

# PRODUCT CATALOG

Measuring instruments and sensors

2025



#### Reference measuring instrument ALMEMO® 1030-2



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

#### **Technical features**

- 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 Measured value display 2 measured values and differential 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 Choice of language: German, English, French 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
- 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,

#### Technical data ALMEMO® 1030-2

Measuring inputs  Electrical isolation A/D converter Measuring range	2 ALMEMO® input sockets for Pt100 sensors Semiconductor relay (50 V) Delta-sigma, 24-bit, 1.25 mops Pt100, -200 to +400 °C	Standard equipment Display Illumination Keypad Date and time-of-day	Graphics display, 128 x 64 pixels, 8 rows 2 white LEDs 7 silicone keys (of which 4 soft-keys) Real-time clock, buffered by device battery
Resolution	0.001 K or 0.01 K	Individual value mem	ory, internal 100 measured values
Measuring current Measuring method Accuracy  Nominal conditions Temperature drift  Outputs	1 mA ratiometric ±0.010 K ±1 digit in range -50 to +400 °C 23 °C ±2 K, < 90 % r.H., battery mode typical 2 ppm / K  2 ALMEMO® sockets for interface cable	Power supply Battery set Mains adapter  Current consumption (w  With illumination	3 AA alkaline batteries ZA1312NA12 100 to 230 VAC to 12 VDC, 1.5 A, electrically isolated ithout input and output modules) approx. 20 mA approx. 40 mA
Outputs	and ALMEMO® memory connector	Housing	127 x 83 x 42 mm (LxWxH)
			ABS, 290 g
		Ambient conditions see	general technical specifications

Accessories	Order no.
Ethernet data cable ALMEMO® memory connector with micro SD Rubberized impact protection, gray DIN rail mounting	ZA1945DK ZA1904SD ZB2490GS2 ZB2490HS D
Aluminum profile case for 1 sensor (up to 500 mm in length	ZD90001K1

#### Set with precision resistance temperature detector Pt100



Pt100-temperature sensor FPA923L0250

#### Technical data FPA923L0250

Measuring element Class	Pt100 wire-wound 1/10 B (DIN EN 60751) at 0 °C	Nominal length Sensor tube	250 mm Stainless steel, diameter 3 mm
Measuring tip	Operative range -50 to +400 °C	Connecting cable	2 meters, FEP / silicone
Response time T <sub>90</sub>	5 seconds	ALMEMO® plug	ZA9030FS7P3, resolution 0.001 K

Options Order no.

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 R0 and A, B, C of the Callendar–Van Dusen equation can be programmed for Pt100 sensors by the user.

**OA1030FE** 

#### Standard delivery

Order no.

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 ZA1312NA12, USB data cable ZA1919DKU, Instrument case, evaluation software ALMEMO® View SW5500AV (see chapter software) and Pt100 temperature sensor FPA923L0250 with DAkkS calibration certificate (2 temperature points at 0 and 100 °C, including adjustment)

SP10302D

#### **Accessories**

## Precision resistance temperature sensor Pt100 FPA924L0500H for the operating range -100 ... +660 $^{\circ}$ C



To achieve high precision, it is absolutely necessary to calibrate the electrode incl. multi-point adjustment! Please order additionally!

*On request:* Precision resistance temperature sensor Pt100 for the application range -200 ... +250 °C

#### Technical data FPA924L0500H

Measuring element:	Pt100 resistor, according to ITS90
Measuring tip:	Application range -100 +660 °C
Sensor tube:	stainless steel, diameter 4 mm
Nominal length:	465 mm (visible)

Handle:	up to 60 °C
Connection cable:	2 m cable
	in PTFE/fiberglass protection hose.
ALMEMO® connector:	ZA9030FS7P3, resolution 0.001 K

#### Standard delivery

Order no.

Precision resistance temperature probe for the application range -100 ... +660 °C Measuring element Pt100, class B, probe diameter 4 mm, length 465 mm, with handle, 2 m cable and ALMEMO® connector for ALMEMO® 1030, 1033, 1036, 8036, storage case

FPA924L0500H



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