Model Number 2508-01A		Ī	REACTION TORG	QUE S	ENSOR
Performance		ENGLISH	SI		Optional Ve
Measurement Range (Full Scale C	apacity)	50 lbf-in	5.65 Nm		for standard
Sensitivity (output at rated capacity		2 mV/V	2 mV/V	[5][4]	
Non-Linearity	,	≤0.10 % FS	≤0.10 % FS	[4]	Notes
Hysteresis		≤0.10 % FS	≤0.10 % FS	[4]	[1] Ca
Non-Repeatability		≤0.02 % FS	≤0.02 % FS	[4]	[2] Sin
Resonant Frequency		380 Hz	380 Hz		[3] Ov
Maximum Torque		75 lbf-in	8.47 Nm		[4] FS
Environmental					[5] No
Overload Limit (Axial Thrust)		200 lbf	890 N	[2]	[6] Se
Overload Limit (Overhung Moment	t)	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		Supplied A
Temperature Range (Compensate		+70 to +170 °F	+21 to +77 °C		181-012A F
Temperature Effect on Output (Ma	ximum)	±0.002 %Reading/°F	±0.0036 %Reading/°C	[3]	
Temperature Effect on Zero Balance	е	±0.002 %FS/°F	±0.0036 %FS/°C	[4][3]	
(Maximum)					
Electrical					
Bridge Resistance		700 Ohm	700 Ohm		
Excitation Voltage (Recommended	1)	10 VDC	10 VDC	[1]	
Insulation Resistance		5 GOhm	5 GOhm		
Zero Balance		≤1.0 %RO	≤1.0 %RO		
Physical		0.01	50.0 70.0		
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		

Optional Versions (Optional versions have identical specifications and accessories as listed for standard model except where noted below. More than one option maybe used.)

Revision E

ECN #: 38221

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)

All specifications are at room temperature unless otherwise specified.

In the interest of constant product improvement, we reserve the right to change specifications without

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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



Company: PCB Load & Torque, Inc. Address: 24350 Indoplex Circle Farmington Hills, MI 48335

UNITED STATES

Phone: 866-684-7107 Fax: 716-684-0987

Model Number 2508-02A		F	REACTION TORG	UE S	ENSOR
Performance		ENGLISH	SI		Optional Ve
	ange (Full Scale Capacity)	100 lbf-in	11.3 Nm	[1]	for standard
	out at rated capacity)	2 mV/V	2 mV/V	[1][5]	
Non-Linearity	at at rated capacity)	≤0.1 % FS	≤0.1 % FS	[5]	Notes
Hysteresis		⊴0.1 % FS ≤0.1 % FS	≤0.1 % FS	[5]	[1] No
Non-Repeatabilit	W	≤0.02 % FS	≤0.02 % FS	[5]	[2] Ca
Resonant Freque	•	≤0.02 % 1 3 620 Hz	380 Hz	اداً	[3] Sin
Maximum Torque		150 lbf-in	16.9 Nm		[4] Ov
Environmental	,	130 101 111	10.5 1411		[5] FS
Overload Limit ('Axial Thrust)	280 lbf	1245 N	[3]	[6] Se
	Overhung Moment)	100 lbf-in	11.3 Nm	[3]	
Overload Limit (20 lbf	89 N	[3]	
Temperature Rar		-65 to +200 °F	-54 to +93 °C	[~]	Supplied A
	nge (Compensated)	+70 to +170 °F	+21 to +77 °C		181-012A F
	ect on Output (Maximum)	±0.002	±0.0036 %Reading/°C	[4]	
Temperature Effe	ect on Zero Balance	%Reading/°F ±0.002 %FS/°F	±0.0036 %FS/°C	[5][4]	
(Maximum)					
Electrical					
Bridge Resistanc		700 Ohm	700 Ohm	[1]	
	e (Recommended)	10 VDC	10 VDC	[2]	
Insulation Resista	ance	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 Stiffnes	SS	6700 lbf-in/radian	757 N-m/radian		
Sensing Element		Strain Gage	Strain Gage		
Housing Material	(Sensor)	Anodized Aluminum	Anodized Aluminum		
Electrical Connec	ctor	PT02E-10-6P	PT02E-10-6P		

Optional Versions (Optional versions have identical specifications and accessories as listed for standard model except where noted below. More than one option maybe used.)

Revision D

ECN #: 38221

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

Supplied Accessories

181-012A PT06A-10-6S(SR) (1)

All specifications are at room temperature unless otherwise specified.

