

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						
Overload Limit		15,000 in-lb	1700 Nm			
Temperature Range(Operating)		-65 to 225 °F	-54 to 107 °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: [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.	
Temperature Effect on Zero Balance(Maximum)		± 0.002 %FS/°F	± 0.0036 %FS/°C	[4][3]		
Electrical						
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 Model 8113-105A Relay activated precision shunt calibration module	
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 Oxided Steel	Black Oxided 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			
						
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.						
				Entered: AP	Engineer: PE	
				Sales: KWW	Approved: JSD	Spec Number:
				Date: 2/13/2015	Date: 2/13/2015	Date: 2/13/2015
				Date: 2/13/2015	Date: 2/13/2015	18491
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