

Model Number 2304-106-02A	<b>REACTION TORQUE SENSOR</b>	Revision: NR ECN #: 45794
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	<b>ENGLISH</b>	<b>SI</b>	
<b>Performance</b>			
Measurement Range(Full Scale Capacity)	120,000 lbf-in	13,558 Nm	[1]
Sensitivity(± 15 %)(output at rated capacity)	1.1 mV/V	1.1 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	1.1 kHz	1.1 kHz	
Maximum Torque	300,000 lbf-in	33,895 Nm	
<b>Environmental</b>			
Overload Limit(Axial Thrust)	200,000 lbf	889.6 kN	[3]
Overload Limit(Overhung Moment)	100,000 lbf-in	11,298 Nm	[3]
Overload Limit(Shear)	30,000 lbf	133.44 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)	9.75 in x 8.50 in	247.65 mm x 215.90 mm	[6]
Weight	80 lb	36.29 kg	
Mounting	Flange (3/4in Bolts)	Flange (M20 Bolts)	
Torsional Stiffness	53,900 klbf-in/radian	6090 kN-m/radian	
Sensing Element	Strain Gage	Strain Gage	
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 26442 for Complete Dimensions

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

Entered: LK	Engineer: PE	Sales: JC	Approved: JM	Spec Number:
Date: 8/18/2016	Date: 8/18/2016	Date: 8/18/2016	Date: 8/18/2016	65106



All specifications are at room temperature unless otherwise specified.  
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