

FEATURES

- Excellent low price control potentiometer.
- Available in Carbon (SM-10) and Cermet (SMC-10)
- Based on the PT-10 / PTC-10 series.
- Enclosed in plastic housing.

MECHANICAL SPECIFICATIONS

- Mechanical angle: $235^\circ \pm 5^\circ$
- Electrical angle: $220^\circ \pm 20^\circ$
- Torque: 0.5 to 2.5 Ncm.
(0.71 to 3.5 in-oz)
- Stop torque: > 25 Ncm. (> 35.5 in-oz)
- Nut Torque: > 80 Ncm. (113.6 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 :
 - Carbon SM-10 (50°C-122°F): 0.15W (lin), 0.07W (no lin)
 - Cermet SMC-10 (70°C-158°F): 0.33W(lin), 0.17 W (no lin)
- Taper (*) (Log. & Alog. only $R_n > 1\text{K}$) Lin ; Log; Alog.
- Residual resistance(*): $\leq 5 \times 10^{-3} R_n$ (5 Ω min.)
- Equivalent noise resistance: $\leq 3\%$ R_n (3 Ω min.)
- Operating temperature:
 - Carbon SM-10 : $-25^\circ\text{C} + 70^\circ\text{C}^{**}$ ($-13^\circ\text{F} + 158^\circ\text{F}$)
 - Cermet SMC-10 : $-40^\circ\text{C} + 90^\circ\text{C}$ ($-40^\circ\text{F} + 194^\circ\text{F}$)
- Mechanical life: ≥ 10.000 cycles (***)

* Others on request.

** Up to 85°C depending on application

*** For Ohmic values $\geq 1\text{ K}\Omega$. Lower values upon request

HOW TO ORDER

SM-10	H04	102	A	2020	OPTIONAL EXTRAS	S																																				
Series	Code	Value	Taper	Tolerance	Nut and Washer	(See note 4)																																				
SM-10 SMC-10	<table border="1"> <thead> <tr> <th>Code</th> <th>Mounting Method</th> </tr> </thead> <tbody> <tr><td>H04</td><td>H 2.5A</td></tr> <tr><td>H14</td><td>H 5A</td></tr> <tr><td>H12</td><td>H 2.5PA</td></tr> <tr><td>H20</td><td>H 5PA</td></tr> <tr><td>V10</td><td>V</td></tr> <tr><td>V11</td><td>V P</td></tr> <tr><td>H03</td><td>H 2.5B</td></tr> <tr><td>H13</td><td>H 5B</td></tr> <tr><td>H22</td><td>H 2.5PB</td></tr> <tr><td>H30</td><td>H 5PB</td></tr> </tbody> </table> (See note 1)	Code	Mounting Method	H04	H 2.5A	H14	H 5A	H12	H 2.5PA	H20	H 5PA	V10	V	V11	V P	H03	H 2.5B	H13	H 5B	H22	H 2.5PB	H30	H 5PB	<table border="1"> <tbody> <tr><td>101 = 100Ω</td></tr> <tr><td>102 = 1 K</td></tr> <tr><td>504 = 500 K</td></tr> <tr><td>505 = 5 M</td></tr> <tr><td>000 = C M</td></tr> </tbody> </table> (See note 2)	101 = 100 Ω	102 = 1 K	504 = 500 K	505 = 5 M	000 = C M	<table border="1"> <tbody> <tr><td>A = Linear</td></tr> <tr><td>B = Log.</td></tr> <tr><td>C = Alog.</td></tr> </tbody> </table> (Other tapers on request)	A = Linear	B = Log.	C = Alog.	<table border="1"> <tbody> <tr><td>2020 = $\pm 20\%$</td></tr> <tr><td>3030 = $\pm 30\%$</td></tr> </tbody> </table> (See note 3)	2020 = $\pm 20\%$	3030 = $\pm 30\%$	<table border="1"> <tbody> <tr><td>-TA = Loose nut and washer</td></tr> <tr><td>MTA = Assembled nut and washer</td></tr> <tr><td>-T- = Loose nut</td></tr> <tr><td>MT- = Assembled nut</td></tr> </tbody> </table>	-TA = Loose nut and washer	MTA = Assembled nut and washer	-T- = Loose nut	MT- = Assembled nut	
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NOTES:

- Mount. Method: • Position with "P" will be with crimped terminals.
• Denominations (a), (b) (see Mounting Methods)
- Value: Code: $\begin{matrix} 10 & 1 & 100\Omega \\ & \swarrow & \downarrow \\ & & \text{Number of zeros} \\ & & \text{2 first digits of the value.} \end{matrix}$
• Standard values: Decades of 10, 20, 22, 25, 47, 50. Other values as specials.
• 000 = CM = Switch 45° (only SMC-10)
- Tolerance (non standard). Upon request. Code eg.: $\begin{matrix} +7 & = & 07 & 05 \\ -5 & & & \downarrow \\ & & & \text{negative tolerance} \\ & & & \text{positive tolerance} \end{matrix}$
- Leave blank for SMC-10

