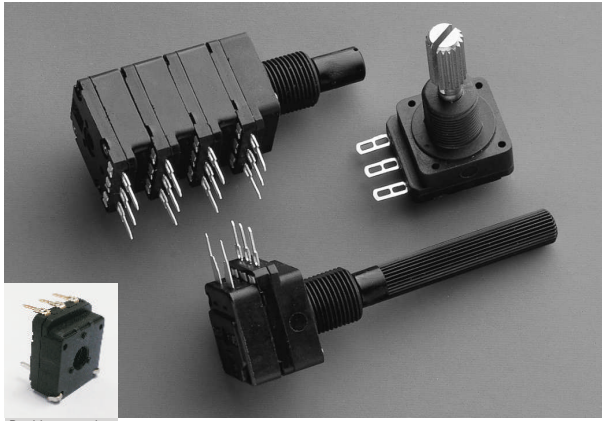




Bushless version

## MECHANICAL SPECIFICATIONS

- Mechanical rotation angle:  $300^\circ \pm 5^\circ$
- Electrical rotation angle:  $280^\circ \pm 20^\circ$
- Torque: 0.5 to 1.5 Ncm.  
(0.7 to 2.1 in-oz)
- Stop torque: > 40 Ncm. (>56 in-oz)
- Max. torque nut (binding out): < 80 Ncm. (112 in-oz)
- Thrust and pull in the shaft: > 25 N

## FEATURES

- Carbon resistive element
- IP54 protection according to IEC 60529
- Polyester substrate
- Modular gang type (up to 4)
- Self extinguishable material UL 94-V0
- Upon request:
  - Metallic support
  - Stereo matching
  - Switch
  - Nut & washer
  - Bushless option available

