

FEATURES

This innovative PT's with detents family has been specifically developed to allow the integration of otherwise large and expensive external mechanisms into the body of the majority of the 10 & 15 mm. PS/PT/PTC potentiometer series.

This detent design not only adds a "click" sensation of position, but also offers enormous savings in both cost and space for any given application.

Strong and weak detents can be mixed as per customer's request.

MAIN SPECIFICATIONS

All the PT's with detents series maintain the original specification & features of the chosen potentiometer.

APPLICATION EXAMPLE



Piher's PT15 with 27 detents in combination with the tact switch TS1126 is an ideal replacement for absolute encoders.

TYPICAL APPLICATIONS

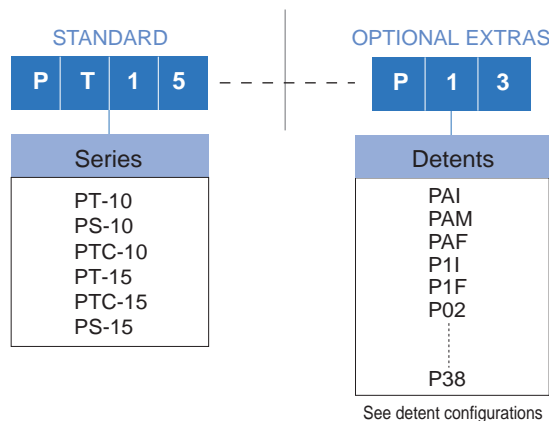
As previously highlighted, this family is indispensable wherever both cost and space saving reductions are important, or where a series of fixed positions along the potentiometer travel are required, eg:

- Replacement for:
 - Existing customer detent mechanisms.
 - Multi-pole switches.
 - 3 or 4-bit absolute encoders (connecting PT to microprocessor analogue input).
- Analogue signal presets.
- Temperature control settings.
- Relay Timers.

PT's with detents also lend themselves perfectly to Industrial and Domestic Power Tool applications where the detents prevent accidental movement of the potentiometer under vibration.

If high torque detents are required please see our Detent Control Mechanism (DCM) series datasheets.

HOW TO ORDER



NOTES:

- (1) • Detents not available with:
- PT / PTC-10 V 05
 - PT / PTC-15 V 02 & V21
 - PT / PTC-15 V 12 & V22
 - PT / PTC-15 V 18
 - PT-15 V 24

These cases are studied individually.

- (2) • Standard mechanical life is 500 cycles.

- (3) • Long life versions are available under request and have the following characteristics at T^a:
- PT's with 1 to 3 detents: up to 10k cycles
 - PT's with 4 and more detents: up to 5k cycles

- (4) • Detent torque can vary from 1.2 to 2.5 times the standard potentiometer torque

- (5) • Please consult your nearest Piher supplier if unique non-overlapping values at each detent position or LOG/ALOG tapers are required.

- (6) • Please note that if you want a high number of detents and a different value at each detent position (special taper), the Residual Resistance is $\leq 7.5\% R_n$

NOTE: The information contained here should be used for reference purposes only.

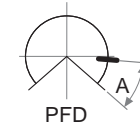
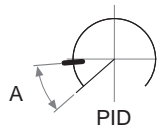
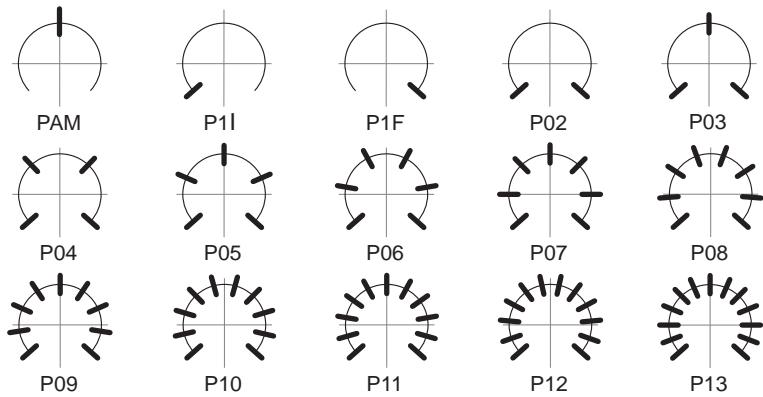
DETENT CONFIGURATIONS

