

Model Number <b>2301-02A</b>	<b>REACTION TORQUE SENSOR</b>	Revision: E ECN #: 47636
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	<u>ENGLISH</u>	<u>SI</u>	
<b>Performance</b>			
Measurement Range(Full Scale Capacity)	5000 lbf-in	565 Nm	[1]
Sensitivity(± 15 %)(output at rated capacity)	2 mV/V	2 mV/V	[1][5]
Non-Linearity	≤ 0.1 % FS	≤ 0.1 % FS	[5]
Hysteresis	≤ 0.1 % FS	≤ 0.1 % FS	[5]
Non-Repeatability	≤ 0.02 % FS	≤ 0.02 % FS	[5]
Resonant Frequency	1.8 kHz	1.8 kHz	
Maximum Torque	7500 lbf-in	847 Nm	
<b>Environmental</b>			
Overload Limit(Axial Thrust)	5000 lbf	22.2 kN	[3]
Overload Limit(Overhung Moment)	2500 lbf-in	282 Nm	[3]
Overload Limit(Shear)	2500 lbf	11.1 kN	[3]
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	[4]
Temperature Effect on Zero Balance(Maximum)	± 0.002 %FS/°F	± 0.0036 %FS/°C	[4][5]
<b>Electrical</b>			
Bridge Resistance	350 Ohm	350 Ohm	[1]
Excitation Voltage(Recommended)	10 VDC	10 VDC	[2]
Insulation Resistance	5 GOhm	5 GOhm	
Zero Balance	≤ 1 %RO	≤ 1 %RO	
Output Polarity	cw+	cw+	
<b>Physical</b>			
Size (Diameter x Length)	4.00 in x 3.00 in	101.6 mm x 76.2 mm	[6]
Weight	5 lb	2.268 kg	
Mounting	Flange (5/16in Bolts)	Flange (M8 Bolts)	
Torsional Stiffness	1290 klf-in/radian	145.7 kN-m/radian	
Sensing Element	Strain Gage	Strain Gage	
Housing Material	Anodized Aluminum	Anodized Aluminum	
Sensor Material	plated steel	plated steel	
Electrical Connector	PT02E-10-6P	PT02E-10-6P	

**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] Calibrated at 10 VDC, usable 5 to 20 VDC or VAC RMS.  
 [3] Singularly applied, i.e. no other extraneous loads.  
 [4] Over compensated operating temperature range.  
 [5] FS - Full Scale.  
 [6] See Drawing 26440 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	<b>18722</b>



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*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.*