

### FEATURES

- Carbon resistive element.
- IP54 protection according to IEC 60529.
- Polyester substrate.
- SMD version available (see PS-6 datasheet).
- Also upon request:
  - Wiper positioned at 50% or fully clockwise
  - Supplied in magazines for automatic insertion
  - Long life model (10K cycles)
  - Housing available in self extinguishable plastic (UL94V0)
  - Mechanical detents

### MECHANICAL SPECIFICATIONS

- Mechanical Rotation angle:  $235^\circ \pm 5^\circ$
- Electrical Rotation angle:  $200^\circ \pm 20^\circ$
- Torque: 0.2 to 2 Ncm. (0.3 to 2.7 in-oz)
- Stop torque:  $> 4$  Ncm. ( $> 5.6$  in-oz)
- Life\*: Up to 10K cycles

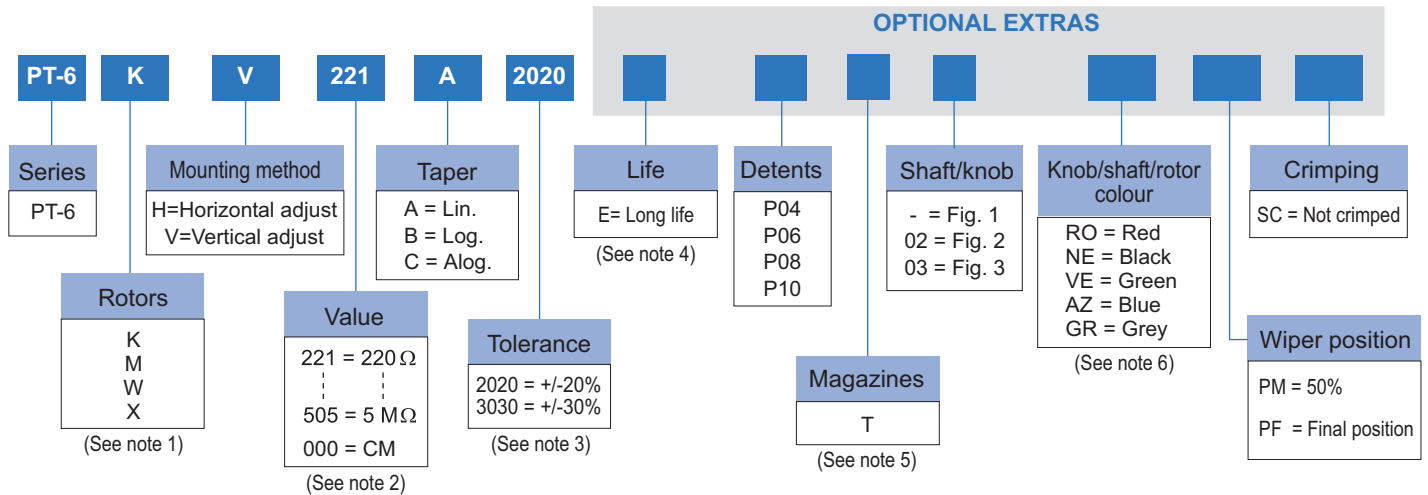
### ELECTRICAL SPECIFICATIONS

- Range of values\*  
 $220\Omega \leq R_n \leq 5M$  (Decad. 1.0 - 2.0 - 2.2 - 2.5 - 4.7 - 5.0)
- Tolerance\*:  $220\Omega \leq R_n \leq 1M\Omega$  .....  $\pm 20\%$   
 $1M\Omega < R_n \leq 5M\Omega$  .....  $\pm 30\%$
- Max. Voltage: 100 VDC (lin), 50 VDC (no lin)
- Nominal Power 50°C (122°F) (see power rating curve)  
 $0.1$  W (lin)  $0.05$  W (no lin)
- Taper\*: Lin; Log; Alog (Log & Alog. only  $R_n \geq 1K$ )
- Residual resistance\*:  $\leq 0.5\%$   $R_n$  (5Ω min)
- Equivalent Noise Resistance:  $\leq 3\%$   $R_n$  (3Ω min)
- Operating Temperature\*\*:  $-25^\circ C + 70^\circ C$  ( $-13^\circ F + 158^\circ F$ )

\* Others check availability.