Relative detent positions along the total mechanical travel. Unless otherwise specified the detents are evenly spaced (using the end points as reference)

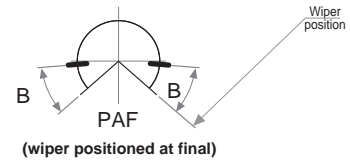
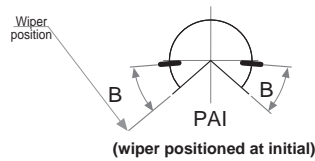
– Max. number of detents:

- PT-10, PS-10, PTC-10 10
- PS-15, PT-15, PTC-15 38*

*For more than 13 detents versions please contact your nearest PIHER distributor



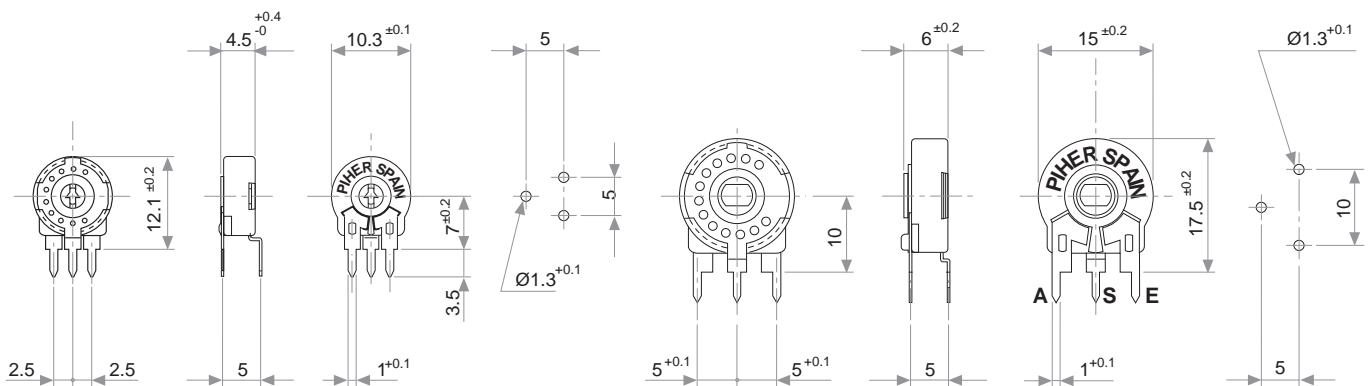
PS/PT/PTC-10: A= 26°
 B= 27.5°
 PS/PT/PTC-15: A= 32.625°
 B= 34.5°



DETENT DETAILS

PT/PTC-10 P10 ...

PT/PTC-15 P13 ...

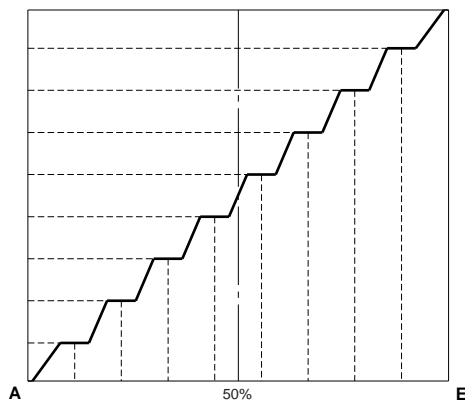
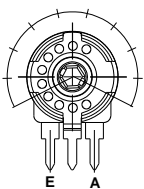


A = Initial S = Wiper E = Final

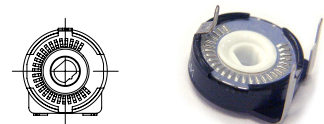
PT/PTC-10 with 10 detents and silver zones

Detents can be matched with constant value zones when required.

Wiper position



PS/PT/PTC-15 WITH 27 DETENTS



PS/PT/PTC-15 WITH 34 DETENTS



NOTE = Please note relative terminal positions when ordering non linear tapers. Special configurations to be studied upon request.