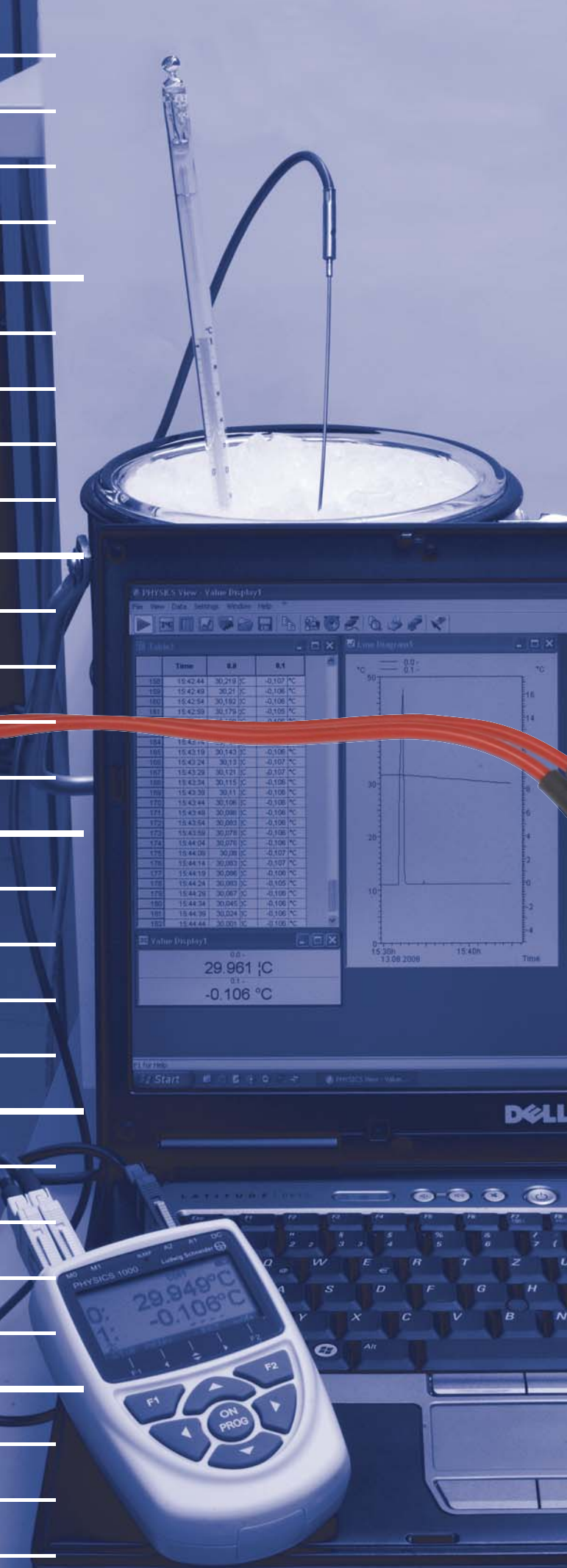


PHYSICS 1000 Measuring Device

**High-precision measuring instrument
for Pt100 temperature sensors**

- 2 measuring inputs for Pt100 probes
- Measuring range: -200 °C up to +400 °C
- Resolution: 0.001 K
- RAM memory: 99 values
- Interfaces: USB, V24, Ethernet, Bluetooth
- Compact design
- Clearly arranged multi-lingual menu

Resolution: 0.001 K



Ludwig Schneider 

*High-precision measuring instruments for
temperature and density*

High-precision digital measuring device

PHYSICS 1000

With its high resolution of 0.001 K this high-precision digital measuring device provides dependable and reproducible results of mobile temperature measurements in quality assurance, process monitoring and production control in the chemical, pharmaceutical and food industries as well as for research and development.

Technical features

- Compact shape and ergonomic design
- 2 galvanically isolated input channels for Pt100 probes
- Resolution 0.001 K or optional 0.01 K
- Dimensions: °C, °F, K
- High-resolution AD converter (24 bit, 2.5 Mbit/s)
- Graphic display with white illumination
- Interfaces: USB, V24, Ethernet, Bluetooth
- Degree of protection: IP54
- Simple handling via 4 softkeys and cursor block
- Measuring menu: 2 values and difference indication
- Max. 4 measuring channels
- Measuring functions: zero setting, attenuation
- Multi-point adjusting for highest accuracy in connector
- Functions: max./min. values, RAM memory for 99 values
- Sensor programming: dimension, resolution, attenuation, comment
- Device configuration: device designation, contrast, illumination duration, baud rate
- Language selection: German, English, French
- DKD calibration certificate available



