



### FEATURES

- Cermet resistive element.
- Available in all series T-21 models (except detent option).
- High power dissipation.
- More than 50.000 operations.
- Series I-21 switches adaptable.

### MECHANICAL SPECIFICATIONS

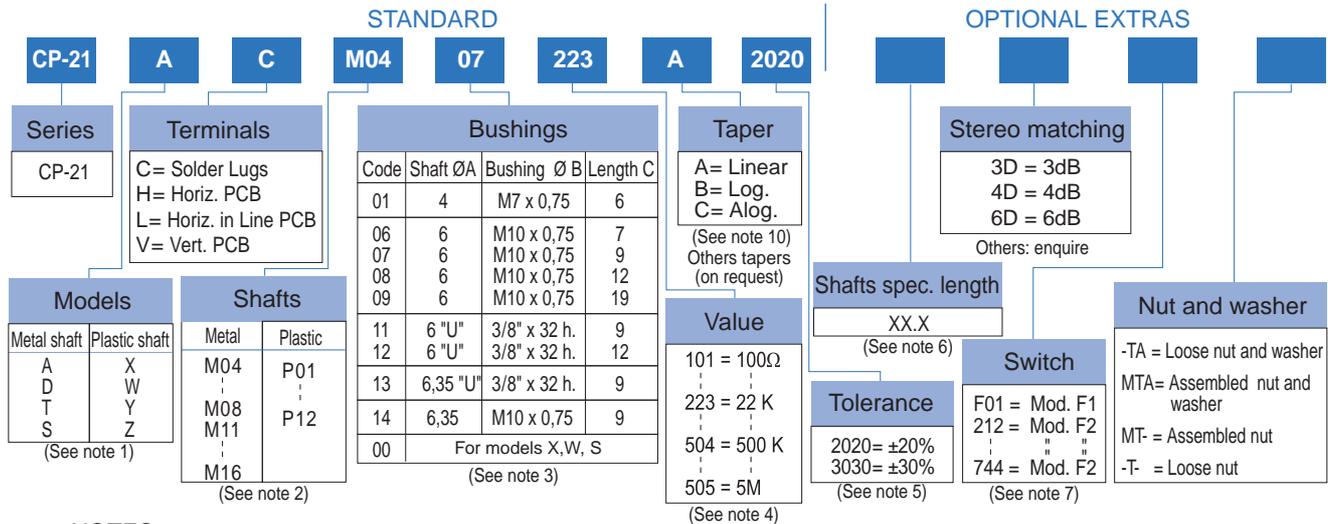
- Mechanical rotation angle:  $310^\circ \pm 5^\circ$
- Electrical rotation angle:  $290^\circ \pm 20^\circ$
- Operating torque: 0.5 to 1.5 Ncm.  
(0.7 to 2.1 in-oz)
- Max. stop torque: > 80 Ncm (> 112 in-oz)

### 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 (\*):  $100\Omega \leq R_n \leq 1\text{M}\Omega$  .....  $\pm 20\%$   
 $1\text{M}\Omega < R_n \leq 5\text{M}$  .....  $\pm 30\%$
- Max. Voltage: 500 VDC (lin); 250 VDC (no lin)
- Nominal Power  $70^\circ\text{C}$  ( $158^\circ\text{F}$ ) (see power rating curve)  
2 W (lin); 0.5 W (no lin)
- Taper (\*\*): Lin.; Log.; Alog.
- Residual resistance:  $\leq 0.1\% R_n$  ( $2\Omega$  min.)
- Equivalent noise resistance:  $\leq 3\% R_n$  ( $3\Omega$  min.)
- Breakdown voltage: > 750 VAC.
- Operating temperature:  $-40^\circ\text{C}$ ;  $+90^\circ\text{C}$  ( $-40^\circ\text{F}$ ;  $194^\circ\text{F}$ )

(\*) Others on request  
(\*\*) Other tapers on request. No linear tapers; values higher than 1 K  $\Omega$ .

### HOW TO ORDER



### NOTES:

- MODELS: Models "D" and "T" are not available with terminals "V".
- SHAFTS: The codes indicate diameter and length. Shaft M08 for tandem potentiometer.
- BUSHINGS: The codes types 11, 12 and 13 have an antirotation lug (at  $90^\circ\text{CW}$ ). Plastic shafts and tandem model, are only available with  $\varnothing 6$  bushing.
- VALUE:
  - Code: 10  $\overset{1}{\downarrow}$  100  $\Omega$   
Number of zeros  
2 first digits of the value.
  - Standard values: - Decades of 10, 20, 22, 25, 47, 50.  
- Other values will be special.
  - In models "D" and "T" with different values, ask by drawing.
- Tolerance (special), upon request. Code eg.: +7 = 07 05  
-5  $\rightarrow$  negative tolerance  
5  $\rightarrow$  positive tolerance
- Shafts special length:
  - Only for special length and plain shafts (not knurled). Example: E $\varnothing 6$  L= 24.5
  - Flatted and slotted shafts, etc. will need drawing.
  - Shaft M08 (T21D) with other length, ask by drawing. Recommendation: Eje L>60 ... bushing C=19
- SWITCHES: Two types of switches are offered: F1 and F2.
  - F1 = The code is "F01".
  - F2 = We can put in its place any of the I-21 switch codes (only with metal shaft).
- SWITCH WITH PLASTIC SHAFT: F 1 = Available in shafts with code P10, P11 and P12.
- Switch option not available with antilog taper.

