

# Pt100 Ex

## Resistance thermometer



- Very fast response time
- Compact dimensions, compact design
- Wide temperature range
- Flexible supply cable

This Pt100 Ex sheathed resistance thermometer has been particularly designed for use in potentially explosive areas.

As it meets the requirements of the Ex m type of protection, intrinsically safe circuits can be dispensed with. Thanks to the pliable part of the resistance thermometer, the device is excellently suitable for application areas requiring a high degree of flexibility and replaceability (e.g. chemical and power plants).

The resistance thermometer is made of a 3 mm mineral insulated cable with different lengths. The flexible part of the resistance thermometer starts after 50 mm. The flexible part of the sensor probe is connected to the connecting cable via an Transition gland.

### Explosion protection

|                                                                                          |                                                    |
|------------------------------------------------------------------------------------------|----------------------------------------------------|
| Marking                                                                                  | II 2G Ex mb IIC T6 Gb<br>II 2D Ex mb IIIC T80°C Db |
| Certification                                                                            | PTB 03 ATEX 2152 X                                 |
| Other approvals and certificates, see <a href="http://www.bartec.com">www.bartec.com</a> |                                                    |

### Technical data

|                           |                                                                             |
|---------------------------|-----------------------------------------------------------------------------|
| Wiring Configuration      | 3-wire                                                                      |
| Temperature range         | -50 °C to +600 °C or<br>-200 °C to +600 °C<br>tolerance: class B (EN 60751) |
| Ambient temperature range | -50 °C to +70 °C                                                            |
| Sheath material           | stainless steel 1.4541                                                      |
| Connection cable          | Silicone (4 x 0.75 mm²)                                                     |
| Protection class          | IP 65/EN 60529                                                              |

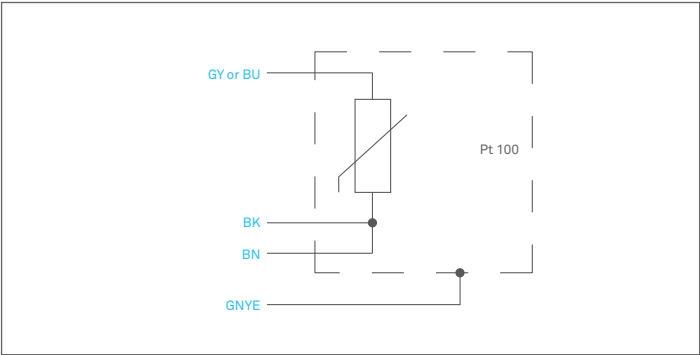
### Dimensions

|                      |                  |
|----------------------|------------------|
| Sensor tube diameter | 3 mm             |
| Sensor length        | 280 resp. 980 mm |
| Active sensor length | 50 mm            |
| Flexible part        | 230 resp. 930 mm |
| Bending radius       | min. 20 mm       |

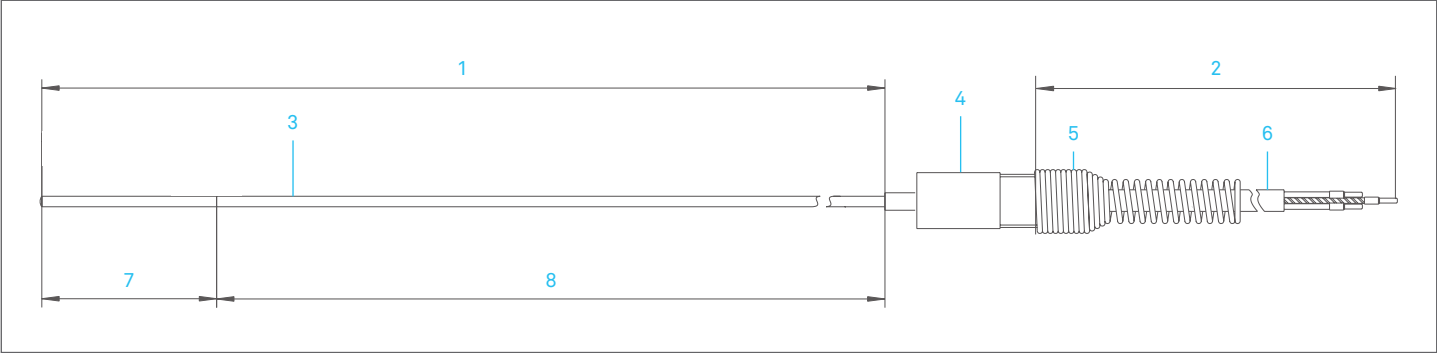
### Electrical data

|                   |                                                        |
|-------------------|--------------------------------------------------------|
| Operating voltage | max. AC/DC 60 V                                        |
| Signal circuit    | max. AC/DC 6 V<br>max. AC/DC 10 mA<br>max. AC/DC 60 mW |

### Electrical connection 3-wire



Structure



|   |                         |
|---|-------------------------|
| 1 | Nominal lenght          |
| 2 | Connecting cable length |
| 3 | Sheathed cable          |
| 4 | Transition gland        |
| 5 | Cable bend protection   |
| 6 | Connection cable        |
| 7 | Rigid 50mm              |
| 8 | Flexible                |

Ordering information

| Measurement range  | Ambient temperature range | Nominal length | Connecting cable length | Connecting cable (Version) | Order no.        |
|--------------------|---------------------------|----------------|-------------------------|----------------------------|------------------|
| -50 °C to +600 °C  | -50 °C to +70 °C          | 300 mm         | 2 m                     | silicone                   | 27-7125-13330250 |
| -50 °C to +600 °C  | -50 °C to +70 °C          | 300 mm         | 5 m                     | silicone                   | 27-7125-13330550 |
| -200 °C to +600 °C | -50 °C to +70 °C          | 300 mm         | 2 m                     | silicone                   | 27-7128-13330250 |
| -200 °C to +600 °C | -50 °C to +70 °C          | 1000 mm        | 2 m                     | silicone                   | 27-7128-13130250 |