PIHER



MECHANICAL SPECIFICATIONS

Mechanical Rotation angle: 235° ± 5°
 Electrical Rotation angle: 200° ± 20°

- 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

PT-6

6 mm Carbon Potentiometer

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

ELECTRICAL SPECIFICATIONS

- Range of values*

 $220\Omega \le Rn \le 5M$ (Decad. 1.0 - 2.0 - 2.2 - 2.5 - 4.7 - 5.0)

– Tolerance*: $220~\Omega \le Rn \le 1M~\Omega$ $\pm 20\%$ $1M~\Omega < Rn \le 5M~\Omega$ $\pm 30\%$

- 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 Rn≥ 1K)

– Residual resistance*: $\leq 0.5 \%$ Rn (5 Ω min)

- Equivalent Noise Resistance: ≤ 3% Rn (3Ωmin)

– Operating Temperature**: -25°C +70°C (-13°F +158°F)

HOW TO ORDER OPTIONAL EXTRAS 2020 Mounting method Life **Detents** Shaft/knob Knob/shaft/rotor Crimping Series **Taper** colour A = Lin. P04 PT-6 H=Horizontal adjust - = Fig. 1 SC = Not crimped E= Long life P06 RO = Red V=Vertical adjust B = Log.02 = Fig. 2 (See note 4) NE = Black C = Alog.P08 VF = Green P10 Rotors AZ = Blue Value GR = Grey Wiper position K Tolerance $221 = 220 \Omega$ (See note 6) M Magazines 2020 = +/-20% PM = 50%W 3030 = +/-30% Χ $505 = 5 M\Omega$ PF = Final position (See note 3) (See note 1) 000 = CM(See note 5) (See note 2)

NOTES:

- (1) Adjust type: «X» is only available with horizontal adjusting method.
- (2) Value: Code: 22 1 = 220Ω Number of zeros First two digits. 000 = CM = Switch version (contact us)
 - our out of the contact do
- (5) Only for "V" mounting method. "W" rotor with shaft Fig. 2 is not available in maganizes .
- (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.



HOW TO ORDER CUSTOM DRAWING

STANDARD OPTIONS

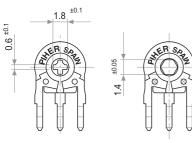
PT-6 KV + DRAWING NUMBER

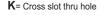
(Max. 16 characters)

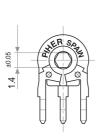
This way of ordering should be used for options which are not included in the "How to order" standard and optional extras.

Packing	Bulk
Rotor colour	White
Wiper position	Initial
Crimping	Yes
Knob/Shaft colour	Cream
Mechanical life	200 cycles

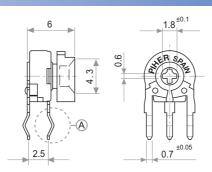
ROTORS



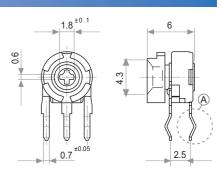




M= Hexagonal thru hole



X = Adjustable from collector side

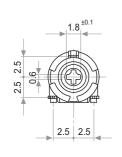


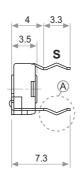
W = Adjustable from terminal side

mounted knob / shaft

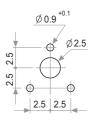
MOUNTING METHODS. VARIATIONS

V = Horizontal mount / Vertical adjust

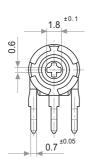


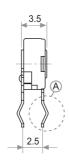


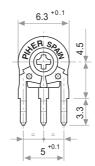


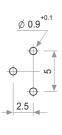


h = Vertical mount / Horizontal adjust



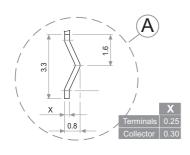


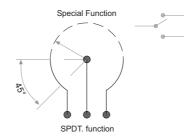


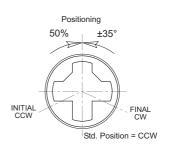


DETAIL A

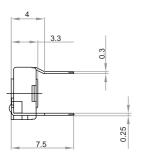
OPTIONS

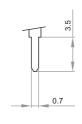






NOT-CRIMPED TERMINALS DIMENSIONS





SMD VERSION

SMD / SMT version available:

See N-6 and PS-6 product datasheets at: www.piher.net





STANDARD DETENT CONFIGURATIONS









Relative detent positions along the total mechanical





Unless otherwise specified the detents are evenly spaced (using the end points as reference). For more than 10 detents versions please contact PIHER. Mechanical and/or electrical features may be affected by detents.

Other detent configurations upon request

PACKAGING

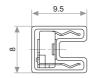
BOXES

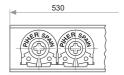
Model	Units
All	1.000

AUTOMATIC INSERTION

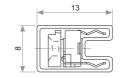
Magazines	Units per magazine
PT-6 V & PT-6 WV	80 Pieces

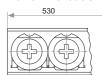
Magazines for PT-6 V with or without crimp.





Magazines for PT-6 WV with or without crimp.

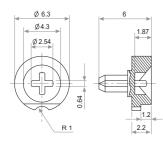




SHAFT / KNOB

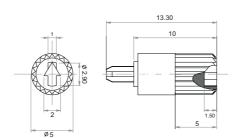
If you wish to use your own custom plastic shaft/knob/actuator please contact Piher for advice about compatible materials.

Ref.: 5155 / Fig. 1



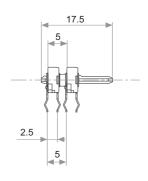
Shaft not suitable for magazine packaging

Ref.: 6132 / Fig. 2



PT-6 DUAL GANG VERSION

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



TESTS

ELECTRICAL LIFE MECHANICAL LIFE (CYCLES) TEMPERATURE COEFFICIENT THERMAL CYCLING DAMP HEAT VIBRATION (for each plane X,Y,Z)

1.000 h. @ 50°C: 0.1 W 200 @ 10 CPM ...15 CPM -25°C; +70°C

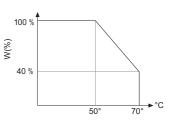
16 h. @ 85°C; 2h. @ -25°C 500 h. @ 40°C @ 95% HR

2 h. @ 10 Hz. ... 55 Hz.

TYPICAL VARIATIONS

+5 % $\pm 3\%$ (Rn < 1 M Ω) ±300 ppm (Rn < 100 K) ±2.5 % ±5 % ±2 %

POWER RATING CURVE



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

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Mouser Electronics

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Piher:

 PT6KV224A2020
 PT6KV-105A2020
 PT6KH-103A2020
 PT6KH2.5 4.7KA
 PT6KV2.5 4.7KA
 PT6WH(2.5) 20KA 20%

 PT6KV101A2020
 PT6KH2.5 1MA
 PT6KH2.5 1KA
 PT6KV-201A2020
 PT6KH2.5 220KA
 PT6KH2.5 100KA

 PT6KV333A2020
 PT6KV-501A2020
 PT6KH2.5 47KA
 PT6KH254A2020
 PT6KH-03627
 PT6KH203A2020

 PT6KH221A2020
 PT6KH501A2020
 PT6KV-103A2020
 PT6KV-252A2020
 PT6KV-104A2020
 PT6KV-504A2020

 PT6KV-473A2020
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