


Model Number 5308D-03A		TORKDISC® ROTARY TORQUE SENSING SYSTEM			Revision: B ECN #: 44198	
Performance		ENGLISH	SI		OPTIONAL VERSIONS	
Measurement Range(Full Scale Capacity)	30,000 in-lb	3390 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)	8-pole Elliptical	8-pole Elliptical				
Voltage Output(channel B - DC coupled)	± 10 V	± 10 V				
Gain(Channel A)	± 10 V	± 10 V				
Gain(Channel B)	1-16 dB	1-16 dB				
Digital Output	0.3-1.3 dB	0.3-1.3 dB				
Maximum Load(Axial)	QSPI	QSPI	[6]		NOTES:	
Maximum Load(Lateral)	4000 lb	17.8 kN	[7][8]		[1]Supplied with universal AC power adaptor.	
Maximum Moment	5000 lb	22.2 kN	[7][8]		[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.	
	10,000 in-lb	1130 Nm	[7][8]		[3]Root sum square of non-linearity, hysteresis, and non repeatability.	
Environmental					[4>Selectable High Pass cutoff frequencies of 5, 10, 20, 200 and 500 Hz.	
Overload Limit(Bolt Joint Slip)	35,000 in-lb	3955 Nm	[2]		[5>Selectable Low Pass cutoff frequencies of 10,000, 5000, 2500, 1200, 625 and 313 Hz.	
Overload Limit(Failure)	100,000 in-lb	11,298 Nm			[6]Request Technical Note FTQ-STN5 regarding digital output signal.	
Overload Limit(Safe)	75,000 in-lb	8474 Nm			[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.	
Temperature Range(Rotor/Stator - Operating)	+32 to +185 °F	0 to +85 °C			[8]Where combined extraneous loads are applied, decrease loads proportionally.	
Temperature Range(Rotor - Compensated)	+70 to +170 °F	+21 to +77 °C			[9]See PCB Declaration of Conformance PS069 for details.	
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				
Electrical					SUPPLIED ACCESSORIES:	
Power Required(50 to 60 Hz)	9 to 18 VDC	9 to 18 VDC	[1]		Model 012AC024AT Cable (1)	
Digital Resolution	16 Bit	16 Bit			Model 182-028A Connector (1)	
Digital Sample Rate	26,484 samples/sec	26,484 samples/sec			Model M0003978 Power supply (1)	
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			Entered: AP	
Permissible Radial Float(rotor to stator)	0.25 in	6.4 mm			Engineer: JM	
Rotating Inertia(without adaptors)	0.24 in-lb/sec ²	0.027 N-m/sec ²			Sales: KWW	
Dynamic Balance	per ISO G 2.5	per ISO G 2.5			Approved: JSD	
Torsional Stiffness	10 ⁸ in-lb/radian	11,298 N-m/radian			Spec Number:	
Torsional Angle(at Full Scale Capacity)	0.017 °	0.017 °			Date: 5/13/2015	
Housing Material(Sensor)	Steel Alloy	Steel Alloy			Date: 5/13/2015	
Weight(rotor/sensor)	10 lb	4.5 kg			Date: 5/13/2015	
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					<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: ltinfo@pcbloadtorque.com Web site: http://www.pcbloadtorque.com</p>	
<p><i>All specifications are at room temperature unless otherwise specified.</i> <i>In the interest of constant product improvement, we reserve the right to change specifications without notice.</i></p>						



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