

WIRE WINDING

FSG-DESIGN

# PW45d

## Wire wound precision Potentiometer

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



### TECHNICAL DATA

Housing material	thermoplastic	Resistance values	to 20 kΩ
Housing diameter	45 mm	Resistance tolerance	2%
Model	FSG-Design	Linearity tolerance	±0.3 %
IP code	IP30	Resolution	max. 2321 turns
Shaft diameter	6 mm	Capacity	2.5 W
Adjustment speed	max. 360 U/min	Temperature range	-30 °C to +80 °C
Torque	0.3 Ncm / 3 Ncm	Temperature coefficient	0.0017 % / °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	needle bearing	Shock*	50 g, 6 ms
Connection	screw connection / solder-type terminals		
Fastening	threaded hole 2x M4, distance 32 mm		
Resistance element	ring		
Active angle	max. 345°		

*\*Depending on customer specifications.*

**Article master number 1500Z05**

### Typical APPLICATION AREAS



### 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)**

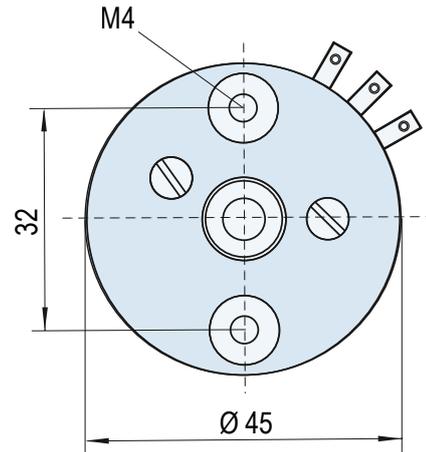
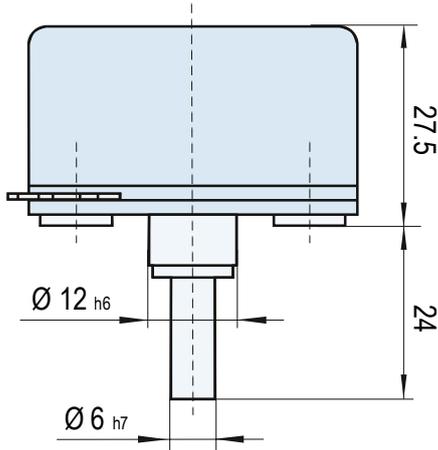


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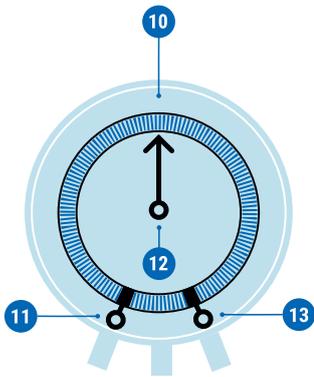
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## DIMENSIONAL DRAWINGS



## CONNECTION



**Standard**

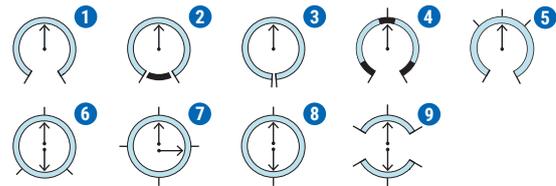
- 11 Resistance start
- 12 Wiper
- 13 Resistance end

**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.

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