Model Number	ROTARY TRANSFORMER TORQUE SENSOR	Revision: D
4115K-05A		ECN #: 43820

Performance	**ENGLISH**	**SI**	
Measurement Range(Full Scale Capacity)	600 in-lb	68 Nm	[1]
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	1800 in-lb	200 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]
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			
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	Splined	Splined	
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	
Electrical Connection Position	Side	Side	
Torsional Stiffness	120,000 in-lb/radian	13,600 N-m/radian	
Rotating Inertia	0.0051 in-lb sec2	0.0006 N-m sec2	
Maximum Speed	15,000 RPM	15,000 RPM	

CE[5]

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.

OPTIONAL VERSIONS

Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.

NOTES:

[1]Nominal.
[2]Recommended 10 VAC RMS.
[3]FS - Full Scale.
[4]Over compensated operating temperature range.
[5]See PCB Declaration of Conformance PS062 for details.

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

Entered: AP	Engineer: PE	Sales: KWW	Approved: JSD	Spec Number:
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