



PR18 SINGLE-TURN ROTARY POTENTIOMETERS

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.

Applications

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

Quick Reference Data

Parameter	Value
Rated resistance R_N	According E3- series (1 - 2,2 - 4,7 - 10 etc.)
Resistance range: A low (linear) (ohms) B low (logarithmic) (ohms) C low (inverse logarithmic) (ohms)	120 ÷ 2,2M 1k ÷ 1M 1k ÷ 1M
Tolerance of resistance (%)	±5% on R_N less or = 470kohms on request ±10% on R_N less or = 470kohms on request ±20% on R_N less or = 220kohms on request ±30% on R_N more than 220kohms on request
Maximum dissipation P_N at $T_{amb}= 40^{\circ}C$: A low (W) B low (W) C low (W)	0.2 0.1 0.1
Maximum limit voltage : A low (V) B low (V) C low (V)	200 200 200
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} - for logarithmic B at attenuation range 0 ÷ 40dB	≤ 2 ≤ 4
Maximum dissipation at category temperature	25% P_N
Switch data: voltage/current	120 V / 1 A _{AC} or 16 V / 2 A _{DC}
Climatic category	25/070/10

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 47kohm A 25 P6

Packing

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

Mechanical Data

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			No						PCB	
PRT 185			Yes						Dir. assemb.	
PRPT 185			Yes						PCB	
PR 185 s56		Yes	No						Dir. assemb.	
PRT 185 s56			Yes						Dir. assemb.	
PR 186		Single	No	No	Metal	4	8; 10; 12.5; 16; 20; 25; 32; 40;	P1; P3; P5.1; P5.2	M7x0.75/6.5	Dir. assemb.
PRP 186				No						PCB
PRT 186				Yes						Dir. assemb.
PRPT 186				Yes						PCB
PR 1862			No	No	Plastic	4	12; 20; 25	P5	M7x0.75/6.5	Dir. assemb.
PRT 1862				Yes						Dir. assemb.
PR 186 S56	Yes		No	Metal	4	8; 10; 2.5; 16; 20; 25; 32;	P1; P3;	M7x0.75/6.5	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			No						Dir. assemb.	
PRT 183 G			Yes						PCB	
PRPT 183 G			Yes						Dir. assemb.	

Resistance Laws:

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

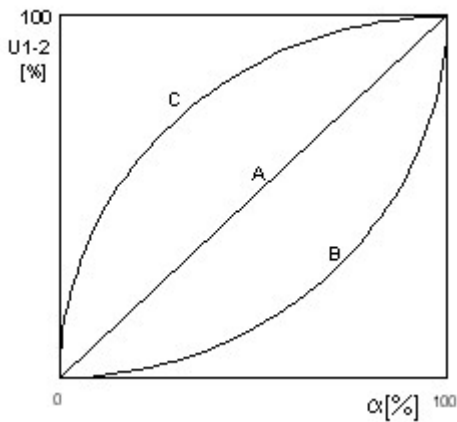
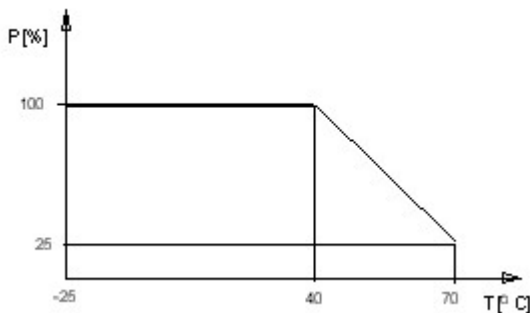


Fig. 2. Derating curve versus ambient temperature.



