

Rotational Position Transducer

0/4...20 mA Output • Hazardous Area Certification
 Ranges: 0-90° to 0-50 Turns
 Industrial Grade

RT9420



Specification Summary:

GENERAL

Full Stroke Range Options 0-0.125 to 0-50 turns
 Output Signal Options 4...20 mA (2-wire) and 0...20 mA (3-wire)
 Accuracy $\pm 1.25\%$ to $\pm 0.15\%$ full stroke *see ordering information*
 Repeatability $\pm 0.05\%$ full stroke
 Resolution essentially infinite
 Enclosure Material Options powder-painted aluminum or stainless steel
 Sensor plastic-hybrid precision potentiometer
 Potentiometer Cycle Life *see ordering information*
 Shaft Loading up to 35 lbs. radial and 5 lbs. axial
 Weight, Aluminum (Stainless Steel) Enclosure 5 lbs. (10 lbs.) max.

ELECTRICAL

Input Voltage *see ordering information*
 Input Current 20 mA max.
 Maximum Loop Resistance (Load) (loop supply voltage - 8)/0.020
 Circuit Protection 38 mA max.
 Impedance 100M ohms@100 VDC, min.
 Output Signal Adjustment
 Zero Adjustment from factory set zero to 50% of full stroke range
 Span Adjustment to 50% of factory set span
 Thermal Effects
 Zero 0.01% f.s./°F, max.
 Span 0.01% f.s./°F, max.

ENVIRONMENTAL

Enclosure NEMA 4/4X/6, IP 67/68
 Hazardous Area Certification *see ordering information*
 Operating Temperature -40° to 200°F (-40° to 90°C)
 Vibration up to 10 G's to 2000 Hz maximum

EMC COMPLIANCE PER DIRECTIVE 89/336/EEC

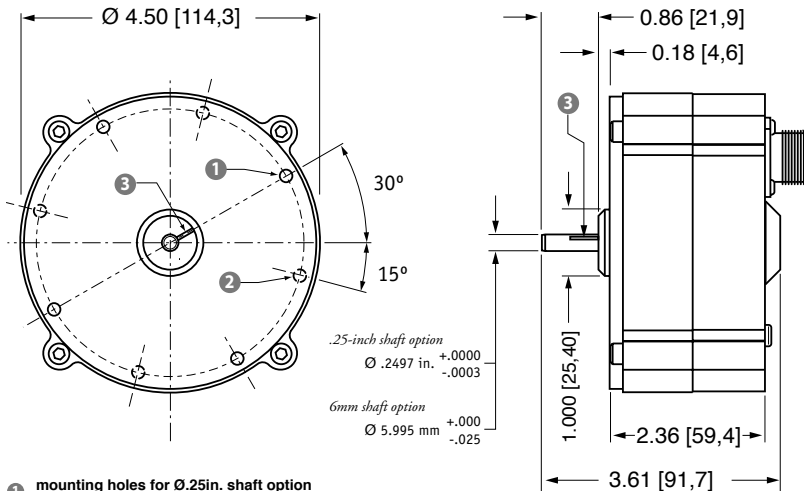
Emission/Immunity EN50081-2/EN50082-2



The RT9420 provides rotational position feedback via 4...20 mA current loop signal. This device combines the superb linearity and resolution of a plastic-hybrid potentiometer and the durability of Celesco's 4...20mA circuit to provide an accurate and reliable electrical signal. Additionally the zero and span settings are adjustable through access holes in the housing.

This innovative sensor from Celesco, designed to meet NEMA-4 and IP67 standards, is available in full stroke ranges of 1/4 to 50 turns.

Outline Drawing



- 1 mounting holes for Ø.25in. shaft option
 #8-32 x 0.180 @ 90° apart on a 4.15 in. dia. BC (4 places)
- 2 mounting holes for Ø 6mm shaft option
 M4 x 4,5 mm @ 90° apart on a 105,4 mm dia. BC (4 places)
- 3 reference mark
 full counter-clockwise position - align mark on shaft to mark on face for start of measurement range

ALL DIMENSIONS ARE IN INCHES [MM]

Output Signal

