



Model Number 5302D-01A	TORKDISC® ROTARY TORQUE SENSING SYSTEM			Revision: B ECN #: 44198		
Performance Measurement Range(Full Scale Capacity) Accuracy Frequency Range(-3 dB) Filter Type(High Pass) Filter Type(Low Pass - Anti Alias) Voltage Output(channel A - AC coupled) Voltage Output(channel B - DC coupled) Gain(Channel A) Gain(Channel B) Digital Output Maximum Load(Axial) Maximum Load(Lateral) Maximum Moment	ENGLISH 2000 in-lb ± 0.10 % FS 0 to 8500 Hz 2-pole Butterworth 8-pole Elliptical ± 10 V ± 10 V 1-16 dB 0.3-1.3 dB QSPI 500 lb 500 lb 1500 in-lb	SI 226 Nm ± 0.10 % FS [3] 0 to 8500 Hz 2-pole [4][5] Butterworth 8-pole Elliptical ± 10 V ± 10 V 1-16 dB 0.3-1.3 dB QSPI [6] 2.2 kN [7][8] 2.2 kN [7][8] 169 Nm [7][8]	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.			
Environmental Overload Limit(Bolt Joint Slip) Overload Limit(Failure) Overload Limit(Safe) Temperature Range(Rotor/Stator - Operating) Temperature Range(Rotor - Compensated) Temperature Range(Receiver - Operating) Temperature Effect on Output(System - within compensated range) Temperature Effect on Zero Balance(System - within compensated range) Position Sensitivity(180° rotation of sensor)	3300 in-lb 8000 in-lb 6000 in-lb +32 to +185 °F +70 to +170 °F 0 to +122 °F 0.002 %FS/°F 0.002 %FS/°F ≤ 0.1 % FS	373 Nm [2] 904 Nm 678 Nm 0 to +85 °C +21 to +77 °C -17.7 to 50 °C 0.0036 %FS/°C 0.0036 %FS/°C ≤ 0.1 % FS				
Electrical Power Required(50 to 60 Hz) Digital Resolution Digital Sample Rate Analog Resolution(based on ±10 V FSO and 16-bit resolution)	9 to 18 VDC 16 Bit 26,484 samples/sec 0.31 mV	9 to 18 VDC [1] 16 Bit 26,484 samples/sec 0.31 mV	NOTES: [1]Supplied with universal AC power adaptor. [2]Bolt joint slip torque is calculated assuming a coefficient of friction (μ) of 0.1 and that grade 8 socket head cap screws are used and tightened to 30% of yield. [3]Root sum square of non-linearity, hysteresis, and non repeatability. [4>Selectable High Pass cutoff frequencies of 5, 10, 20, 200 and 500 Hz. [5>Selectable Low Pass cutoff frequencies of 10,000, 5000, 2500, 1200, 625 and 313 Hz. [6]Request Technical Note FTQ-STN5 regarding digital output signal. [7]Extraneous load limits reflect the maximum axial load, lateral load, and bending moment that may be applied singularly without electrical or mechanical damage to the sensor. [8]Where combined extraneous loads are applied, decrease loads proportionally. [9]See PCB Declaration of Conformance PS069 for details.			
Physical Maximum Speed Permissible Axial Float(rotor to stator) Permissible Radial Float(rotor to stator) Rotating Inertia(without adaptors) Dynamic Balance Torsional Stiffness Torsional Angle(at Full Scale Capacity) Housing Material(Sensor) Weight(rotor/sensor)	15,000 RPM 0.25 in 0.25 in 0.056 in-lb/sec2 per ISO G 2.5 5,800,000 in-lb/radian 0.020 ° Anodized Aluminum 3.5 lb	15,000 RPM 6.4 mm 6.4 mm 0.006 N-m/sec2 per ISO G 2.5 655,312 N-m/radian 0.020 ° Anodized Aluminum 1.6 kg	SUPPLIED ACCESSORIES: Model 012AC024AT Cable (1) Model 182-028A Connector (1) Model M0003978 Power supply (1)			
Entered: AP		Engineer: JM		Sales: KWW	Approved: JSD	Spec Number:
Date: 5/13/2015		Date: 5/13/2015		Date: 5/13/2015	Date: 5/13/2015	40425
 <p>[9] 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.</p>		 <p>PCB LOAD & TORQUE A PCB PIEZOTRONICS DIV.</p>		<p>PCB Load & Torque 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</p>		