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

Spindles

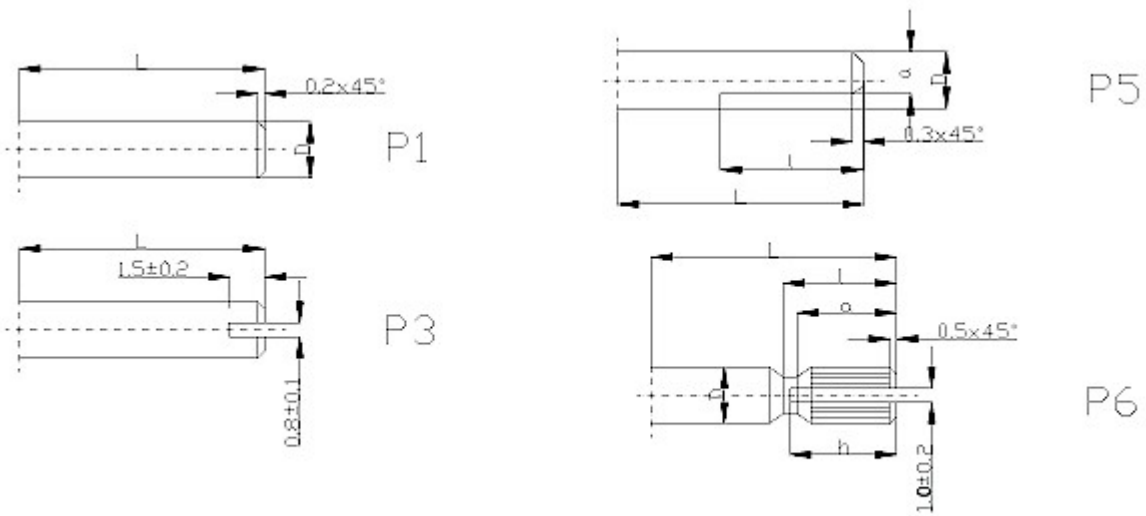


Fig 3 Type of spindle end

Indicating 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

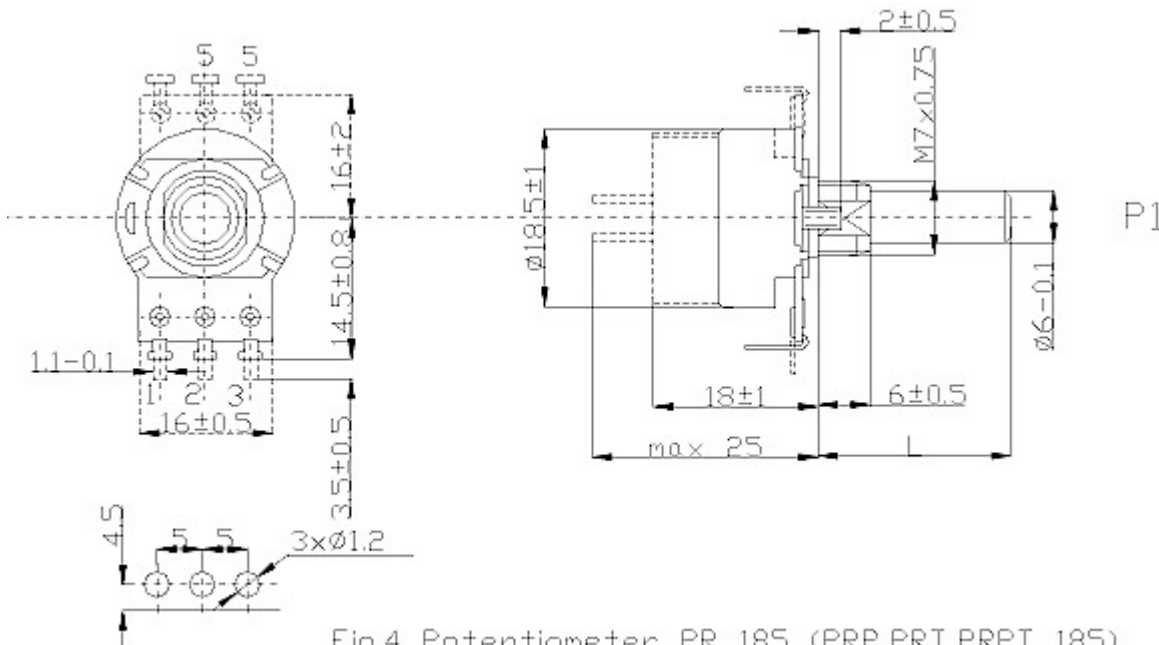


Fig.4 Potentiometer PR 185 (PRP,PRT,PRPT 185)
 PR 185 s56 (PRT 185 s56)

Outline view of potentiometers (cont.)