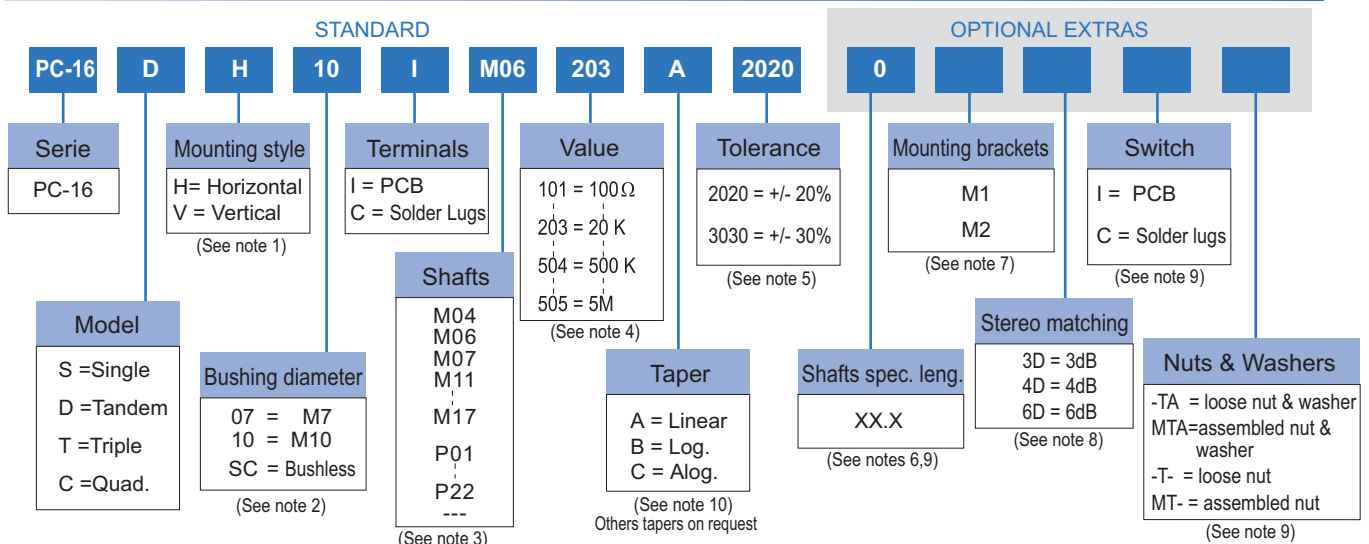
## ELECTRICAL SPECIFICATIONS

- 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: 250 VDC (lin) 125 VDC (no lin)
- Nominal Power  $50^\circ\text{C}$  ( $122^\circ\text{F}$ ) (see power rating curve)  
0.2 W (lin) 0.1 W (no lin)
- Taper (\*) (Log. & Alog. only  $R_n > 1\text{ K}$ ) Lin ; Log; Alog.
- Residual resistance(\*):  $\leq 0.5\% R_n$  ( $5\Omega$  min.)
- Equivalent Noise Resistance:  $\leq 3\% R_n$  ( $3\Omega$  min.)
- Operating temperature\*\*:  $-25^\circ\text{C} + 70^\circ\text{C}$  ( $-13^\circ\text{F} + 158^\circ\text{F}$ )

\* Others upon request

\*\* Up to  $85^\circ\text{C}$  depending on application

## HOW TO ORDER



### NOTES:

- (1) Mounting style: Type "V" is only available in model "S" potentiometer and with printed circuit terminals.
- (2) Bushings: Type "10" has two parallel flat surfaces for avoiding rotation. Bushless option only available for single model.
- (3) M07 shaft is only available with M10 bushing. --- = no shaft
- (4) Value:
  - Code: 10 1 100  $\Omega$  → Number of zeros
  - In models "D", "T", "C", with different values, they will be asked by drawings.
- (5) Tolerance (non standard), upon request. Example: +7% Code: 07 05 → negative tolerance  
-5% → positive tolerance
- (6) Shaft special length:
  - Only for special length and plain shafts (not knurled). Example: Shaft  $\varnothing 6.35$  L= 24.5 M07 ..... 24.5 → special length shafts
  - NOTE: Maximum length recommended: L = 45
- (7) Mounting brackets: Only applicable for model "S", mounting "H" and without switch.
- (8) Stereo matching: not available for single models. Maximum will be: • 3dB for model "D" • 4dB for model "T" • 6dB for model "C"
- (9) Not available for Bushless version.
- (10) Switch option not available with antilog taper.

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

## HOW TO ORDER CUSTOM DRAWING

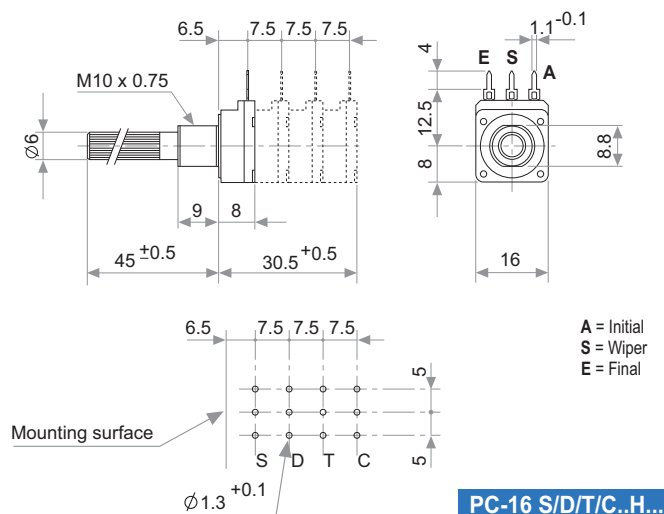
PC-16 S V + DRAWING NUMBER (Max. 16 digits)

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

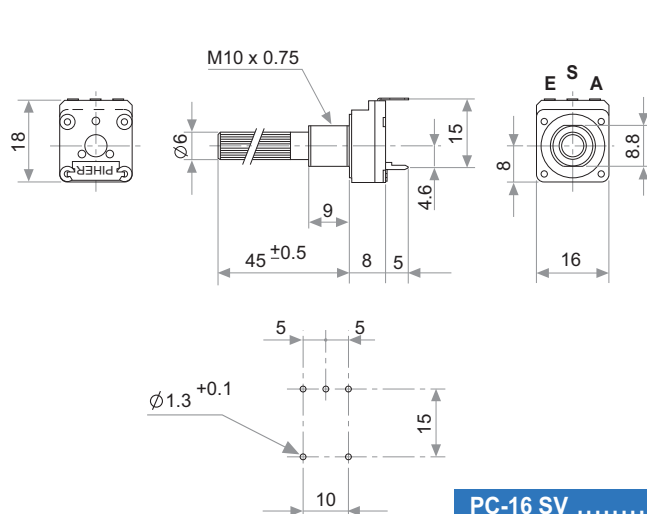
## STANDARD OPTIONS

Shaft length ..... 0 Standard Length  
 Mounting brackets ..... Without mounting brackets  
 Stereo matching ..... Only on request (see note 8)  
 Switch ..... No switch  
 Nut & washer ..... Without nut and washer

