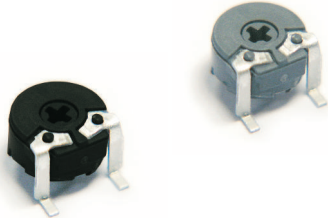


PIHER potentiometer 6mm SMD

PS-6 & PSX-6

MAIN FEATURES

- Specifically designed for leadfree reflow soldering processes (excellent performance).
- Carbon resistive element.
- IP54 protection according to IEC 60529.
- Self extinguishable plastic UL 94V-0 (PS-6).
- Moisture sensitivity level 1 (PS-6).
- Embossed tape according to IEC 60286-3:2007.
- Wiper positioned at initial, 50% or fully clockwise.
- Full traceability.
- Also upon request:
 - Long life model for low cost control potentiometer applications.
 - Shaft - knob.



MECHANICAL SPECIFICATIONS

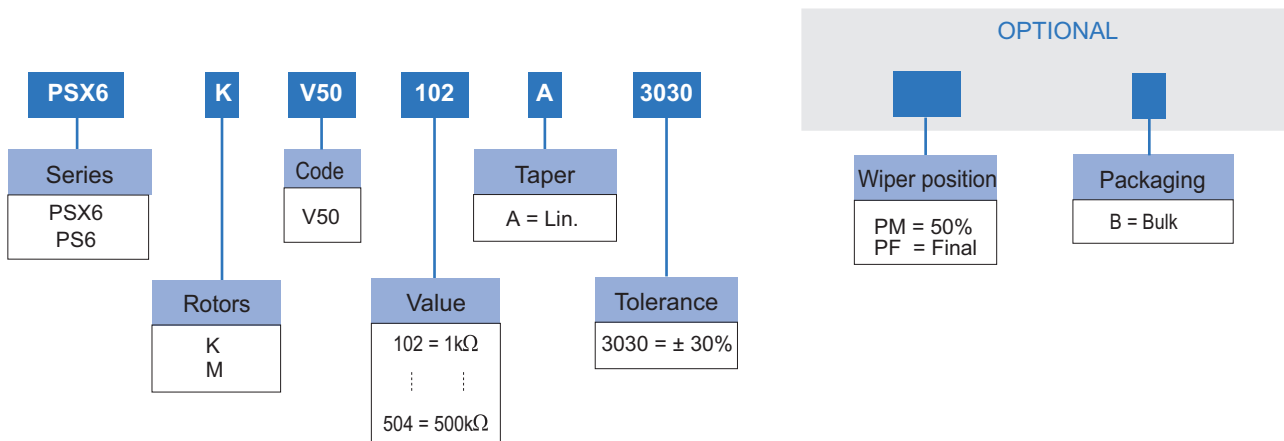
- Mechanical rotation angle: $235^\circ \pm 5^\circ$
- Electrical rotation angle: $200^\circ \pm 20^\circ$
- Torque: 0.2 to 2 Ncm.
(0.3 to 2.7 in-oz)
- Stop torque: > 4 Ncm. (>7 in-oz)

ELECTRICAL SPECIFICATIONS

- Value*: 1K Ω to 500K Ω
- Tolerance*: $\pm 30\%$
- Taper*: Linear
- Nominal Power: 0.1W @ 50°C (122°F)
- Operating temperature: PSX-6: $-25^\circ\text{C} + 70^\circ\text{C}$
PS-6: $-40^\circ\text{C} + 85^\circ\text{C}$
- Residual resistance: $\leq 5 \cdot 10^{-3} R_n$

* Others upon request

HOW TO ORDER



Alternative product: N6R.
Datasheet available at www.piher.net

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

HOW TO ORDER CUSTOM DRAWING

PS(x)-6KV50 + DRAWING NUMBER (Max. 16 characters)

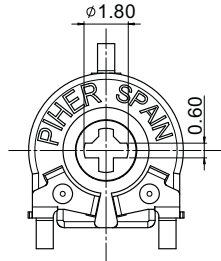
This way of ordering should be used for options which are not included in the "How to order" standard and optional extras.