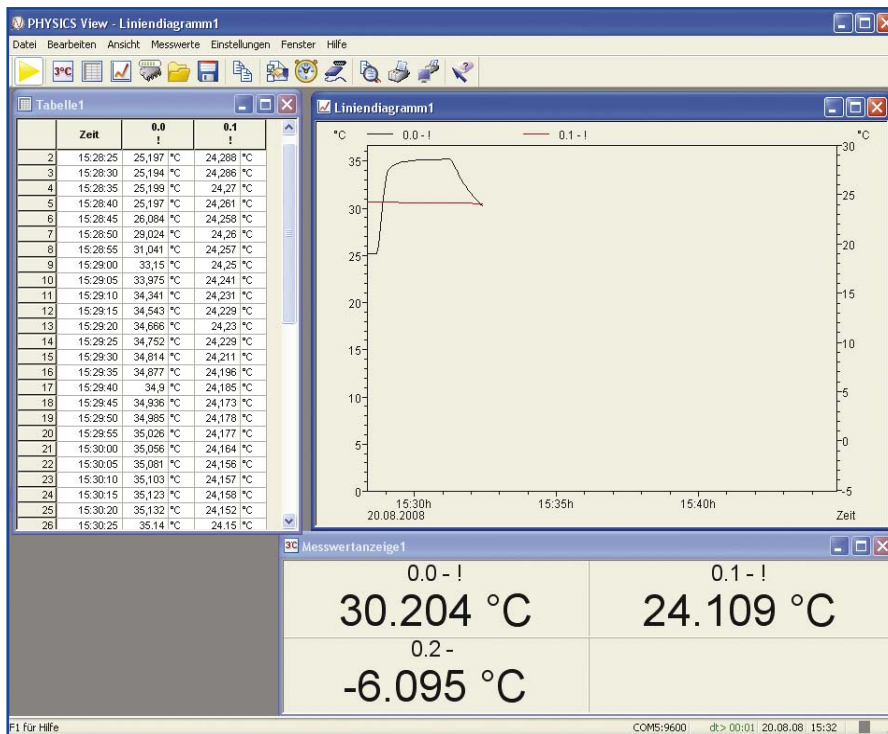
Technical data PHYSICS 1000

| | |
|------------------------|---|
| Measuring inputs: | 2 input channels for Pt100 temperature probes |
| Galvanic isolation: | Semiconductor relays (50 V) |
| Measuring range: | -200 °C up to +400 °C |
| Resolution: | 0.001 K / 0.01 K |
| Self calibration: | Zero point, measuring current |
| Accuracy: | 0.01 % of value ±3 digits |
| Temperature drift: | 0.003 %/°C |
| Output: | 1 plug for USB, V24, Ethernet, Bluetooth |
| Display graphic: | 128 x 64 pixel, 8 lines |
| Display illumination: | 2 LEDs, white |
| Keyboard: | 7 silicone keys (4 soft keys) |
| Internal RAM memory: | 99 values |
| Output socket: | Memory plug for 25,000 values |
| Batteries: | 3 Mignon Alkaline |
| Current consumption: | 20 mA, with illumination 40 mA |
| Mains adapter: | 230 V (AC) to 12 V (DC), 200 mA |
| Casing: | ABS (max. 70 °C), light grey |
| Dimensions and weight: | L 127 x W 83 x H 42 mm, 290 g |
| Ref.-No.: | 57089 with DKD calibration certificate 57089/40 |

Available accessories

| | Ref.-No. |
|---|---|
| Temperature sensor Pt100: 250 mm, cable: 2 m | 57527 with DKD calibration certificate 57527/40 |
| Mains adapter 12 V, 200 mA | 57090 |
| USB cable (galvanically isolated, max. 230.4 kB) | 57091 |
| V24 cable (galvanically isolated, max. 115.2 kB) | 55855 |
| Ethernet cable (galvanically isolated, max. 115.2 kB) | 57512 |
| Bluetooth adapter plug, class 2 | 58321 |
| Memory plug for 25,000 values | 57733 |
| Software PHYSICS view | 58306 |

Suitable Software PHYSICS View



Saving measured values

Measured values can be saved in the form of line charts or tables.

Printing out

PHYSICS View can also be used directly to print out diagrams, tables, or a list of all measuring points with their associated correction values, e.g. for the purposes of technical documentation. The results can be viewed before print out. The program is compatible with all printer types that can be used with MS-Windows.

Documentation

To compile protocols using some other software the line charts, tables, and lists in PHYSICS View can be copied via the MS-Windows clip-board to other application programs.

PHYSICS View is a software package that can be used to evaluate and display measured data on PHYSICS devices (with 2 measuring inputs).