## MODELS

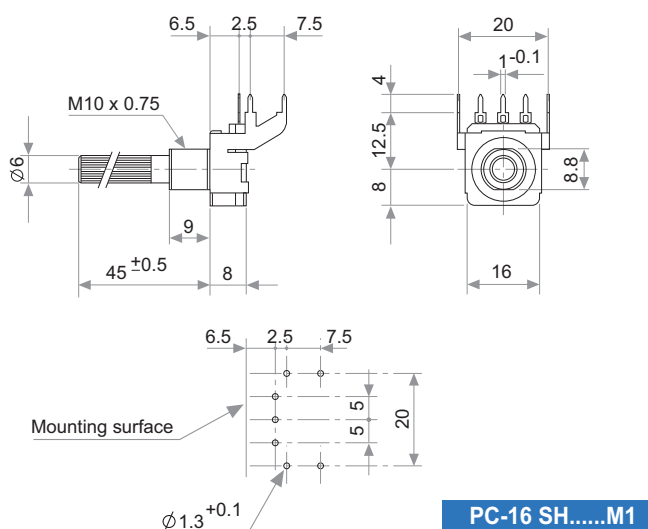


PC-16 S/D/T/C..H...

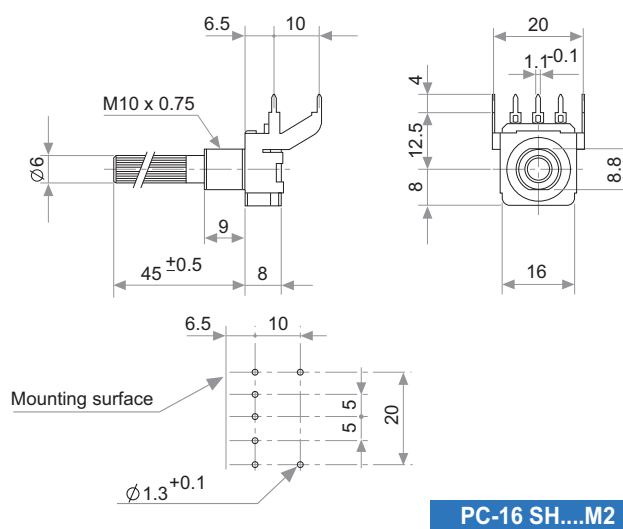


PC-16 SV .....

