

Model Number 039230-50021	ROTARY TORQUE W/ENCODER AND AUTO ID	Revision: NR ECN #: 38721
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	ENGLISH	SI	
Performance			
Measurement Range(Full Scale Capacity)	20 lbf-in	2.3 Nm	
Sensitivity(output at rated capacity)	2.0 mV/V	2.0 mV/V	[7]
Non-Linearity	≤ 0.25 % FS	≤ 0.25 % FS	[2]
Hysteresis	≤ 0.25 % FS	≤ 0.25 % FS	[2]
Non-Repeatability	≤ 0.05 % FS	≤ 0.05 % FS	[2]
Interchangeability	≤ 0.30 % FS	≤ 0.30 % FS	[8][2]
Environmental			
Overload Limit	30 lbf-in	3.4 Nm	
Temperature Range(Operating)	0 to +200 °F	-18 to +93 °C	
Temperature Range(Compensated)	+70 to +150 °F	+21 to +66 °C	
Temperature Effect on Output(Maximum)	± 0.002 %Reading/°F	± 0.0018 %Reading/°C	[6]
Temperature Effect on Zero Balance(Maximum)	± 0.002 %FS/°F	± 0.0018 %FS/°C	[6]
Electrical			
Bridge Resistance	350 Ohm	350 Ohm	
Excitation Voltage	10 VDC	10 VDC	[1]
Insulation Resistance	≥ 5 GOhm	≥ 5 GOhm	
Zero Balance	≤ 2 % FS	≤ 2 % FS	[2]
Counts Per Revolution	1440	1440	[3]
Resolution w/ Quadrature	1/4 °	1/4 °	[3]
Output Voltage	High 5V to Low 0.5V	High 5V to Low 0.5V	[3]
Power Required(maximum)	5 VDC @ 120mA	5 VDC @ 120mA	[3]
Magnetic Encoder(Poles)	360	360	[3]
Magnetic Encoder(Output)	See Note	See Note	[4][3]
Shunt Calibration	≤ 0.25 % FS	≤ 0.25 % FS	[5][2]
Auto ID	TTL Proprietary	TTL Proprietary	
Physical			
Size (Shaft Length x Housing Length x Housing Height)	4.25 in x 2.30 in x 2.00 in	108.0 mm x 58.4 mm x 50.8 mm	[9]
Weight	.75 lb	340 gm	
Mounting	1/4 inch Hex Drive	6.35 mm Hex Drive	[10]
Sensing Element	Strain Gage	Strain Gage	
Housing Material	Aluminum	Aluminum	
Shaft Material	Steel	Steel	
Electrical Connector	PT02H-12-10P	PT02H-12-10P	
Maximum Speed	5000 RPM	5000 RPM	

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] Calibrated at 10 VDC, usable 5 to 20 VDC or VAC RMS.
 [2] FS - Full Scale.
 [3] Magnetic Encoder Specifications.
 [4] A-B Track 90° Phase Difference, Flat Over Operating Speed
 [5] Matched with 43.575 kOhm Precision Resistor.
 [6] Over compensated temperature range.
 [7] Matched to ±0.25% F.S.
 [8] Matched for mV/V and shunt calibration.
 [9] See Outline Drawing 45188 for Complete Dimensions
 [10] Per ANSI B107.4 Specifications
 [11] See PCB Declaration of Conformance PS119 for details.

SUPPLIED ACCESSORIES:
 Model 7122R-04352A PRECISION CAL RESISTOR 43.575 kOhm

OPTIONAL ACCESSORIES:
 Model 080920-01000 MODEL 920 PORTABLE DIGITAL INSTRUMENT
 Model 080962-01000 MODEL 962 DATA RECORDER
 Model 097000-34445 INTERCONNECT CABLE
 Model 4242R-000630 MATING CONNECTOR PT06A-12-10S(SR)

Entered: DMW	Engineer: JM	Sales: DM	Approved: PE	Spec Number:
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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.*