

## Installation Instructions for the RPNR090KAAA3A11X Hall-Effect Rotary Position Sensor

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### 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.

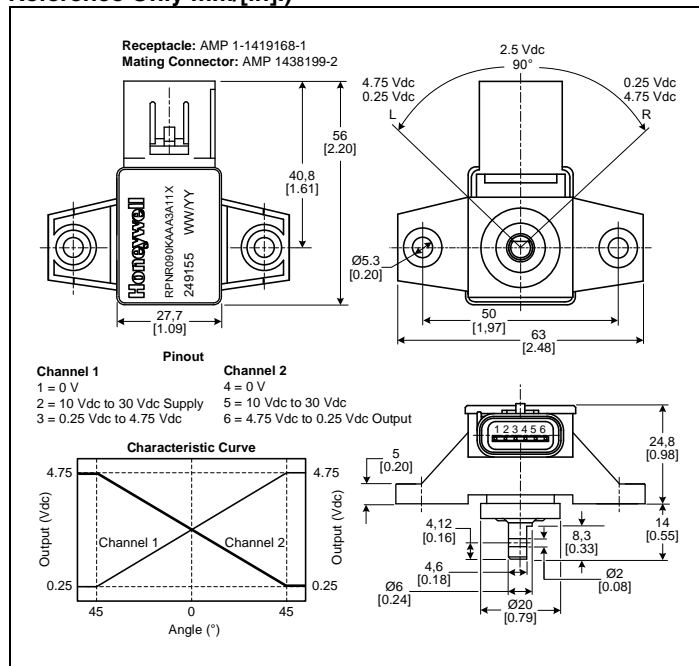
### MOUNTING INFORMATION

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

**Table 1. Output Signals**

Channel 1		Channel 2	
Angle	Output	Angle	Output
L (-45°)	0.25 Vdc	L (-45°)	4.75 Vdc
0°	2.5 Vdc	0°	2.5 Vdc
R (+45°)	4.75 Vdc	R (+45°)	0.25 Vdc

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



**Table 2. Specifications**

Characteristic	Parameter
Supply voltage:	
Channel 1	10 Vdc to 30 Vdc
Channel 2	10 Vdc to 30 Vdc
Current consumption	20 mA max.
Output signal delay	3 ms approx.
Accuracy	±1.6%
Hysteresis	none
Linearity	±2°
Reverse polarity protection	yes
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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