


Model Number 4115K-09A		ROTARY TRANSFORMER TORQUE SENSOR			Revision: D ECN #: 43820											
Performance																
Measurement Range(Full Scale Capacity)	2400 in-lb	270 Nm		[1]	OPTIONAL VERSIONS 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(± 15 %)(output at rated capacity)	2.5 mV/V	2.5 mV/V		[1][3]												
Non-Linearity	≤ 0.05 % FS	≤ 0.05 % FS		[3]												
Hysteresis	≤ 0.05 % FS	≤ 0.05 % FS		[3]												
Non-Repeatability	≤ 0.03 % FS	≤ 0.03 % FS		[3]												
Environmental																
Overload Limit	7200 in-lb	815 Nm			NOTES: [1]Nominal. [2]Recommended 10 VAC RMS. [3]FS - Full Scale. [4]Over compensated operating temperature range. [5]See PCB Declaration of Conformance PS062 for details.											
Temperature Range(Operating)	-65 to 285 °F	-54 to 141 °C														
Temperature Range(Compensated)	+70 to +170 °F	+21 to 77 °C														
Temperature Effect on Output(Maximum)	± 0.002 %Reading/°F	± 0.0036 %Reading/°C		[4]												
Temperature Effect on Zero Balance(Maximum)	± 0.002 %FS/°F	± 0.0036 %FS/°C		[4][3]												
Electrical																
Bridge Resistance	350 Ohm	350 Ohm		[1]	SUPPLIED ACCESSORIES: Model 180-019A 5-socket mating connector for Series 3100, 4100, 4200 torque sensors Model 8113-105A Relay activated precision shunt calibration module											
Excitation Frequency	3.28 kHz	3.28 kHz														
Excitation Voltage	2 to 10 VAC rms	2 to 10 VAC rms		[2]												
Insulation Resistance	>5,000,000 kohm	>5,000,000 kohm														
Zero Balance	≤ 2 % FS	≤ 2 % FS		[3]												
Bridge Current(at 5 VAC)	50 mA	50 mA			<table border="1"> <tr> <td>Entered: AP</td> <td>Engineer: PE</td> <td>Sales: KWW</td> <td>Approved: JSD</td> <td>Spec Number:</td> </tr> <tr> <td>Date: 2/12/2015</td> <td>Date: 2/12/2015</td> <td>Date: 2/12/2015</td> <td>Date: 2/12/2015</td> <td>18489</td> </tr> </table>		Entered: AP	Engineer: PE	Sales: KWW	Approved: JSD	Spec Number:	Date: 2/12/2015	Date: 2/12/2015	Date: 2/12/2015	Date: 2/12/2015	18489
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Physical																
Size (Shaft Length x Housing Length x Housing Height)	9.56 in x 8.25 in x 6.00 in	242.82 mm x 209.55 mm x 152.40 mm					<p>PCB Load & Torque, Inc. 24350 Indoplex Circle Farmington Hills, MI 48335 UNITED STATES Phone: 866-684-7107 Fax: 716-684-0987 E-Mail: ltinfo@pcbloadtorque.com Web site: http://www.pcbloadtorque.com</p>									
Weight	47 lb	21.3 kg														
Mounting	Splined	Splined														
Sensing Element	Strain Gage	Strain Gage														
Housing Material	Black Oxided Steel	Black Oxided Steel														
Shaft Material	Steel	Steel														
Electrical Connector	MS3102A-14S-5P	MS3102A-14S-5P														
Electrical Connection Position	Side	Side														
Torsional Stiffness	380,000 in-lb/radian	42,900 N-m/radian														
Rotating Inertia	0.0055 in-lb sec ²	0.0006 N-m sec ²														
Maximum Speed	15,000 RPM	15,000 RPM														
 <p>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.</p>																