

## Resistance Thermometer with terminal head Form BUZ / BUZ-H and spring loaded compression fitting

These Resistance Thermometers can be used for measuring the temperature on: Pumps, Motors and Gears

Constant contact with spring -loaded compression fitting  
Mounting length adjustable

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 B in a 3-wire circuit (3-wire / 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...+ 250°C max
- 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 Transducer:

- analog
- digital programmable
- with Profibus-PA-protocol
- HART-protocol
- FOUNDATION fieldbus
- Transmitter and LED -display

BUZ-H head with LED-display



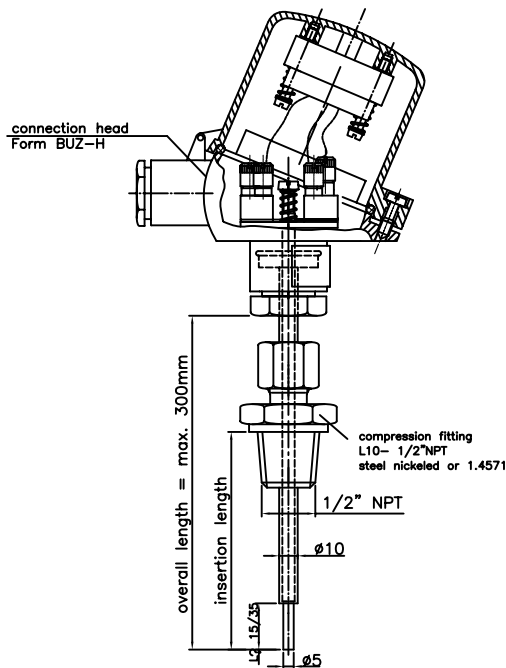
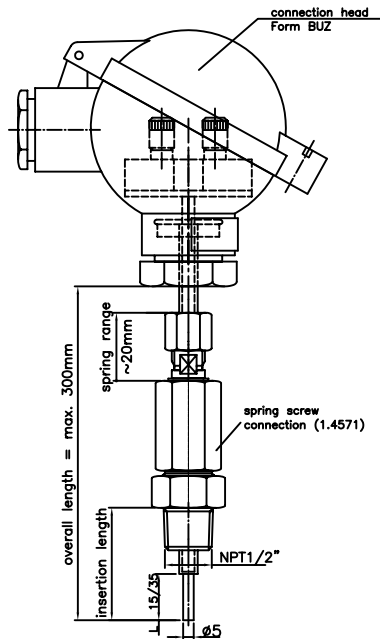
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WT 7108

1 sensortype

- 2 = 1x Pt100 2-wire circuit  
3 = 1x Pt100 3-wire circuit ●  
4 = 1x Pt100 4-wire circuit  
5 = 2x Pt100 2-wire circuit  
6 = 2x Pt100 3-wire circuit  
8 = 2x Pt100 4-wire circuit

2 connection head material cable entry protection

- 3 = BUZ aluminium M20x1,5 IP65 ●  
4 = BUZ-H aluminium M20x1,5 IP65  
8 = BUZ-VA stainless steel M20x1,5 IP65  
9 = BUZ-H-VA stainless steel M20x1,5 IP65

3 4 5 overall length in mm

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

6 7 tube diameter D (mm)

- 10 = 10mm ●

8 measuring tip d Ø xL (mm)

- 1 = displaced d=5 x L=15 only with measuring insert 3.5Ø ●  
2 = displaced d=5 x L=35 only with measuring insert 3.5Ø  
3 = other: \_\_\_\_\_  
5 = displaced d=5 x L=50 only with measuring insert 3.5Ø

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 steel nicked  
4 = compression fitting G1/2 1.4571 ●  
5 = compression fitting NPT1/2 steel nicked  
6 = compression fitting NPT1/2 1.4571

10 transmitter

- 0 = without transmitter  
1 = 1 transmitter ●  
2 = 2 transmitter, mounted of terminal block and in connection head BUZ-H

11 transmitter-selection

- 0 = without transmitter  
A = analog, (not galvanically separated)  
D = digital, TT2381 (galvanically separated) ●  
H = digital, Hart-protocol  
L = transmitter and LCD-Display (connection head BUZ-H)  
P = digital, Profibus PA

12 transmitter-measuring range

- 0 = without transmitter  
1 = 0-50°C / 4mA-20mA  
2 = 0-100°C / 4mA-20mA ●  
3 = 0-150°C / 4mA-20mA  
4 = 0-200°C (max.)  
X = special measuring range (max. 250°C)

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

● ordering example

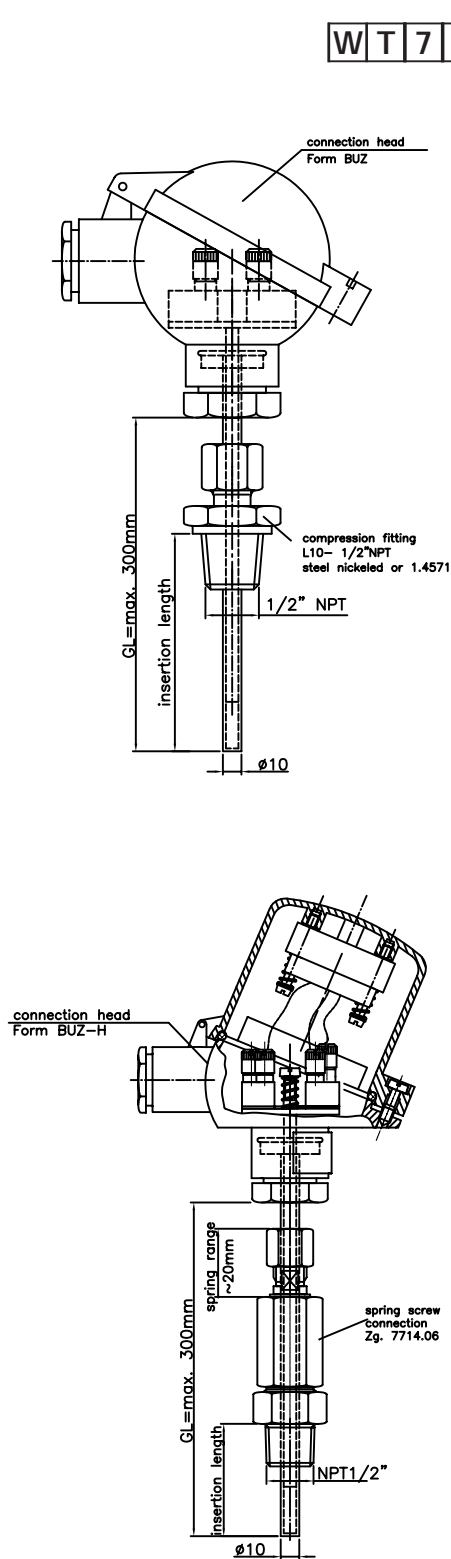
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#### sensortype