## METALLIC SUPPORT

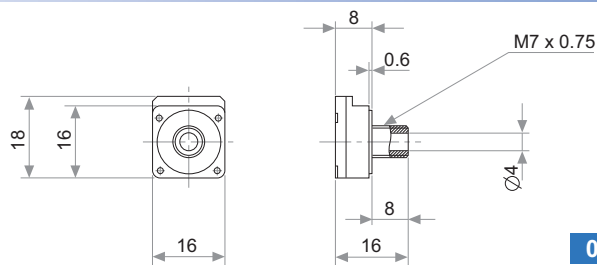


PC-16 SH.....M1

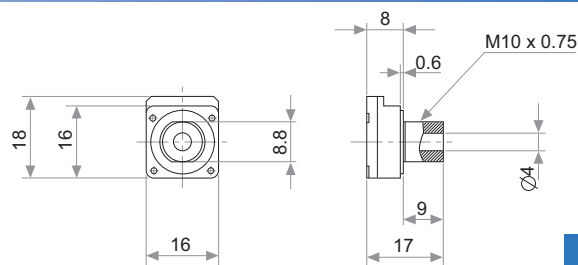


PC-16 SH....M2

## BUSHINGS

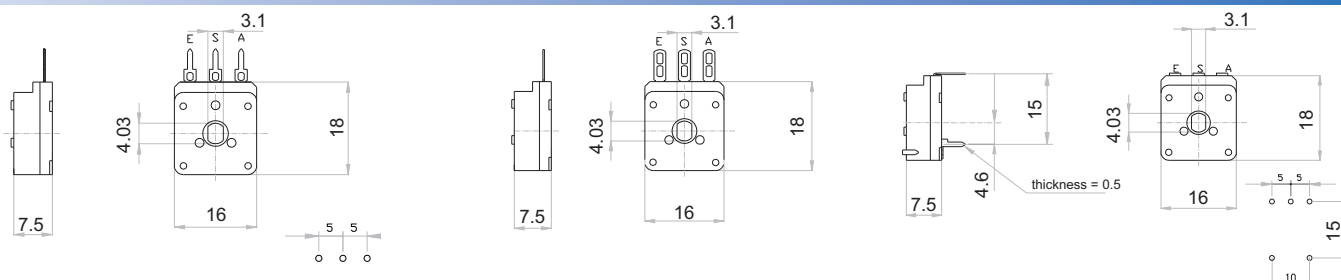


07

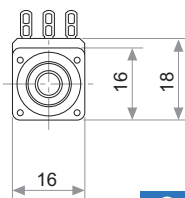
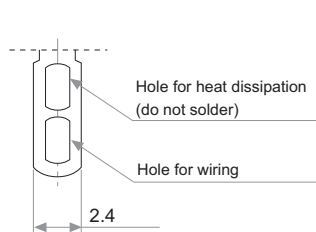


10

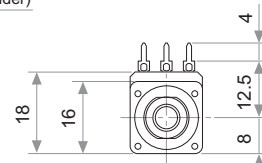
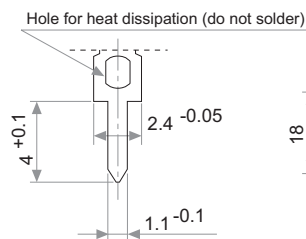
## EXAMPLES OF BUSHLESS VERSION



## TERMINALS



C

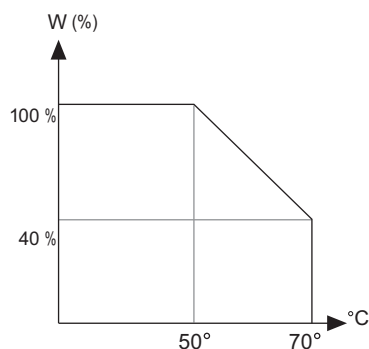
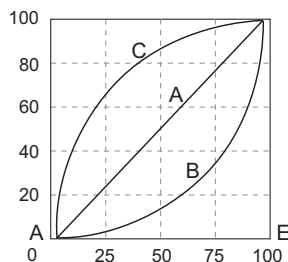


I

## TAPERS

Standard

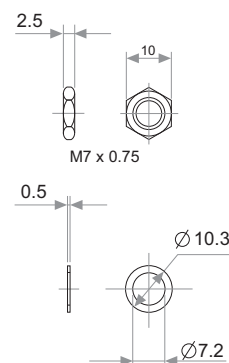
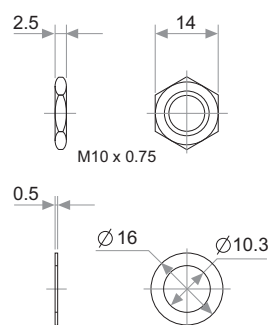
A = Linear  
B = Log.  
C = Alog.



## NUTS & WASHERS

Bushing 10

Bushing 07



NOTE = Please note relative terminal positions when ordering non linear tapers.

