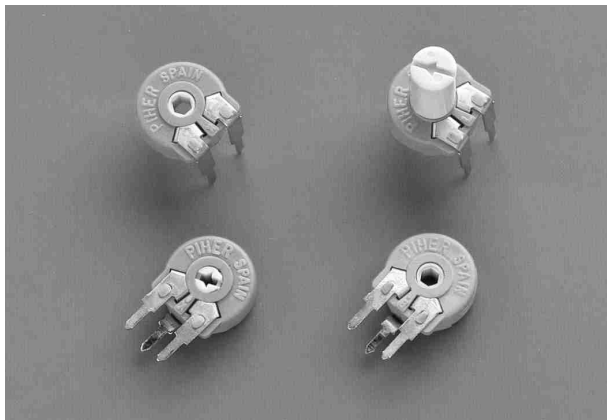




FEATURES

- Cermet resistive element.
- Dust proof enclosure.
- Plastic material according to UL94V-0
- Alumina substrate.
- Also upon request:
 - Wiper positioned at 50% or fully clockwise.
 - Supplied in magazines for automatic insertion.
 - Long life model for low cost control pot. applications
 - Special tapers
 - Mechanical detents
 - Low & extra low torque versions
 - Available as SPDT switch
 - Laser trimming for tighter tolerances

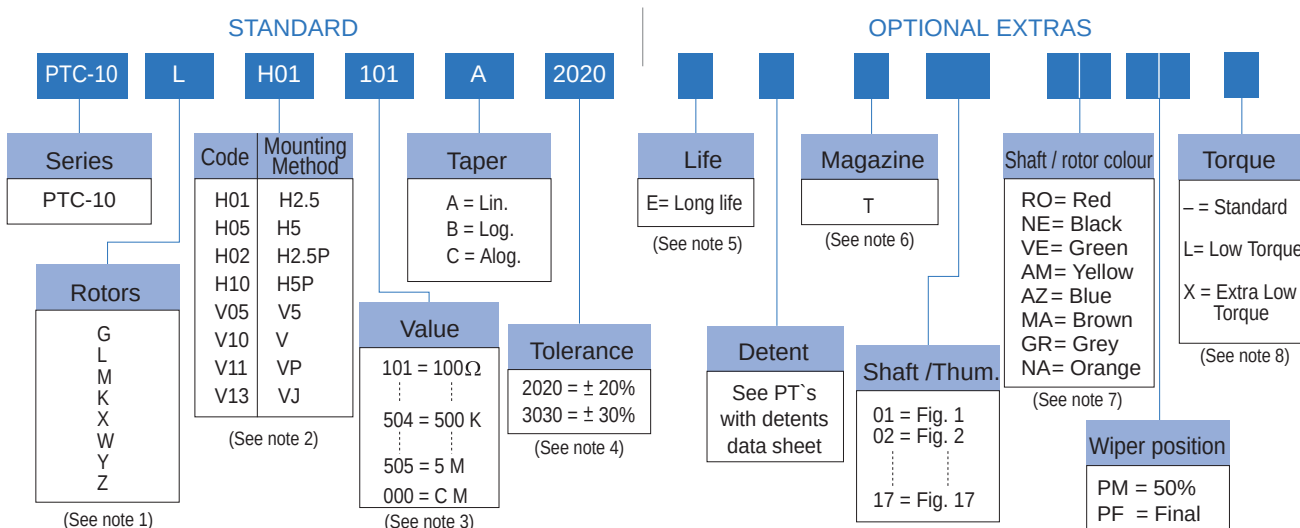
MECHANICAL SPECIFICATIONS

- Mechanical rotation angle: $235^\circ \pm 5^\circ$
- Electrical rotation angle: $220^\circ \pm 20^\circ$
- Torque: 0.4 to 2 Ncm.
(0.6 to 2.7 in-oz)
- Stop torque: > 5 Ncm. (> 7 in-oz)