STANDARD OPTIONS

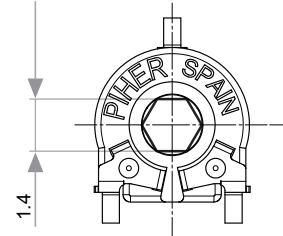
	PSX-6	PS-6
Rotor colour	Black	Grey
Housing colour	Black	Grey
Wiper position	Initial	Initial
Packaging.....	Reel	Reel
Life	500 cycles	500 cycles
Detents.....	None	None

ROTORS

Note: wipers are shown positioned at 50%

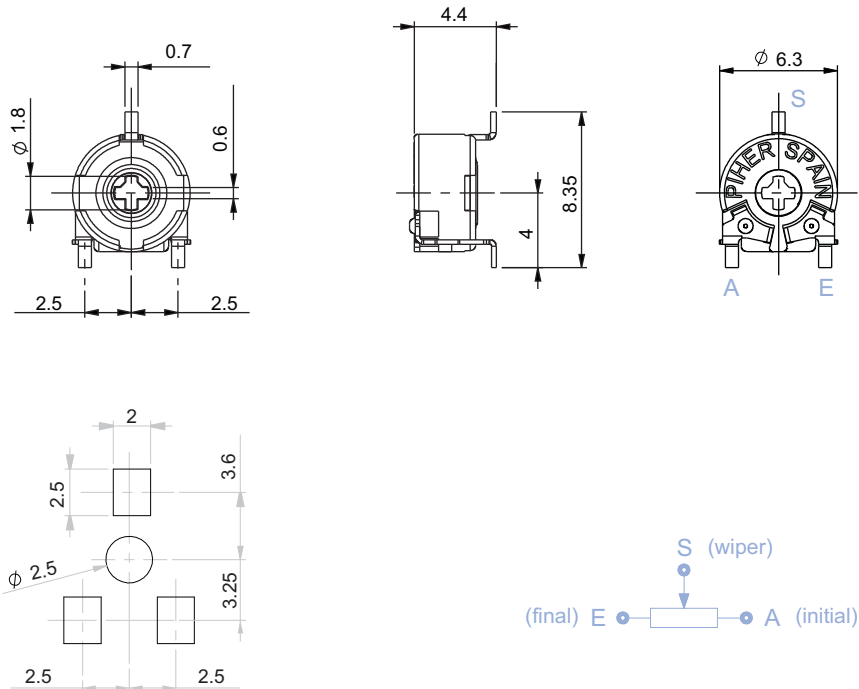


K= Cross slot thru hole



M= Hexagonal thru hole

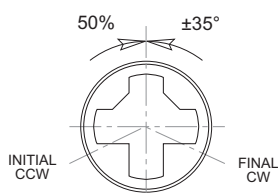
DIMENSIONS - V50



Recommended PCB hole layout

POSITIONING

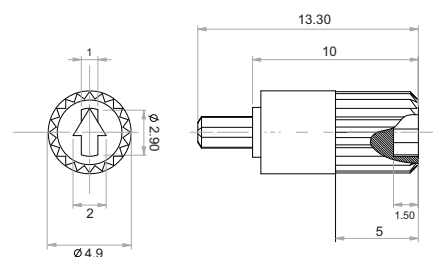
Std. Position = CCW



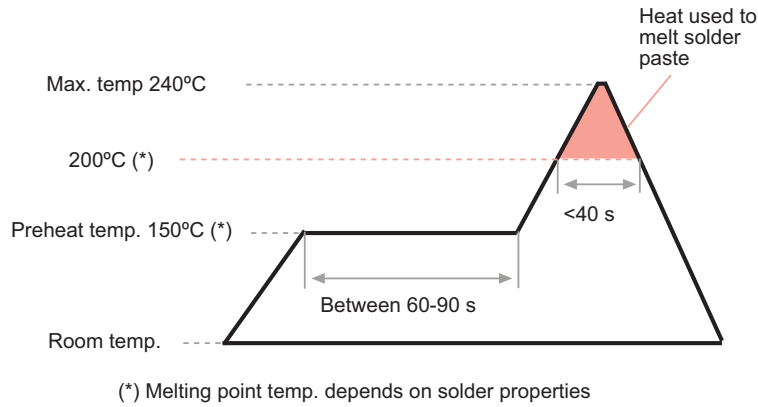
SHAFT

Ref.: 6144

Shaft suitable for PS-6 models.



