

## Installation Instructions for the RPNS090EA1A11X Hall-Effect Rotary Position Sensor

ISSUE 1  
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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.

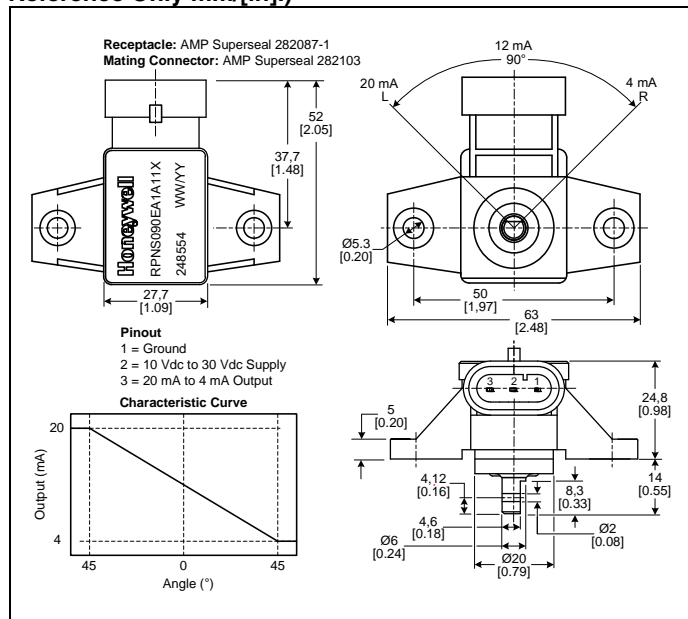
### MOUNTING INFORMATION

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

**Table 1. Output**

Angle	Output
Left (-45°)	20 mA
0°	12 mA
Right (+45°)	4 mA

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



**Table 2. Specifications**

Characteristic	Parameter
Supply voltage	10 Vdc to 30 Vdc
Current consumption (maximum)	20 mA
Output signal delay (approx)	3 ms
Reverse polarity protection	yes
EMC	200 V/m ISO 11452-3
Operating and storage temperature range	-40 °C to 125 °C [-40 °F to 257 °F]
Protection class	IP67 DIN 40050
Accuracy	$\pm$ 1.6%
Hysteresis	none
Linearity	$\pm$ 2°
Housing material	PA66 plastic
Shaft material	stainless steel
Expected life	30x10 <sup>6</sup> cycles
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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