

## SINGLE-TURN ROTARY POTENTIOMETERS TYPE PR 18...

### Description

The PR 18... single-turn, housed in a metal case, rotary carbon control potentiometers. It comprises a carbon resistive track fitted on a resin modified paper base. Base diameter of potentiometers is 18 mm. Resistance track can be linear-A, logarithmic-B, inverse logarithmic-C. Potentiometers are made single or tandem, with plastic or metallic spindle. Terminals are designed for the PCB or soldering pins.

### Application

Potentiometers are widely used in electronic audio-video equipment, electric domestic equipment and outer control elements.

### Quick reference data

**Table 1**

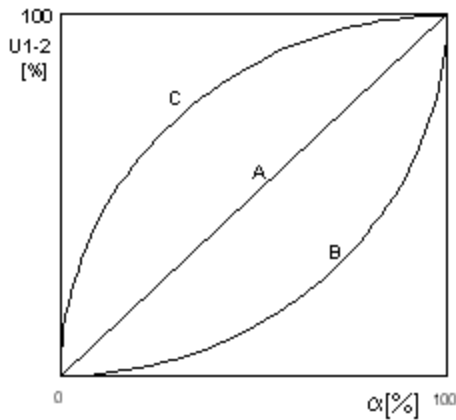
Parameter	Value
Rated resistance $R_N$	according E3- series (1 - 2,2 - 4,7 - 10 etc.)
Resistance range: A low (linear) ( $\Omega$ )	120 ÷ 2,2M
B low (logarithmic) ( $\Omega$ )	1k ÷ 1M
C low (inverse logarithmic) ( $\Omega$ )	1k ÷ 1M
Tolerance of resistance (%)	±5% on $R_N \leq 470k\Omega$ on request ±10% on $R_N \leq 470k\Omega$ on request ±20% on $R_N \leq 220k\Omega$ ±30 % on $R_N > 220k\Omega$
Maximum dissipation $P_N$ at $T_{amb} = 40^\circ C$ : A low (W)	0.2
B low (W)	0.1
C low (W)	0.1
Maximum limit voltage : A low (V)	200
B low (V)	200
C low (V)	200
Total mechanical angle of rotation ( $^\circ$ )	300 ± 5
Synchronous characteristic: (dB)	
(only for tandem potencjometers G)	
- for linear A at values between 10 and 90 % of $R_{Total}$	≤ 2
- for logarithmic B at attenuation range 0 ÷ 40dB	≤ 4
Maximum dissipation at category temperature	25% $P_N$
Switch data: voltage/current	120 V / 1 A <sub>AC</sub> or 16 V / 2 A <sub>DC</sub>
Climatic category	25/070/10

**Mechanical data of PR 18... series potentiometers see in Table 2**

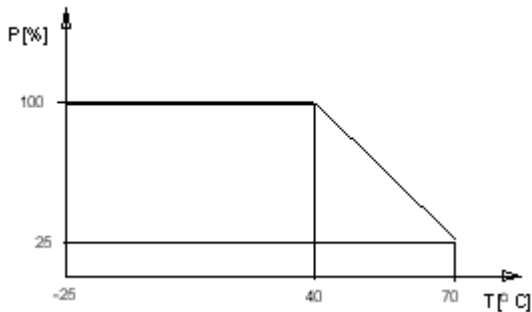
**Table 2**

Type of potentiometer	Single Tandem	Switch	Tap	Material of spindle	Spindle Diameter (mm)	Typical Length of spindle	End of spindle	Bush M...x../length (mm)	Pins/ assembly						
PR 185	Single	No	No	Metal	6	16; 20; 25; 40	P1; P3; P5; P6	M7x0.75/6	Dir.assemb.						
PRP 185			PCB												
PRT 185			Dir.assemb.												
PRPT 185			PCB												
PR 185 s56		Yes	No						Dir.assemb.						
PRT 185 s56			Yes						Dir.assemb.						
PR 186		No	No						No	Plastic	4	8; 10; 12.5; 16; 20; 25; 32; 40;	P1; P3; P5.1; P5.2	M7x0.75/6.5	Dir.assemb.
PRP 186									PCB						
PRT 186				Dir.assemb.											
PRPT 186				PCB											
PR 1862				No	No	12; 20; 25	P5	Dir.assemb							
PRT 1862					Yes				Dir.assemb						
PR 186 S56		Yes	No	8; 10; 2.5; 16; 20; 25; 32;	P1; P3;	Dir.assemb									
PRT 186 S56							Yes	Dir.assemb							
PR 18 G		Tandem	No	No	Metal	6	16; 20; 25; 32; 40	P5; P6	M7x0.75/6; 16	PCB					
PRP 18 G				Dir.assemb											
PRT 183 G	PCB														
PRPT 183 G	Dir.assemb														

