

WIRE WINDING

FSG-DESIGN

# PW70d

## Wire wound precision Potentiometer

- High-resolution resistance element with ring winding
- Short-circuit sections, additional taps, and special windings available upon request
- Resistance value and active angle can be customized as desired



### TECHNICAL DATA

Housing material	thermoset	Resistance values	to 50 kΩ
Housing diameter	70 mm	Resistance tolerance	2%
IP code of housing up to	IP30	Linearity tolerance	±0.15 %
Shaft diameter	6 mm	Resolution in turns	max. 3621
Adjustment speed	max. 360 U/min	Capacity	6 W
Torque	0.5 Ncm	Temperature range	-30 °C to +80 °C
Wiper without limit stops	yes	Temperature coefficient	0.0017 % / °C
Multiple execution	sixfold	Lifetime	typical 10–50 Mio. Cycles**
Bearing	needle bearing	<small>** The lifetime depends on the application and environmental conditions.</small>	
Connection	screw connection / solder-type terminals	Vibration*	5–200 Hz, 10 g
Fastening	2x M4 at a distance of 50 mm	Shock*	50 g, 6 ms
Resistance element	ring	<b>Specific features</b>	
Active angle	max. 360°	Additional switches, maximum of 6, available	

\*Depending on customer specifications.

**Article master number** 1700Z04

Typical

### APPLICATION AREAS



Ship



Rails



Automation



Logistics



Medicine



Industry

Optionally available

### PROTECTIVE HOUSING

To protect against mechanical damage and extreme environmental conditions, as well as for necessary adaptation gears and additional switches, suitable housings are available in various designs.



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

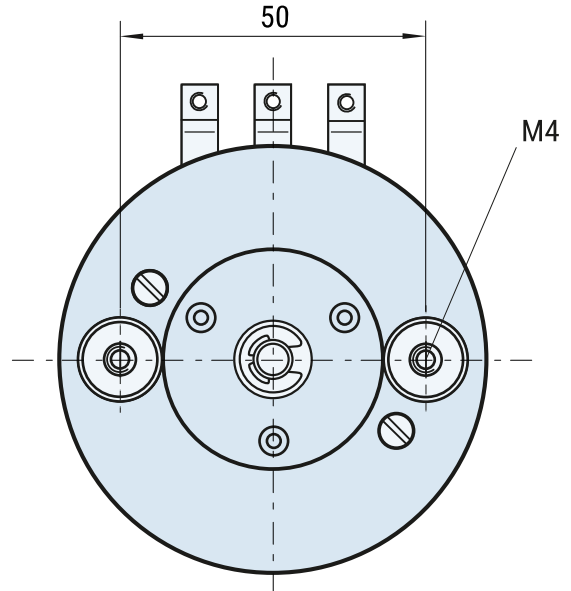
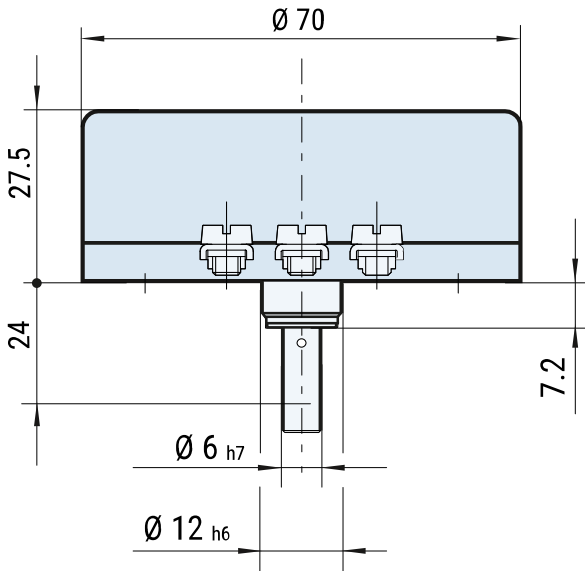


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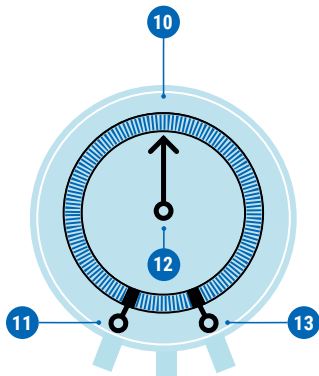
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## DIMENSIONAL DRAWINGS



## CONNECTION



**Standard**

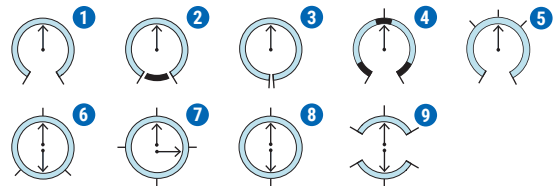
- 11 Resistance start
- 12 Wiper
- 13 Resistance end

**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 ≤175°

## CONTACT

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

**BERLIN (HQ)**  
Fernsteuergeräte Kurt Oelsch GmbH  
Jahnstraße 68 + 70  
12347 Berlin

✉ info@fsg-sensors.de  
🌐 www.fsg-sensors.de  
📞 +49 30 6291-1  
📠 +49 30 6291-277

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