


Model Number 5308D-01A		TORKDISC® ROTARY TORQUE SENSING SYSTEM		Revision: C ECN #: 44198	
Performance		ENGLISH	SI	OPTIONAL VERSIONS	
Measurement Range(Full Scale Capacity)	10,000 in-lb	1130 Nm		Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.	
Accuracy	± 0.10 % FS	± 0.10 % FS	[3]		
Frequency Range(-3 dB)	0 to 8500 Hz	0 to 8500 Hz			
Filter Type(High Pass)	2-pole	2-pole	[4][5]		
Filter Type(Low Pass - Anti Alias)	Butterworth	Butterworth			
Voltage Output(channel A - AC coupled)	± 10 V	± 10 V			
Voltage Output(channel B - DC coupled)	± 10 V	± 10 V			
Gain(Channel A)	1-16 dB	1-16 dB			
Gain(Channel B)	0.3-1.3 dB	0.3-1.3 dB			
Digital Output	QSPI	QSPI	[6]		
Maximum Load(Axial)	1350 lb	6.0 kN	[7][8]	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.	
Maximum Load(Lateral)	1650 lb	7.3 kN	[7][8]		
Maximum Moment	5000 in-lb	565 Nm	[7][8]		
Environmental					
Overload Limit(Bolt Joint Slip)	35,000 in-lb	3955 Nm	[2]		
Overload Limit(Failure)	40,000 in-lb	4519 Nm			
Overload Limit(Safe)	30,000 in-lb	3390 Nm			
Temperature Range(Rotor/Stator - Operating)	+32 to +185 °F	0 to +85 °C			
Temperature Range(Rotor - Compensated)	+70 to +170 °F	+21 to +77 °C			
Temperature Range(Receiver - Operating)	0 to +122 °F	-17.7 to 50 °C			
Temperature Effect on Output(System - within compensated range)	0.002 %FS/°F	0.0036 %FS/°C			
Temperature Effect on Zero Balance(System - within compensated range)	0.002 %FS/°F	0.0036 %FS/°C			
Position Sensitivity(180° rotation of sensor)	≤ 0.1 % FS	≤ 0.1 % FS		SUPPLIED ACCESSORIES: Model 012AC024AT Cable (1) Model 182-028A Connector (1) Model M0003978 Power supply (1)	
Electrical					
Power Required(50 to 60 Hz)	9 to 18 VDC	9 to 18 VDC	[1]		
Digital Resolution	16 Bit	16 Bit			
Digital Sample Rate	26,484 samples/sec	26,484 samples/sec			
Analog Resolution(based on ±10 V FSO and 16-bit resolution)	0.31 mV	0.31 mV			
Physical					
Maximum Speed	10,000 RPM	10,000 RPM			
Permissible Axial Float(rotor to stator)	0.25 in	6.4 mm			
Permissible Radial Float(rotor to stator)	0.25 in	6.4 mm			
Rotating Inertia(without adaptors)	0.24 in-lb/sec ²	0.027 N-m/sec ²			
Dynamic Balance	per ISO G 2.5	per ISO G 2.5			
Torsional Stiffness	33,500 in-lb/radian	3785 kN-m/radian			
Torsional Angle(at Full Scale Capacity)	0.017 °	0.017 °			
Housing Material(Sensor)	Steel Alloy	Steel Alloy			
Weight(rotor/sensor)	10 lb	10 lb			
				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 40577	
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 style="text-align: center;">PCB Load & Torque 24350 Indoplex Circle Farmington Hills, MI 48335 UNITED STATES Phone: 866-684-7107 Fax: 716-684-0987 E-Mail: Itinfo@pcbloadtorque.com Web site: http://www.pcbloadtorque.com</p>	



Represented in India by

Structural Solutions Pvt Ltd. | Phone: 040 2322 2380 | Email: sales@stsols.com

#4th Floor, Sudheer Tapani Towers, Himayath Nagar, Hyderabad - 500 029