**Resistance laws:**



**Fig. 1. Resistance laws: A - linear; B-logarithmic, C-reverse logarithmic.**



**Derating curve:** Potentiometers are derated from 100% rated dissipation at 40°C to 25% rated dissipation at 70°C.

**Fig. 2. Derating curve versus ambient temperature.**

# Spindles of PR 18... series of potentiometers

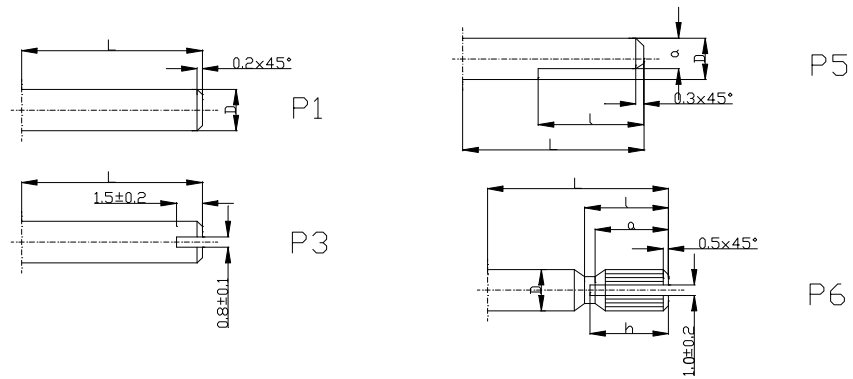


Fig 3 Type of spindle end

**Table 3**

Idicating of spindle ends	Dimensions (mm)				
	Diameter D	l/a/h			
		for L 8, 10, 12, 12.5	For L 16	For L 20	for L 25, 32, 40
P1	4, 6				
P3	4				
P5	6		8/-/-	10/-/-	10/-/-
P5.1	4	6/-/-	6/-/-	6/-/-	6/-/-
P5.2	4			12/-/-	12/-/-
P6	6		8/7/6	12/11/10	14/13/12

# Outline view of potentiometers

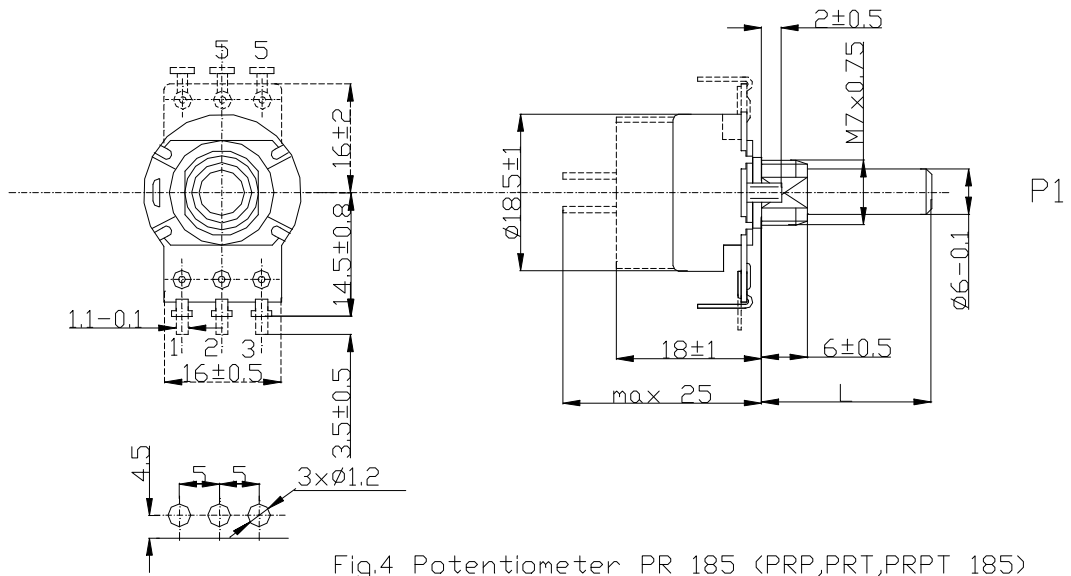


Fig.4 Potentiometer PR 185 (PRP, PRT, PRPT 185)  
PR 185 s56 (PRT 185 s56)

