


Model Number 2301-02A	REACTION TORQUE SENSOR			Revision: D ECN #: 44666	
Performance	ENGLISH	SI		OPTIONAL VERSIONS	
Measurement Range(Full Scale Capacity)	5000 lbf-in	565 Nm	[1]	Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.	
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			
Environmental					
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]		
Electrical					
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+			
Physical					
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			
Electrical Connector	PT02E-10-6P	PT02E-10-6P			
Sensor Material	plated steel	plated steel			
NOTES:				SUPPLIED ACCESSORIES: Model 181-012A PT06A-10-6S(SR) (1)	
[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					
Entered: LK		Engineer: JSD	Sales: RB	Approved: JM	Spec Number:
Date: 12/30/2015		Date: 12/30/2015	Date: 12/30/2015	Date: 12/30/2015	18722
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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.



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