PHYSICS View runs under MS-Windows and can be used to drive a PHYSICS device with up to four measuring points. As soon as the connection between the computer and the measuring instrument has been established the program detects and lists these measuring points automatically. The measured values are then read at a sampling rate selected by the user.

Data logger

The measured values memory on a PHYSICS data logger (maximum four measuring points) can be read out, displayed as a line chart or table, and saved to a file. The parameters needed to operate the measuring instrument can be set via a dialog and programmed with PHYSICS View.

Display of measured values

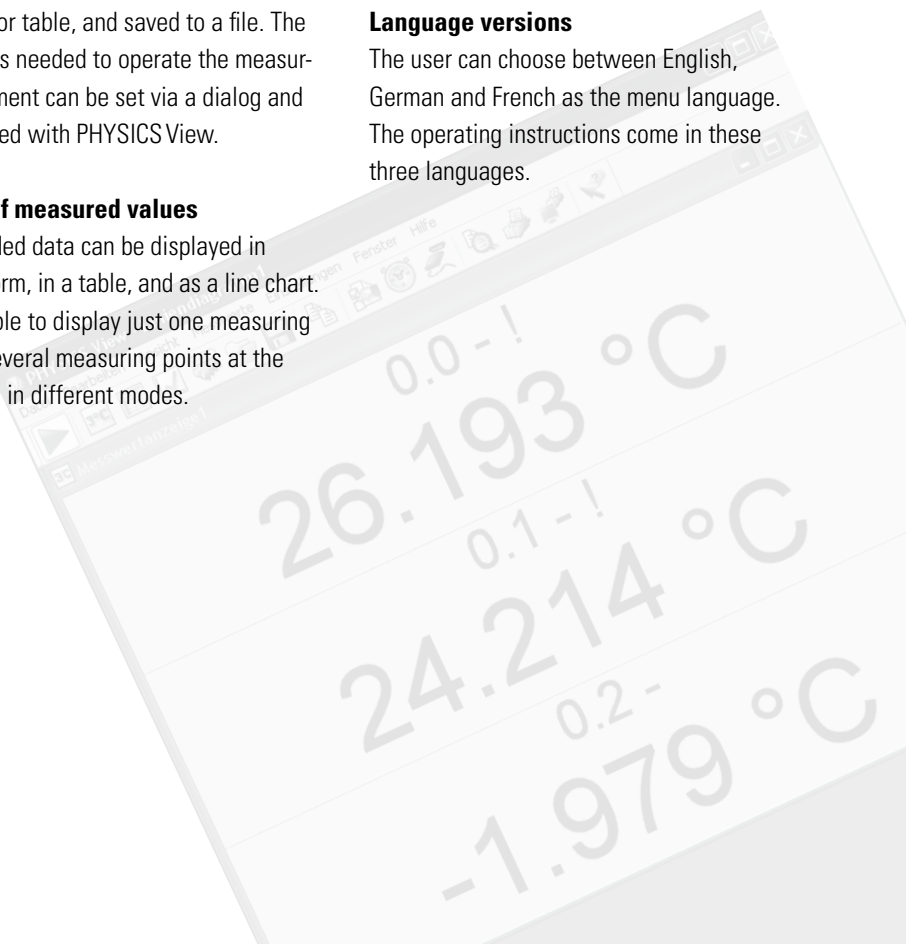
The recorded data can be displayed in numeric form, in a table, and as a line chart. It is possible to display just one measuring point or several measuring points at the same time in different modes.

System requirements

PHYSICS View runs under MS-Windows 98/2000/NT/XP and VISTA.

Language versions

The user can choose between English, German and French as the menu language. The operating instructions come in these three languages.



The PHYSICS 1000 set for precise temperature measurements

Ludwig Schneider offers the high-precision measuring device also in a functional set.

This set consists of a robust case (with space for further accessories of the PHYSICS series), the measuring device PHYSICS 1000, a Pt100 temperature sensor, an USB cable, three batteries, a mains adapter and the software PHYSICS View.

The set includes a detailed operating manual and also a DKD calibration certificate (2 measuring points).

Therewith the set is ready-to-use for your high-precision measurements in quality assurance, process monitoring and production control.



With the DKD calibration certificate and suitable software, the Physics 1000 set is ready-to-use for professional measurements in industry and R&D laboratories.

Contents of the PHYSICS 1000 set

| |
|--|
| Digital measuring device PHYSICS 1000 |
| Temperature sensor Pt100: 250 mm, cable: 2 m |
| USB cable (galvanically isolated, max. 230,4 kB) |
| Mains adapter 12 V, 200 mA |
| 3 batteries (mignon alkaline) |
| Operating instructions |
| Software PHYSICS View |
| DKD calibration certificate |

Ref.-No.: 58330/04

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