

PN: 99-0880



## Description

The hall-effect rotational sensor, referred to as 'the device', transmits the sensed angle of rotation over a CAN network. This device uses a 6-pin Molex MX150 dual row style connector (Molex 33482-3601 equivalent). This device offers configurable zero point, deadband, and rotation limits for easier system integration. The configurations for the device are retained through power cycles. This device also offers configurable positive rotation direction using the addressing pins. The addressing pins also change the CAN-ID of the device, allowing multiple devices to be used on the same CAN network.

## Features

- Configurable positive rotation direction
- Ability to use multiple devices on the same CAN network
- Offers configurable zero point, deadband and rotation limits for easier system integration.
- Configuration for device are retained through power cycles

## Specifications

Electrical	Min	Typ.	Max	Unit	Notes
Functional Battery Voltage	8	-	72	VDC	Continuous
Reverse Battery Voltage	-	-	-72	VDC	60 Minutes
CAN BAUD Rate	-	250	-	kbps	
Current Consumption	-		61	mA	All I/O off, 8VDC
Electrostatic Discharge (ESD)	-15	-	15	KV	Per ISO 14982/ISO 10605

Environmental/Mechanical	Min	Typ	Max	Unit
Storage Temperature	-40	-	80	C
Operating Temperature	-40	-	80	C
Mechanical Shock-Operational	-	-	25	G
Mounting Torque (Enclosure)	30	-	50	in-lbs
Mounting Torque (magnet bolt)	19	-	30	in-lbs

Sensor Parameter	Min	Typ.	Max	Unit	Notes
Sensor Resolution	-	-	4096	Raw Count	Per revolution (12-BIT)
Sensor Angle Accuracy	-	-	1	%	300G magnetic flux
Sensor Angle Refresh Rate	-	32	-	µs	
Sensor Angle Temperature Drift	-1.4	-	1.4	Degrees	T <sub>A</sub> = -40C to 150C, 300G
Sensor Redundancy	-	-	2.7	%	Dual die monitoring position
Sensor Repeatability	-2	-	+2	Raw Count	Magnet position locked

Magnet Parameter	Requirement	Unit	Notes
Material	Neodymium	-	
Grade	N42	-	Grade N42 or greater
Construction	Sintered	-	
Shape	Cylindrical	-	
Diameter	10(MIN) / 12(MAX)	mm	
Thickness	4	mm	Minimum magnet thickness
Polarization	Diametric	-	
Field Strength	300-600	G	

## Environmental/Mechanical

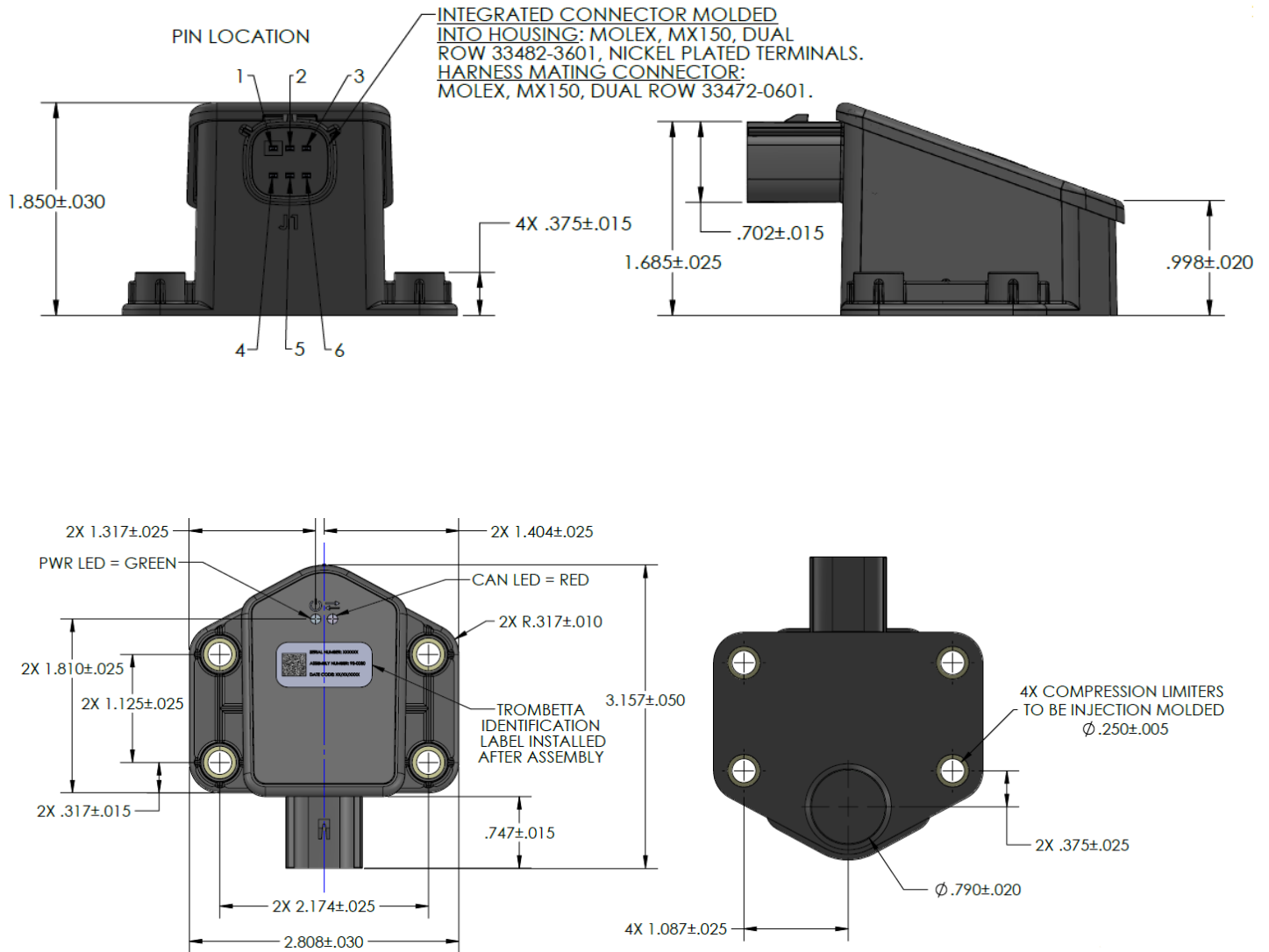
Pin	Name	Typ
1	Addressing PIN 1	(GND) CAN-ID OFFSET/CLOCKWISE= POSITION ROTATION
2	Ground	(Battery/Power Return, Negative)
3	Battery	+Battery (8-72VDC)
4	CAN-L	COMMUNICATION LOW
5	CAN-H	COMMUNICATION HIGH
6	Addressing PIN 2	(GND) CAN-ID OFFSET/Counter Clockwise= Positive Rotation

## Mating Connectors / Recommended

Type	Part Number	Manufacturer
Mating Connector	33472-0601	Molex
Mating Contact	33001 (33012)	Molex



## Product Dimensions



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