In the interest of constant product improvement, we reserve the right to change specifications without

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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	18532



Company: PCB Load & Torque, Inc. Address: 24350 Indoplex Circle Farmington Hills, MI 48335

UNITED STATES

Phone: 866-684-7107 Fax: 716-684-0987

Model Number 2508-03A		F	REACTION TORG	UE S	ENSOR
Performance		ENGLISH	SI		Optional Ve
Measurement Range	(Full Scale Capacity)	200 lbf-in	22.6 Nm	[1]	for standard
Sensitivity (output a	t 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] No
Non-Repeatability		≤0.02 % FS	≤0.02 % FS	[5]	[2] Ca
Resonant Frequency	,	1.04 kHz	1040 Hz		[3] Sin
Maximum Torque		300 lbf-in	33.9 Nm		[4] Ov
Environmental					[5] FS
Overload Limit (Axia	al Thrust)	400 lbf	1780 N	[3]	[6] Se
Overload Limit (Ove	erhung Moment)	200 lbf-in	22.6 Nm	[3]	
Overload Limit (She	ear)	26 lbf	116.7 N	[3]	
Temperature Range	(Operating)	-65 to +200 °F	-54 to +93 °C		Supplied A
Temperature Range	(Compensated)	+70 to +170 °F	+21 to +77 °C		181-012A F
Temperature Effect of	on Output (Maximum)	±0.002	±0.0036 %Reading/°C	[4]	
		%Reading/°F			
Temperature Effect of	n Zero Balance	±0.002 %FS/°F	±0.0036 %FS/°C	[5][4]	
(Maximum)					
Electrical					
Bridge Resistance		700 Ohm	700 Ohm	[1]	
Excitation Voltage (10 VDC	10 VDC	[2]	
Insulation Resistance	•	5 GOhm	5 GOhm		
Zero Balance		≤1 %RO	≤1 %RO		
Physical					
Size (Diameter x Len	igth)	2.00 in x 3.00 in	50.8 mm x 76.2 mm	[6]	
Weight		2 lb	908 g		
Mounting		Flange (#10-24	Flange (No Metric		
Tanaianal Ctiffrana		Bolts)	Equivalent)		
Torsional Stiffness		18.8 klbf-in/radian	2124 N-m/radian		
Sensing Element		Strain Gage	Strain Gage		
Housing Material (S	ensor)	Anodized	Anodized Aluminum		
Floatsiaal Commission		Aluminum	DT00E 40.0D		
Electrical Connector		PT02E-10-6P	PT02E-10-6P		

ECN #: 38221 Optional Versions (Optional versions have identical specifications and accessories as listed for standard model except where noted below. More than one option maybe used.)

Revision D

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

Supplied Accessories

181-012A PT06A-10-6S(SR) (1)

All specifications are at room temperature unless otherwise specified.

In the interest of constant product improvement, we reserve the right to change specifications without

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Entered: DMW	Engineer: PE	Sales: RR	Approved: JC	Spec Number:
Date:	Date:	Date:	Date:	18533
01/24/2012	01/24/2012	01/24/2012	01/24/2012	



Company: PCB Load & Torque, Inc. Address: 24350 Indoplex Circle Farmington Hills, MI 48335

UNITED STATES Phone: 866-684-7107

Fax: 716-684-0987

Madal Nivestar					
Model Number 2508-04A		F	REACTION TORG	UE S	ENSOR
Performance		ENGLISH	SI		Optional Ve
	inge (Full Scale Capacity)	500 lbf-in	56.5 Nm		for standard
	ut at rated capacity)	2 mV/V	2 mV/V	[5][4]	
Non-Linearity	. ,,	≤0.10 % FS	≤0.10 % FS	[4]	Notes
Hysteresis		≤0.10 % FS	≤0.10 % FS	[4]	[1] Ca
Non-Repeatability	V	≤0.02 % FS	≤0.02 % FS	[4]	[2] Sin
Resonant Freque		2.05 kHz	2050 Hz		[3] Ov
Maximum Torque		750 lbf-in	84.7 Nm		[4] FS
Environmental					[5] No
Overload Limit (Axial Thrust)	500 lbf	2224 N	[2]	[6] Se
Overload Limit (Overhung Moment)	250 lbf-in	28.2 Nm	[2]	
Overload Limit (500 lbf	2224 N	[2]	
Temperature Rar		-65 to +170 °F	-54 to 77 °C		Supplied A
	nge (Compensated)	+70 to +170 °F	+21 to +77 °C		181-012A F
Temperature Effe	ect on Output (Maximum)	±0.002	±0.0036 %Reading/°C	[3]	
		%Reading/°F			
•	ect on Zero Balance	±0.002 %FS/°F	±0.0036 %FS/°C	[4][3]	
(Maximum)					
Electrical		700 01	700 01:		
Bridge Resistanc		700 Ohm 10 VDC	700 Ohm 10 VDC	[4]	
Insulation Resista	e (Recommended)	5 GOhm	5 GOhm	[1]	
Zero Balance	ance	s GOnin ≤1 %RO	s GOnni ≤1 %RO		
Physical		≤1 %KU	≤1 %RO		
Size (Diameter x	Longth)	2.00 in x 3.00 in	50.8 mm x 76.2 mm	[6]	
Weight	Lengin)	2.00 iii x 3.00 iii 2 lb	908 g	[O]	
Mounting		Flange (#10-24	Flange (No Metric		
Modriting		Bolts)	Equivalent)		
Torsional Stiffnes	ss	73 klbf-in/radian	8248 N-m/radian		
Sensing Element	•	Strain Gage	Strain Gage		
Housing Material		Anodized	Anodized Aluminum		
	(==::==:,	Aluminum			
Electrical Connec	ctor	PT02E-10-6P	PT02E-10-6P		

