Postal address:
Postfach 1261

53759 Hennef

House address
Löhestr. 37

53773 Hennef

Fon (+49) 0 22 42-87 03-0
Fax (+49) 0 22 42-87 03-20
http: // www.tematec.de
e-mail: team@tematec.de

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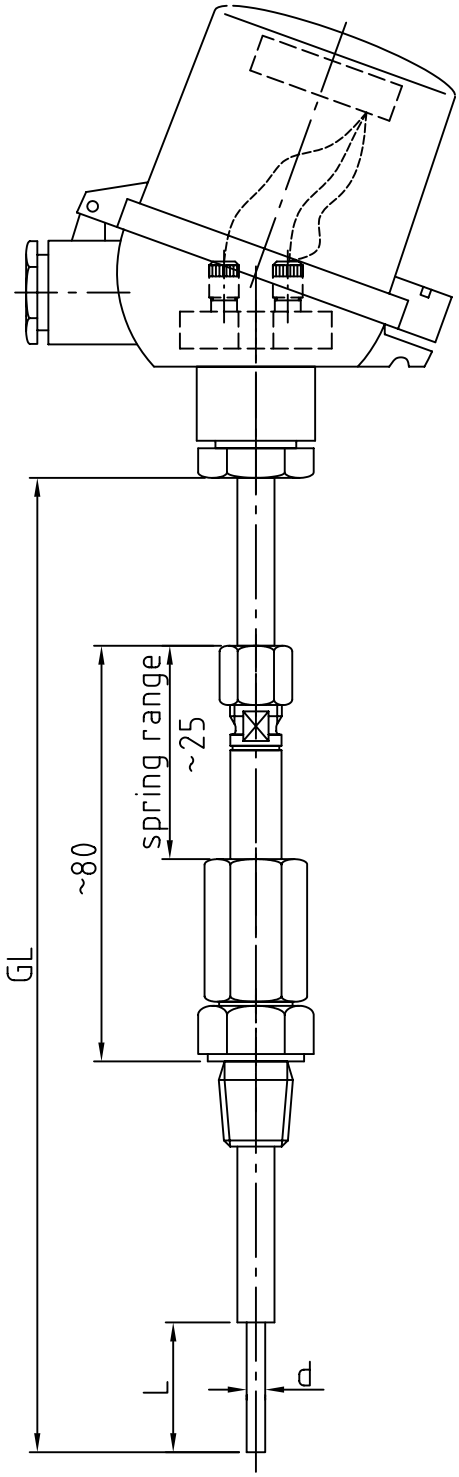


# Resistance Thermometer ATEX II2G Ex ia IICT4 (1xPt100) Ex ib IICT4 (2xPt100), Ex ia IICT6 (1xPt100+Transmitter) with terminal head Form BUZ / BUZ-H

These Resistance Thermometers can be used for measuring the temperature of explosion-endangered areas (Category 2G by RL 94/9/EG) - explanation see page 4/4.
They are designed for applications where combustible environments like combustible gases, steams or fogs are permanently or temporarily present.

The connection head without transmitter is suitable for environments with a temperature of up to 100° C (incl. transmitter up to 85°C). Additional designs other than Model BUZ include types with a BUZ-H head.

The protective tubes are normally made of 1.4571 stainless steel but other protective tube materials or coatings can be delivered on request.

The measuring insert contains as standard a Pt100-sensor according to DIN EN 60751, Class A in a 2-wire circuit (3-wire or 4-wire circuit for version with transmitter).

Connection is also possible in a 2-wire circuit or a 4-wire circuit (see ordering key).

- temperature range -40...+ 150°C
- protective tubes made of 1.4571
- insertion length individually configurable
- Single- or Double-Resistance-Thermometer
- spring screw connection = springily with defined pressing force or compression fitting normally tightening

  available with the following EX-Transducer:
  - analog
  - digital programmable
  - with Profibus-PA-protocol
  - HART-protocol
  - according to customer-guidelines

- More technical data are listed in the manuals and security advices.