ELECTRICAL SPECIFICATIONS

- Range of values (*)
 $100\Omega \leq R_n \leq 5\text{ M}$ (Decad. 1.0 - 2.0 - 2.2 - 2.5 - 4.7 - 5.0)
 - Tolerance (*): $100\Omega \leq R_n \leq 1\text{ M}\Omega$ $\pm 20\%$
 $1\text{ M}\Omega < R_n \leq 5\text{ M}\Omega$ $\pm 30\%$
 - Max. Voltage: 200 VDC (lin) 100 VDC (no lin)
 - Nominal Power 70°C (158°F) (see power rating curve)
0.33 W (lin) 0.17 W (no lin)
 - Taper (*) (Log. & Alog. only $R_n \geq 1\text{ K}$) Lin ; Log; Alog.
 - Residual resistance: $\leq 5 \cdot 10^{-3} R_n$ (2 Ω min.)
 - Equivalent Noise Resistance: $\leq 3\% R_n$ (3 Ω min.)
 - Operating temperature: $-40^\circ\text{C} + 90^\circ\text{C}$ ($-40^\circ\text{F} + 194^\circ\text{F}$)
- (*) Others upon request

HOW TO ORDER



NOTES:

- (1) "Z" adjustment only available on "H" versions. Rotor "G" only available in purple (shaft/rotor colour "VI").
- (2) Terminal styles: "P" & "J" are crimped terminals
- (3) Value Example: Code: 10 $\frac{1}{1}$ = 100 Ω
Numb of zeros
First two digits of the value. 000 = CM: SPDT switch 45°
- (4) Non standard tolerance, upon request. Example: +7% Code: 07
-5% 05
negative tolerance
positive tolerance
- (5) Life • Standard 100 cycles
• Long life 10000 cycles
- (6) Magazines: not available with the H10, V05 and V13 models, nor with adjustment types X, W, Y, Z.
Non flammable: housing, rotor and shaft.
- (7) Colour shaft/rotor: • Potentiometer without shaft: only rotor • Potentiometer with shaft: only shaft
- (8) Low Torque: 0.25 to 1 Ncm (per pot.)
Extra Low Torque: 0.1 to 0.4 Ncm (per pot.). Only available on "H" models without crimping
No detent option available for low and extra low torque models. No shaft or thumbwheel option for extra low torque models.

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

HOW TO ORDER CUSTOM DRAWING

PTC-10 LH 01 + DRAWING NUMBER (Max. 16 characters)

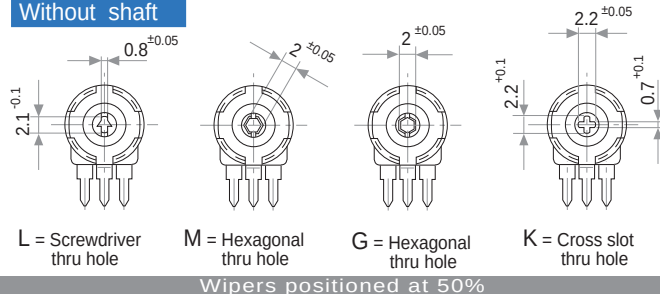
This way of ordering should be used for options which are not included in the "How to order" standard and optional extras.

STANDARD OPTIONS

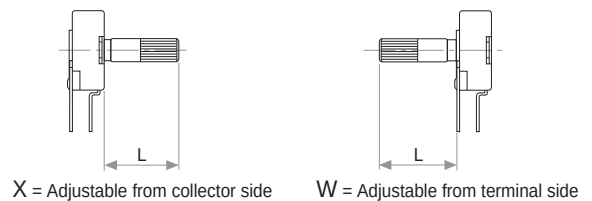
Mechanical Life	100 cycles
Detents	None
Packing	Bulk
Rotor colour	Natural
Shaft colour	Natural
Wiper position	Initial
Torque	Standard

