

Model Number 5308D-01A	TORKDISC® ROTARY TORQUE SENSING SYSTEM			Revision: C 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 10,000 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 1350 lb 1650 lb 5000 in-lb	SI 1130 Nm ± 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 6.0 kN 7.3 kN 565 Nm	[3] [4][5] [6] [7][8] [7][8] [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)	35,000 in-lb 40,000 in-lb 30,000 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	3955 Nm 4519 Nm 3390 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	[2]	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 75% 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.
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 16 Bit 26,484 samples/sec 0.31 mV	[1]	SUPPLIED ACCESSORIES: Model 012AC024AT Cable (1) Model 182-028A Connector (1) Model M0003978 Power supply (1)
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)	10,000 RPM 0.25 in 0.25 in 0.24 in-lb/sec2 per ISO G 2.5 33,500 in-lb/radian 0.017 ° Steel Alloy 10 lb	10,000 RPM 6.4 mm 6.4 mm 0.027 N-m/sec2 per ISO G 2.5 3785 kN-m/radian 0.017 ° Steel Alloy 10 lb		
Entered: AP Date: 5/13/2015 Engineer: JM Date: 5/13/2015 Sales: KWW Date: 5/13/2015 Approved: JSD Date: 5/13/2015 Spec Number: 40577				
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CE 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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