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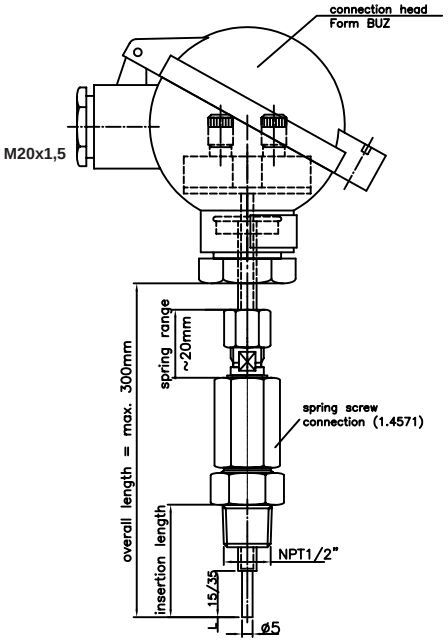
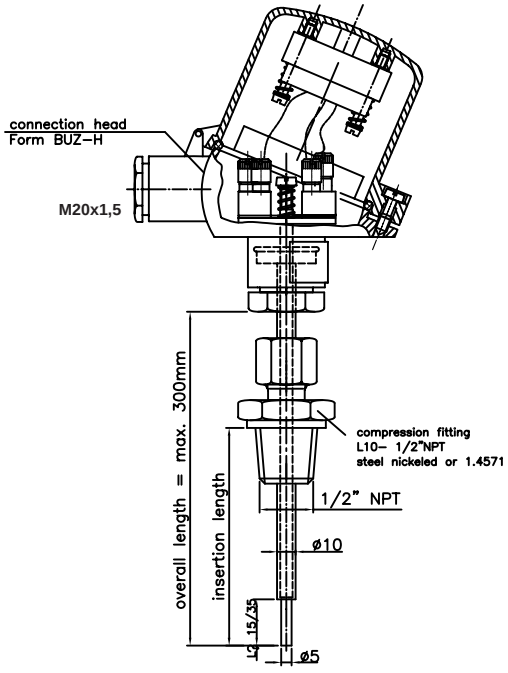
**WTEX 7108**




**1 sensortype**

2 = 1xPt100 2-wire circuit
3 = 1xPt100 3-wire circuit ●
4 = 1xPt100 4-wire circuit
5 = 2xPt100 2-wire circuit
6 = 2xPt100 3-wire circuit

**2 connection head / material / protection degree**

| | | |
|---|---|---|
| 3 = BUZ | aluminium | IP65 ● |
| 4 = BUZ-H | aluminium | IP65 |

**3 4 5 overall length in mm**

150 = 150mm
200 = 200mm ●
250 = 250mm
max 300mm

**6 7 tube diameter D (mm)**

1 0

10= 10mm ●

**8 measuring tip d ∅ xL (mm)**

1 = displaced d=5 x L=15 only with measuring insert 3.5∅ ●
2 = displaced d=5 x L=35 only with measuring insert 3.5∅
3 = other:_____

**9 compression fitting / process connection / material**

| | | |
|---|---|---|
| 1 = spring screw connection 25mm | G1/2" (Typ FD) | 1.4571 |
| 2 = spring screw connection 25mm | NPT1/2" (Typ FD) | 1.4571 |
| 3 = compression fitting | G1/2" nach TTN-039 | steel nickeled |
| 4 = compression fitting | G1/2" nach TTN-039 | 1.4571 |
| 5 = compression fitting | NPT1/2" nach TTN-038 | steel nickeled |
| 6 = compression fitting | NPT1/2" nach TTN-038 | 1.4571 ● |

**10 transmitter**

0 = without transmitter
1 = 1 transmitter ●
2 = 1 transmitter, in connection head BUZ-H

**11 transmitter-selection**

0 = without transmitter
D = analog, TT2381 (galvanically separated) 4...20mA ●
H = digital, Hart-protocol
P = digital, Profibus PA

**12 transmitter-measuring range**

0 = without transmitter
2 = 0...+100°C / 4...20mA
3 = 0...+150°C / 4...20mA ●
X = special measuring range (max. -40...+150°C)

**13 sensor temperature range**

2 = -20°C...+150°C ●
4 = -40°C...+150°C

**WTEX 7108**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 3 | 2 | 0 | 0 | 1 | 0 | 1 | 6 | 0 | 0 | 0 | 2 |

**● ordering example**

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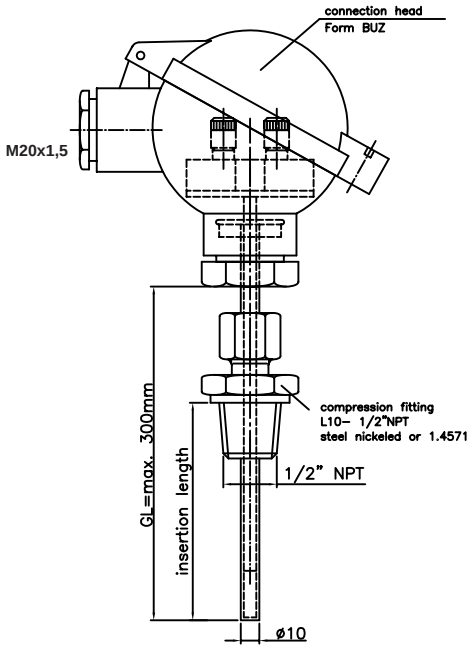


