

Model Number 4115K-04A	ROTARY TRANSFORMER TORQUE SENSOR				Revision: F ECN #: 44335
Performance		ENGLISH	SI		OPTIONAL VERSIONS
Measurement Range(Full Scale Capacity)		500 in-lb	55 Nm	[1]	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]	NOTES: [1]Nominal. [2]Recommended 10 VAC RMS. [3]FS - Full Scale. [4]Over compensated operating temperature range. [5]Mounting per AND10262 and AND20002. [6]See PCB Declaration of Conformance PS062 for details.
Environmental					
Overload Limit		1500 in-lb	170 Nm		
Temperature Range(Operating)		-65 to 225 °F	-54 to 107 °C		
Temperature Range(Compensated)		+70 to +170 °F	+21 to 77 °C		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
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]	Entered: JM Engineer: JSD Sales: KWW Approved: JM Spec Number: Date: 7/23/2015 Date: 7/23/2015 Date: 7/23/2015 Date: 7/23/2015 18484
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]	 PCB LOAD & TORQUE A PCB PIEZOTRONICS DIV. PCB Load & Torque 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
Bridge Current(at 5 VAC)		50 mA	50 mA		
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		
Weight		47 lb	21.3 kg		
Mounting		Flange w/ Splined Shaft	Flange w/ Splined Shaft	[5]	
Sensing Element		Strain Gage	Strain Gage		
Housing Material		Black Oxidized Steel	Black Oxidized Steel		
Shaft Material		Steel	Steel		
Electrical Connector		MS3102A-14S-5P	MS3102A-14S-5P		
Torsional Stiffness		94,000 in-lb/radian	10,600 N-m/radian		
Rotating Inertia		0.0051 in-lb sec ²	0.0006 N-m sec ²		
Maximum Speed		15,000 RPM	15,000 RPM		



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.



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