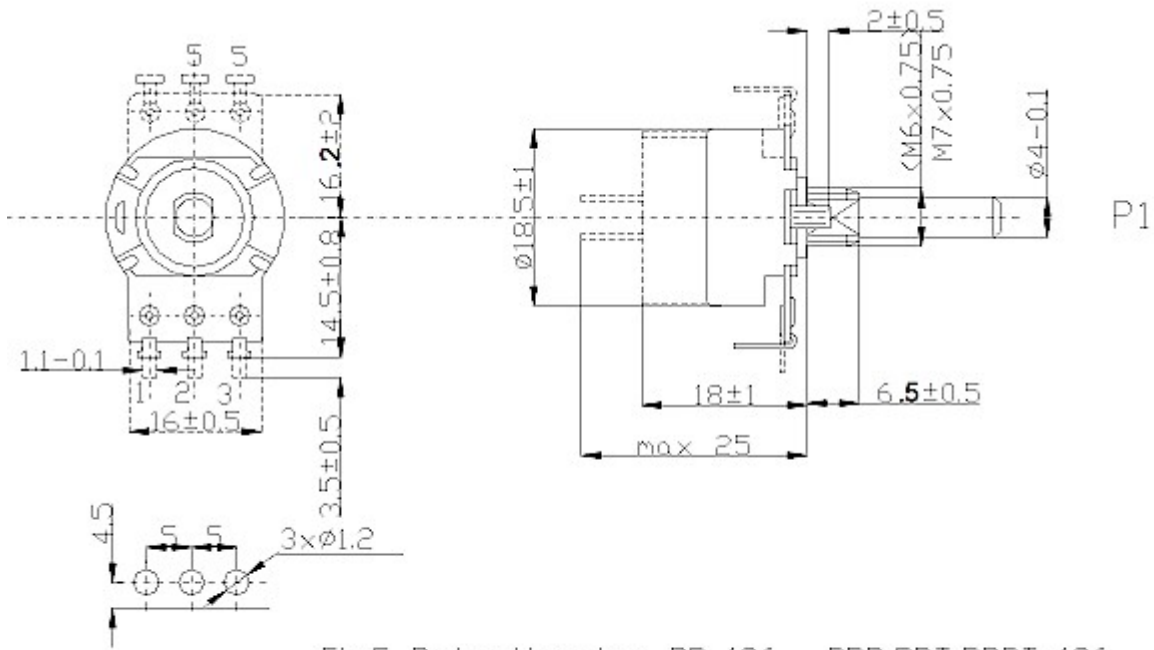


Fig.5 Potentiometer PR 186, PRP, PRT, PRPT 186,
 PR 1862, PRT 1862
 PR 186 ≤ 56 , PRT 186 ≤ 56

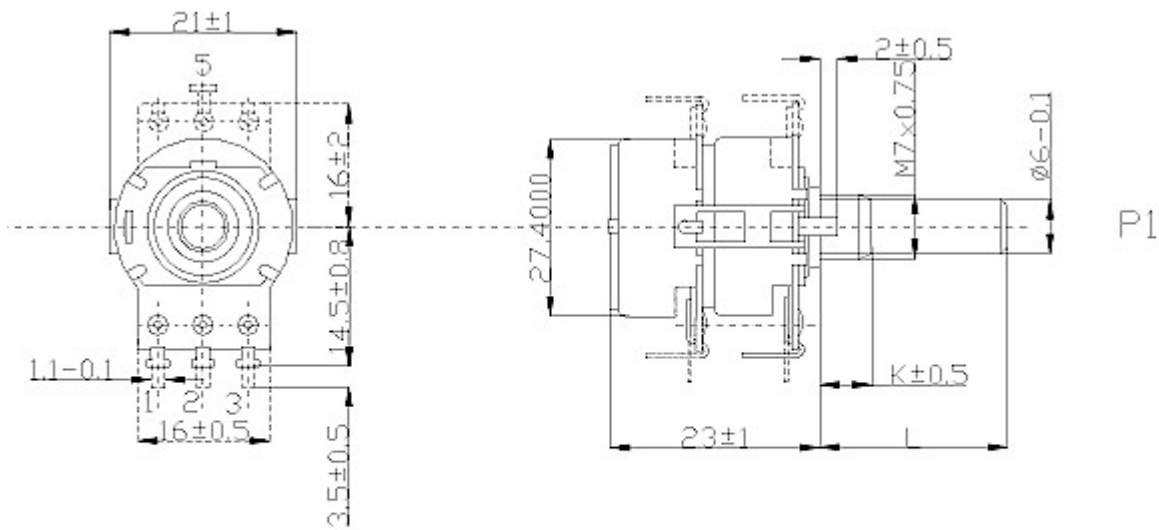


Fig.6 Potentiometer PR 18 G, PRP 18 G, PRT 18 G
 PRPT 18 G