PSX-6 RECOMMENDED REFLOW PROFILE



The recommended reflow profile is provided as a guideline. Optimal profile may differ due to oven type, assembly layout or other design or process variables. Customers should verify actual device performance in their specific application and reflow process. Please contact Piher if you require additional support.

PSX-6 TESTS

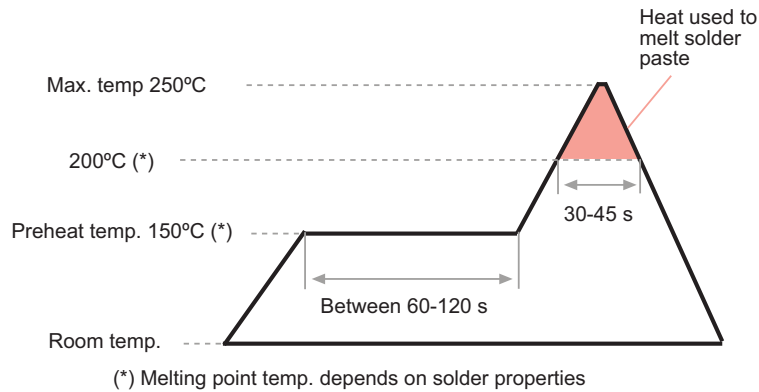
VARIATIONS

ELECTRICAL LIFE	1.000 h. @ 50°C; 0.10 W	±10%
MECHANICAL LIFE (CYCLES)*	500 @ 10 CPM ...15 CPM	±10 %
TEMPERATURE COEFFICIENT	-25°C; +70°C	±1000 ppm
THERMAL CYCLING	16 h. @ 85°C; 2h. @ -25°C	±5 %
DAMP HEAT	500 h. @ 40°C @ 95% HR	±15 %
VIBRATION (for each plane X,Y,Z)	2 h. @ 10 Hz. ... 55 Hz.	±3 %

* Tests at room temperature. Other life cycles upon request.

NOTE: Out of range values may not comply these results. Please confirm with the factory all the information before designing in.

PS-6 RECOMMENDED REFLOW PROFILE



The recommended reflow profile is provided as a guideline. Optimal profile may differ due to oven type, assembly layout or other design or process variables. Customers should verify actual device performance in their specific application and reflow process. Please contact Piher if you require additional support.

PS-6 TESTS

VARIATIONS

ELECTRICAL LIFE	1.000 h. @ 50°C; 0.10 W	±10%
MECHANICAL LIFE (CYCLES)*	500 @ 10 CPM ...15 CPM	±10 %
TEMPERATURE COEFFICIENT	-40°C; +85°C	±1500 ppm
	-25°C; +70°C	±1000 ppm
THERMAL CYCLING	16 h. @ 90°C; 2h. @ -40°C	±5 %
DAMP HEAT	500 h. @ 40°C @ 95% HR	±15 %
VIBRATION (for each plane X,Y,Z)	2 h. @ 10 Hz. ... 55 Hz.	±3 %

