Model Number 2303-01A

REACTION TORQUE SENSOR

Revision: D ECN #: 38221

Performance	ENGLISH	SI	
Measurement Range(Full Scale Capacity)	50.000 lbf-in	5649 N-m	[1]
Sensitivity(± 15 %)(output at rated capacity)	2 mV/V	2 mV/V	[1][5]
Non-Linearity	≤ 0.1 % FS	≤ 0.1 % FS	[5]
Hysteresis	≤ 0.1 % FS	≤ 0.1 % FS	[5]
Non-Repeatability	≤ 0.02 % FS	≤ 0.02 % FS	[5]
Resonant Frequency	750 Hz	750 Hz	
Maximum Torque	75,000 lbf-in	8474 N-m	
Environmental			
Overload Limit(Axial Thrust)	50,000 lbf	222.4 kN	[3]
Overload Limit(Overhung Moment)	25,000 lbf-in	2825 N-m	[3]
Overload Limit(Shear)	10,000 lbf	44.48 kN	[3]
Temperature Range(Operating)	-65 to +200 ℉	-54 to +93 ℃	
Temperature Range(Compensated)	+70 to +170 ℉	+21 to +77 ℃	
Temperature Effect on Output(Maximum)	± 0.002 %Reading/F	± 0.0036 %Reading/℃	[4]
Temperature Effect on Zero Balance(Maximum)	± 0.002 %FS/℉	± 0.0036 %FS/℃	[4][5]
Electrical			
Bridge Resistance	350 ohm	350 ohm	[1]
Excitation Voltage(Recommended)	10 VDC	10 VDC	[2]
Insulation Resistance	5 Gohm	5 Gohm	
Zero Balance	≤ 1 %RO	≤ 1 %RO	
Physical			
Size (Diameter x Length)	8.00 in x 7.38 in	203.2 mm x 187.45 mm	[6]
Weight	50 lb	22.67 kg	
Mounting	Flange (5/8in Bolts)	Flange (M16 Bolts)	
Torsional Stiffness	10,200 klbf-in/radian	1152 kN-m/radian	
Sensing Element	Strain Gage	Strain Gage	
Housing Material(Sensor)	Plated Steel	Plated Steel	
Electrical Connector	PT02E-10-6P	PT02E-10-6P	

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] Nominal.
- [2] Calibrated at 10 VDC, usable 5 to 20 VDC or VAC RMS.
- [3] Singularly applied, i.e. no other extraneous loads.
 [4] Over compensated operating temperature range.
- [5] FS Full Scale.
- [6] See Drawing 26441 for Complete Dimensions

SUPPLIED ACCESSORIES:

Model 181-012A PT06A-10-6S(SR) (1)

Entered: DMW	Engineer: PE	Sales: RR	Approved: JC	Spec Number:
Date: 1/24/2012	Date: 1/24/2012	Date: 1/24/2012	Date: 1/24/2012	18727



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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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