

Model Number 2508-04A	REACTION TORQUE SENSOR	Revision: F ECN #: 47636
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	<u>ENGLISH</u>	<u>SI</u>	
Performance			
Measurement Range(Full Scale Capacity)	500 lbf-in	56.5 Nm	
Sensitivity(output at rated capacity)	2 mV/V	2 mV/V	[5][4]
Non-Linearity	≤ 0.10 % FS	≤ 0.10 % FS	[4]
Hysteresis	≤ 0.10 % FS	≤ 0.10 % FS	[4]
Non-Repeatability	≤ 0.02 % FS	≤ 0.02 % FS	[4]
Resonant Frequency	2.05 kHz	2.05 kHz	
Maximum Torque	750 lbf-in	84.7 Nm	
Environmental			
Overload Limit(Axial Thrust)	500 lbf	2224 N	[2]
Overload Limit(Overhung Moment)	250 lbf-in	28.2 Nm	[2]
Overload Limit(Shear)	500 lbf	2224 N	[2]
Temperature Range(Operating)	-65 to +170 °F	-54 to 77 °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	[3]
Temperature Effect on Zero Balance(Maximum)	± 0.002 %FS/°F	± 0.0036 %FS/°C	[4][3]
Electrical			
Bridge Resistance	350 Ohm	350 Ohm	
Excitation Voltage(Recommended)	10 VDC	10 VDC	[1]
Insulation Resistance	5 GOhm	5 GOhm	
Zero Balance	≤ 1 %RO	≤ 1 %RO	
Output Polarity	cw+	cw+	
Physical			
Size (Diameter x Length)	2.00 in x 3.00 in	50.8 mm x 76.2 mm	[6]
Weight	2 lb	908 g	
Mounting	Flange (#10-24 Bolts)	Flange (No Metric Equivalent)	
Torsional Stiffness	73 klbf-in/radian	8.248 kN-m/radian	
Sensing Element	Strain Gage	Strain Gage	
Housing Material(Sensor)	Anodized Aluminum	Anodized Aluminum	
Electrical Connector	PT02E-10-6P	PT02E-10-6P	
<i>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.</i>			

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] Calibrated at 10 VDC, usable 5 to 20 VDC or VAC RMS.
 [2] Singularly applied, i.e. no other extraneous loads.
 [3] Over compensated operating temperature range.
 [4] FS - Full Scale.
 [5] Nominal.
 [6] See Drawing 32786 for Complete Dimensions

SUPPLIED ACCESSORIES:
 Model 181-012A PT06A-10-6S(SR) (1)

Entered: LK	Engineer: PE	Sales: KH	Approved: JSD	Spec Number:
Date: 2/23/2018	Date: 2/23/2018	Date: 2/23/2018	Date: 2/23/2018	18534



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