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

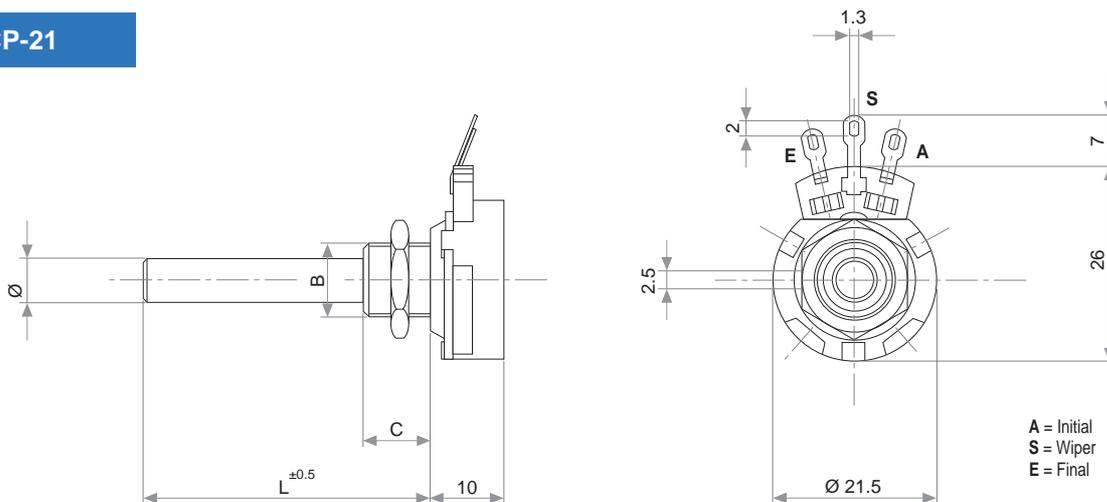
CP-21 A C + DRAWING NUMBER (Max. 16 digits)

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

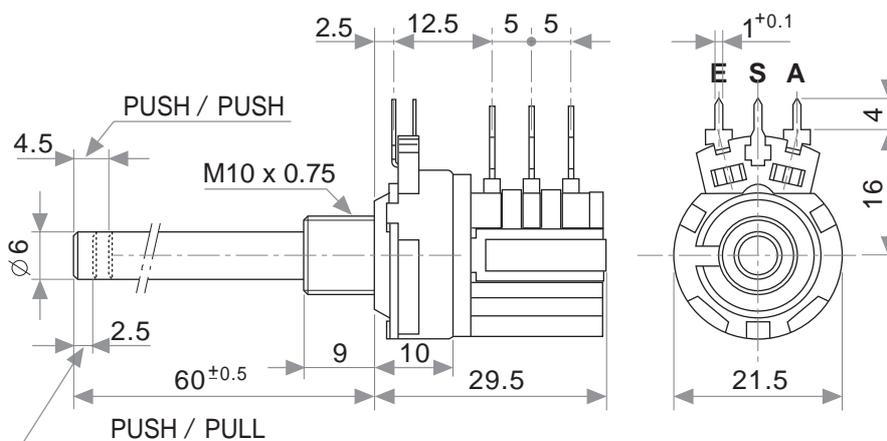
Shaft special length ..... 0; standard length  
 Stereo matching ..... Only in model "T" and upon request  
 Switch ..... No switch  
 Nut & washer ..... Without nut and washer

**DIMENSIONS \***

**CP-21**



**CP-21 with switch**



(\*) For more detailed information see T-21 data sheet.

**TESTS**

**TYPICAL VARIATIONS**

ELECTRICAL LIFE	1.000 h. @ 70°C	± 5 %
MECHANICAL LIFE: POT.	50.000 CYCLES	± 5 %
TCR	-40°C; +90°C (-40°F; +194°F)	±350 ppm /°C
THERMAL CYCLING	16 h. @ 85°C; 2h. @ -25°C	± 5 %
DAMP HEAT	500 h. @ 40°C @ 95% HR	± 5 %
VIBRATION (for each plane X,Y,Z)	2 h. @ 10 Hz ... 55 Hz.	± 3 %

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

**PACKAGING**

Boxes of 260 x 170 x 110: 150 Singl. Pots.