



# SwemaTemp 21

## Instructions

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### Read this before you start using the instrument!

It's very important that you select Pt-100 mode if you have a Pt-100 sensor and Ni-100 mode if you have Ni-100 sensor, otherwise you will get inaccurate meter readings. See page 2 how to choose between Pt-100 and Ni-100.

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### Contents:

1. Introduction.....	1
2. Technical data.....	1
3. Start of instrument.....	1
4. Settings.....	2
5. Temperature sensors.....	3

# 1. Introduction

SwemaTemp 21 measures temperature with both Pt100 eller Ni100 sensors. SwemaTemp 21 is delivered with two easily replaceable AA batteries. Standard, alkaline or regular batteries can be used.

## 2. Technical data

Measuring range: -200...850°C;  
IEC 60751 for Pt100 and DIN 43760 for Ni100.  
One decimal resolution

Uncertainty (only SwemaTemp 21):

At 0...50°C:  $\pm 0,15\%$  read value, min  $\pm 0,3^\circ\text{C}$

At -200...850°C:  $\pm 0,2\%$  read value, min  $\pm 0,4^\circ\text{C}$

See probes technical data for uncertainty of SwemaTemp 21 including probe.

The user should correct the measured values with the correction on the probe calibration protocol to obtain stated uncertainty of measurement.

95% coverage probability in non condensing, non moist air, <80%RH, non aggressive gases.

Battery: 2 x 1,5V IEC LR6, AA

Size: 180x36x82mm

Weight: 380g

## 3. Start of instrument

- When starting the instrument (ON/OFF-button), the SwemaTemp 21 goes to measuring mode after six seconds.
- If the voltage should drop below 2.4 V, the symbol for low battery is shown. If the voltage should drop below 1.6 V, the instrument can't be turned on.
- Always turn off the instrument before removing the probe.
- Press the **HOLD** button to freeze the value. A star will appear on the screen.
- Press the **LAMP** button to light up the screen.

## 4. Settings

- **Switch between °C & °F**

Hold down the HOLD button for a long time when you are in measuring mode to switch between °C and °F

- **Switch between Pt-100 & Ni-100**

SwemaTemp 21 must know if a **Pt-100** or a **Ni-100** sensor is connected. Switch between Pt-100 and Ni-100 by pressing the button marked "Pt/Ni". The display will show **Pt** if SwemaTemp 21 is set up for Pt-100 sensor or **ni** for Ni-100 sensor.

- **Settings via a computer**

SwemaTemp 21 can be connected via USB-cabel to your computer. Use the program SwemaTerminal and you can access the calibration certificate of your product and you get access to different settings that can be changed. Connect with an USB-cabel, start the program and press enter. You can also use the SwemaTemp 21 as a logger together with the program SwemaTerminal.

## 5. Temperature sensors

For uncertainty of SwemaTemp 20 + sensors see [www.swema.com](http://www.swema.com)

**Part no.**

765250	T14 - Air temperature (Pt-100)	-50... 60°C
765260	T50 - Liquid Ø 6 mm, 2 m cable (Pt-100)	-50... 70°C
765270	T51 - Oven/tap water Ø 4 x 100mm (Pt-100)	-50... 250°C
765280	T52 - Black globe, Ø150 mm (Pt-100)	-20... 50°C
765300	T54 - Penetration, Ø3x300mm (Pt-100)	-50... 450°C
765310	T55 - Penetration, Ø3x150mm (Pt-100)	-50... 350°C
765500	T56 - Surface (Pt-100)	-40... 300°C
760660	SWT 316 - Surface on paper cylinders (Ni-100)	0... 200°C

