Reference Measuring Instruments

ALMEMO® 1030-2

Reference measuring instrument for temperature.
High-precision measuring with Pt100 sensors
Resolution 0.001 K

Temperature measurement with very high resolution, precision, and linearity, using Pt100 sensors

Suitable as reference device in calibration laboratories and quality assurance procedures

Very high accuracy thanks to multi-point adjustment of the Pt100 temperature sensor

2 electrically isolated measuring inputs for Pt100 sensors

Resolution: 0.001 K

Units: °C, °F, K

High-resolution A/D converter, delta-sigma, 24-bit, 1.25 mops (measuring operations per second)

Two output sockets for digital interface, ALMEMO® memory connector

Compact, modern, ergonomic design

Graphics display, illuminated with white light

Easy and convenient to operate by means of 4 soft-keys and cursor block

Measured value display: 2 measured values and differential

Measuring functions: Zero-setting, smoothing, maximum / minimum values, individual value memory for 100 values

Data logger with ALMEMO® memory connector (accessory)

Sensor programming: Smoothing, designation, units, resolution

Device configuration: Illumination, contrast, device address, baud rate

Choice of language: German, English, French

Technical data ALMEMO® 1030-2

**Measuring inputs**

- 2 ALMEMO® input sockets for Pt100 sensors
- Electrical isolation: Semiconductor relay (50 V)
- A/D converter: Delta-sigma, 24-bit, 1.25 mops
- Measuring range: Pt100, -200 to +400 °C
- Resolution: 0.001 K or 0.01 K
- Measuring current: 1 mA
- Accuracy: ±0.010 K ±1 digit
- Nominal conditions: 23 °C ±2 K, 1013 mbar, battery mode
- Temperature drift: typical 2 ppm / K

**Outputs**

- 2 ALMEMO® sockets for interface cable and ALMEMO® memory connector

**Standard equipment**

- Display: Graphics display, 128 x 64 pixels, 8 rows
- Illumination: 2 white LEDs
- Keypad: 7 silicone keys (of which 4 soft-keys)
- Date and time-of-day: Real-time clock, buffered by device battery
- Individual value memory, internal: 100 measured values

**Power supply**

- Battery set: 3 AA alkaline batteries
- Mains adapter: ZA1312NA10 to 12 VDC, 2 A, electrically isolated
- Current consumption (without input and output modules): approx. 20 mA
- With illumination: approx. 40 mA
- Housing: 127 x 83 x 42 mm (LxWxH)
- ABS, 290 g

**Pt100 temperature sensor** FPA923L0250

- Measuring element: Pt100 as per DIN EN 60751
- Class: 1/10 B (DIN EN 60751) at 0 °C
- Measuring tip: Operative range -50 to +400 °C
- Response time $T_w$: 5 seconds
- Nominal length: 250 mm
- Shaft: Stainless steel, diameter 3 mm
- Connecting cable: 2 meters, FEP / silicone
- ALMEMO® plug: Resolution 0.001 K

**Accessories**

- Ethernet data cable
- ALMEMO® memory connector with micro SD
- Rubberized impact protection, gray
- DIN rail mounting
- Aluminum profile case for 1 sensor (up to 500 mm in length)

**Order no.**

- ZA1945DK
- ZA1904SD
- ZB2490GS2
- ZB2490HS
- ZB9000TK1
Reference Measuring Instruments

Set with precision resistance temperature detector Pt100

Technical data FPA923L0250

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<td>ALMEMO® plug</td>
<td>Resolution 0.001 K</td>
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</table>

Options

**new:** Added functions for ALMEMO 1030 and 1036:
1. Extension of the measurement range with resolution 0.001 K (P314): -200...560 °C.
2. New measurement range with resolution 0.01 K (P214): -200...850 °C.
3. The 4 sensor specific parameters $R_0$ and $A$, $B$, $C$ of the Callendar–Van Dusen equation can be programmed for Pt 100 sensors by the user.

Order no.

OA1030FE

Standard delivery

Reference measuring instrument for temperature measurement with accessories, evaluation software, and Pt100 temperature sensor. Complete set including DAkkS calibration certificate:

Reference measuring instrument ALMEMO® 1030-2 including 3 AA alkaline batteries, Desktop mains unit ZA1312NA10, USB data cable ZA1919DKU, Instrument case, evaluation software ALMEMO® View SW5500AV (see page 06.06) and Pt100 temperature sensor FPA923L0250 with DAkkS calibration certificate (2 temperature points at 0 and 100 °C, including adjustment)

Order no.

SP10302D