

PIHER Introduces surface mount rotary position sensors featuring flexible configuration capabilities in miniature package

Features

- Specifically designed for leadfree reflow soldering processes.
- Dust proof enclosure.
- Carbon resistive element.
- Self extinguishable plastic UL 94V-0.
- Also upon request:

Special resistive values, tighter tolerances, tapers...
Long life model for low cost control pot. applications

Wiper positioned at 50% or fully clockwise.

Mechanical detents.

Low torque

- Operating temperature: -40°C to +85°C

Description

Responding to the widespread use of surface mount technology for electronics manufacturing, PIHER is introducing SMD versions of its popular PT10 and PT15 Potentiometer. The new devices, the PS10 and the PS15 Rotary Position Sensors, feature configurable capabilities for complete design flexibility in a small package. The sensors offer a new surface mountable solution for detecting changes in angle and position and converting them into a highly reliable voltage output. The sensors can be processed by standard automated placement equipment and reflow (or lead-free reflow) soldered. For applications where rotor angle is critical, locating pins are available.

The PS10 & PS15 series are available with different rotor designs and up to 15 shaft styles. This offering allows PIHER to configure a custom sensing solution for virtually any control or position feedback requirement. The result is a customized sensor that maximizes board density, reduces weight and eases assembly while achieving the engineer's critical sensor design goals for the application.

A wide range of options, including up to 13 detents, allows further customization. Detents not only add a crisp "click" sensation for each position without affecting the original sensor specification or performance, but also offer significant savings in both cost and space; and are particularly advantageous in industrial and domestic power tool applications to prevent accidental movement. All Sensors are available with or without detents.

"The PS10 & PS15 allow engineers more design freedom because of the significant configurability provided with our wide array of shafts, rotors and detents," says Dave Meehan, Applications Engineer with PIHER. "It is often difficult for engineers to locate all the features they want in a 10mm package size, but we can meet their exact requirements to this small size by tooling either a rotor, shaft and detent configuration."

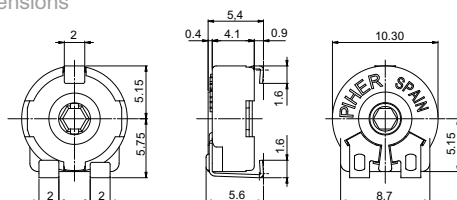
In developing the PS10 and the PS15, PIHER's engineers paid particular attention to the surface mount land patterns (footprints or pads) that define the locations where components are soldered to the PC board. The PS15's land patterns have been optimized to maximize solder joint strength, clean ability, testability, and repair all critical features in the overall produceability of the board assembly.

These SMD Rotary Position Sensor offer application for both feedback and control where frequent adjustment or feedback is required. The shaftless design allows for employment of different engagement mechanisms, such as a customized shaft, a motor control, a human interface adjustment, or a mechanical arm position locator. The sensors can also control variable outputs including frequency, change in motor speed or volume. Typical applications include test and measurement equipment, consumer electronics, appliances, small engines, robotics, motion controllers, and medical equipment control panels.

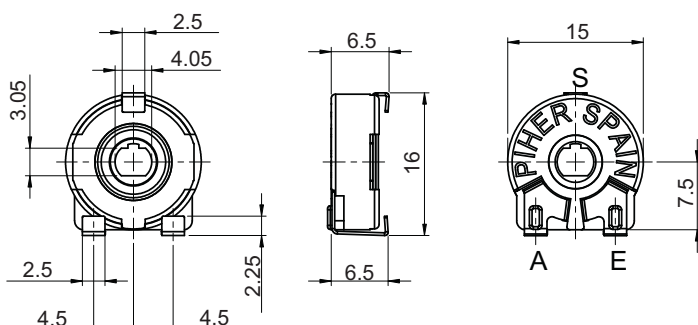
In addition to the wide selection of rotors and detents, 14 different shafts and thumbwheels are available in nine colors in either standard or UL94 compatible plastic. Available options include SPDT switch, 100k life cycle (PS15), custom tapers, measured linearity, and different electrical angles. The devices are both RoHS and REACH compliant.



PS10 dimensions



PS15 dimensions



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