

Model Number
3124-01A

ROTARY TORQUE TRANSDUCER, SHAFT-SHAFT

Revision: A
ECN #: 55624

	ENGLISH	SI	
Performance			
Measurement Range(Full Scale Capacity)	500 in-lb	56.5 Nm	
Sensitivity(output at rated capacity)	2.0 mV/V	2.0 mV/V	[1]
Non-Linearity	≤ 0.1 % FS	≤ 0.1 % FS	[2]
Hysteresis	≤ 0.1 % FS	≤ 0.1 % FS	[2]
Non-Repeatability	≤ 0.05 % FS	≤ 0.05 % FS	[2]
Environmental			
Overload Limit	1,000 in-lb	113 Nm	
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	± 0.002 %FS/°F	± 0.0018 %FS/°C	[3]
Balance(Maximum)			
Electrical			
Bridge Resistance	350 Ohm	350 Ohm	
Excitation Voltage	20 VDC or VAC rms	20 VDC or VAC rms	[4]
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	9.00 in x 4.58 in x 4.00 in x 1.00	228.6 mm x 116.3 mm x 101.6	[5]
Housing Height x Shaft Diameter x Shaft	in x 1/4 in	mm x 25.4 mm x 6.3 mm	
Keyway)			
Weight	5.3 lb	2.4 kg	
Mounting	Keyed Shaft	Keyed Shaft	
Sensing Element	Strain Gage	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 ²	0.48 in-lb/sec ²	
Maximum Speed	7,900 RPM	7,900 RPM	

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



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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