



# Rotary Position Sensor Series 330



## Features

- Uses low-cost, proven automotive technologies
- Easy mounting with only one bolt
- Mates with Tyco 184032-1 connector
- Performs in most demanding automotive environments
- Torsion spring provides fork "return to home"
- No electromagnetic interference issues

## Applications

- Industrial
- Off Road
- Harsh Environments
- Agriculture

## Description

This Rotary Position Sensor (RPS) works on the potentiometer principle. The Rotary shaft position determines the contact location of metal arm on the patented polymer film. Based on the contact position, the effective resistance and output voltage are calculated. Our design is optimized for accuracy, durability and low noise while reducing the negative effects of Axial rotor movement and electromagnetic interference. This RPS is ideally suited for in-cabin applications to determine the rotary position of a shaft or arm. Please contact CTS if you are interested in using our RPS to determine linear movement position using Kinematics mechanism principle.

## Electrical Specifications

Parameter	Unit
Total Resistance	3.5±40% k Ω
Linearity (absolute)	± 2.5% standard
Rotation Maximum	110° mechanical, 80° typical electrical
Hysteresis	< 1.0% applied voltage
Electrical Limit	14 VDC
Typical Voltage	5.0 ±0.2 VDC



## Mechanical Specifications

Parameter	Unit
Mounting Bolt Torque	2 N (18 in. lbs., typical drive)
Mounting Bolt	M4

Rotor “D” drive std (see mounting notes Tang or blade drive optional – consult factory).

## Durability Specifications

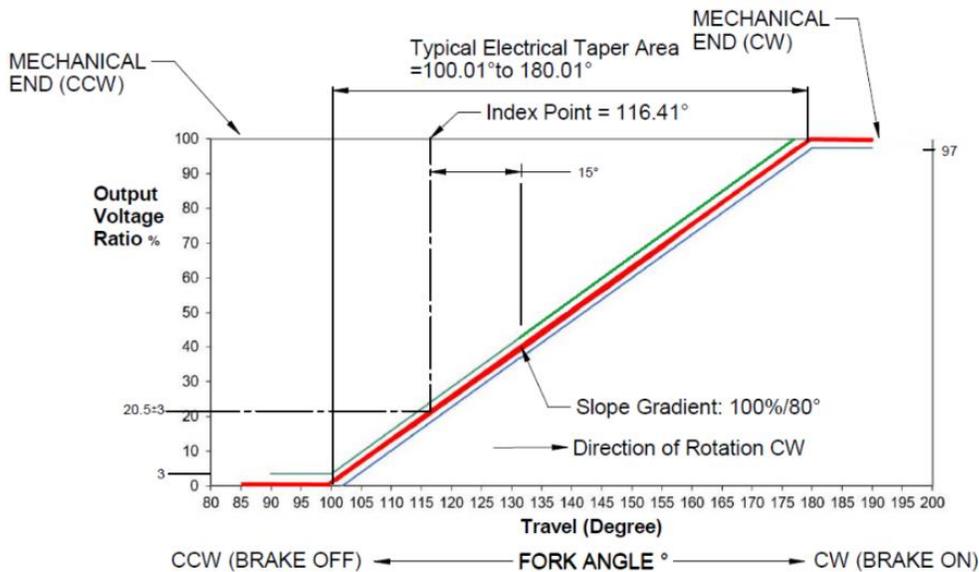
Parameter	Unit
Standard electrical life	> 1x10 <sup>6</sup> full strokes - 40°C to 85°C
Standard vibration	2.84 Grms, random for 8 hrs. each plane, -40°C to 90°C temp. cycling
Thermal shock	100 cycles, -40° to 85°C
Temperature range, operating, and storage	-40° to 85°C

## Environmental Specifications

Parameter	Unit
Salt Spray	72 hrs., 5% solution
Salt immersion	IPX2 ISO20653
Humidity	IP5KX, 8 hrs, ISO20653

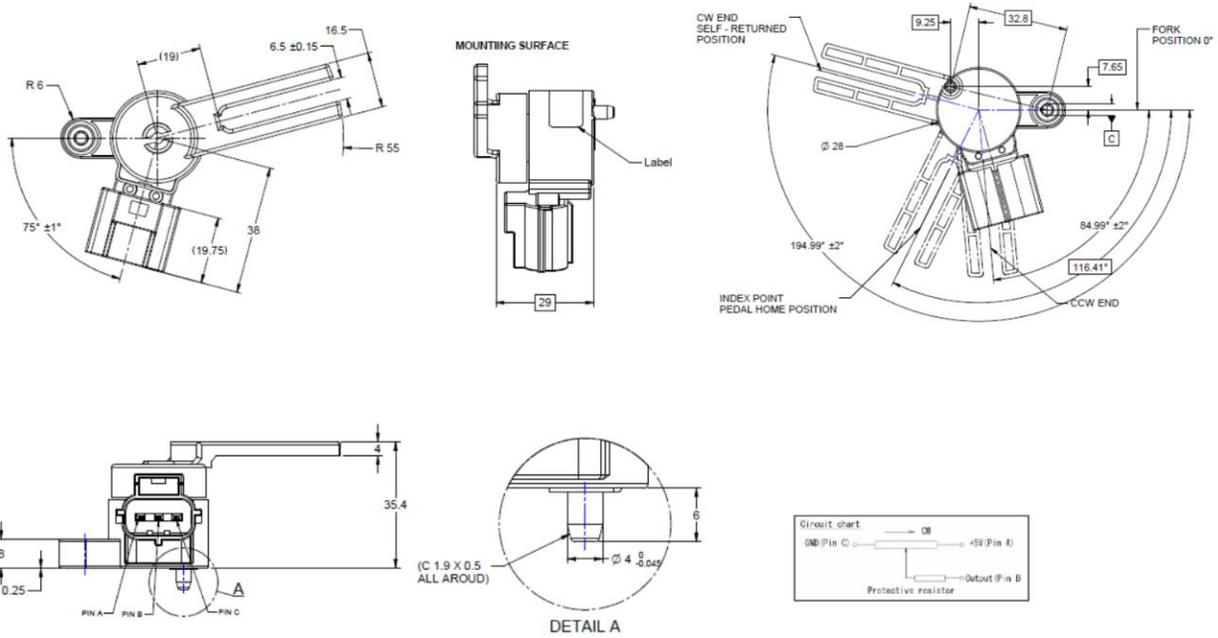
Resistant to gasoline, engine oil, carburetor cleaner.

## Typical Output





## Packaging Specification



CTS Part No	Index Volt	Nom. Slope/Deg.	Rotation	Rotor	Cover	A	C
330-99-008	20.5% of input voltage	100% input Voltage / 80 deg	CW	Gray	Gray	Supply	Ground