

Temperature Dry Well Calibrator Model CTD9100-ZERO

WIKA Data Sheet CT 41.30

Applications

- Simple calibration of thermometers at 0 °C
- Realising the reference junction for thermocouples
- Application in test stands and calibration laboratories

Special Features

- Cost-effective
- Compact design
- Simple operation



Temperature Dry Well Calibrator Model CTD9100-ZERO

Description

Specific Application

Fast and simple testing of thermometers is a “must”, especially when it concerns the reliability of operation of plant and machinery. Regular examination of temperature sensors helps to reduce both failures and production downtime. This block calibrator not only calibrates, but it also controls temperature. It can simply and easily generate a stable reference temperature, thus simplifying the calibration of thermocouples. The complexity of water fixed-point cells and the danger of freezing and damage in transport are avoided. In comparison to the competition, the ‘freezing-point calibrator’ can not only realise the absolute zero point, but it can also, through active cooling, realise more test temperatures.

Notes

This equipment concept combines a stable temperature source with precise Pt100 temperature measurement, which enables industrial temperature sensors to be calibrated even more efficiently.

Due to its construction and its control, an even temperature distribution is achieved within the block. For this reason, the temperature can be accepted as homogeneous and not as a distribution on one of the seven test bores. This homogeneous temperature distribution reduces the influences of measuring uncertainty.

Handling

The CTD 9100-ZERO represents the current state of the art; with respect to measuring accuracy, functionality and the safe operation of the equipment. The operating position is defined as vertical, as the optimal temperature distribution is obtained with this orientation.

The set temperature of the heating block is shown on a large 4-digit, high-contrast LED display. For comfortable reading off of The temperature display is not only large, but also inclined at an angle of 35°, making it easy to read.

Specifications

CTD9100-ZERO

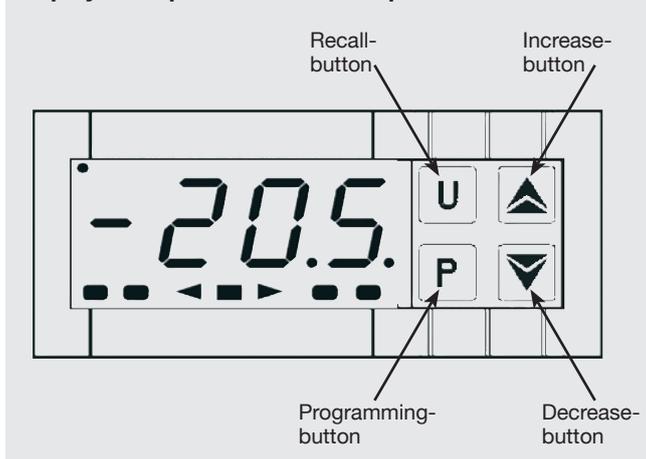
Temperature range	°C	-10 ... 0 ... +100
Accuracy	K	0.05 at 0 °C otherwise 0.1
Stability	K	< 0.05
Display resolution	°C	0.1
Gradients, axial ¹⁾	K	< 0.05
Heating-up time	min	15 from -10 °C to +100 °C
Cool-down time	min	5 from 23 °C to 0 °C 10 from 100 °C to 0 °C
Immersion depth	mm	150
Test bores		7 bores with Ø 6.5 mm
Block material		Aluminium
Interface		RS-485
Power supply ²⁾		AC 100 ... 240 V, 50/60 Hz
Power supply cable		for Europe, 230 V
Dimensions W x D x H	mm	160 x 320 x 230
Weight	kg	7

1) In this case gradient is understood to mean the temperature variation in the test well over the first 40 mm from the insert tip.

2) 115 V AC power supply must be specified on the order, otherwise a 230 V AC one will be delivered.

Control panel

Display and operation of the temperature calibrator



CTD9100 Display and control panel

- Up to four frequently used set points can be stored in the instrument memory.
- The U-key is used to retrieve stored set temperatures.
- The arrow keys are used to change the set temperature.
- The P-key is used to confirm the changes.

Scope of supply

- Temperature dry well calibrator
- Mains cable 1.5 m with mains plug
- Operating instructions in German and English
- 3.1 Calibration report per DIN EN 10 204

Options

- Display in Fahrenheit
- DKD calibration certificate
- DKD calibration certificate only at the Zero point

Accessories

- Interface cable with integrated RS-485 to USB 2.0 converter
- Transport case
- Mains cable for Switzerland
- Mains cable for USA/Canada

