

Model Number 2303-01A		REACTION TORQUE SENSOR			Revision D ECN #: 38221	
Performance		ENGLISH	SI		Optional Versions (Optional versions have identical specifications and accessories as listed for standard model except where noted below. More than one option maybe used.)	
Measurement Range (Full Scale Capacity)		50000 lbf-in	5649 Nm	[1]	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 26441 for Complete Dimensions	
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		750 Hz	750 Hz			
Maximum Torque		75000 lbf-in	8474 Nm			
Environmental					Supplied Accessories 181-012A PT06A-10-6S(SR) (1)	
Overload Limit (Axial Thrust)		50000 lbf	222.4 kN	[3]		
Overload Limit (Overhung Moment)		25000 lbf-in	2825 Nm	[3]		
Overload Limit (Shear)		10000 lbf	44.48 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	[5][4]		
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			
Physical						
Size (Diameter x Length)		8.00 in x 7.38 in	203.2 mm x 187.45 mm	[6]		
Weight		50 lb	22.67 Kg			
Mounting		Flange (5/8in Bolts)	Flange (M16 Bolts)			
Torsional Stiffness		10200 klbf-in/radian	1152 kN-m/radian			
Sensing Element		Strain Gage	Strain Gage			
Housing Material (Sensor)		Plated Steel	Plated Steel			
Electrical Connector		PT02E-10-6P	PT02E-10-6P			
						
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. ICP® is a registered trademark of PCB group, Inc.						
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Model Number 2303-02A	REACTION TORQUE SENSOR			Revision D ECN #: 38221										
Performance	ENGLISH	SI		Optional Versions (Optional versions have identical specifications and accessories as listed for standard model except where noted below. More than one option maybe used.)										
Measurement Range (Full Scale Capacity)	100000 lbf-in	11298 Nm	[1]	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 26441 for Complete Dimensions										
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	1.25 kHz	1250 Hz												
Maximum Torque	150000 lbf-in	16948 Nm												
Environmental														
Overload Limit (Axial Thrust)	100000 lbf	444.8 kN	[3]											
Overload Limit (Overhung Moment)	50000 lbf-in	5650 Nm	[3]											
Overload Limit (Shear)	20000 lbf	88.96 kN	[3]	Supplied Accessories 181-012A PT06A-10-6S(SR) (1)										
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	[5][4]											
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												
Physical														
Size (Diameter x Length)	8.00 in x 7.38 in	203.2 mm x 187.45 mm	[6]											
Weight	50 lb	22.67 Kg												
Mounting	Flange (5/8in Bolts)	Flange (M16 Bolts)												
Torsional Stiffness	25700 klb-in/radian	2903 kN-m/radian												
Sensing Element	Strain Gage	Strain Gage												
Housing Material (Sensor)	Plated Steel	Plated Steel												
Electrical Connector	PT02E-10-6P	PT02E-10-6P												
														
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. ICP® is a registered trademark of PCB group, Inc.														
<table border="1"> <tr> <td>Entered: DMW</td><td>Engineer: PE</td><td>Sales: RR</td><td>Approved: JC</td><td>Spec Number:</td></tr> <tr> <td>Date: 01/24/2012</td><td>Date: 01/24/2012</td><td>Date: 01/24/2012</td><td>Date: 01/24/2012</td><td>18728</td></tr> </table>					Entered: DMW	Engineer: PE	Sales: RR	Approved: JC	Spec Number:	Date: 01/24/2012	Date: 01/24/2012	Date: 01/24/2012	Date: 01/24/2012	18728
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Date: 01/24/2012	Date: 01/24/2012	Date: 01/24/2012	Date: 01/24/2012	18728										
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