

Model Number 4115K-116-01A		ROTARY TRANSFORMER TORQUE SENSOR			Revision: A ECN #: 26685
Performance		ENGLISH	SI		OPTIONAL VERSIONS
Measurement Range(Full Scale Capacity)	1500 in-lb	169 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)	2.0 mV/V	2.0 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	3600 in-lb	405 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]		
Electrical					SUPPLIED ACCESSORIES:
Bridge Resistance	350 Ohm	350 Ohm	[1]	Model 180-019A 5-socket mating connector for Series 3100, 4100, 4200 torque sensors	
Excitation Frequency	3.28 kHz	3.28 kHz		Model 8113-105A Relay activated precision shunt calibration module	
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					
Size (Shaft Length x Housing Length x Housing Height)	9.65 in x 6.50 in x 6.00 in	245.11 mm x 165.1 mm x 152.40 mm		Entered: AP	Engineer: PE
Weight	41 lb	18.6 kg		Sales: KWW	Approved: JSD
Mounting	Splined	Splined		Date: 2/13/2015	Spec Number:
Sensing Element	Strain Gage	Strain Gage		Date: 2/13/2015	26685
Housing Material	Black Oxided Steel	Black Oxided Steel		Date: 2/13/2015	
Shaft Material	Steel	Steel			
Electrical Connector	MS3102A-14S-5P	MS3102A-14S-5P			
Electrical Connection Position	Side	Side			
Torsional Stiffness	204,000 in-lb/radian	23,000 N-m/radian			
Rotating Inertia	0.0084 in-lb sec ²	0.0009 N-m sec ²			
Maximum Speed	18,000 RPM	18,000 RPM			
<p><i>All specifications are at room temperature unless otherwise specified.</i></p> <p><i>In the interest of constant product improvement, we reserve the right to change specifications without notice.</i></p>					
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