

## CONDUCTIVE PLASTIC

SYNCHRO DESIGN

# PK309-15d

## Miniature Potentiometer with conductive plastic resistive element

- High-resolution resistance element of conductive plastic
- Short-circuit distances and additional taps available
  upon request
- · Available with sine/cosine resistance element
- $C \in -$  konform

### **TECHNICAL DATA**

#### **Mechanical specifications**

| Housing material          | aluminum, anodized                  |
|---------------------------|-------------------------------------|
| Housing diameter          | 22.2 mm                             |
| IP code of housing up to  | IP30                                |
| Shaft diameter            | 3 mm                                |
| Adjustment speed          | max. 1000 U/min.                    |
| Torque                    | 0.03 Ncm                            |
| Wiper without limit stops | yes                                 |
| Multiple execution        | triple                              |
| Resistance to compression | 5-200 Hz, 10 g                      |
| Shock resistance          | 50 g, 6 ms                          |
| Bearing                   | ball-bearing                        |
| Connection                | faston plug / solder-type terminals |
| Fastening                 | clamp fixing                        |
|                           |                                     |





#### Electrical specifications

| Resistance element                                    | conductive plastic  |
|---|---|
| Active angle  | max. 345°   |
| Resistance values                                     | to 10 kΩ  |
| Resistance tolerance                                  | ±2 %  |
| Linearity tolerance                                   | ±2 %  |
| Resolution in turns                                   | almost infinite   |
| Capacity  | 0.5 W   |
| Temperature coefficient                               | 0.02 % / °C   |
| Temperature range                                     | -30 °C to +80 °C  |
| Lifetime<br>* The lifetime depends on the application | typical 10-50 Mio. Cycles*<br>n and environmental conditions. |

Article master number 1105Z02

## 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



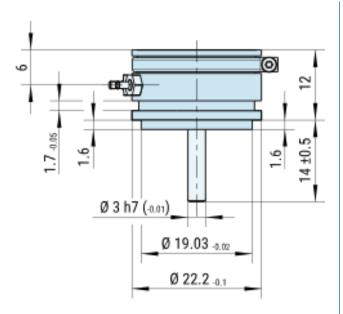


**CONDUCTIVE PLASTIC** 

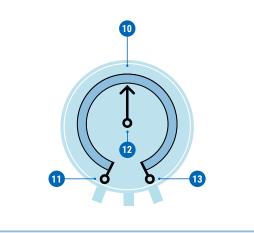
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### **DIMENSIONAL DRAWINGS**



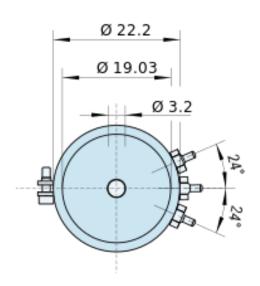
#### **CONNECTION**



Standard

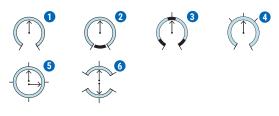
- 11 Resistance start
- 12 Wiper
- 13 Resistance end

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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