

## Installation Instructions for the RPNR050DMEC3A21X Hall-Effect Rotary Position Sensor

ISSUE 2  
50035270

### GENERAL INFORMATION

The RPN Series Rotary Position Sensors use a magnetically biased, Hall-effect integrated circuit (IC) to accurately sense rotary movement of the actuator shaft. Rotation of the actuator shaft changes the IC's position relative to the magnets. The resulting flux density change is converted to a linear output.

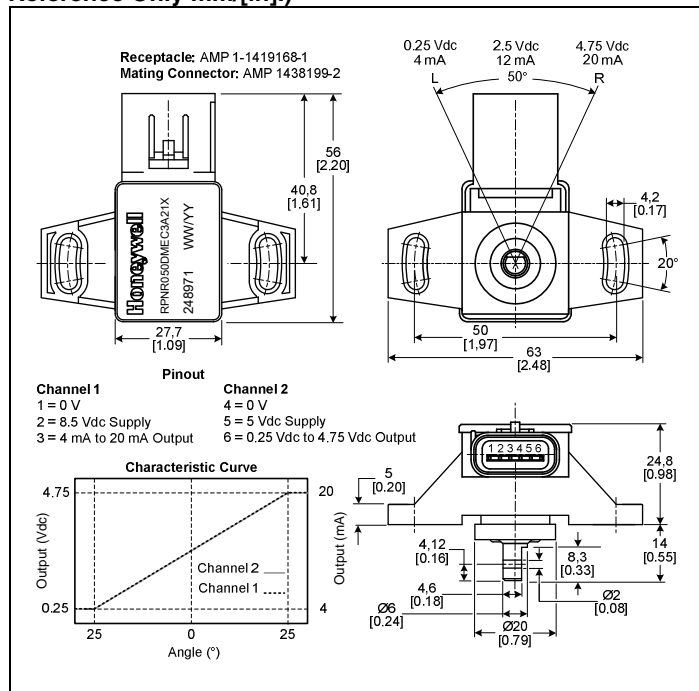
### MOUNTING INFORMATION

Mount the sensor using the two easily accessible mounting holes. Mounting screw tightening torque is 2,5 N m  $\pm$  0,5 N m [22.1 in lb  $\pm$  4.4 in lb].

**Table 1. Output**

Channel 1		Channel 2	
Angle	Output	Angle	Output
L (-25°)	4 mA	L (-25°)	0.25 Vdc
0°	12 mA	0°	2.5 Vdc
R (+25°)	20 mA	R (+25°)	4.75 Vdc

**Figure 1. Mounting and Dimensional Diagram (For Reference Only mm/[in].)**



**Table 1. General Specifications**

Characteristic	Parameter
Supply voltage:	
Channel 1	8.5 Vdc
Channel 2	5 Vdc
Current consumption	20 mA max.
Output signal delay	3 ms approx.
Accuracy	$\pm$ 1.6%
Hysteresis	none
Linearity	$\pm$ 0.35°
Reverse polarity protection	no
Operating and storage temperature range	-40 °C to 125 °C [-40 °F to 257 °F]
EMC	200 V/m ISO 11452-3
Expected life	30x10 <sup>6</sup> cycles
Protection class	IP69K DIN 40050
Housing material	PA66 plastic
Shaft material	stainless steel
Mechanical end stop	no

**⚠ WARNING****PERSONAL INJURY**

DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

**Failure to comply with these instructions could result in death or serious injury.**

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50035270-2-EN IL50 GLO Printed in USA  
July 2008  
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