

	<u>ENGLISH</u>	<u>SI</u>	
<b>Performance</b>			
Measurement Range(Full Scale Capacity)	50,000 in-lb	5649 Nm	
Accuracy	± 0.10 % FS	± 0.10 % FS	[4]
Frequency Range(-3 dB)	0 to 8300 Hz	0 to 8300 Hz	
Filter Type(High Pass)	2-pole Butterworth	2-pole Butterworth	[5]
Filter Type(Low Pass - Anti Alias)	8-pole Elliptical	8-pole Elliptical	[6]
Voltage Output(channel A - AC coupled)	± 10 V	± 10 V	
Voltage Output(channel B - DC coupled)	± 10 V	± 10 V	
Gain(Channel A)	1 to 16 dB	1 to 16 dB	
Gain(Channel B)	0.3 to 1.3 dB	0.3 to 1.3 dB	
Digital Output	QSPI	QSPI	[7]
Maximum Load(Axial)	5000 lb	22.25 kN	[8][9]
Maximum Load(Lateral)	5000 lb	22.25 kN	[8][9]
Maximum Moment	25,000 in-lb	2825 Nm	[8][9]
<b>Environmental</b>			
Overload Limit(Bolt Joint Slip)	85,000 in-lb	9604 Nm	[2][3]
Overload Limit(Failure)	125,000 in-lb	14,123 Nm	
Overload Limit(Safe)	100,000 in-lb	11,298 Nm	
Temperature Range(Operating)	+32 to +185 °F	0 to +85 °C	
Temperature Range(Compensated)	+70 to +170 °F	+21 to +77 °C	
Temperature Effect on Output(within compensated range)	0.003 %FS/°F	0.0054 %FS/°C	
Temperature Effect on Zero Balance(within compensated range)	0.003 %FS/°F	0.0054 %FS/°C	
Position Sensitivity(180° rotation of sensor)	≤ 0.1 % FS	≤ 0.1 % FS	
<b>Electrical</b>			
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	
<b>Physical</b>			
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)	0.874 in-lb/sec <sup>2</sup>	0.099 N-m/sec <sup>2</sup>	
Dynamic Balance	per ISO G 2.5	per ISO G 2.5	
Torsional Stiffness	115,000 kin-lb/radian	12,993 kN-m/radian	
Torsional Angle(at Full Scale Capacity)	0.017 °	0.017 °	
Housing Material(Sensor)	Plated Steel	Plated Steel	
Weight	30 lb	13.6 kg	

**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] 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] Bolt joint slip torque is increased from 85,000 in-lbs to 110,000 in-lbs by applying Loctite 638 to the inner 6.000" bolt circle mating surfaces, or using 5/8-11 UNC Supertanium bolts in the 6.000" bolt circle, torqued to 230 ft-lbs.
  - [4] Root sum square of non-linearity, hysteresis, and non repeatability.
  - [5] Selectable High Pass cutoff frequencies of 5, 10, 20, 200 and 500 Hz.
  - [6] Selectable Low Pass cutoff frequencies of 10,000, 5000, 2500, 1200, 625 and 313 Hz.
  - [7] Request Technical Note FTQ-STN5 regarding digital output signal.
  - [8] 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.
  - [9] Where combined extraneous loads are applied, decrease loads proportionally.
  - [10] See PCB Declaration of Conformance PS069 for details.

**SUPPLIED ACCESSORIES:**

Model 100-9161-10 Power Supply (1)  
 Model 182-028A Connector (1)  
 Model 8314-06-24A Cable (1)

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