Model Number
2508-01A
Performance
Measurement Rang

## **REACTION TORQUE SENSOR**

Revision: G ECN #: 47636

Performance	ENGLISH	<u>SI</u>	
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	
Environmental			
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)	Operating) -65 to +200 °F		
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	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+	
Physical			
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	
Housing Material(Sensor)	Anodized Aluminum	Anodized Aluminum	
Electrical Connector	PT02E-10-6P	PT02E-10-6P	
All specifications are at room temperature unless of	otherwise specified.		
In the interest of constant are dust improvement in			

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] 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: 2/22/2018	Date: 2/22/2018	Date: 2/22/2018	Date: 2/22/2018	18531



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