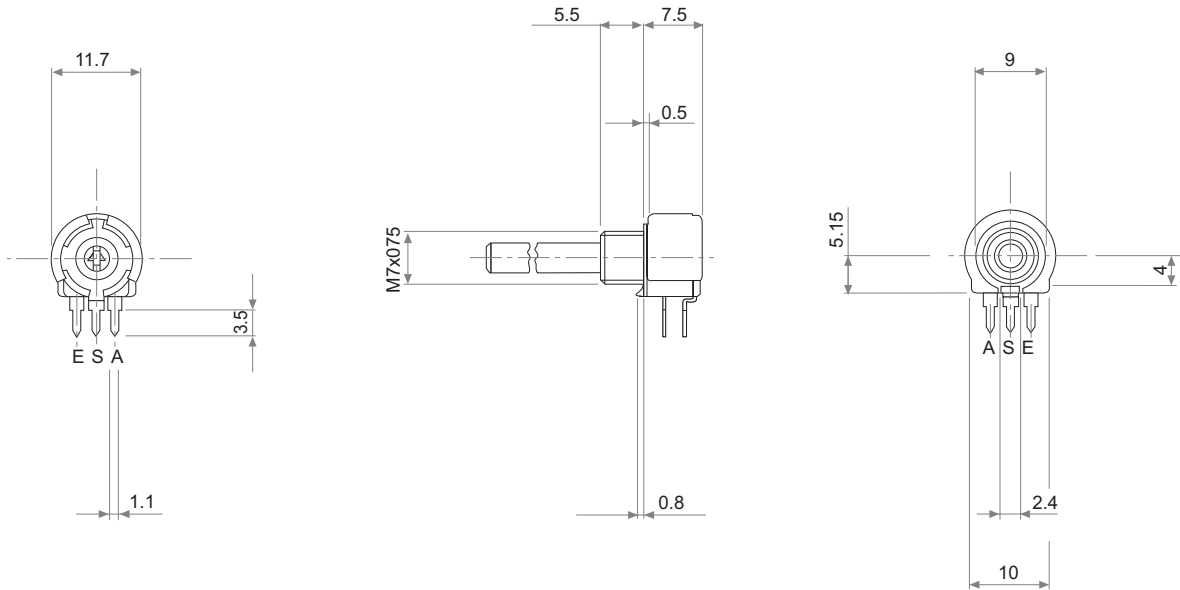
NOTE: The information contained here should be used for reference purposes only.

SM-10 H04 + DRAWING NUMBER (Max. 16 digits)

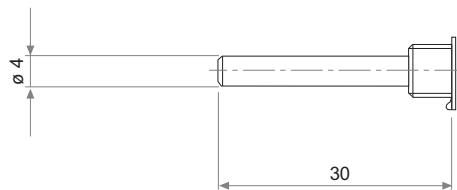
NUT AND WASHER = Without nut and washer

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

COMMON DIMENSIONS



STANDARD SHAFT



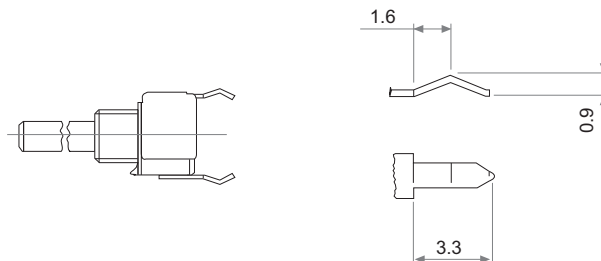
Shaft: The standard option is E4 L30 black colour.

TERMINALS

NOT CRIMPED



CRIMPED



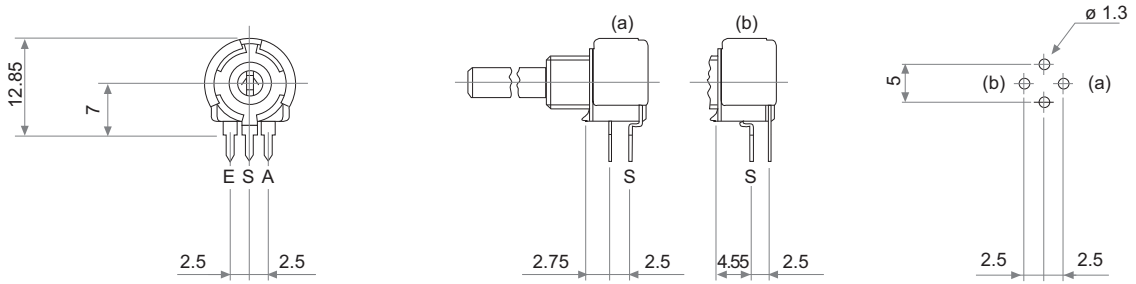
PACKAGING

TESTS

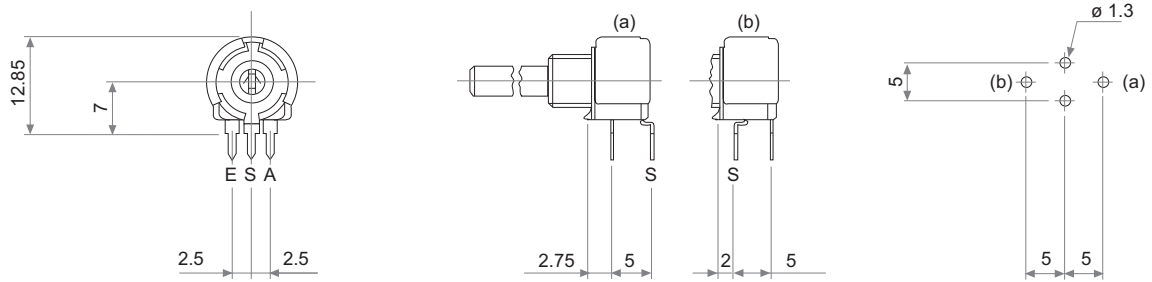
QUANTITY: 100 units

See PT-10 or PTC-10 data sheets.

h 2.5



h 5



v 10