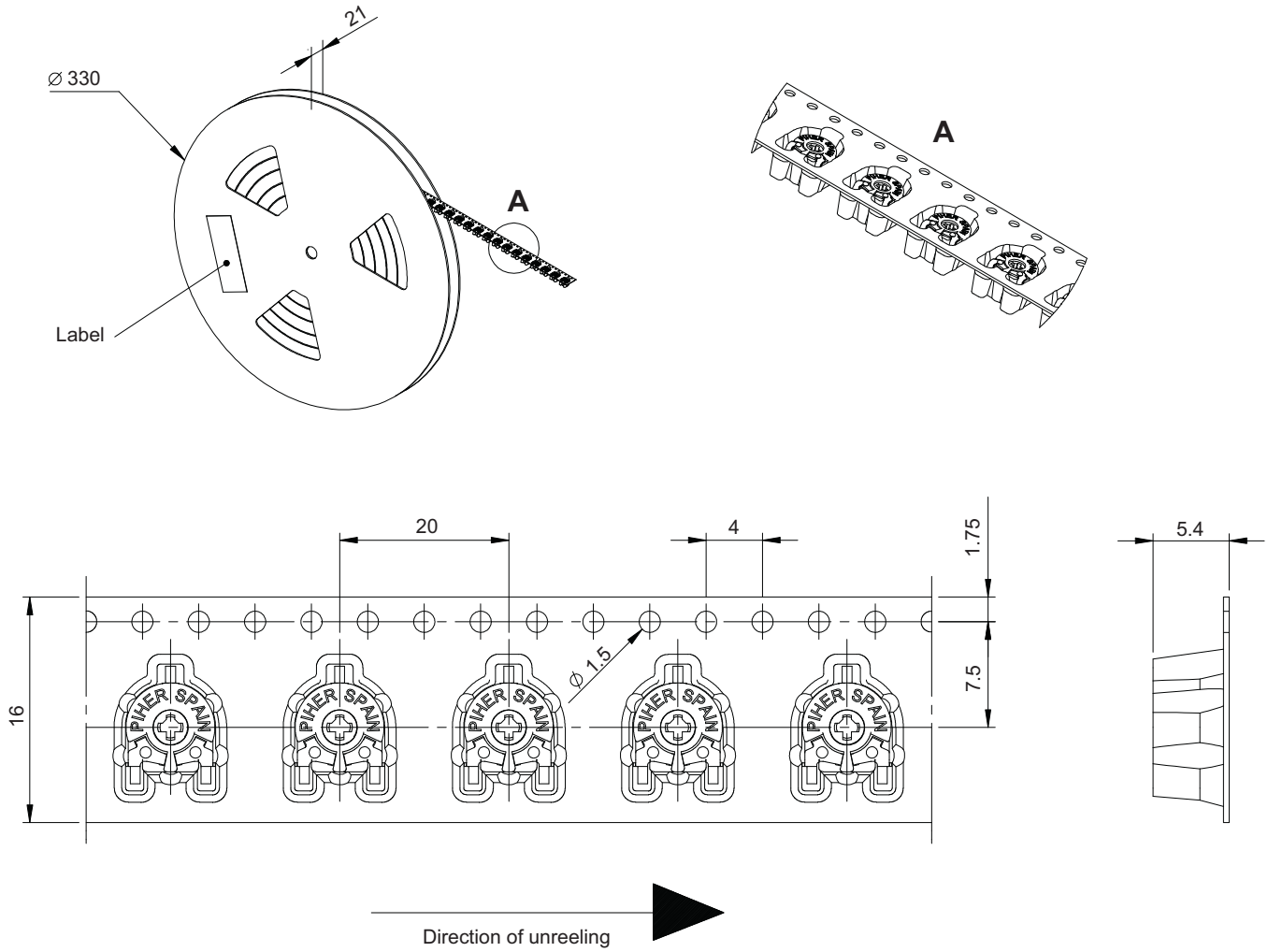
* Tests at room temperature. Other life cycles upon request.

NOTE: Out of range values may not comply these results. Please confirm with the factory all the information before designing in.

PACKAGING

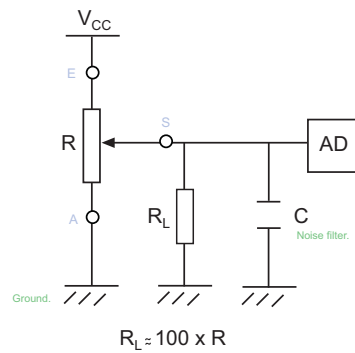
BULK (1000pcs / Box)

EMBOSSED TAPE (1000pcs / Reel)



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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