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
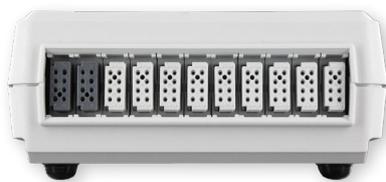**Runs on rechargeable batteries, charging via the device itself**

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 500 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
- Choice of languages: German, English, French
- 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 16)	Keypad	9 membrane keys (4 soft-keys)
Measuring rate	(100), 50, 10 and 2.5 mops (measuring operations per second)	Memory, EEPROM	sufficient for 100,000 measured values
		Date and time-of-day	Real-time clock, buffered with battery
Measuring inputs	9 ALMEMO® input sockets	Power supply	
Electrical isolation for analog sensors	with semiconductor relays (50 V) Additional electrical isolation between measuring inputs and power supply (device ground)	Rechargeable battery pack	6 rechargeable NiMH batteries, 1600 mA Integrated high-speed charging (2.5 h)
		Mains adapter	ZB1112NA12 100 to 230 VAC to 12 VDC, 1.5 A electrically isolated
Additional channels	4 function channels, device-internal	DC adapter cable	electrically isolated ZB2590-UK 10 to 30 V, 1 A
Sensor power supply Rechargeable battery/ies Mains adapter	9 or 12 V, maximum 0.5 A 12 V, maximum 0.3 A	Current consumption (without input and output modules) Active mode With illumination Sleep mode	approx. 37 mA approx. 45 to 100 mA approx. 0.05 mA
Outputs	2 ALMEMO® sockets, suitable for all output modules (analog / data / trigger / relay cables, memory, etc.)	Housing	204 x 109 x 44 mm (LxWxH) ABS, 550 g
Standard equipment Display Graphics display Illumination	128 x 128 pixels, 16 rows 5 white LEDs, 3 brightness levels	Environmental conditions and general technical data see page 16 onwards	

ALMEMO® 2890-9

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, electrically isolated, 1 x 20 mA	**ZA1601RI**
Analog output cable, electrically isolated, 2 x 10 V	**ZA1602RU**
Trigger and alarm cable (2 relays, 0.5 A, 50 V)	**ZA1006EKG**
Network technology, wireless modules (see chapter „Networking")	

Options	Order no.
Multi-point adjustment, special linearization, management of calibration data	**OA2890KL**
Temperature ranges for 8 refrigerants	**SB0000R2**
Measuring rate 500 mops (SD card required)	**SA0000Q5**

Standard delivery	Order no.
Rechargeable battery pack, mains unit ZB1112NA12, 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.