ECN #: 38221 Optional Versions (Optional versions have identical specifications and accessories as listed for standard model except where noted below. More than one option maybe used.)

Revision E

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)

All specifications are at room temperature unless otherwise specified.

In the interest of constant product improvement, we reserve the right to change specifications without

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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	18534



Company: PCB Load & Torque, Inc. Address: 24350 Indoplex Circle Farmington Hills, MI 48335 UNITED STATES

Phone: 866-684-7107 Fax: 716-684-0987

Model Number 2508-05A			REACTION TORG	QUE S	ENSOR
Performance		ENGLISH	SI		Optional Ve
Measurement Range (Full Scale	e Capacity)	1000 lbf-in	113 Nm	[1]	for standard
Sensitivity (output at rated capa	city)	2 mV/V	2 mV/V	[1][5]	İ
Non-Linearity		≤0.1 % FS	≤0.1 % FS	[5]	Notes
Hysteresis		≤0.1 % FS	≤0.1 % FS	[5]	[1] No
Non-Repeatability		≤0.02 % FS	≤0.02 % FS	[5]	[2] Ca
Resonant Frequency		2.7 kHz	2700 Hz		[3] Sin
Maximum Torque		1500 lbf-in	170 Nm		[4] Ov
Environmental					[5] FS
Overload Limit (Axial Thrust)		660 lbf	2936 N	[3]	[6] Se
Overload Limit (Overhung Mom	ent)	500 lbf-in	56.5 Nm	[3]	İ
Overload Limit (Shear)		800 lbf	3559 N	[3]	
Temperature Range (Operating)	-65 to +200 °F	-54 to +93 °C		Supplied A
Temperature Range (Compensation		+70 to +170 °F	+21 to +77 °C		181-012A F
Temperature Effect on Output (Maximum)	±0.002 %Reading/°F	±0.0036 %Reading/°C	[4]	İ
Temperature Effect on Zero Bala	nce	±0.002 %FS/°F	±0.0036 %FS/°C	[5][4]	İ
(Maximum)					İ
Electrical		700 Oh	700 Ob	[4]	İ
Bridge Resistance	ام ما/	700 Ohm 10 VDC	700 Ohm 10 VDC	[1]	İ
Excitation Voltage (Recommend Insulation Resistance	iea)			[2]	İ
Zero Balance		5 GOhm	5 GOhm		İ
		≤1 %RO	≤1 %RO		Ì
Physical		2.00 in x 3.00 in	50.8 mm x 76.2 mm	[6]	İ
Size (Diameter x Length)		2.00 in x 3.00 in 2 lb	908 g	[6]	İ
Weight					İ
Mounting		Flange (#10-24 Bolts)	Flange (No Metric Equivalent)		ı
Torsional Stiffness		127 klbf-in/radian	14.35 kN-m/radian		İ
Sensing Element		Strain Gage	Strain Gage		Ì
Housing Material		Anodized Aluminum	Anodized Aluminum		ı
Electrical Connector		PT02E-10-6P	PT02E-10-6P		ı
					1

ECN #: 38221 Optional Versions (Optional versions have identical specifications and accessories as listed for standard model except where noted below. More than one option maybe used.)

Revision D

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

Supplied Accessories

181-012A PT06A-10-6S(SR) (1)

All specifications are at room temperature unless otherwise specified.

In the interest of constant product improvement, we reserve the right to change specifications without

ICP® is a registered trademark of PCB group, Inc.

Entered: DMW	Engineer: PE	Sales: RR	Approved: JC	Spec Number:
Date:	Date:	Date:	Date:	18535
01/24/2012	01/24/2012	01/24/2012	01/24/2012	



Company: PCB Load & Torque, Inc. Address: 24350 Indoplex Circle Farmington Hills, MI 48335 UNITED STATES

Phone: 866-684-7107 Fax: 716-684-0987