



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: $\leq 5 \times 10^{-3} R_n$ (2 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 tapers on request. No linear tapers; values higher than 1 K Ω .
 ** Up to 85°C depending on application
 *** For Ohmic values $\geq 1\text{ K}\Omega$. Lower values upon request

HOW TO ORDER

STANDARD			OPTIONAL EXTRAS			
SM-10	H04	102	A	2020		
Series	Code Mounting Method	Value	Taper	Tolerance	Nut and Washer	Terminals base material
SM-10 SMC-10	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	101 = 100 Ω 102 = 1 K 504 = 500 K 505 = 5 M 000 = C M	A = Linear B = Log. C = Alog. (Other tapers on request)	2020 = $\pm 20\%$ 3030 = $\pm 30\%$ (See note 3)	-TA = Loose nut and washer MTA = Assembled nut and washer -T = Loose nut MT = Assembled nut	S = steel
	(See note 1)	(See note 2)				

NOTES:

- Mount. Method:
 - Position with "P" will be with crimped terminals.
 - Denominations (a), (b) (see Mounting Methods)
- Value: Code: $\begin{matrix} 10 & 1 & 100\Omega \\ \swarrow & \downarrow & \searrow \\ & \text{Number of zeros} & \\ & \text{2 first digits of the value.} & \end{matrix}$
 - 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.: $\begin{matrix} +7 & = & 07 & 05 \\ -5 & & & \searrow \\ & & & \text{negative tolerance} \\ & & & \text{positive tolerance} \end{matrix}$

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

HOW TO ORDER CUSTOM DRAWING

STANDARD OPTIONS

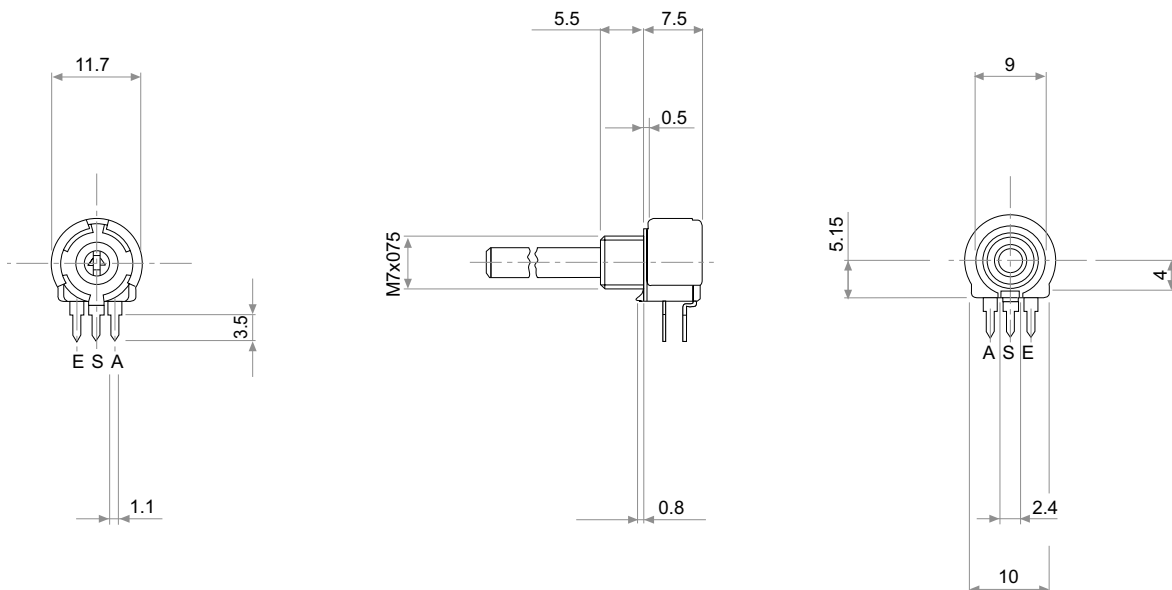
SM-10 H04 + DRAWING NUMBER (Max. 16 digits)

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

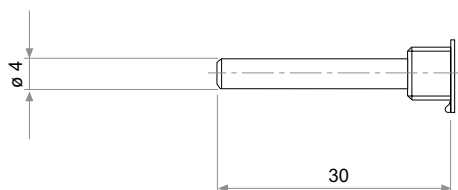
NUT AND WASHER = Without nut and washer

Terminals base material = Brass

COMMON DIMENSIONS



STANDARD SHAFT



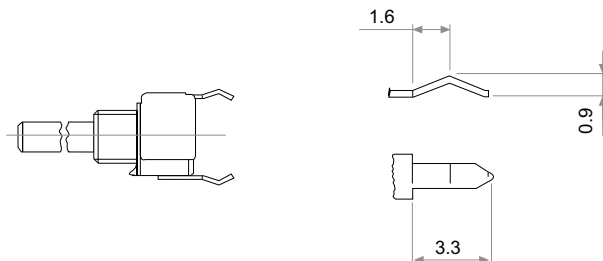
Shaft: The standard option is E4 L30 black colour.

TERMINALS

NOT CRIMPED



CRIMPED



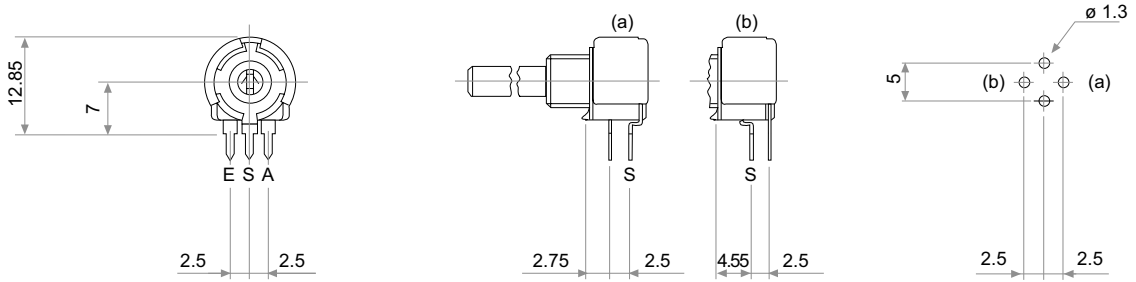
PACKAGING

QUANTITY: 100 units

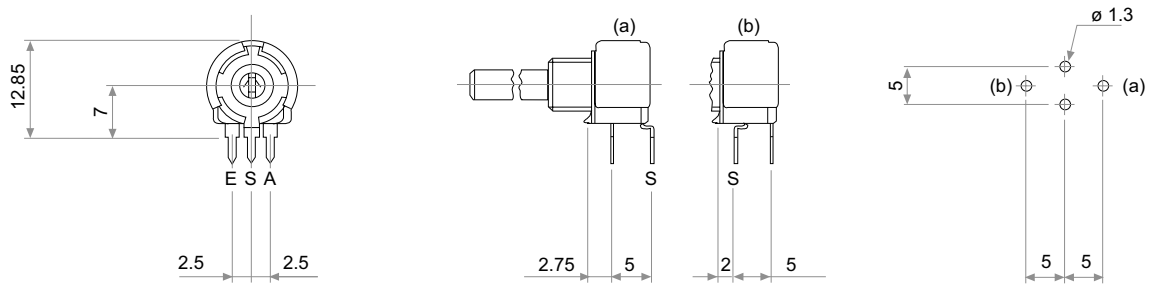
TESTS

See PT-10 or PTC-10 data sheets.

h 2.5



h 5



v 10