ROTORS

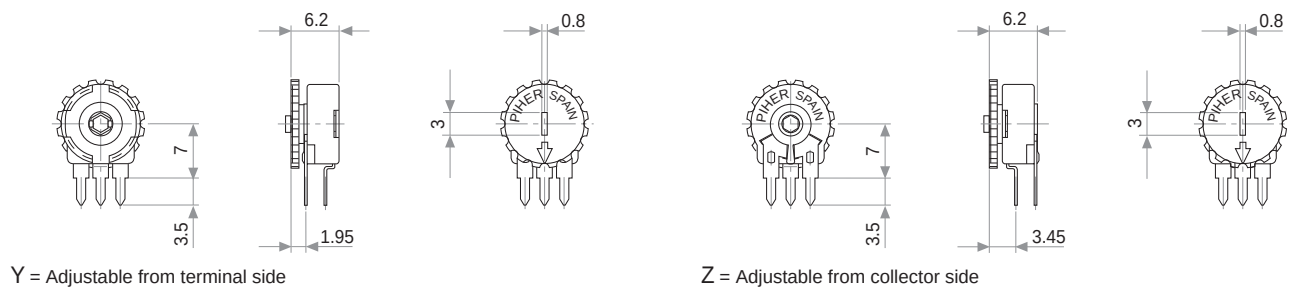
Without shaft



With shaft



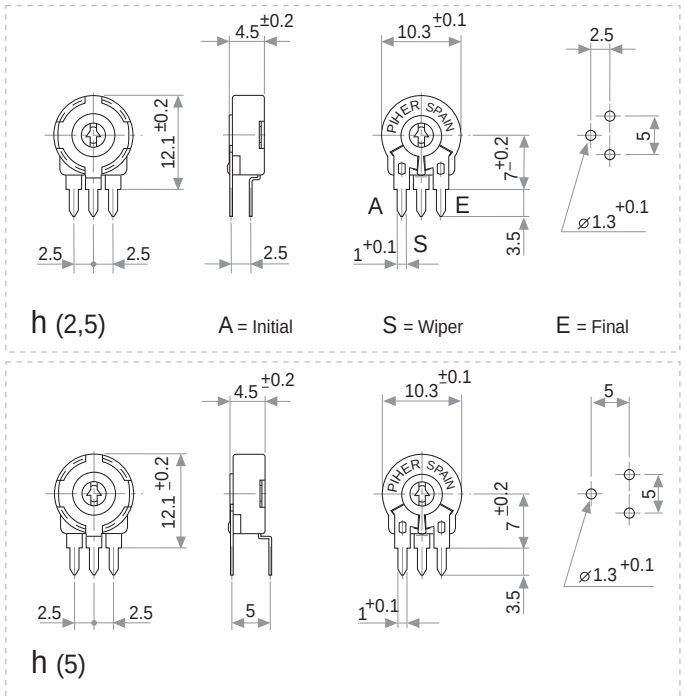
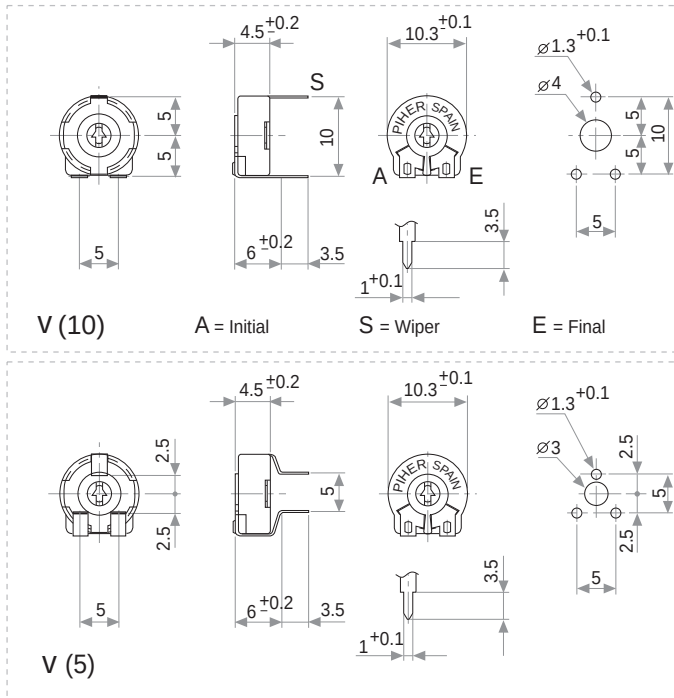
With thumbwheel



