

# Precision Wirewound Potentiometer DP18 St

Single tap, plug connection, sliding bearing



The potentiometer DP18 has a reinforced glass fibre plastic housing of high thermal resistance and hardness. It can be additionally encapsulated and then achieves the protection class IP 67.

The potentiometer can be supplied with a shaft led through on the rear side and is also available as multiple version (stackable).

The resolution of 0,15% at 5 K-Ohm / 330° is lower than for our types DP113 or DP120 corresponding to the smaller housing diameter.

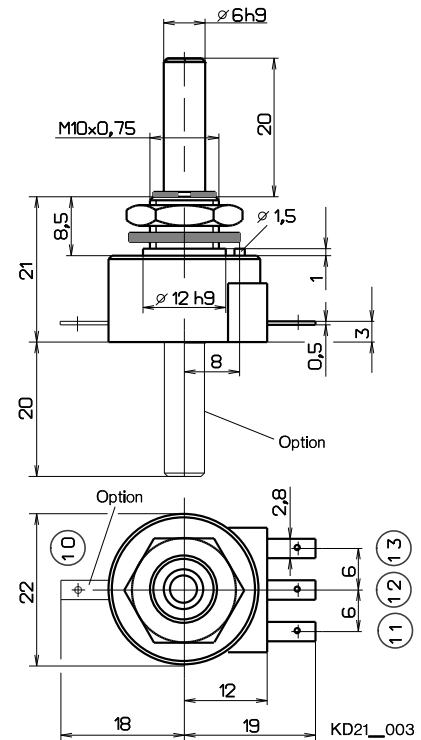


## mechanical data

- 1.1 housing.....: reinforced glass fibre plastic
- 1.2 shaft.....: stainless steel  $\varnothing 6^{h9}$
- 1.3 bearing.....: maintenance-free sliding bearing
- 1.4 resistor element.....: precision wire winding
- 1.5 slider tap / wiper tap.....: noble metal, single
- 1.6 housing protection class.....: IP 60
- 1.7 type of connection.....: blade terminal DIN 46342
- 1.8 mounted by.....: central fixing M10 x 0,75
- 1.9 mechanical rotation angle.....:  $330^\circ + 2^\circ$
- 1.10 electrical rotation angle.....:  $330^\circ - 1^\circ + 2^\circ$
- 1.11 rotation speed.....: max. 60 rpm
- 1.12 torque.....: till 1,0 Ncm
- 1.13 rotation load life.....:  $1 \times 10^6$  slider path ( $360^\circ$ )
- 1.14 end-stop strength.....: 50 Ncm
- 1.15 tensile strength at blade terminals... : 30 N

## electrical data

- 2.1 resistance values, standard.....: 1, 2, 5, 10 K-Ohm
- 2.2 resistance value, max.possible.....: 20 K-Ohm
- 2.3 resistance tolerance.....:  $\pm 5\%$
- 2.4 resolution at 5 K-Ohm /  $330^\circ$ .....: 0,15%
- 2.5 max. starting / end resistance.....: 1% (of overall resistance => 1K)
- 2.6 linearity tolerance.....:  $\pm 0,5\%$
- 2.7 insulation resistance.....: 20 M-Ohm
- 2.8 test voltage.....: 500 V, 50 Hz
- 2.9 operating voltage.....: max. 50 V
- 2.10 power rating.....: max. 1,5 Watt
- 2.11 slider load current.....: 1 mA (max., load life)
- 2.12 temperature range.....:  $-50^\circ\text{C}$  till  $+100^\circ\text{C}$
- 2.13 temperature coefficient.....: 20 ppm/ $^\circ\text{C}$



## options

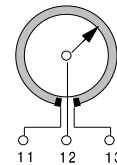
short-circuit tracks  
 centre taps  
 resistance tolerance:  $\pm 3\%$   
 resistance tolerance:  $\pm 1\%$   
 shaft: special length, led through on the rear side  
 slider throughrotation  
 electrical angle of rotation max.  $355^\circ$   
 mechanical angle of rotation max.  $360^\circ$   
 protection class upto IP67, shaft-side  
 protection class upto IP67\* complete

## accessories

protective housing  
 bellows coupling  
 pin coupling  
 microswitch  
 scale 0 till 100%  
 rotary knob  
 terminal wires

## other types

multiple version  
 print connection  
 needle bearing

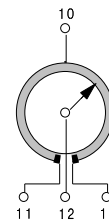


terminal plan	
point	function
11	winding 1
12	slider 1
13	winding 1

\* Potentiometer housing encapsulated, protection class IP65/67, connections are free.  
 Completely encapsulated potentiometers are supplied with cable and protective housing.

Option
Centre tap Dead Zone + $1,5^\circ$ / - $1,5^\circ$
Centre tap Dead Zone + $3^\circ$ / - $3^\circ$
Centre tap Dead Zone + $6^\circ$ / - $6^\circ$
Shaft on both sides

**Symmetry of the Dead Zone:**  
 Resistance difference of the halves max. 1% of total resistance



terminal plan	
point	function
10	centre tap 1
11	winding 1
12	slider 1
13	winding 1

Sheet #: KE2101

Amendment/ Print: 23.10.17 / 23.10.17

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