

Installation Instructions for the RPNS090AC1A21X 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 \pm 0,5 N m [22.1 in lb \pm 4.4 in lb].

Table 1. Output

Angle	Output
Left (-45°)	4.75 Vdc
0°	2.5 Vdc
Right (+45°)	0.25 Vdc

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

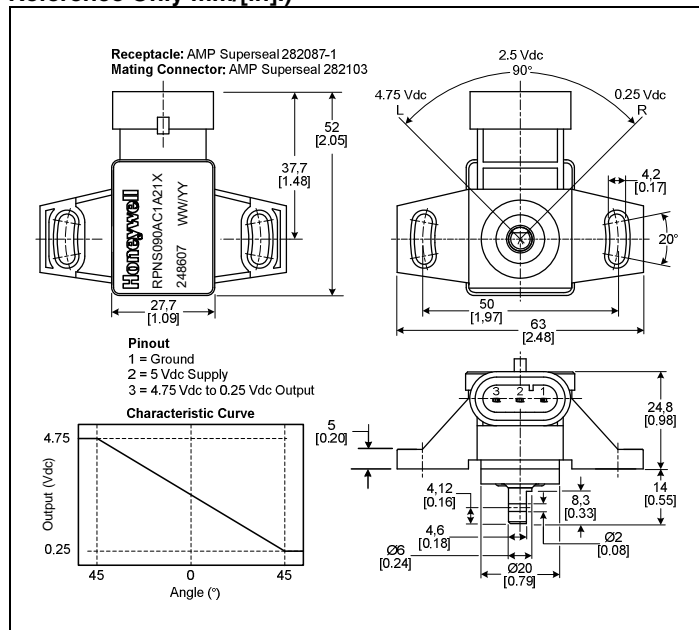


Table 2. Specifications

Characteristic	Parameter
Supply voltage	5 Vdc
Current consumption (maximum)	20 mA
Output signal delay (approx)	3 ms
Reverse polarity protection	no
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
Mounting screw tightening torque	2,5 N m \pm 0,5 N m [22.1 in lb \pm 4.4 in lb]
Accuracy	\pm 1.6%/2 mV/°
Hysteresis	none
Linearity	\pm 2°
Housing material	PA66
Shaft material	stainless steel
Expected life	30x10 ⁶ 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.

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. **The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

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