

Model Number  
039230-50101/B

# ROTARY TORQUE, W/ENCODER AND AUTO ID

Revision: A  
ECN #: 50139

Performance	ENGLISH	SI	
Measurement Range(Full Scale Capacity)	100 lbf-in	11.3 Nm	
Sensitivity(output at rated capacity)	2.0 mV/V	2.0 mV/V	[1]
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	[3][2]
<b>Environmental</b>			
Overload Limit	150 lbf-in	16.9 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	[4]
Temperature Effect on Zero	± 0.002 %FS/°F	± 0.0018 %FS/°C	[4]
Balance(Maximum)			
<b>Electrical</b>			
Bridge Resistance	350 Ohm	350 Ohm	
Excitation Voltage	10 VDC	10 VDC	[5]
Insulation Resistance	≥ 5 GOhm	≥ 5 GOhm	
Zero Balance	≤ 2 % FS	≤ 2 % FS	[2]
Counts Per Revolution	1,472	1,472	[6]
Resolution w/ Quadrature	1/4 °	1/4 °	[6]
Output Voltage	High 5V to Low 0.5V	High 5V to Low 0.5V	[6]
Power Required(maximum)	5 VDC @ 120mA	5 VDC @ 120mA	[6]
Magnetic Encoder(Poles)	368	368	[6]
Magnetic Encoder(Output)	See Note	See Note	[7][6]
Shunt Calibration	≤ 0.25 % FS	≤ 0.25 % FS	[8][2]
Auto ID	TTL Proprietary	TTL Proprietary	
<b>Physical</b>			
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	5,000 RPM	5,000 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] Matched to ±0.25% F.S.
- [2] FS - Full Scale.
- [3] Matched for mV/V and shunt calibration.
- [4] Over compensated temperature range.
- [5] Calibrated at 10 VDC, usable 5 to 20 VDC or VAC RMS.
- [6] Magnetic Encoder Specifications.
- [7] A-B Track 90° Phase Difference, Flat Over Operating Speed
- [8] Matched with 43.575 kOhm Precision Resistor.
- [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 Peak Meter for torque, torque-angle or load measurement; Click-Wrench calc feature, w/battery charger, instruction manual & shoulder strap  
 Model 080962-01000 MODEL 962 DATA RECORDER  
 Model 097000-34445 INTERCONNECT CABLE  
 Model 4242R-000630 MATING CONNECTOR PT06A-12-10S(SR)



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.

Entered: RB	Engineer: PE	Sales: DM	Approved: JSD	Spec Number:
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PCB Load & Torque A Division of PCB Piezotronics 24350 Indoplex Circle Farmington Hills, MI 48335  
 UNITED STATES  
 Phone: 866-684-7107  
 E-Mail: LTSales@pcb.com  
 Web site: www.pcb.com/LoadAndTorque