\*\* Up to 85°C depending on application.

### HOW TO ORDER



#### NOTES:

(1) Adjust. type: «X» is only available with horizontal adjusting method.

(2) Value: - Code:  $\frac{22}{1} = 220\Omega$   
 - 000 = CM = Switch version (contact us)  
 Number of zeros  
 First two digits.

(3) Tolerance (non standard): check availability..... Code eg.:  $\frac{+7}{-5} = \frac{07}{05}$   
 Negative tolerance  
 Positive tolerance

(4) Life: • Standard = 1000 cycles • Long = 10K cycles (non-detented models)

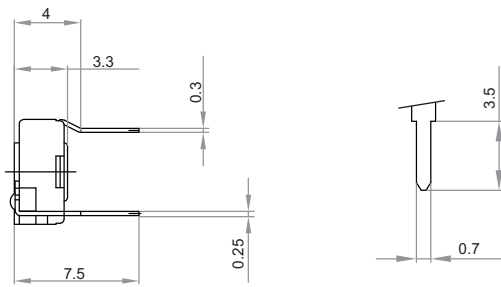
(5) Only for "V" mounting method. "W" rotor with shaft Fig. 2 is not available in magazines.

(6) Potentiometer without knob or shaft, only the rotor. Potentiometer with knob or shaft, only the knob/shaft. Default colour for knob/shaft is cream. Shaft only available in cream or black colour.

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



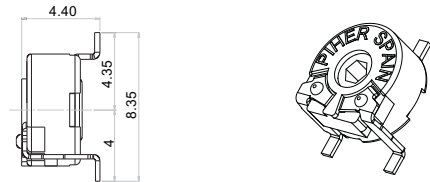
## NOT-CRIMPED TERMINALS DIMENSIONS



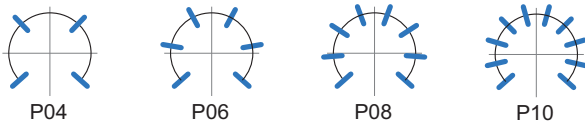
## SMD VERSION

SMD / SMT version available:

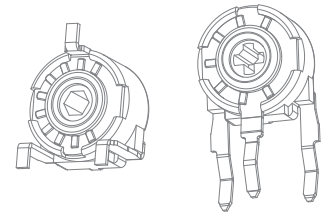
See N-6 and PS-6 product datasheets at: [www.pihher.net](http://www.pihher.net)



## STANDARD DETENT CONFIGURATIONS



— Relative detent positions along the total mechanical travel.



Examples of custom configurations.

### NOTES FOR DETENTED VERSIONS:

- (1) All detented versions will be studied case by case. Contact Piher for leadtimes and availability.
- (2) Others check availability. Unless otherwise specified the detents are evenly spaced (using the end points as reference).  
For more than 10 detents versions please contact your nearest PIHER authorised distributor.
- (3) Standard mechanical life: 100 cycles.
- (4) Long life versions are available under request and have the following characteristics at T<sup>a</sup>:  
- Potentiometers with 1 to 3 detents: up to 10K cycles.  
- Potentiometers with 4 and more detents: up to 5K cycles.
- (5) Detent torque can vary from 1.2 to 2.5 times the standard potentiometer torque.

