.08 mm			
Electrical Connector	PT02E-10-6P	PT02E-10-6P			
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.					
				Entered: AP	Engineer: PE
				Sales: JC	Approved: JSD
				Spec Number:	
				Date: 2/17/2015	Date: 2/17/2015
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