

DIGITAL THERMOMETER
(battery powered)
type DPT3V2-S



- *Pt RTD 1.385 Sensor, Range – on request*
- *Battery powered thermometer*
- *4-digits LCD Display*
- *Stainless Steel Case, IP65 protection*

The thermometer type DPT3V2-S supports standard Pt100 (Pt500, Pt1000) sensors and digitally displays the temperature in °C (or °F). The resolution is 0.1°C. 2- or 3-wire connection of RTD probe is provided. The special 3-wire connection assures full line compensation of connecting wire resistance and permits a longer distance between the sensor and the instrument. No separate power supply is required for the thermometer, as it takes power from the 3V (2x1.5V AA) Battery.

The thermometer can be used in various applications and industries. It is specifically designed to be suitable for use in the food & beverage, chemical and pharmaceutical industries, and can be sealed after the initial configuration, if requested.

* RTD probe – with dimensions – on request

Characteristics of type DPT3V2-S
- stainless steel case with 100 mm diameter, IP 65 - input – Pt100 (DIN IEC 751, $\alpha=1.385$), 3-wire connection - range -50°C to 200°C (or other on request) - 4-digits LCD display, 12mm height, 4 sec update rate - additive correction up to ± 5 °C or ± 9 °F, resolution 0.1 - ambient temperature – from -10°C up to 50°C - accuracy – 0.25 % F.S. - sensor cable length: up to 200 m - power supply – 3V (2 x 1.5V, alkaline batteries, 1,5Ah). - working time – appr. 3 years. Low battery indication.

Configuration Instructions

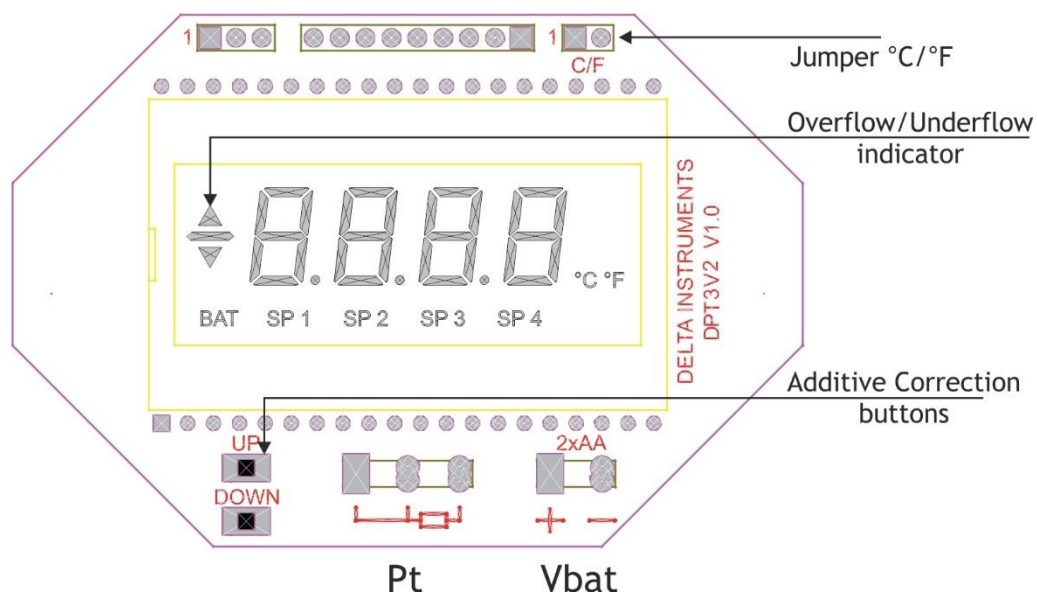
DPT3V2-S supports additive correction (aka zero adjustment) up to ± 5 °C or ± 9 °F with resolution of 0.1. To adjust the measured temperature value, you can use the two buttons UP and DOWN shown on the diagram below. Pressing any of them initially enters the additive correction mode (indicated by symbols SP3) and displays the currently saved correction value. Any subsequent press of UP will increment and DOWN will decrement the correction. If you hold any button pressed, the correction will change more rapidly. If you don't press any button for 3 seconds, the new correction value will be saved and the device will enter standard measurement mode.