MOUNTING METHODS

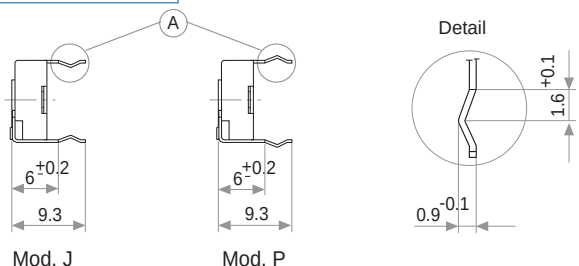
V = horizontal mount – vertical adjust

h = vertical mount – horizontal adjust

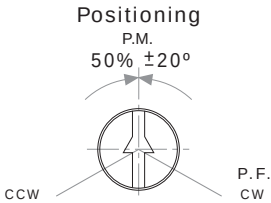
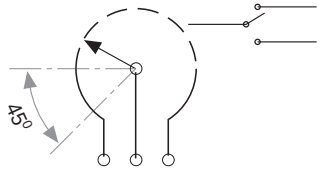


NOTE = Please note relative terminal positions when ordering non linear tapers.

Crimped terminals



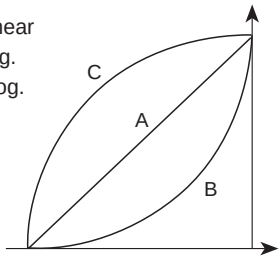
SPDT SWITCH



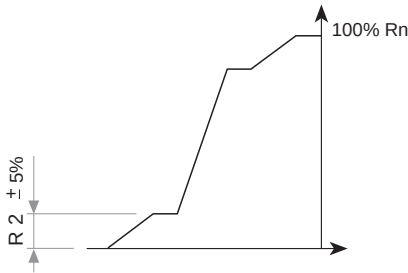
Std. Position = CCW

TAPERS

A = Linear
B = Log.
C = Alog.

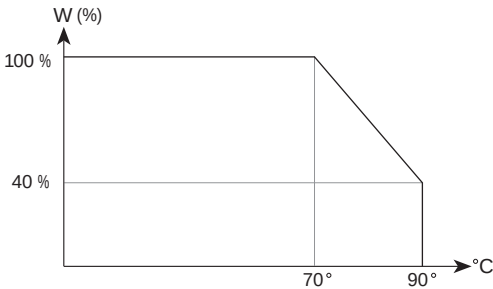


Standard



Special example

POWER RATING CURVE



NOTE = Please note relative terminal positions when ordering non linear tapers.

TESTS

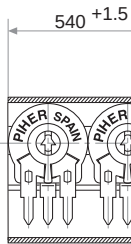
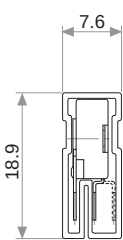
TESTS		TYPICAL VARIATIONS
ELECTRICAL LIFE	1.000 h. @ 70°C; 0.33 W	±5 %
MECHANICAL LIFE (CYCLES)	100 @ 10 CPM ...15 CPM	±3 % (Rn < 1 MΩ)
TEMPERATURE COEFFICIENT	−40°C; +90°C	±100 ppm (Rn <100 ±K)
THERMAL CYCLING	16 h. @ 90°C; 2h. @ −40°C	±2.5 %
DAMP HEAT	500 h. @ 40°C @ 95% HR	±5 %
VIBRATION (for each plane X,Y,Z)	2 h. @ 10 Hz. ... 55 Hz.	2 %

NOTE: Out of range values may not comply these results.

