Model Number 4115K-04A	ROTARY	TRANSFORM	ER	TORQUE SENSOR	
Performance Measurement Range(Full Scale Capacity) Sensitivity(± 15 %)(output at rated capacity) Non-Linearity Hysteresis Non-Repeatability Environmental Overload Limit Temperature Range(Operating) Temperature Range(Compensated)	ENGLISH 500 in-lb 2.5 mV/V ≤ 0.05 % FS ≤ 0.05 % FS ≤ 0.03 % FS  1500 in-lb -65 to 225 °F +70 to +170 °F	\$\begin{align*} \text{SI} & 55 \text{ Nm} & 2.5 \text{ mV/V} \\ \text{\$\leq 0.05 \% FS} \\ \text{\$\leq 0.05 \% FS} \\ \text{\$\leq 0.03 \% FS} & \\ \text{\$170 \text{ Nm}} & \\ \text{\$\leq 54 \text{ to } 107 \cdot C} & \\ \text{\$\leq 21 \text{ to } 77 \cdot C} & \\ \text{\$\leq 22 \text{ to } 77 \cdot C} & \\ \text{\$\leq 22 \text{ to } 77 \cdot C} & \\ \text{\$\leq 22 \text{ to } 77 \cdot C} & \\ \text{\$\leq 22 \text{ to } 77 \cdot C} & \\ \text{\$\leq 22 \text{ to } 77 \cdot C} & \\ \text{\$\leq 22 \text{ to } 77 \cdot C} & \\ \text{\$\leq 22 \text{ to } 77 \cdot C} & \\ \text{\$\leq 22 \text{ to } 77 \cdot C} & \\ \text{\$\leq 22 \text{ to } 77 \text{ to } 77 \cdot C} & \\ \text{\$\leq 22 \text{ to } 77 \text{ to } 77 \text	[1] [1][3] [3] [3] [3]	OPT Optional versions have identical sp model except where noted	
,	± 0.002 %Reading/°F ± 0.002 %FS/°F 350 Ohm 3.28 kHz	± 0.0036 %Reading/°C ± 0.0036 %FS/°C	[4] [4][3] [1]	NOTES: [1]Nominal. [2]Recommended 10 VAC RMS. [3]FS - Full Scale. [4]Over compensated operating tempe [5]Mounting per AND10262 and AND2 [6]See PCB Declaration of Conformance	
Excitation Voltage Insulation Resistance	2 to 10 VAC rms >5,000,000 kohm	2 to 10 VAC rms >5,000,000 kohm	[2]		
Zero Balance Bridge Current(at 5 VAC)	≤ 2 % FS 50 mA	≤ 2 % FS 50 mA	[3]	SUPPLIED ACCESSORIES:	
Physical Size (Shaft Length x Housing Length x Housing Height) Weight	9.56 in x 8.25 in x 6.00 in 47 lb	242.82 mm x 209.55 mm x 152.40 mm 21.3 kg		Model 180-019A 5-socket mating conn Model 8113-105A Relay activated pred	
Mounting	Flange w/ Splined	Flange w/ Splined Shaft	[5]	Entered: JM Engineer: JSD	

Shaft

Strain Gage

Black Oxided Steel

MS3102A-14S-5P

94,000 in-lb/radian

0.0051 in-lb sec2

15.000 RPM

## **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:

Strain Gage

Black Oxided Steel

MS3102A-14S-5P

10.600 N-m/radian

0.0006 N-m sec2

15.000 RPM

[4]Over compensated operating temperature range.

[5]Mounting per AND10262 and AND20002.

[6]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: JM	Engineer: JSD	Sales: KWW	Approved: JM	Spec Number:
Date: 7/23/2015	Date: 7/23/2015	Date: 7/23/2015	Date: 7/23/2015	18484



**PCB Load & Torque** 24350 Indoplex Circle Farmington Hills, MI 48335 **UNITED STATES** 

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Revision: F

ECN #: 44335

Web site:

http://www.pcbloadtorque.com



Sensing Element

Housing Material

**Torsional Stiffness** 

Rotating Inertia

Maximum Speed

**Shaft Material Electrical Connector** 

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.