

Model Number 2508-01A	<b>REACTION TORQUE SENSOR</b>	Revision: F ECN #: 44533
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	<u>ENGLISH</u>	<u>SI</u>	
<b>Performance</b>			
Measurement Range(Full Scale Capacity)	50 lbf-in	5.65 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	380 Hz	380 Hz	
Maximum Torque	75 lbf-in	8.47 Nm	
<b>Environmental</b>			
Overload Limit(Axial Thrust)	200 lbf	890 N	[2]
Overload Limit(Overhung Moment)	50 lbf-in	5.65 Nm	[2]
Overload Limit(Shear)	13 lbf	57.8 N	[2]
Temperature Range(Operating)	-65 to +200 °F	-54 to +93 °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]
<b>Electrical</b>			
Bridge Resistance	700 Ohm	700 Ohm	
Excitation Voltage(Recommended)	10 VDC	10 VDC	[1]
Insulation Resistance	5 GOhm	5 GOhm	
Zero Balance	≤ 1.0 %RO	≤ 1.0 %RO	
Output Polarity	cw+	cw+	
<b>Physical</b>			
Size (Diameter x Length)	2.0 in x 3.0 in	50.8 mm x 76.2 mm	[6]
Weight	2.0 lb	908 g	
Mounting	Flange (#10-24 Bolts)	Flange (No Metric Equivalent)	
Torsional Stiffness	2350 lbf-in/radian	265.5 N-m/radian	
Sensing Element	Strain Gage	Strain Gage	
Electrical Connector	PT02E-10-6P	PT02E-10-6P	
Housing Material(Sensor)	Anodized Aluminum	Anodized Aluminum	

**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)

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All specifications are at room temperature unless otherwise specified.  
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