## PACKAGING

### BOXES

#### Model

All

#### Units

1.000

### AUTOMATIC INSERTION

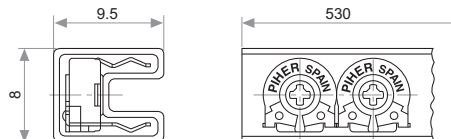
#### Magazines

PT-6 V & PT-6 WV

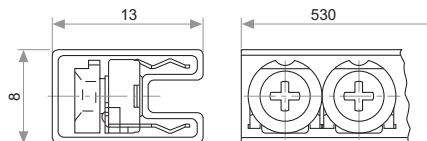
#### Units per magazine

80 Pieces

### Magazines for PT-6 V with or without crimp.



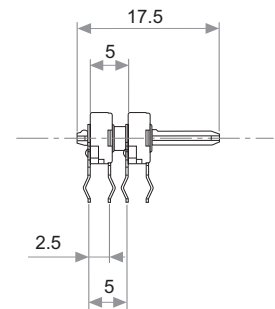
### Magazines for PT-6 WV with or without crimp.



## PT-6 DUAL GANG VERSION

### Ref.: 6060

For PT-6 dual gang version contact your nearest PIHER supplier

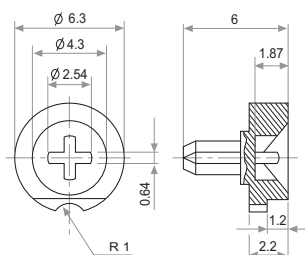


## SHAFT / KNOB

If you wish to use your own custom plastic shaft/knob/actuator please contact Piher for advice about compatible materials.

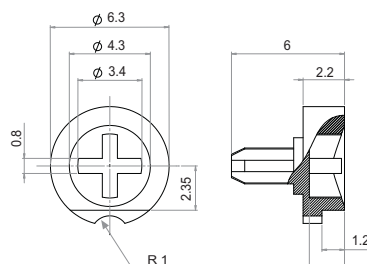
### Ref.: 5155 / Fig. 1

Default knob. Standard colour: white.



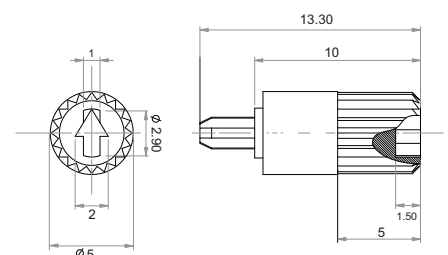
### Ref.: 5141 / Fig. 3

Colour: grey. For other colours check availability.



### Ref.: 6132 / Fig. 2

Shaft not suitable for magazine packaging



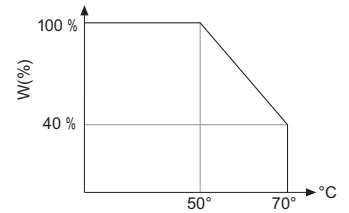
## TESTS

## TYPICAL VARIATIONS

## POWER RATING CURVE

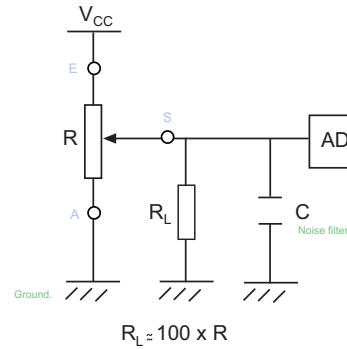
ELECTRICAL LIFE	1.000 h. @ 50°C: 0.1 W	±5 %
MECHANICAL LIFE (CYCLES)	1000 @ 10 CPM ...15 CPM	±4 % (Rn < 1 MΩ)
TEMPERATURE COEFFICIENT	-25°C; +70°C	±300 ppm (Rn < 100 K)
THERMAL CYCLING	16 h. @ 85°C; 2h. @ -25°C	±2.5 %
DAMP HEAT	500 h. @ 40°C @ 95% HR	±5 %
VIBRATION (for each plane X,Y,Z)	2 h. @ 10 Hz. ... 55 Hz.	±2 %

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



## RECOMMENDED CONNECTIONS

Piher potentiometer's recommended connection circuit for a position sensor or control application. (voltage divider circuit electronic design).



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The product information in this catalogue is for reference purposes. Please consult for the most up to date and accurate design information.

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