

Model Number 2508-01A	REACTION TORQUE SENSOR				Revision E 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.) 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 181-012A PT06A-10-6S(SR) (1)										
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)	-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	[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												
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 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><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>18531</td></tr></table>  Company: PCB Load & Torque, Inc. Address: 24350 Indoplex Circle Farmington Hills, MI 48335 UNITED STATES Phone: 866-684-7107 Fax: 716-684-0987 E-mail: ltinfo@pcbloadtorque.com Web site: http://www.pcbloadtorque.com					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	18531
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Date: 01/24/2012	Date: 01/24/2012	Date: 01/24/2012	Date: 01/24/2012	18531										

Model Number 2508-02A		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)		100 lbf-in	11.3 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 32786 for Complete Dimensions	
Sensitivity (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		620 Hz	380 Hz		Supplied Accessories 181-012A PT06A-10-6S(SR) (1)	
Maximum Torque		150 lbf-in	16.9 Nm			
Environmental						
Overload Limit (Axial Thrust)		280 lbf	1245 N	[3]		
Overload Limit (Overhung Moment)		100 lbf-in	11.3 Nm	[3]		
Overload Limit (Shear)		20 lbf	89 N	[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		700 Ohm	700 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)		2.00 in x 3.00 in	50.8 mm x 76.2 mm	[6]		
Weight		2 lb	908 g			
Mounting		Flange (#10-24 Bolts)	Flange (No Metric Equivalent)			
Torsional Stiffness		6700 lbf-in/radian	757 N-m/radian			
Sensing Element		Strain Gage	Strain Gage			
Housing Material (Sensor)		Anodized Aluminum	Anodized Aluminum			
Electrical Connector		PT02E-10-6P	PT02E-10-6P			
						
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Date: 01/24/2012		Date: 01/24/2012		Date: 01/24/2012		Date: 01/24/2012
						Spec Number: 18532
				Company: PCB Load & Torque, Inc. Address: 24350 Indoplex Circle Farmington Hills, MI 48335 UNITED STATES Phone: 866-684-7107 Fax: 716-684-0987 E-mail: ltinfo@pcbloadtorque.com Web site: http://www.pcbloadtorque.com		

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Model Number 2508-04A		REACTION TORQUE SENSOR			Revision E ECN #: 38221										
Performance		ENGLISH		SI											
Measurement Range (Full Scale Capacity)		500 lbf-in		56.5 Nm											
Sensitivity (output at rated capacity)		2 mV/V		2 mV/V											
Non-Linearity		≤0.10 % FS		≤0.10 % FS											
Hysteresis		≤0.10 % FS		≤0.10 % FS											
Non-Repeatability		≤0.02 % FS		≤0.02 % FS											
Resonant Frequency		2.05 kHz		2050 Hz											
Maximum Torque		750 lbf-in		84.7 Nm											
Environmental															
Overload Limit (Axial Thrust)		500 lbf		2224 N											
Overload Limit (Overhung Moment)		250 lbf-in		28.2 Nm											
Overload Limit (Shear)		500 lbf		2224 N											
Temperature Range (Operating)		-65 to +170 °F		-54 to 77 °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											
Temperature Effect on Zero Balance (Maximum)		±0.002 %FS/°F		±0.0036 %FS/°C											
Electrical															
Bridge Resistance		700 Ohm		700 Ohm											
Excitation Voltage (Recommended)		10 VDC		10 VDC											
Insulation Resistance		5 GOhm		5 GOhm											
Zero Balance		≤1 %RO		≤1 %RO											
Physical															
Size (Diameter x Length)		2.00 in x 3.00 in		50.8 mm x 76.2 mm											
Weight		2 lb		908 g											
Mounting		Flange (#10-24 Bolts)		Flange (No Metric Equivalent)											
Torsional Stiffness		73 klbf-in/radian		8248 N-m/radian											
Sensing Element		Strain Gage		Strain Gage											
Housing Material (Sensor)		Anodized Aluminum		Anodized Aluminum											
Electrical Connector		PT02E-10-6P		PT02E-10-6P											
															
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Optional Versions (Optional versions have identical specifications and accessories as listed for standard model except where noted below. More than one option maybe 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															
181-012A PT06A-10-6S(SR) (1)															
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Model Number 2508-05A	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)	1000 lbf-in	113 Nm	[1]		
Sensitivity (output at rated capacity)	2 mV/V	2 mV/V	[1][5]		
Non-Linearity	≤0.1 % FS	≤0.1 % FS	[5]		Notes
Hysteresis	≤0.1 % FS	≤0.1 % FS	[5]		[1] Nominal.
Non-Repeatability	≤0.02 % FS	≤0.02 % FS	[5]		[2] Calibrated at 10 VDC, usable 5 to 20 VDC or VAC RMS.
Resonant Frequency	2.7 kHz	2700 Hz			[3] Singularly applied, i.e. no other extraneous loads.
Maximum Torque	1500 lbf-in	170 Nm			[4] Over compensated operating temperature range.
Environmental					[5] FS - Full Scale.
Overload Limit (Axial Thrust)	660 lbf	2936 N	[3]		[6] See Drawing 32786 for Complete Dimensions
Overload Limit (Overhung Moment)	500 lbf-in	56.5 Nm	[3]		
Overload Limit (Shear)	800 lbf	3559 N	[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	700 Ohm	700 Ohm	[1]		Supplied Accessories
Excitation Voltage (Recommended)	10 VDC	10 VDC	[2]		181-012A PT06A-10-6S(SR) (1)
Insulation Resistance	5 GOhm	5 GOhm			
Zero Balance	≤1 %RO	≤1 %RO			
Physical					
Size (Diameter x Length)	2.00 in x 3.00 in	50.8 mm x 76.2 mm	[6]		
Weight	2 lb	908 g			
Mounting	Flange (#10-24 Bolts)	Flange (No Metric Equivalent)			
Torsional Stiffness	127 klbf-in/radian	14.35 kN-m/radian			
Sensing Element	Strain Gage	Strain Gage			
Housing Material	Anodized Aluminum	Anodized Aluminum			
Electrical Connector	PT02E-10-6P	PT02E-10-6P			

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A PCB GROUP COMPANY

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