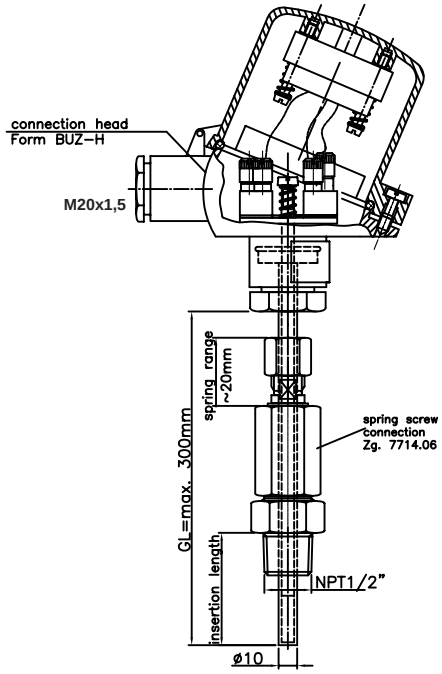


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3 = 1x Pt100 3-wire circuit ●
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**2 connection head / material / protection degree**

| | | |
|---|---|---|
| 3 = BUZ | aluminium | IP65 |
| 4 = BUZ-H | aluminium | IP65 ● |

**3 4 5 overall length in mm**

150 = 150mm
200 = 200mm ●
250 = 250mm
max 300mm

**6 7 tube diameter D (mm)**

1 0

10= 10mm ●

**8 measuring tip d ∅ xL (mm)**

0

0 = continuous D=10∅ **only with measuring insert 6∅** ●

**9 compression fitting / process connection / material**

| | | |
|---|---|---|
| 1 = spring screw connection 25mm | G1/2" (Typ FD) | 1.4571 |
| 2 = spring screw connection 25mm | NPT1/2" (Typ FD) | 1.4571 |
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| 6 = compression fitting | NPT1/2" nach TTN-038 | 1.4571 ● |

**10 transmitter**

0 = without transmitter
1 = 1 transmitter
2 = 1 transmitter, in connection head BUZ-H ●

**11 transmitter-selection**

0 = without transmitter
D = analog, TT2381 (galvanically separated) 4...20mA ●
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P = digital, Profibus PA

**12 transmitter-measuring range**

0 = without transmitter
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3 = 0...+150°C / 4...20mA ●
X = special measuring range (max. -40...+150°C)

**13 sensor temperature range**

2 = -20°C...+150°C ●
4 = -40°C...+150°C

**WTEX 7108**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 4 | 2 | 0 | 0 | 1 | 0 | 0 | 6 | 2 | D | 3 | 2 |

**● ordering example with transmitter**

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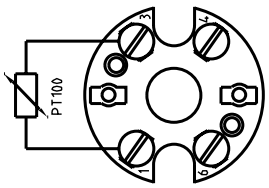
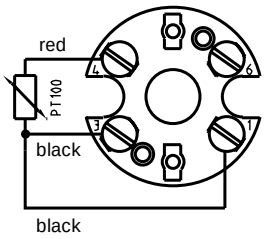
## Resistance-Thermometer Electrical Connection

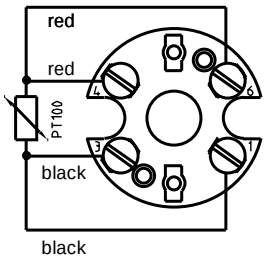
**1xPt100-2 wire circuit**



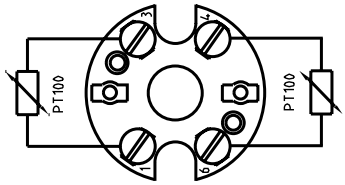

**1xPt100-3 wire circuit**



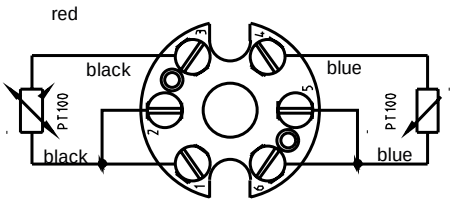

**1xPt100- 4 wire circuit**




**2xPt100-2 wire circuit**




**2xPt100-3 wire circuit**




**marking according to guideline 94/9/EG:** CE Ex **II 2 G**

- group of devices II
- endangerment: category 2
- for combustible atmosphere because of gases, fogs or steams

Allocation of the danger zone mounting-place to the category of the explosion-proofed devices and sensors:

| danger zone to mounting place | | category according to guideline 94/9/EG |
|---|---|---|
| endangerment through gases, fogs or steams | Zone 0 | 1G |
| endangerment through gases, fogs or steams | Zone 1 | 2G |
| endangerment through gases, fogs or steams | Zone 2 | 3G |

**marking of the ignition enclosure:** **Ex ia IIC T3**

- explosion-proofed electrical equipment according to European standard
- ignition enclosure
- explosion group
- temperature class