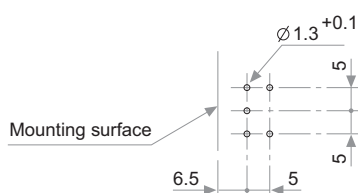
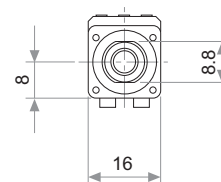
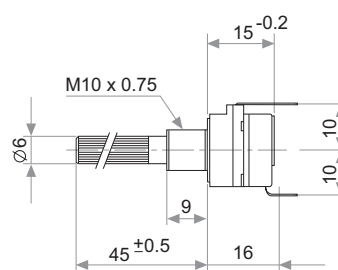
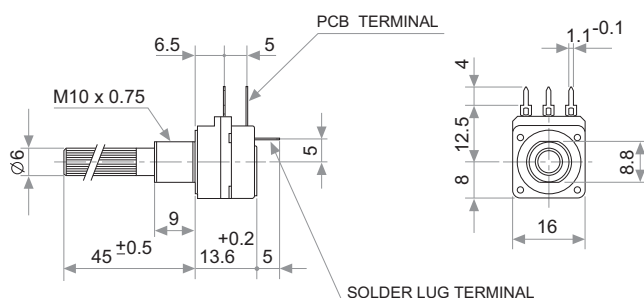
## TESTS

## TYPICAL VARIATIONS

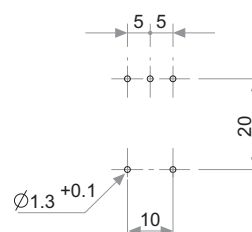
|                                  |                                            |                           |
|----------------------------------|--------------------------------------------|---------------------------|
| ELECTRICAL LIFE                  | 1.000 h. @ 50°C; 0.2 W                     | ±5 %                      |
| MECHANICAL LIFE : POT.* SWITCH   | 25.000 (10-15 CPM)<br>10.000 (1 A, 50 VAC) | ±3 % (Rn < 1 MΩ)          |
| TEMPERATURE COEFFICIENT          | -25°C; +70°C                               | ±300 ppm/°C (Rn < 100 KΩ) |
| THERMAL CYCLING                  | 16 h. @ 85°C; 2h. @ -25°C                  | ±2.5 %                    |
| DAMP HEAT                        | 500 h. @ 40°C @ 95% HR                     | ±5 %                      |
| VIBRATION (for each plane X,Y,Z) | 2 h. @ 10 Hz. ... 55 Hz.                   | ±2 %                      |

(\*) only applicable to values ≥1K. For lower values please consult.

## SWITCH



PC-16S ... H ..... I / C



PC-16SV ... I

## SWITCH SPECIFICATIONS

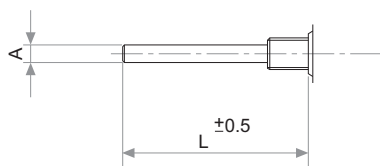
|                              |                               |
|------------------------------|-------------------------------|
| NOMINAL CURRENT              | 1A, 250 VAC                   |
| CONTACT RESISTANCE (initial) | 10 m $\Omega$                 |
| OPERATING TORQUE             | 1 to 3 Ncm (1.4 to 4.2 in oz) |
| OPERATING ANGLE              | 30° $\pm$ 5°                  |
| TEST VOLTAGE                 | 500 V                         |

## PACKAGING

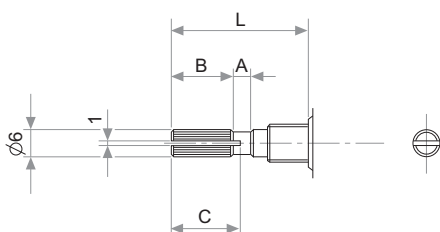
Boxes of 100 pieces (single body model): Inner dimensions 250 x 160 x 95 mm

## METALIC SHAFTS

### STANDARD

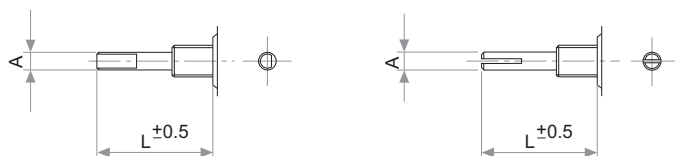


| A    | L  | CODE |
|------|----|------|
| 4    | 45 | M04  |
| 6    | 45 | M06  |
| 6.35 | 45 | M07  |



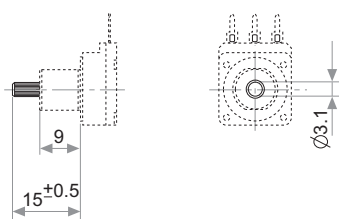
| A | B  | C  | L  | CODE |
|---|----|----|----|------|
| 2 | 5  | 7  | 15 | M11  |
| 2 | 10 | 11 | 20 | M12  |
| 4 | 12 | 14 | 25 | M13  |
| 4 | 12 | 14 | 30 | M14  |
| 4 | 12 | 14 | 35 | M15  |
| 4 | 12 | 14 | 40 | M16  |
| 4 | 12 | 14 | 45 | M17  |

