



## CABLE ACTUATED POSITION SENSORS

TE Connectivity (TE) is a leader in the design and manufacture of cable actuated position sensors. TE's cable actuated position sensors have proven reliable in many applications such as factory automation, water management, medical and test & measurement. Sometimes called string pots, draw-wire sensors or string encoders, these easy-to-install sensors have been designed for sensing applications that require linear position measurement over stroke ranges as small as 1.5 inches (38 mm) up to 1,700 inches (43 m). Cable actuated position sensors have an electrical output signal proportional to the distance traveled along the stroke.

### APPLICATIONS

- Automotive Maintenance Lift
- Airport Jet-Way Position
- Boom Lift
- Fork Lift
- Oil Drilling Equipment
- Fume Hood Damper Position
- Surgical Robots
- Surgical Tables
- Water Management
- Gate Position
- Vehicle Suspension and Crash Testing
- Space Launch Vehicle Testing
- TV and Film Special Effects
- Amusement Park Ride Position
- Overhead Cranes
- Hydraulic Cylinder Position
- Steel Mill and Paper Mill Process Positioning (Hydraulic Cylinders, Tilting, Lifts, Gate Position, Etc)
- Automotive Lines Diecasting
- Injection Molding Machines
- Factory Automation

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## TECHNOLOGY

Cable actuated position sensors use a stainless-steel measuring cable wrapped around a spring-loaded spool. Similar to using a tape measure, the body of the sensor is bolted to a stationary, fixed position, at one end of the stroke while the free end of the steel cable is then attached to the moving object being tracked. An internal rotary sensor mated to the spool tracks the position of the cable as it is pulled out and retracted along the stroke. The tension spring keeps the cable taut even under the most demanding conditions and unlike rod-type linear sensors, cable position sensors do not require precise alignment and can retract into much tighter spaces.

## TE ADVANTAGES

- Standard, in-stock packages
- Custom designs for OEM applications
- Industrial packages with measurement ranges up to 43 meters for use indoors and outdoors
- Industrial packages include IP67 rating, free release cables, and stainless steel housings
- Analog voltage outputs including: 4-20 mA, voltage divider, 0-5 V, 0-10 V,  $\pm 5$  Vdc, and  $\pm 10$  Vdc
- Digital outputs include: Canbus J1939, CANopen, and incremental encoder
- Rugged metal housing as well as plastic packages for compact, economical applications.
- Compact designs for OEM with tight space requirements
- Precision products for high accuracy for test & measurements applications

## VALUE ADDED CAPABILITIES

- In-house repair available
- Custom design options
- Custom mounting options
- Variety of terminations and connectors
- Global distribution network

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