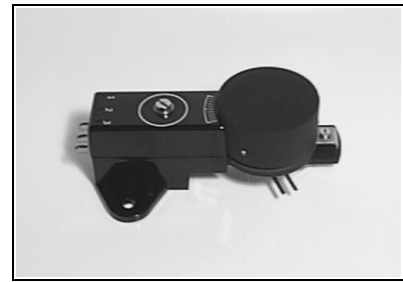


# Precision Low - Torque - Potentiometer F25ZEB Ø 160

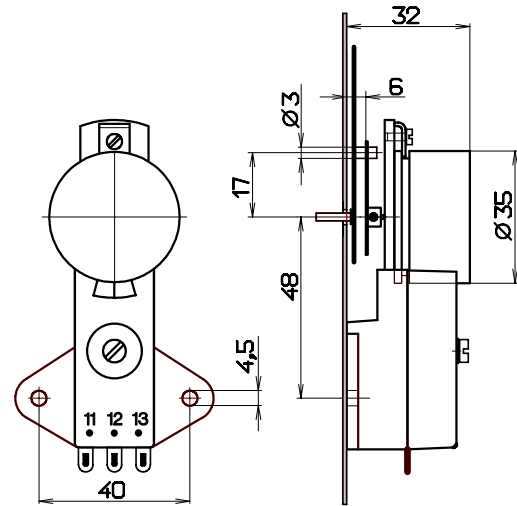
For instrument dial Ø 160, resistance tolerance ±1%

The Low-Torque-Potentiometer is a variable resistor with an extremely low torque. Noble metal alloys are exclusively used for the slider tap / wiper tap and for the winding.  
Precision Low-Torque-Potentiometers of Type F25REB have a resistance value which is standardised in accordance with DIN 43822. The total resistance is assembled of two compensating resistors and the resistor element (winding). The compensating resistors are firmly built into the Low-Torque-Potentiometer.  
The electrical travel of 270° is extended to the mechanical travel of 290° by two shorted segments (each 10°).  
The Low - Torque - Potentiometer is made to be mounted on an instrument dial for pointer instruments Ø160.



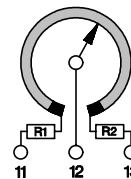
### mechanical data

- 1.1 housing..... : aluminium
- 1.2 shaft..... : stainless steel Ø1mm
- 1.3 bearing..... : jewel bearing
- 1.4 resistor element..... : noble metal winding
- 1.5 slider tap..... : noble metal, double
- 1.6 housing protection class..... : IP 60
- 1.7 type of connections..... : solder terminal
- 1.8 mounted by..... : foot
- 1.9 mechanical travel..... : 290°
- 1.10 electrical travel..... : 270°
- 1.11 rotating speed..... : max. 1 r/sec
- 1.12 torque..... : 0,002 till 0,003 Ncm
- 1.13 rotation load life..... : 50 x 10<sup>6</sup> shaft revolutions



### electrical data

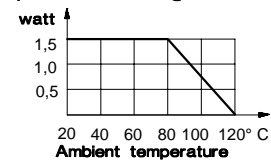
- 2.1 resistance values, standard..... : according to table
- 2.2 resistance values,max possible : 50 K-Ohm
- 2.3 resistance tolerance..... : ± 1%
- 2.4 lowest starting resistance..... : 0,1% of overall resistance + 0,3Ω+R1
- 2.5 linearity tolerance..... : ± 0,3%
- 2.6 insulation resistance..... : 20 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 power rating (dropping resistor) : max. 4 Watt
- 2.11 slider load current..... : max. 100 mA
- 2.12 temperature coefficient..... : -50°C till +100°C
- 2.13 temperature range..... : 20 ppm/°C



termination plan

point	function	colour
11	winding	1 red
12	slider	1 yellow
13	winding	1 blue

### power derating curve



### Standard resistance values in Ohm other values available against extra price

Ohm nominal value	Ohm R1, R2	Ohm per 270°
5- 100 - 5	5	100
10 - 200 - 10	10	200
20 - 480 - 20	20	480
50 - 30 - 50	50	30

### options

short-circuit links  
taps  
angle of rotation, electrical and mechanical  
linearity: min. 0,1%  
stops (rotation angle max. 350°)  
torque: 0,001Ncm

### accessories

outer housing  
couplings

### other types

F25RDEB: multiple versions  
F25REB Lin: winding linearized  
F25ZEB100: dial surface mounting Ø100

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