- 2 = 1x Pt100 2-wire circuit
- 3 = 1x Pt100 3-wire circuit ●
- 4 = 1x Pt100 4-wire circuit
- 5 = 2x Pt100 2-wire circuit
- 6 = 2x Pt100 3-wire circuit
- 8 = 2x Pt100 4-wire circuit

2

connection head	material	cable entry	protection
3 = BUZ	aluminium	M20x1,5	IP65 ●
4 = BUZ-H	aluminium	M20x1,5	IP65
8 = BUZ-VA	stainless steel	M20x1,5	IP65
9 = BUZ-H-VA	stainless steel	M20x1,5	IP65

3 4 5

#### overall length in mm

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

6 7

#### tube diameter D (mm)

- 10 = 10mm

8

#### measuring tip d Ø x L (mm)

- 0 = continuous D=10Ø only with measuring insert 6Ø ●

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	steel nickled
4 = compression fitting G1/2	1.4571 ●
5 = compression fitting NPT1/2	steel nickled
6 = compression fitting NPT1/2	1.4571

10

#### transmitter

- 0 = without transmitter
- 1 = 1 transmitter ●
- 2 = 2 transmitter, mounted of terminal block and in connection head BUZ-H

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#### transmitter-selection

- 0 = without transmitter
- A = analog, (not galvanically separated)
- D = digital, 4...20mA, TT2381 (galvanically separated) ●
- H = digital, Hart-protocol
- L = transmitter and LCD-Display (connection head BUZ-H)
- P = digital, Profibus PA

12

- 0 = without transmitter
- 1 = 0-50°C / 4mA-20mA
- 2 = 0-100°C / 4mA-20mA ●
- 3 = 0-150°C / 4mA-20mA
- 4 = 0-200°C / 4mA-20mA

X = special measuring range

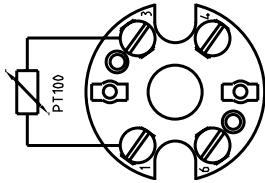
WT 7108

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

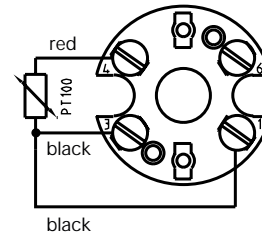
● ordering example

## Resistance-Thermometer Electrical Connection

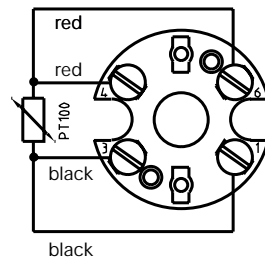
1xPt100-2 wire circuit



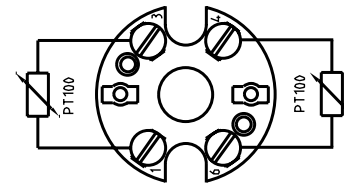
1xPt100-3 wire circuit



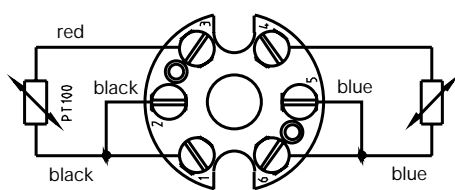
1xPt100- 4 wire circuit



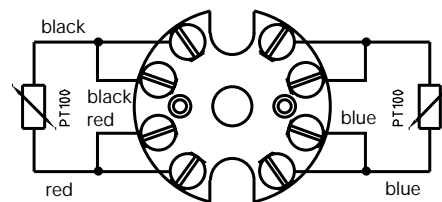
2xPt100-2 wire circuit



2xPt100-3 wire circuit

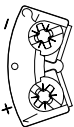
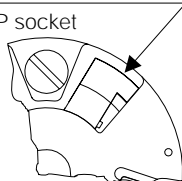
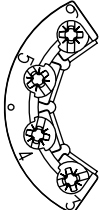
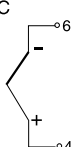
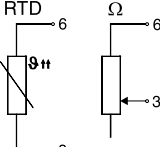
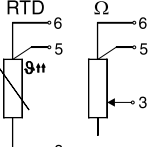


2xPt100-4 wire circuit



## Electrical Connection Transmitter TT2381

### Terminal connections

Power supply and current output		SETUP socket		
	<div><div>2 — — — — — -</div><div>1 — — — — — +</div><div>mA</div></div> <div>8...35 V 8...30 V Ex 4...20 mA</div>			
Sensor connection		2-wire	3-wire	4-wire
	<div>TC</div> 	<div>RTD</div> 	<div>RTD</div> 	<div>RTD</div> 