



## Potentiometer

### Features

- High IP-protection class
- Small design
- Simple installation

### Description

These up to 4 W potentiometers show that Ex potentiometers can be small and compact. The external dimensions are approximately the same as those of standard industrial potentiometer enclosures. Central fixing in a single hole and the standard size of shaft have been included. From the variety of resistors on the market we have chosen cemented wire-wound resistors and carbon film resistors and developed a standard-program range. The metal Ex d enclosures are tailored to the dimensions of the resistors and feature a standard 30 mm diameter. The potentiometers have been designed so that the stated nominal capacities can be fully exploited at temperature class T6 or T5 and be deployed in zones 1 and 2.

They can be fastened and secured against twisting in a number of ways. Two nuts are included in each consignment. At an extra charge BARTEC provides either threaded holes in the front panel of the enclosure or an antirotation pin. The length of the encapsulated numbered cores can be specified by the customer. The potentiometers are Ex-certified by means of a PTB component certificate.

If potentiometers have connecting wires, these must be laid with protection. We have developed terminals and enclosures especially for proper connection of the ends of the wires in explosive atmospheres. The most important data, such as resistance values, power ratings and dimensions can be found in the table on the right. We also supply accessories, such as rotary and pointer knobs, scales and slip couplings.

### Explosion protection

#### Ex protection type

- Ex II 2G Ex d IIC
- Ex I M2 Ex d I

#### Certification

PTB 03 ATEX 1025 U

#### Temperature class

T6 to T4

#### Ambient temperature

-55 °C to +40 °C/+60 °C/+80 °C

### Technical data

#### Protection class

min. IP 54/IEC 60529

#### Enclosure

nickel-plated brass (CuZn)

#### Tightning torque (for nuts)

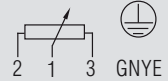
200 Ncm

#### Resistance characteristic

linear

#### Electrical connection

cores  
4GAF - 0.75



#### ■ Cemented wire-wound resistors:

#### Resistance values/power ratings

see selection chart

#### Resistance tolerance

± 5 %

#### Linearity tolerance

max. 3 % of final value

#### Insulation resistance

≥ 100 MΩ

#### Rotation

electr./mech. 250°/270°

#### End stop strength

30 Ncm

#### Weight with cores (0.5 m)

180 g

#### ■ Carbon-film resistors on ceramic:

#### Resistance values/power ratings

see selection chart

#### Insulation resistance

≥ 100 MΩ

#### Rotation

electr./mech. 270°

#### End stop strength

100 Ncm

#### Weight with cores (0.5 m)

200 g

#### ■ Precision wire-wound resistors:

#### Resistance values/power ratings

see selection chart

#### Insulation resistance

≥ 1000 MΩ

#### Resistance tolerance

± 5 %

#### Linearity tolerance

to 500 Ω ± 1 %  
> 500 Ω ± 0.5 %

#### Rotation

electr./mech. 320°

#### End stop strength

100 Ncm

#### Weight with cores (0.5 m)

170 g

