


Model Number <b>1102-05a</b>		<b>STRAIN GAGE LOAD CELL</b>		Revision: E ECN #: 43815										
<b>Performance</b>	<b>ENGLISH</b>	<b>SI</b>		<b>OPTIONAL VERSIONS</b>										
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												
<b>Environmental</b>					<b>NOTES:</b>									
Overload Limit	37.5 lb	167 N		[1]Nominal.										
Load Limit(Side Force, F <sub>X</sub> or F <sub>Y</sub> )	25 lb	111 N	[3]	[2]Calibrated at 10 VDC, usable 5 to 20 VDC or VAC RMS.										
Load Limit(Bending Moment, M <sub>X</sub> or M <sub>Y</sub> )	25 in-lb	2.82 Nm	[3]	[3]Singularly applied, i.e. no other extraneous loads.										
Load Limit(Axial Torque, M <sub>Z</sub> )	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]	<b>OPTIONAL ACCESSORIES:</b>										
<b>Electrical</b>				Model 181-012A PT06A-10-6S(SR)										
Bridge Resistance	700 Ohm	700 Ohm	[1]	Model 8311-01-10A CABLE										
Excitation Voltage(Recommended)	10 VDC	10 VDC	[2]											
Insulation Resistance	5x10 <sup>9</sup> Ohm	5x10 <sup>9</sup> Ohm												
Zero Balance	≤ 1 % FS	≤ 1 % FS												
Output Polarity	+Tension	+Tension												
<b>Physical</b>														
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												
<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>														
<table border="1" style="width: 100%;"> <tr> <td>Entered: AP</td> <td>Engineer: PE</td> <td>Sales: JC</td> <td>Approved: JSD</td> <td>Spec Number:</td> </tr> <tr> <td>Date: 2/17/2015</td> <td>Date: 2/17/2015</td> <td>Date: 2/17/2015</td> <td>Date: 2/17/2015</td> <td style="text-align: center;"><b>18331</b></td> </tr> </table>					Entered: AP	Engineer: PE	Sales: JC	Approved: JSD	Spec Number:	Date: 2/17/2015	Date: 2/17/2015	Date: 2/17/2015	Date: 2/17/2015	<b>18331</b>
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