



TE CONNECTIVITY (TE) String Potentiometers at CDI

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Description

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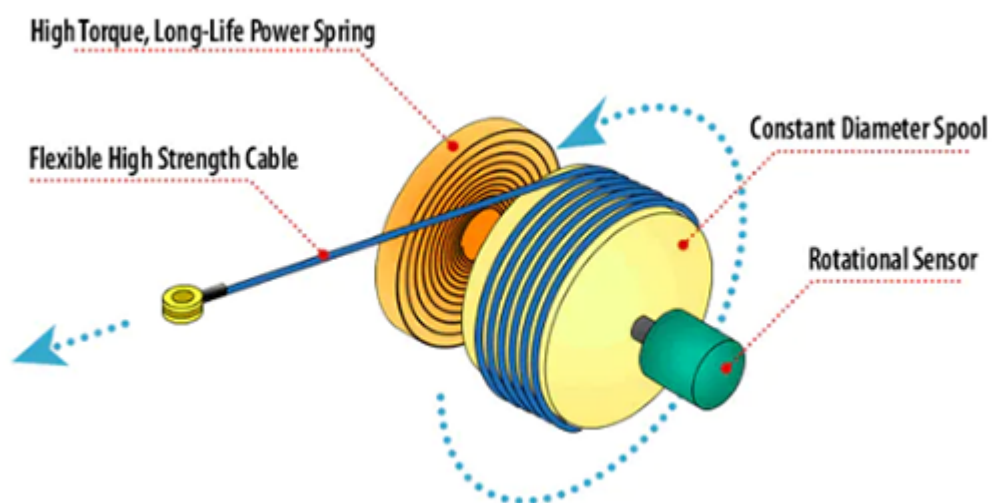
In order to take measurements, the transducer's body is mounted to a fixed surface and the stainless steel cable is attached to the movable object. As the object moves, the transducer produces an electrical signal that is proportional to the cable's linear extension or velocity. This signal can then be sent to a display, a PLC or data acquisition system.

How do they work?

String pots or cable-extension transducers (CETs) are composed of four main parts:

1. Measuring Cable
2. Spool
3. Spring
4. Rotational Sensor

Inside the transducer's housing, a stainless steel cable is wound on a precisely machined constant diameter cylindrical spool that turns as the measuring cable reels and un-reels.



To maintain cable tension, a spring is coupled to the spool. The spool is coupled to the shaft of a rotation sensor (an encoder or potentiometer). As the transducer's cable extends along with the movable object it causes the spool and sensor shafts to rotate. The rotating shaft creates an electrical signal proportional to the cable's linear extension or velocity.

What type of output signals are available?

- Potentiometric (Voltage Divider)
- 0-10 Volts DC
- 4-20 mA (2-wire)
- 0-20 mA (3-wire)
- Incremental Encoder (Quadrature)
- Absolute Encoder (ask factory)
- RS232/RS422 Communications
- DeviceNET®
- CANbus J1939

What advantages do string pots have?

Measuring the movement and position of objects is easy with string pots. **String potentiometers can be installed in minutes**, fitted into precarious or tight areas and they do not require perfectly parallel alignment. They also offer great flexibility, a small size to measurement ratio and they cost less than rod and wand-type measurement devices. String pots can be used in a wide variety of applications including industrial factory automation, high-tech medical devices, structural and automotive testing, die-casting or injection molding, hydraulic cylinder control or just about anything else you can think of.

Shop String Pots at CDI

About TE Connectivity

For more than 30 years **TE Connectivity's divisions** of Schaeffler Sensors, Gentech, Macro Sensors and Measurement Specialties sensors have been designing the most demanding engineering challenges across a wide range of industries and applications. TE's Measurement Specialties sensor solutions measure LVDT, pressure sensors, gage heads, force, tilt, vibration, position sensors, temperature, rotary humidity, and fluid properties and are at the heart of many everyday products and provide a vital link to the physical world.

About Component Distributors, Inc. (CDI)

Component Distributors, Inc. (CDI) is a value-added distributor of high-performance LED, Power, RF & Microwave, Wireless and Sensor component technologies. CDI distributes globally and provides local application support and customer service across the Americas.

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Email: sales@cdiweb.com Toll-Free: 1-800-777-7334

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Author

cdiwebadmin

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