

CONDUCTIVE PLASTIC SYNCHRO DESIGN

# PK1023d

**Robust precision Potentiometer with conductive plastic resistance element**

- Robust design with IP65 protection rating
- Short-circuit distances and additional taps available upon request
- Available with optional plug or cable connection



## TECHNICAL DATA

Housing material	aluminum, anodized	Resistance values	to 10 kΩ
Housing diameter	60 mm	Resistance tolerance	± 10 %
Model	synchro size 23	Linearity tolerance	±1.5 % / ±0.1 % (on request)
IP code	IP65	Resolution	almost infinite
Shaft diameter	6 mm / 10 mm	Capacity	2 W
Adjustment speed	max. 1000 U/min.	Temperature range	-30 °C to +80 °C
Torque	2.5 Ncm	Temperature coefficient	0.02 % / °C
Wiper without limit stops	yes	Lifetime	typical 10–50 Mio. Cycles <i>The lifetime depends on the application and environmental conditions.</i>
Multiple execution	twice	Vibration*	5–200 Hz, 10 g
Bearing	2x ball-bearing	Shock*	50 g, 6 ms
Connection	plug / cable		
Fastening	clamp fixing and 3x M4 of TK 42 mm		
Resistance element	conductive plastic		
Active angle	max. 355°		

*\*Depending on customer specifications.*

**Article master number 5710Z53**

## Typical APPLICATION AREAS



Ship



Rails



Automation



Logistics



Medicine



Industry

## Optionally available PROTECTIVE HOUSING

Due to its extremely robust design, there is no need for a protective housing for the PK1023 potentiometer series.



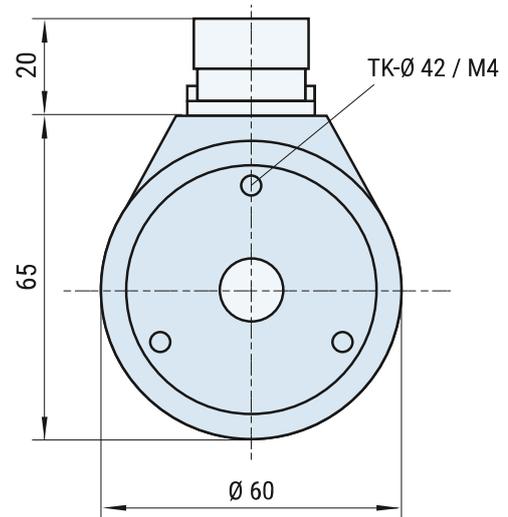
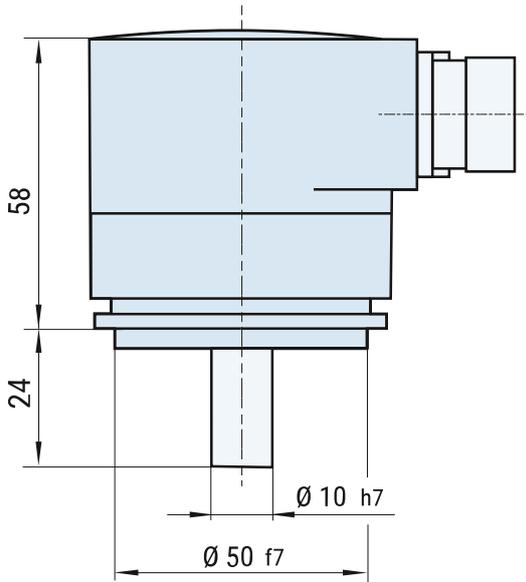
**For more information on protective housings, click here: [www.fsg-sensors.de](http://www.fsg-sensors.de)**



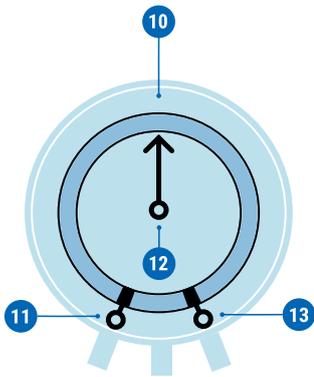
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## DIMENSIONAL DRAWINGS



## CONNECTION



**Standard**

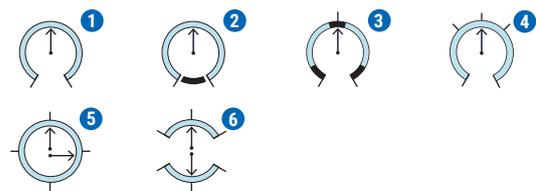
- 11 Resistance start
- 12 Wiper
- 13 Resistance end

**Optional**

- 10 Additional tap

## CIRCUIT VARIATIONS

Wire-wound resistive elements **conductive plastic**, printed on glass fiber reinforced substrate. Maximum active angle is 355°. Smaller angles, taps, and shorted sections are available on request.



- 1 Wiper limited by stops
- 2 Wiper continues rotation over 360°
- 3 Free arrangement of shorted sections
- 4 Free arrangement of taps
- 5 Sin/cos characteristic curve
- 6 Two electrically isolated windings on a winding body, angle ≤ 175°

## CONTACT

If you have any questions about this or any other FSG product, please do not hesitate to contact us.

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