### SPECIAL



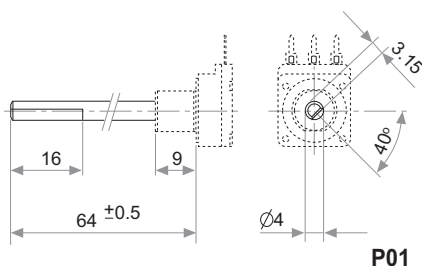
| A    |
|------|
| 4    |
| 6    |
| 6.35 |

## PLASTIC SHAFTS Ø3.1

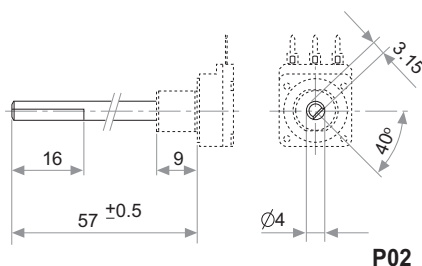


P09

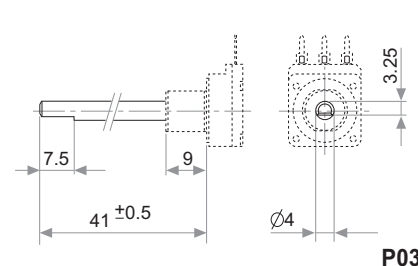
## PLASTIC SHAFTS Ø4



P01

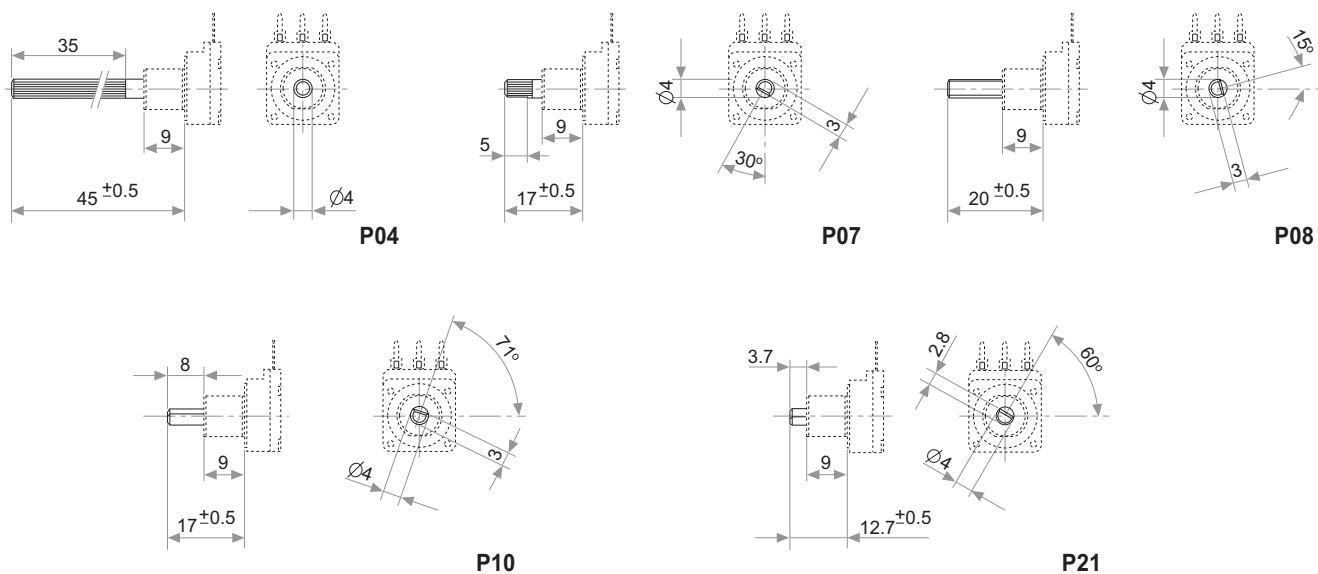


P02