In standard measurement mode the symbols SP4 are blinking every few seconds as a heartbeat, indicating that the measured value is being updated.

In the case of low battery, the symbols BAT will be displayed.

To switch between °C and °F you can use the jumper C/F shown on the diagram below. Please note that switching the jumper will reset the saved additive correction.

Connection diagrams



DPT3V2-S Calibration Procedure -50 to +200°C

Please note that calibrating the device will reset the saved additive correction.

1. Connect a precise resistor decade using three-wire connection to the Pt100 input terminals.
2. Put the resistance to 90.00Ω.
3. Make a short circuit as it is shown on the Figure 1 and wait until the symbols SP1 appear on the display.

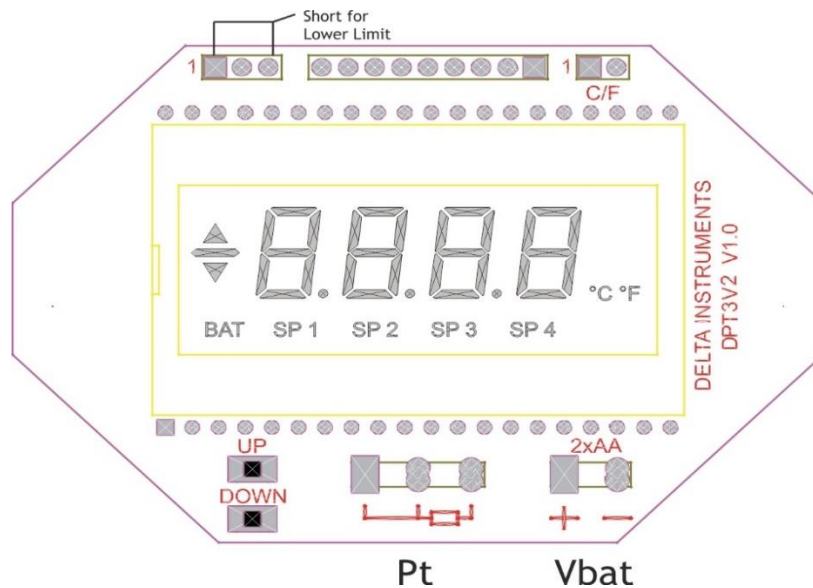


Figure 1

4. Put the resistance to 170.00Ω.
5. Make a short circuit as it is shown on the Figure 2 and wait until the symbols SP2 appear on the display.

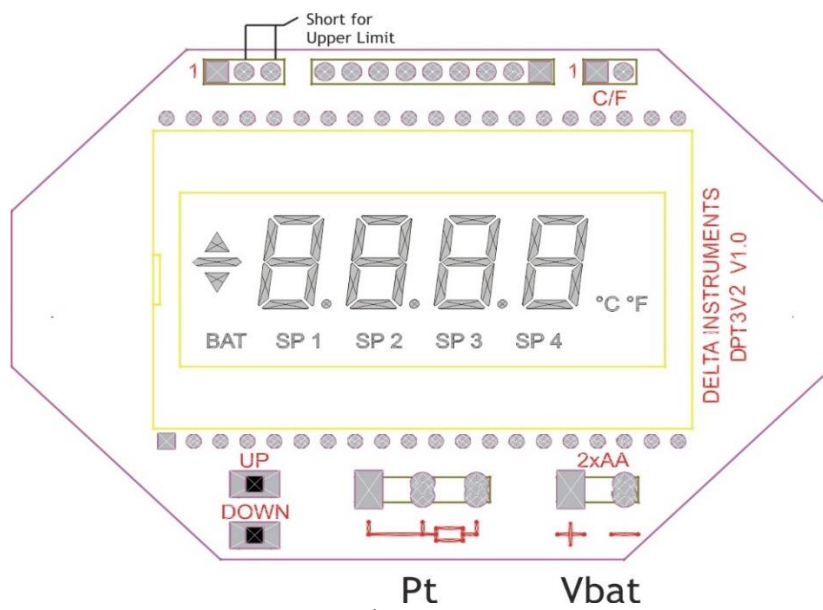


Figure 2