



### Features

- Measuring insert per DIN 43735 with additional test pipe
- Measuring insert Ø 6 mm
- Temperature range -50...400 °C
- Measuring resistor per DIN EN 60751
- Accuracy per DIN EN 60751, class A
- Electrical connection in 4-wire technology

### Options

- Ex-protection
- Measuring insert Ø 4 mm
- Prepared for transmitter mounting

### Application area

- Food industry
- Pharmaceuticals
- Chemical and petrochemical industry
- Machinery construction

### Application

The measuring inserts per DIN 43735 are additionally equipped with a test pipe. A calibrated reference sensor (e.g. LABOM type GA3110, data sheet T4-025-46) can be inserted in the test pipe. This makes it possible to calibrate the installed resistance thermometer without disassembling the measuring insert.

### Technical Data

#### Mechanical design

measuring insert with connection socket per DIN 43735 and with additional test pipe  
measuring insert: stainless steel  
mat.-no. 1.4571 (316 Ti),  
length and Ø see order details.

The measuring insert is spring loaded (spring travel: max. 10 mm) to ensure that the measuring insert is pressed down on the bottom of the thermowell. Instead of the terminal socket a transmitter can be installed, or the measuring insert is prepared for transmitter mounting.

Reference sensor see data sheet T4-025-46, Type series GA3110.

#### Measuring resistor

measuring resistor Pt 100 per DIN EN 60751  
nominal value of Pt 100 sensor:  
100 Ohm at 0 °C

#### Temperature range

-50...400 °C

#### Accuracy

measuring resistor:  
class A per DIN EN 60751  
in the range between -50...300 °C,  
otherwise class B

#### Insulation resistance

> 100 MOhm bei 20 °C (500 VDC)

#### Ex-approval

IBExU 13 ATEX 1017 X  
⊕ II 2G Ex ia IIC T6-T1 Gb

$U_i \leq 30 \text{ V}$

$P_i \leq 750 \text{ mW}$

$L_i \text{ max. } 10 \mu\text{H/m}$

$C_i \text{ max. } 500 \text{ pF/m}$

More technical information see XA\_003.

#### Measuring insert length

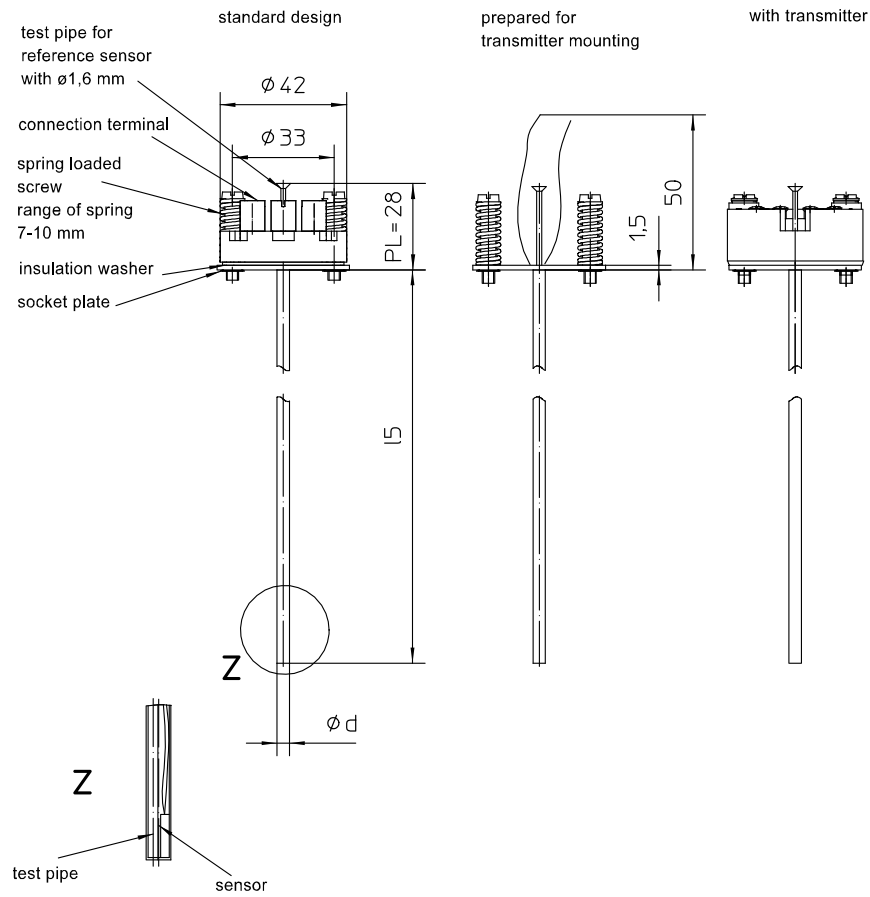
The length of the measuring insert is to be selected so that the measuring insert stands on the thermowell bottom. This ensures good heat transfer.  
We recommend the use of thermolube.

