


Model Number 4115K-11A		ROTARY TRANSFORMER TORQUE SENSOR			Revision: D ECN #: 43820
Performance		ENGLISH	SI		OPTIONAL VERSIONS
Measurement Range(Full Scale Capacity)	5000 in-lb	565 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					NOTES:
Overload Limit	15,000 in-lb	1700 Nm		[1]Nominal.	
Temperature Range(Operating)	-65 to 225 °F	-54 to 107 °C		[2]Recommended 10 VAC RMS.	
Temperature Range(Compensated)	+70 to +170 °F	+21 to 77 °C		[3]FS - Full Scale.	
Temperature Effect on Output(Maximum)	± 0.002 %Reading/°F	± 0.0036 %Reading/°C	[4]	[4]Over compensated operating temperature range.	
Temperature Effect on Zero Balance(Maximum)	± 0.002 %FS/°F	± 0.0036 %FS/°C	[4][3]	[5]Mounting per AND10262 and AND20002.	
Electrical				[6]See PCB Declaration of Conformance PS062 for details.	
Bridge Resistance	350 Ohm	350 Ohm	[1]		
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			
Physical				SUPPLIED ACCESSORIES:	
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		Model 180-019A 5-socket mating connector for Series 3100, 4100, 4200 torque sensors	
Weight	47 lb	21.3 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			
Housing Material	Black Oxidized Steel	Black Oxidized Steel			
Shaft Material	Steel	Steel			
Electrical Connector	MS3102A-14S-5P	MS3102A-14S-5P			
Torsional Stiffness	500,000 in-lb/radian	56,500 N-m/radian			
Rotating Inertia	0.0062 in-lb sec ²	0.0007 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>					
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