PACKAGING

BOXES

Model	Units
Without shaft	500 (40 x 85 x 185 mm.)
With thumbwheel	400 (40 x 85 x 185 mm.)
With shaft	200 (40 x 85 x 185 mm.)

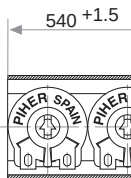
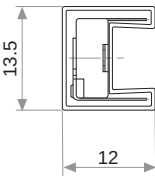


Magazines for PTC-10 h 2.5; h 5

Also crimped term. h 2.5 P

AUTOMATIC INSERTION

Magazines	Units
PTC-10H & PTC-10V	50 Pieces



Magazines for PTC-10 V

Also crimped term. VP

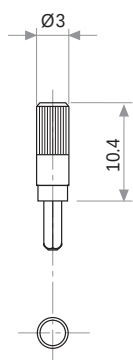


Fig. 1 / Ref. 5016

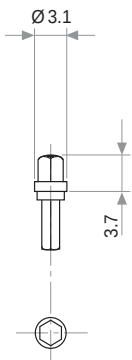


Fig. 2 / Ref. 5053

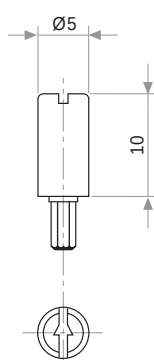


Fig. 3 / Ref. 5012

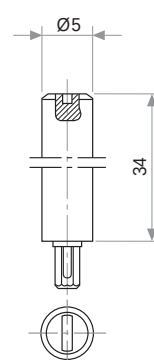


Fig. 4 / Ref. 6053

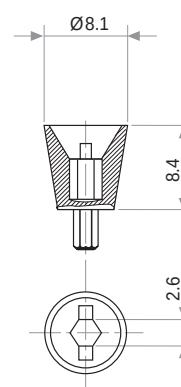


Fig. 6 / Ref. 5035

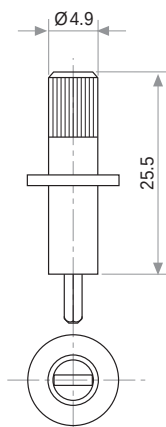


Fig. 7 / Ref. 5115

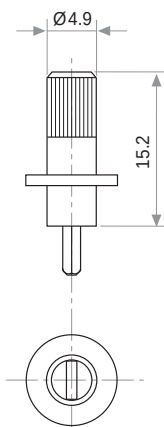


Fig. 8 / Ref. 5116

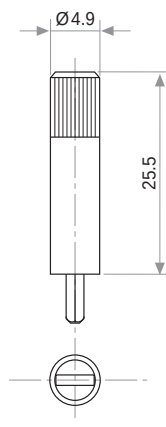


Fig. 9 / Ref. 5119

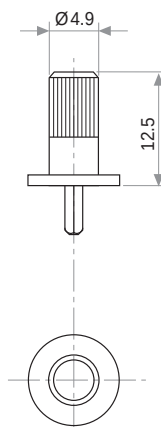


