




## 'INTELLIGENT' TEMPERATURE TRANSMITTER PT-100

### 'TT-2000'



- MICROPROCESSOR BASED
- **EASY ADJUSTABLE** BY 3 PUSHBUTTONS AND A DISPLAY
- ALL STAINLESS HOUSING
- ACCURACY 0,1%
- 4-20 MA AND HART® PROTOCOL
- INCL. LOCAL DISPLAY
- ADJUSTABLE DAMPING
- VARIOUS PROCESSCONNECTIONS
- INTRINSIC SAFE  
ATEX  II 1 G/D EX ia IIC T4 GA

### Description

The TT-2000 is a **All Stainless** "Intelligent" PT-100 temperature transmitter based on the successful series 2000 Pressure and Leveltransmitters.

As standard, the TT-2000 will be supplied with a local indicator and 3 pushbuttons for **Easy calibration**.

Various processconnections are available, like: G $\frac{1}{2}$ ", G1", DIN Milkcoupling, Tri-clamp and Flanges. The insertionlength and diameter of the sensor can be ordered in customer specific dimensions.

The standard PT-100 element used is class  $\frac{1}{3}$  DIN which, in combination with the microprocessor based electronics, creates a very stable and accurate output signal.

HART® is a registered trademark of the HART Communication Foundation



*Display with 3 pushbuttons  
(Standard)*

Manufacturer:

**KLAY-INSTRUMENTS B.V.**

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# General information TT-2000

## Calibration

As standard the TT-2000 is always equipped with a display and 3 pushbuttons for easy calibration. Both the measured and calibrated value can be read locally.

A full calibration can be completed using the three pushbuttons or with a Handheld terminal or by PC with special software from Klay Instruments. For all adjustable points see table right.



## Adjustable points

- P101 Zero adjustment (4 mA)
- P102 Span adjustment (20 mA)
- P104 0 = CELC °C \*  
1 = FAHR °F  
2 = KELV K
- P105 4 – 20 mA \*  
20 – 4 mA (reverse output)
- P 106 Damping adjustment (0-25 sec)
- P 107 Indication of Ambient temperature
- P 108 Read out on display:  
0 = current (4 – 20 mA)  
1 = Process temperature \*  
2 = percentage %
- P 109 Current simulation (4 – 20 mA)
- P 110 Write protection

\* = factory setting

## Specifications

Accuracy	: 0.1%
Range	: -50° to + 200°C
Lowest span	: 0 - 20°C
Pt-100 element	: 1/3 DIN
Output	: 4-20 mA / 2-wire HART Protocol (option)
Adjustment	: by 3 pushbuttons, H.H.T or PC
Supply	: 13 – 40 Vdc
Protection	: IP 66
Ambiant Temperature	: -30° to + 80°C
Electronic housing	: AISI 304
Wetted parts	: AISI 316
Process connections	: see orderingcode

Technical specifications can change without notice.

## Orderingcode 'TT-2000'

TT-2000 - G<sub>(v)</sub> - L100 x D9 - H (Orderingexample)

### Process conections:

- G(v) - G<sup>1/2"</sup> fixed nipple
- G(o) - G<sup>1/2"</sup> turning nipple
- F - Flange (Specify size)
- M - Milkcoupling DN 25, 40 or 50
- L - Tri-clamp (Specify size)
- X - Other connections (specify)



### Insertion length sensor:

- Specify in mm  
Lengte (L.....)

### Diameter sensor:

- D6 - 6 mm (straight)
- D8 - 8 mm (straight)
- D9 - 9 mm (straight)
- D9/6- 9 mm, with reduced tip 6 mm
- D.. - other diameter (specify)

### Options:

- H - HART® Protocol 
- Ex - Intrinsic Safe  
ATEX  II 1G/D



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