

Model Number  
3124-02A

# ROTARY TORQUE TRANSFORMER, SHAFT-SHAFT

Revision: NR  
ECN #:

**Performance**

	ENGLISH	SI	
Measurement Range(Full Scale Capacity)	1000 in-lb	113 N-m	
Sensitivity(output at rated capacity)	2.0 mV/V	2.0 mV/V	[4]
Non-Linearity	≤ 0.1 % FS	≤ 0.1 % FS	[2]
		FS	
Hysteresis	≤ 0.1 % FS	≤ 0.1 % FS	[2]
		FS	
Non-Repeatability	≤ 0.05 % FS	≤ 0.05 % FS	[2]
	FS	FS	

**Environmental**

Overload Limit	2000 in-lb	226 N-m	
Temperature Range(Operating)	0 to 200 °F	-18 to 93 °C	
Temperature Range(Compensated)	70 to 150 °F	21 to 66 °C	
Temperature Effect on Output(Maximum)	± 0.002 % Reading/°F	± 0.0018 % Reading/°C	[3]
Temperature Effect on Zero Balance(Maximum)	± 0.002 % FS/°F	± 0.0018 % FS/°C	[3]

**Electrical**

Bridge Resistance	350 ohm	350 ohm	
Excitation Voltage	20 VDC or VAC rms	20 VDC or VAC rms	[1]
Bridge Current(at 5 VAC)	50 mA	50 mA	
Insulation Resistance	>5 Gohm	>5 Gohm	
Zero Balance	≤ 2 % FS	≤ 2 % FS	[2]

**Physical**

Size (Shaft Length x Housing Length x Housing Diameter x Shaft Diameter x Shaft Keyway)	9.00 in x 4.58 in x 4.00 in x 1.00 in x 1/4 in	228.6 mm x 116.3 mm x mm x 101.6 mm x 25.4 mm x 6.3 mm	[5]
Weight	5.3 lb	2.4 kg	
Mounting	Keyed	Keyed	
Sensing Element	Shaft Strain Gage	Shaft Strain Gage	
Housing Material	Aluminum	Aluminum	
Shaft Material	Alloy Steel	Alloy Steel	
Electrical Connector	PT02H-10-6P	PT02H-10-6P	
Electrical Connection Position	Top	Top	
Rotating Inertia	0.48 in-lb/sec <sup>2</sup>	0.48 in-lb/sec <sup>2</sup>	
Maximum Speed	7900 RPM	7900 RPM	

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.

**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] Recommended 10 VAC RMS.
- [2] FS - Full Scale.
- [3] Over compensated operating temperature range.
- [4] Nominal.
- [5] See drawing 44773 for complete dimensions.

Entered: BLS	Engineer: PTE	Sales: JCC	Approved: MB	Spec Number:
Date: 3-29-10	Date: 3-29-10	Date: 3-29-10	Date: 3-29-10	45887



PCB Load & Torque, Inc.  
24350 Indoplex Circle  
Farmington Hills, MI 48335  
UNITED STATES  
Phone: 866-684-7107  
Fax: 716-684-0987  
E-Mail: linfo@pcbloadtorque.com  
Web site:  
<http://www.pcbloadtorque.com>