Fig. 10 / Ref. 5120

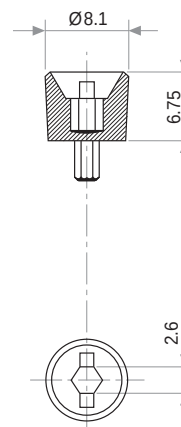


Fig. 11 / Ref. 5027

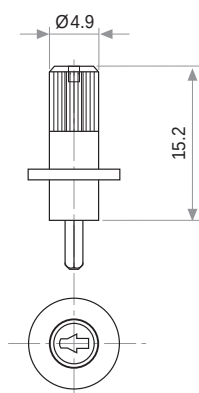


Fig. 12 / Ref. 6052

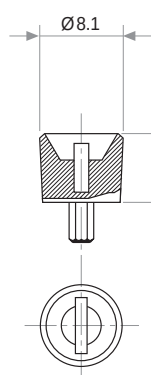


Fig. 13 / Ref. 5121

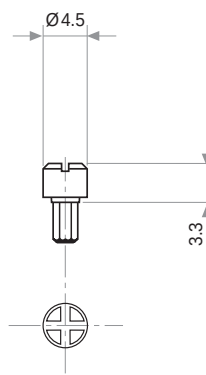
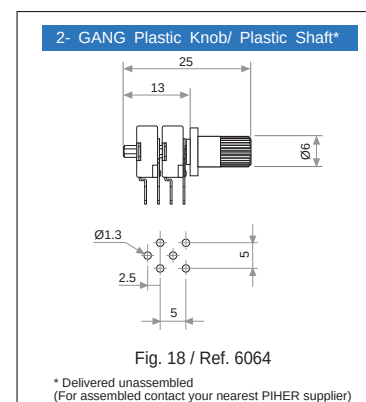


Fig. 14 / Ref. 5055



THUMBWHEELS

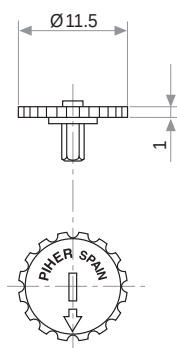


Fig. 5 / Ref. 5034

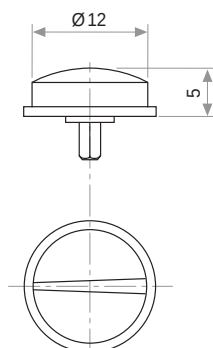


Fig. 15 / Ref. 6008

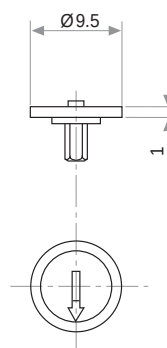


Fig. 16 / Ref. 5039

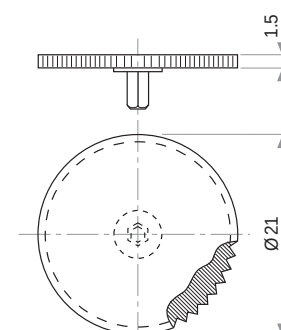
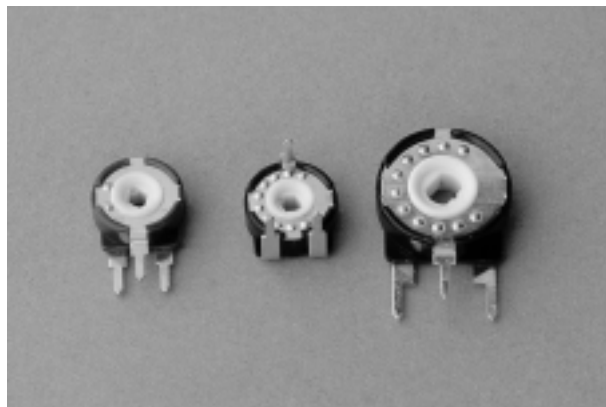


Fig. 17 / Ref. 5062



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. 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.

MAIN SPECIFICATIONS

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

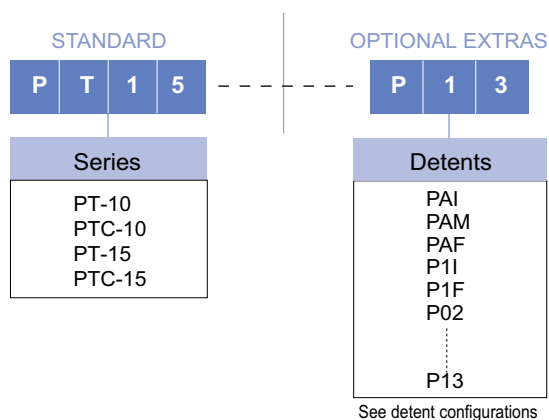
TYPICAL APPLICATIONS

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.