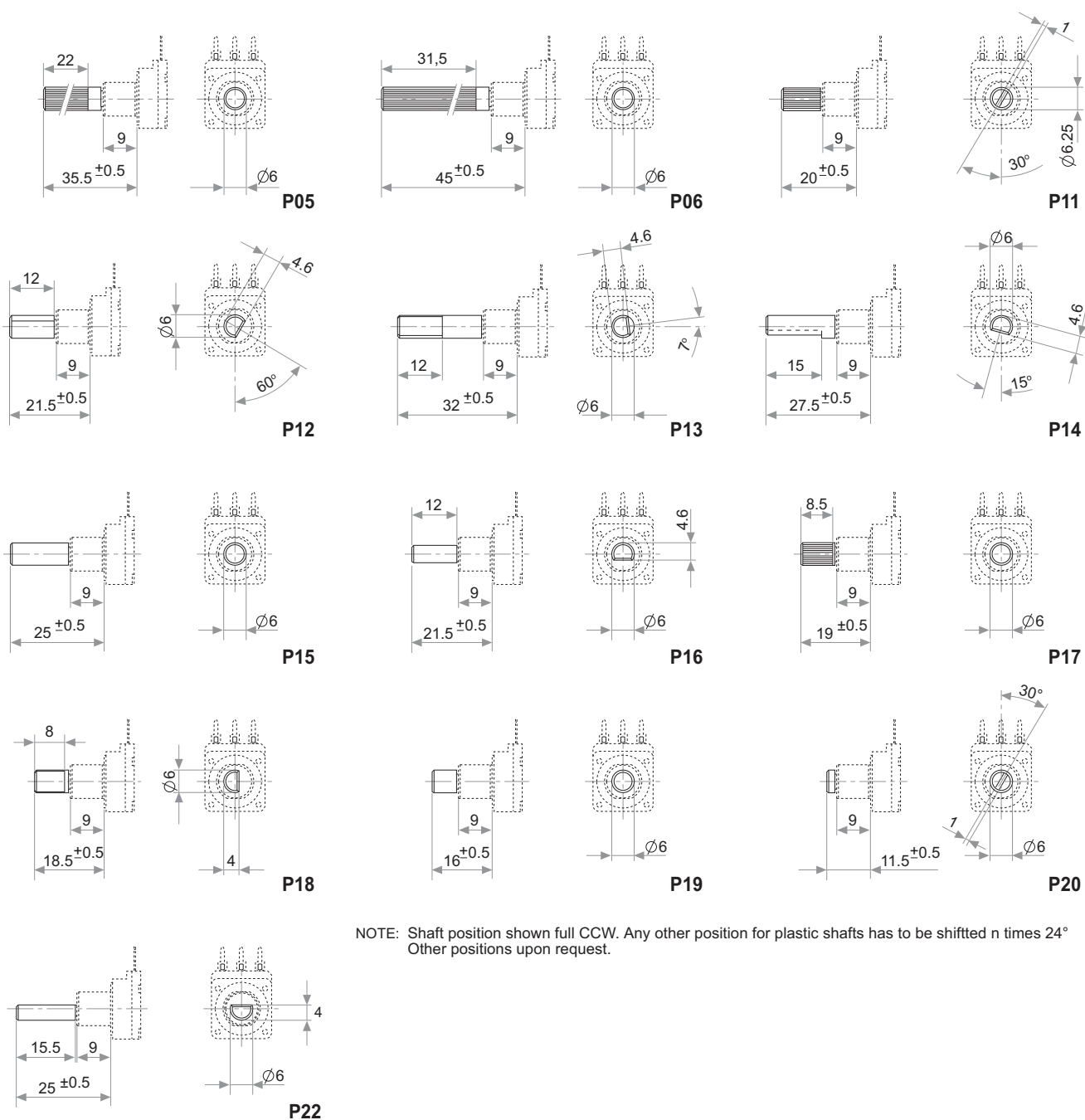


P03

## PLASTIC SHAFTS Ø4



## PLASTIC SHAFTS Ø6



NOTE: Shaft position shown full CCW. Any other position for plastic shafts has to be shifted n times 24°  
Other positions upon request.

## Disclaimer

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