

Model Number 4115A-04A	ROTARY TRANSFORMER TORQUE SENSOR				Revision: E ECN #: 43820
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]		
Environmental					
Overload Limit	1500 in-lb	170 Nm			
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]		NOTES:
Temperature Effect on Zero Balance(Maximum)	± 0.002 %FS/°F	± 0.0036 %FS/°C	[4][3]		[1]Nominal.
Electrical					[2]Recommended 10 VAC RMS.
Bridge Resistance	350 Ohm	350 Ohm	[1]		[3]FS - Full Scale.
Excitation Frequency	3.28 kHz	3.28 kHz			[4]Over compensated operating temperature range.
Excitation Voltage	2 to 10 VAC rms	2 to 10 VAC rms	[2]		[5]Mounting per AND10262 and AND20002.
Insulation Resistance	>5,000,000 kohm	>5,000,000 kohm			[6]See PCB Declaration of Conformance PS062 for details.
Zero Balance	≤ 2 % FS	≤ 2 % FS	[3]		
Bridge Current(at 5 VAC)	50 mA	50 mA			
Physical					SUPPLIED ACCESSORIES:
Size (Shaft Length x Housing Length x Housing Height)	9.10 in x 8.25 in x 6.00 in	231.14 mm x 209.55 mm x 152.40 mm			Model 180-019A 5-socket mating connector for Series 3100, 4100, 4200 torque sensors
Weight	46 lb	20.9 kg			Model 8113-105A Relay activated precision shunt calibration module
Mounting	Flange w/ Splined Shaft	Flange w/ Splined Shaft	[5]		
Sensing Element	Strain Gage	Strain Gage			Entered: AP
Housing Material	Black Oxided Steel	Black Oxided Steel			Engineer: PE
Shaft Material	Steel	Steel			Sales: KWW
Electrical Connector	MS3102A-14S-5P	MS3102A-14S-5P			Approved: JSD
Torsional Stiffness	94,000 in-lb/radian	10,600 N-m/radian			Spec Number:
Rotating Inertia	0.005 in-lb sec2	0.0006 N-m sec2			
Maximum Speed	15,000 RPM	15,000 RPM			Date: 2/12/2015
					Date: 2/12/2015
					Date: 2/12/2015
					Date: 2/12/2015
					19261
 [6] 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.					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