Standard lengths see order details.  
Special lengths are possible.

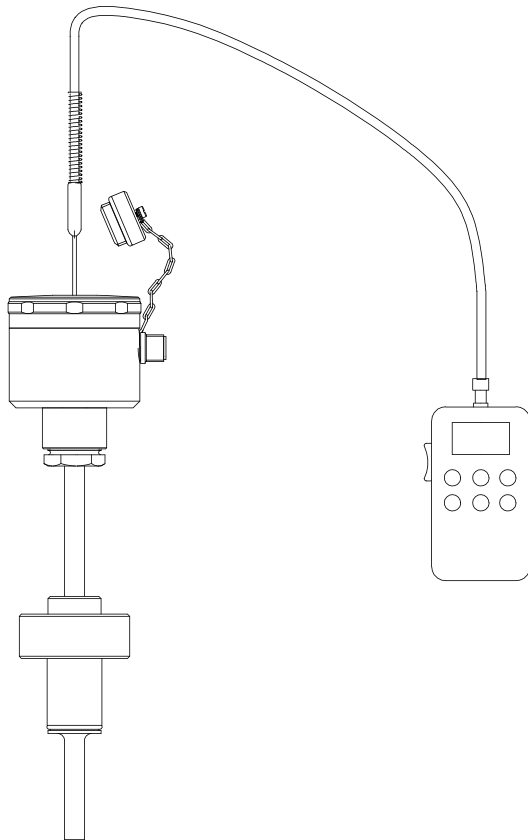
#### Mounting of transmitter

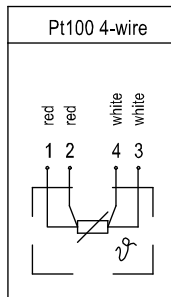
Pt 100 transmitter for head mounting can be mounted instead of terminal socket.

**Dimensions**



**Reference sensor during test condition**



**Connection diagram****Order Details** - please give additional specifications for models not listed -

Measuring inserts for n-process calibration				GA310 .				
ex-design	· without			0				
	· ex-protection, type of protection see below			1				
standard lengths								
length l5 of measuring insert	100 mm			B09				
	105 mm			B10				
	125 mm			B13				
	140 mm			B16				
	190 mm			B19				
	205 mm			B22				
	250 mm			B25				
	255 mm			B28				
	275 mm			B31				
	290 mm			B34				
	315 mm			B37				
	375 mm			B40				
	405 mm			B43				
	435 mm			B46				
525 mm			B49					
555 mm			B52					
meas. insert class A per DIN EN 43735	<u>diameter</u>	<u>design</u>	<u>material</u>	<u>operating range</u>	<u>test pipe</u>			
	· 6 mm	· rigid	· st. steel	-50...400 °C	28 mm			D22-M22
type of sensor	· 1 x Pt 100 in 4-wire technology							N3
	<b>additional features (to be indicated in case of need, only):</b>							
type of ex-protection	· $\text{Ex}$ II 2G Ex ia IIC T6-T1 Gb							S75
	· IExU 13 ATEX 1017 X							
transmitter (head mounting) mounted in connection head instead of terminal block (without transmitter)								Z1
<b>order code (example):</b>				GA3100	B31	D22-M22	N3	

1 not in Ex-design