

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	Power supply	Battery set 3 AA alkaline batteries
Electrical isolation	Semiconductor relay (50 V)	Mains adapter	ZA1312NA10 100 to 230 VAC to 12 VDC, 2 A, electrically isolated
A/D converter	Delta-sigma, 24-bit, 1.25 mops	Current consumption (without input and output modules)	approx. 20 mA
Measuring range	Pt100, -200 to +400 °C	With illumination	approx. 40 mA
Resolution	0.001 K or 0.01 K	Housing	127 x 83 x 42 mm (LxWxH) ABS (maximum 70 °C) 290 g
Measuring current	1 mA	Pt100 temperature sensor FPA923L0250	
Accuracy	±0.010 K ±1 digit in range -50 to +400 °C	Measuring element	Pt100 as per DIN EN 60751
Nominal conditions	23 °C ±2 K, 1013 mbar, battery mode	Class	1/10 B (DIN EN 60751) at 0 °C
Temperature drift	typical 2 ppm / K	Measuring tip	Operative range -50 to +400 °C
Outputs	2 ALMEMO® sockets for interface cable and ALMEMO® memory connector	Response time T ₉₀	5 seconds
Standard equipment		Nominal length	250 mm
Display	Graphics display, 128 x 64 pixels, 8 rows	Shaft	Stainless steel, diameter 3 mm
Illumination	2 white LEDs	Connecting cable	2 meters, FEP / silicone
Keypad	7 silicone keys (of which 4 soft-keys)	ALMEMO® plug	Resolution 0.001 K
Date and time-of-day	Real-time clock, buffered by device battery	Other sensor designs are available on request.	
Individual value memory, internal	100 measured values		

Accessories

	Order no.
Ethernet data cable	ZA1945DK
ALMEMO® memory connector with micro SD	ZA1904SD
Rubberized impact protection, gray	ZB2490GS2
DIN rail mounting	ZB2490HS
Aluminum profile case for 1 sensor (up to 500 mm in length)	ZB9000TK1

Set with precision resistance temperature detector Pt100



Pt100-temperature sensor FPA923L0250

Technical data FPA923L0250

Measuring element	Pt100 wire-wound	Nominal length	250 mm
Class	1/10 B (DIN EN 60751) at 0 °C	Shaft	Stainless steel, diameter 3 mm
Measuring tip	Operative range -50 to +400 °C	Connecting cable	2 meters, FEP / silicone
Response time T_{90}	5 seconds	ALMEMO® plug	Resolution 0.001 K

10/2016 • We reserve the right to make technical changes.

Options	Order no.
<p>new: Added functions for ALMEMO 1030 and 1036:</p> <ol style="list-style-type: none"> 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 R0 and A, B, C of the Callendar–Van Dusen equation can be programmed for Pt 100 sensors by the user. 	OA1030FE

Standard delivery	Order no.
<p>Reference measuring instrument for temperature measurement with accessories, evaluation software, and Pt100 temperature sensor. Complete set including DAkkS calibration certificate:</p> <p>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)</p>	SP10302D