ALMEMO® Measuring Instruments

ALMEMO® 2890-9

ALMEMO® precision measuring instrument with data logger function. Comprehensive range of functions for all application areas. Increased measuring accuracy, fast measuring rate. Generously dimensioned graphics display, bright illumination. 9 measuring inputs
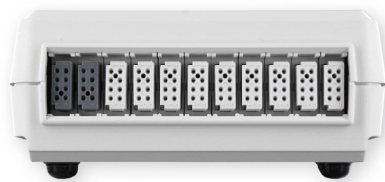**Runs on rechargeable batteries, charging via the device itself**

Technical data and functions

- Increased measuring accuracy and stability
- Fast measuring rate, up to 50 measuring operations per second With SD memory card, up to 100 mops, optional for 1 channel up to 400 mops
- 9 measuring inputs, electrically isolated
- Over 65 standard measuring ranges
- Support for ALMEMO® plugs with multi-point adjustment, special linearization, and special measuring ranges
- Option KL for independent multi-point adjustment or special linearization programmable in 30 points and management of calibration data saved in the sensor connector and the measuring instrument
- Higher measuring quality thanks to electrical isolation between measuring inputs and device power supply (device ground)
- Improved cold junction compensation with 2 sensors
- Data logger with internal EEPROM, sufficient for 100,000 measured values, configurable as linear or ring memory
- Memory connector with micro SD (accessory)

- Sleep mode for long-term recording
- Generously dimensioned graphics display, bright illumination, large display of measured values
- Measured values can be displayed graphically in line chart or bar chart form or numerically in various sizes.
- 3 user-defined menus can be freely configured from a range of 50 functions.
- Easy to operate by means of 4 soft-keys and cursor block, menu-guided with wizards and context-sensitive help windows
- Additional thumb-wheel for extra cursor speed
- Choice of languages : German, English, French (other options also available)
- 2 ALMEMO® output sockets, suitable for digital interfaces, analog output, trigger input, alarm contacts, memory card
- Runs on rechargeable batteries (as standard), high-speed charging in the device itself using mains unit, included in delivery

Technical data

Precision class	AA (see page 01.05)	Keypad	9 membrane keys (4 soft-keys), thumb-wheel
Measuring rate	2.5 / 10 / 50 / 100 mops (measuring operations per second)	Memory, EEPROM	sufficient for 100,000 measured values
Measuring inputs	9 ALMEMO® input sockets	Date and time-of-day	Real-time clock, buffered with battery
Electrical isolation for analog sensors	with semiconductor relays (50 V) Additional electrical isolation between measuring inputs and power supply (device ground)	Power supply	
		Rechargeable battery pack	6 rechargeable NiMH batteries, 1600 mA Integrated high-speed charging (2.5 h)
Additional channels	4 function channels, device-internal	Mains adapter	ZB1112NA7 230 VAC to 12 VDC, 1 A electrically isolated
Sensor power supply		DC adapter cable	electrically isolated ZB2590-UK 10 to 30 V, 1 A
Rechargeable battery/ies	9 or 12 V, maximum 0.5 A		
Mains adapter	12 V, maximum 0.3 A	Current consumption (without input and output modules)	
Outputs	2 ALMEMO® sockets, suitable for all output modules (analog / data / trigger / relay cables, memory, etc.)	Active mode	approx. 37 mA
		With illumination	approx. 45 to 100 mA
		Sleep mode	approx. 0.05 mA
Standard equipment Display		Housing	204 x 109 x 44 mm (LxWxH) ABS (maximum 70 °C), 550g
Graphics display	128 x 128 pixels, 16 rows		
Illumination	5 white LEDs, 3 brightness levels		

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Precision measuring instrument, 9 measuring inputs
Data logger with internal memory or external memory connector (accessory)

Accessories	Order no.
Memory connector with micro SD, including USB card reader (see chapter „General accessories")	**ZA1904SD**
DC adapter cable, 10 to 30 VDC, 12 V / 1 A, electrically isolated	**ZB2590UK**
Generously dimensioned carry case, aluminum profile frame / ABS	**ZB2590TK2**

Connecting cables	Order no.
V24 data cable, electrically isolated	**ZA1909DK5**
Ethernet data cable, electrically isolated	**ZA1945DK**
Analog output cable, -1.25 to +2.0 V, 0.1 mV / digit	**ZA1601RK**
Trigger and alarm cable (2 relays, 0.5 A, 50 V)	**ZA1006EKG**
Network technology, Bluetooth modules (see chapter „Networking")	

Options	Order no.
Multi-point adjustment, special linearization, management of calibration data	**OA2690KL**
Temperature ranges for 8 refrigerants	**SB0000R2**
Measuring rate 400 mops (SD card required)	**SA0000Q4**

Standard delivery	Order no.
Rechargeable battery pack, desktop mains unit ZB1112NA7, USB data cable ZA1919DKU, case ZB2490TK2, Operating instructions, manufacturer's test certificate	
Precision measuring instrument ALMEMO® 2890-9	**MA28909**

DAkkS or works calibration KE90xx, electrical, for measuring instrument (see chapter „Calibration certificates").
DAkkS calibration meets all the requirements regarding test resources laid down in DIN EN ISO/IEC 17025.