

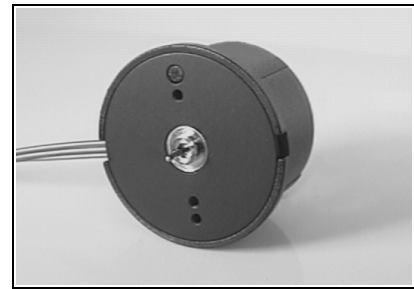
Plastic Housing

The Low – Torque – Potentiometer is a variable resistor with an extremely low torque.

In order to attain this torque, the contact pressure of the slider tap to the winding is kept as low as possible.

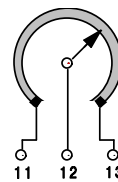
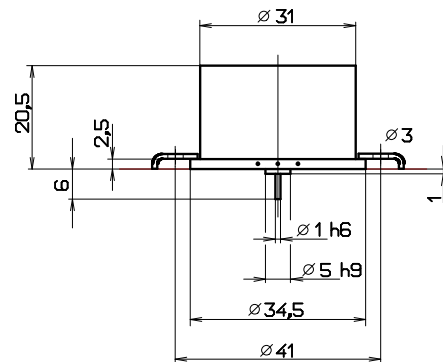
Noble metal alloys are exclusively used for the slider tap and for the winding.

All other parts of the Low – Torque – Potentiometer are made of corrosion-resistant materials.



**mechanical data**

- 1.1 housing..... : reinforced glass fibre plastic
- 1.2 shaft..... : stainless steel  $\varnothing 1\text{mm}$
- 1.3 bearing..... : jewel bearing
- 1.4 resistor element..... : noble metal winding
- 1.5 slider / wiper tap..... : noble metal, double
- 1.6 housing protection class..... : IP 60
- 1.7 type of connection..... : terminal wires, 200 mm
- 1.8 mounted by..... : clamping claws
- 1.9 mechanical rotation angle..... :  $290^\circ$  + $5^\circ$
- 1.10 electrical rotation angle..... :  $290^\circ$  / option  $270^\circ$  - $1^\circ$  + $2^\circ$
- 1.11 rotation speed..... : max. 1 rps
- 1.12 torque..... : 0,002 till 0,003 Ncm
- 1.13 rotation load life..... :  $50 \times 10^6$  slider path ( $360^\circ$ )



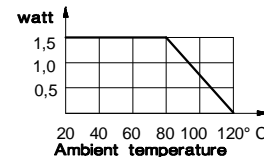
terminal plan

point	function	colour
1 1	winding	1 red
1 2	slider	1 yellow
1 3	winding	1 blue

**electrical data**

- 2.1 resistance values, standard..... : according to table
- 2.2 resistance values,max possible : according to table
- 2.3 resistance tolerance..... :  $\pm 3\%$
- 2.4 lowest starting resistance..... : 0,1% of overall resistance +  $0,3\Omega * 1$
- 2.5 linearity tolerance..... :  $\pm 0,3\%$
- 2.6 insulation resistance..... : 20 M-Ohm
- 2.7 test voltage..... : 500 V, 50 Hz
- 2.8 operating voltage..... : max. 50 V
- 2.9 power rating..... : max. 1,5 Watt
- 2.10 slider load current..... : max. 1 mA
- 2.11 temperature coefficient..... :  $-50^\circ\text{C}$  bis  $+100^\circ\text{C}$
- 2.12 temperature range..... : 20 ppm/ $^\circ\text{C}$

power derating curve



\*1 The value applies only for versions with short-circuit tracks and stops.

**options**

short-circuit tracks  
centre tap  
electrical and mechanical travel  
resistance tolerance:  $\pm 1\%$   
shaft: special length, continuous  
stops (rotation angle max.  $350^\circ$ )  
suitable for oil-filled instruments  
torque: 0,001 Ncm

**accessories**

outer housing  
mounting set  
couplings

**other types**

F25RD: multiple versions  
F25RU: throughrotation  
F25REB: resistance values in accordance with DIN 43822  
F25Rd: double working on one level  
F25RS: double slider, tappings  $3 \times 120^\circ$   
F25RM: integrated measuring transducer 0/4...20 mA  
F25R Lin.: winding linearized  
  
F25Z160: dial surface mounting  $\varnothing 160$   
F25Z100: dial surface mounting  $\varnothing 100$

	135°	270°	290°	297°
200		30	32,2	110
1K		100	107,4	220
2K		200	215	
		500	537	
		1K	1,074K	
		2K	2,148K	
		5K	5,370K	

The scope of delivery includes: 2 clamping claws article # 012.210303.01

Sheet #: KE0103

Amendment/ Print: 31.05.07 / 20.08.10

Order #: 01047

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Subject to technical  
amendments Form.#: 00000000