

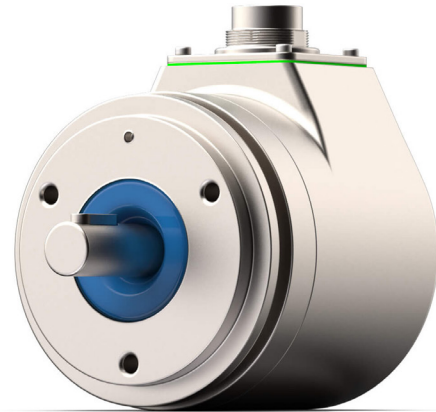
WIRE WINDING

SYNCHRO DESIGN

# PW1023d

**Robust precision Potentiometer with wire winding**

- Robust design in protection IP65
- High-resolution resistance element with ring winding
- Optional with plug or cable connection



## TECHNICAL DATA

Housing material	aluminum, anodized	Resistance values	to 20 kΩ
Housing diameter	60 mm	Resistance tolerance	2%
IP code of housing up to	IP65	Linearity tolerance	±0.2 %
Shaft diameter	6 / 10 mm	Resolution in turns	max. 2321
Adjustment speed	max. 360 U/min	Capacity	2.5 W
Torque	2.5 Ncm	Temperature range	-30 °C to +80 °C
Wiper without limit stops	yes	Temperature coefficient	0.0017 % / °C
Multiple execution	twice	Lifetime	typical 10–50 Mio. Cycles**
Bearing	2x ball-bearing	<small>** The lifetime depends on the application and environmental conditions.</small>	
Connection	plug / cable	Vibration*	5–200 Hz, 10 g
Fastening	clamp fixing with synchro flange and 3x M4 to TK 42 mm	Shock*	50 g, 6 ms
Resistance element	ring	<b>Specific features</b>	
Active angle	max. 360°	Stainless steel housing on request	

\*Depending on customer specifications.

**Article master number** 5720Z53

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 PW1023 potentiometer series.



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

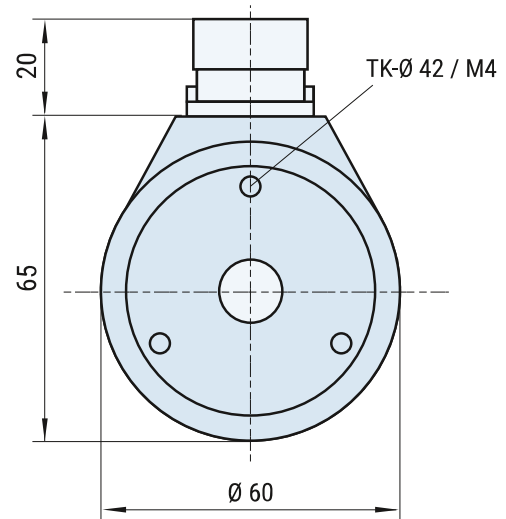
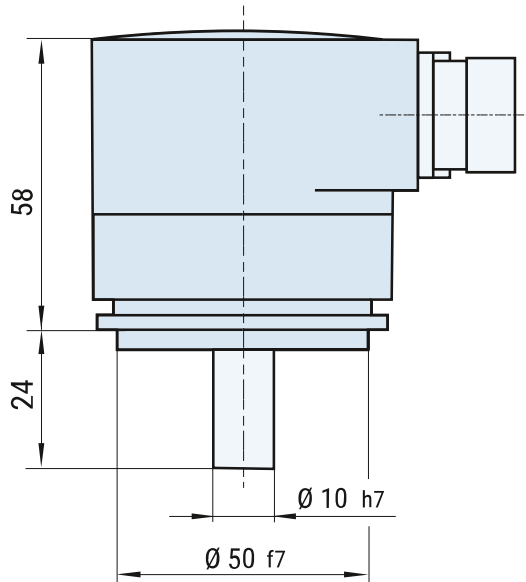


WIRE WINDING

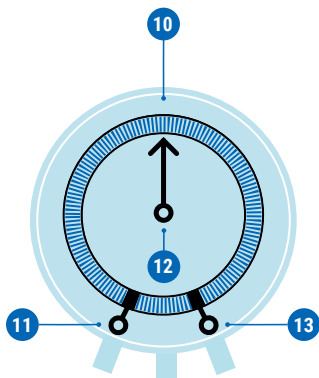
SYNCHRO DESIGN

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## DIMENSIONAL DRAWINGS



## CONNECTION



**Standard**

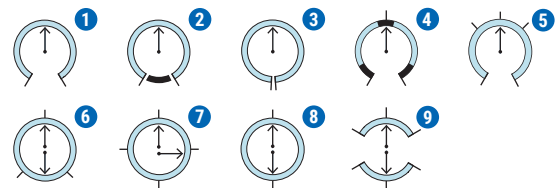
- 11 Resistance start
- 12 Wiper
- 13 Resistance end

**Optional**

- 10 Additional tap

## CIRCUIT VARIATIONS

Wire-wound resistive elements as **ring winding** on an anodized aluminum ring body can be executed in various circuit configurations, angle ranges, and resistance values.



- 1 Wiper limited by stops
- 2 Wiper continues rotation over 360° with dummy winding
- 3 Wiper continues rotation over 360° without reactive winding (sawtooth curve)
- 4 Free arrangement of shorted sections
- 5 Free arrangement of taps
- 6/7/8 Special windings with linear or sin/cos characteristic curves
- 9 Two electrically isolated windings on a winding body, angle  $\leq 175^\circ$

## CONTACT

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

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