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.

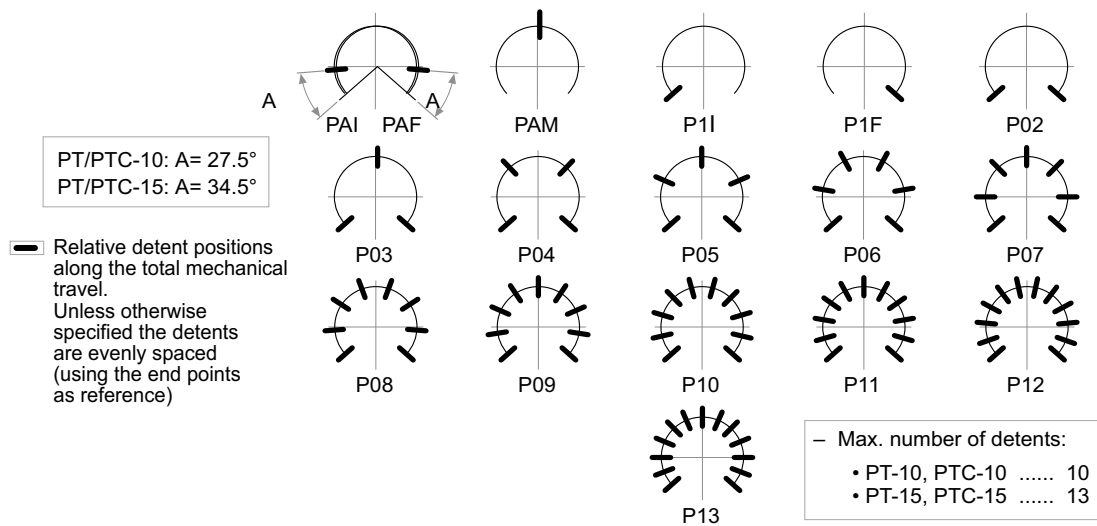
- (3) • Long life versions are available under request and have the following characteristics at T^a:

- 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

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

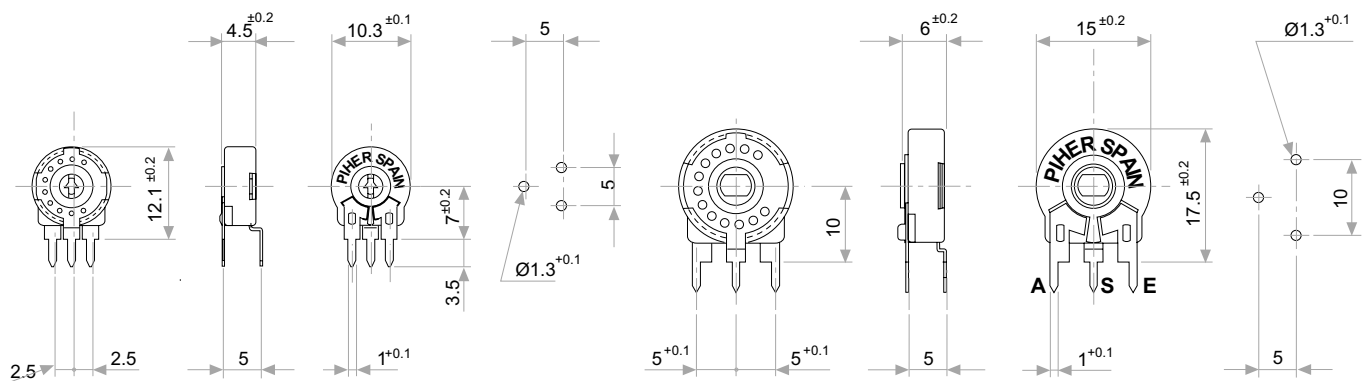
DETENT CONFIGURATIONS



DETENT DETAILS

PT/PTC-10 P10 ...

PT/PTC-15 P13 ...



A = Initial S = Wiper E = Final

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