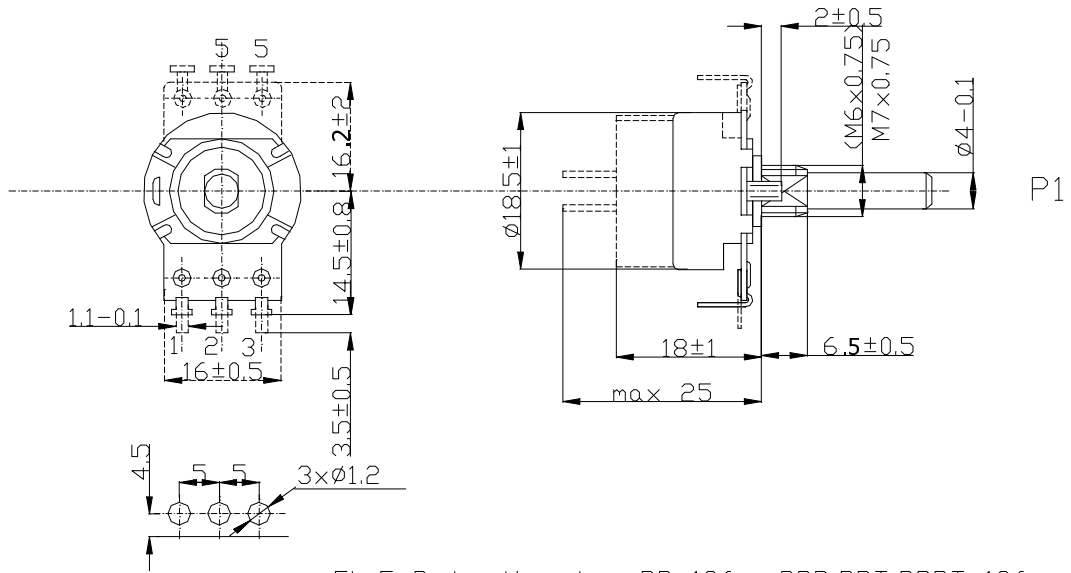


Fig.5 Potentiometer PR 186, PRP, PRT, PRPT 186,  
PR 1862, PRT 1862  
PR 186 s56, PRT 186 s56

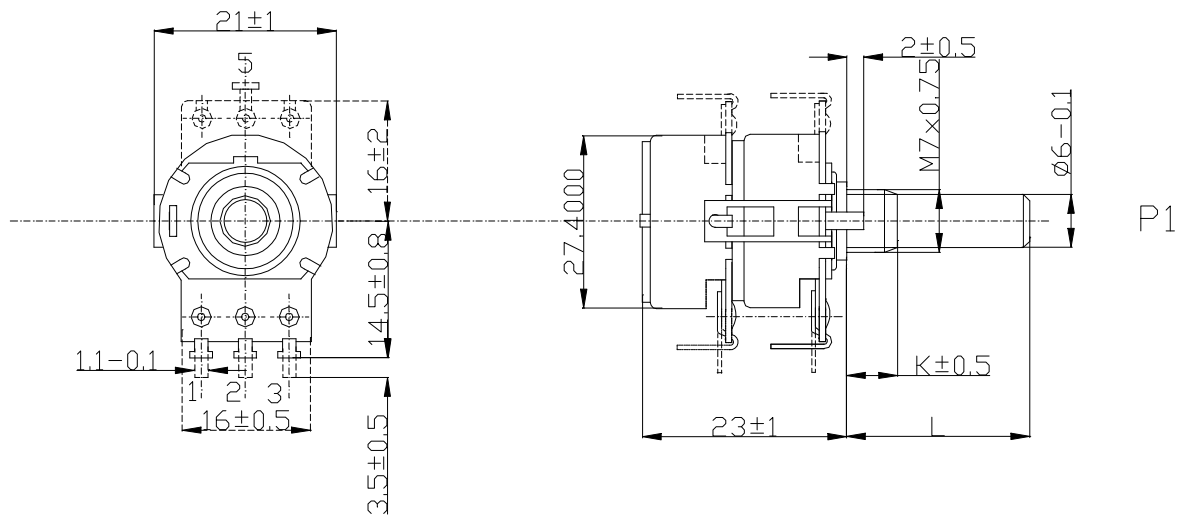


Fig.6 Potentiometer PR 18 G, PRP 18 G, PRT 18 G  
PRPT 18 G

### Marking

Marking on metal case: producer "TELPOD"; rated resistance; month and year of production.

### Ordering example:

Please order by an example: We need potentiometer 18 mm; with switch; single; 47kW; linear A low; diameter of spindle 6 mm, long 25 mm; end type of spindle P-6; for mounting on printed circuit board:

**Potentiometer PRP 185 s56 47kΩ A 25 P6**

### Packing

The potentiometers can be supplied in bulk packing in a plastic bags and in a carton box.

### Detailed information:

-engineering:  
- trade:

Technical Division  
Sale Division

phone. +48 (0)12 257 10 12  
phone. +48 (0)12 257 10 35  
fax: +48 (0)12 257 10 13

**TELPOD S.A.**

ul. Lipowa 4, 30-702 Kraków, POLAND  
Phone: +48 12 257 10 11; Fax: +48 12 257 10 13;  
E-mail [telpod@telpod.krakow.pl](mailto:telpod@telpod.krakow.pl); [www.telpod.krakow.pl](http://www.telpod.krakow.pl)