Data logger ALMEMO® 2590-2A





ALMEMO® data logger
Professional measuring instrument,
Comprehensive range of functions for all application areas,
Graphics display for showing measured values and programming,
2 measuring inputs

Technical data and functions ALMEMO® 2590-2A

- Good measuring accuracy, measuring rate up to 10 measuring operations per second (mops)
- Over 65 standard measuring ranges
- Support for ALMEMO® plugs with multi-point adjustment, special linearization, and special measuring ranges
- Graphics display with white illumination, easy and convenient operation by means of 4 soft-keys and cursor block
- Clear and easy-to-understand menu system 3 measuring menus (1 menu can be freely configured by user from a range of 50 functions), measured values displayed numerically, 1 to 12 measured values can be displayed in two sizes or graphically in bar chart form.
- Intelligent sensor readings with sensor-specific functions cold junction compensation, temperature compensation, and atmospheric pressure compensation
- Measuring functions: Measured value, zero-setting, setpoint adjustment
- Function menus: Maximum value, minimum value, memory sufficient for 99 measured values, average value over time / individual values / measuring points, smoothing, volume flow with center point measuring, two-point adjustment, scaling, data logger with configuration menus
- Option VN Volume flow determined from matrix measuring as per DIN EN 12599
- Programming menus for clear and easy-to-understand sensor programming, range, units, designation, right through to special functions, configuration of device parameters and of output modules
- Choice of languages: German, English, French
- 2 ALMEMO® output sockets, suitable for digital interfaces, analog output, trigger input, alarm contacts, memory card
- External memory connector with micro SD can simply be plugged in.
- Sleep mode for long-term recording

Technical data ALMEMO® 2590-2A

Precision class	A (see general technical specifications)
Measuring rate	2.5 / 10 measuring operations per second
Measuring inputs	2 ALMEMO® input sockets el. isolated with semi-conductor relays (50 V)
Additional channels	4 function channels, device-internal
Sensor power supply	9 / 12 V, maximum 0.5 A
Outputs	2 ALMEMO® sockets, suitable for all output modules (analog / data / trigger / relay cables, memory, etc.)
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 battery
Power supply	
Battery set	3 AA alkaline batteries
Mains adapter	ZA1312NA12 100 to 240 VAC to 12 VDC, 1.5 A electrically isolated
DC adapter cable, electrically isolated	ZA2690-UK 10 to 30 V, 0.25 A
Current consumption (without input and output modules)	
Active mode	approx. 12 mA
With illumination	approx. 32 mA
Sleep mode	approx. 0.05 mA
Housing	127 x 83 x 42 mm (LxWxH) ABS, 290 g
Environmental conditions	see general technical data

11/2025 • We reserve the right to make technical changes.

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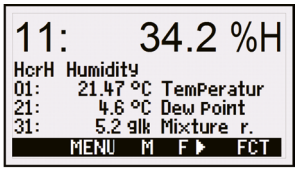
Professional measuring instrument, 2 measuring inputs, Data logger with external memory connector (accessory)

Accessories	Order no.
Memory connector with micro SD	**ZA1904SD**
Mains adapter 12 V / 1.5 A	**ZA1312NA12**
DC adapter cable, 10 to 30 VDC, 12 V / 0.25 A, electrically isolated	**ZA2690UK**
Rubberized impact protection, green	**ZB2490GS1**
Magnetic fastening	**ZB2490MH**
DIN rail mounting	**ZB2490HS**
Instrument case	**ZB2490TK2**
Network technology, wireless modules (see chapter „Networking“)	

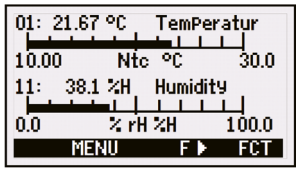
Connecting cables	Order no.
USB data cable, electrically isolated	**ZA1919DKU**
Ethernet data cable, electrically isolated	**ZA1945DK**
Analog output cable, electrically isolated, 1 x 20 mA	**ZA1601RI**
Analog output cable, electrically isolated, 2 x 10 V	**ZA1602RU**
V24 data cable, electrically isolated.	**ZA1909DK5**
Network technology, wireless modules (see chapter „Networking“)	

Option	Order no.
Volume flow determined from matrix measuring as per DIN EN 12599	**OA2590VN**
Temperature ranges for 8 refrigerants	**SB0000R2**

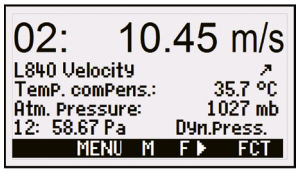
Standard delivery	Order no.
Measuring instrument, batteries, operating instructions, manufacturer’s test certificate	
Professional measuring instrument ALMEMO® 2590-2A	**MA25902A**



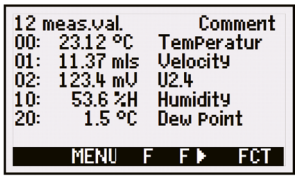
Humidity reading with further humidity variables, e.g. temperature, dew point, mixture ratio



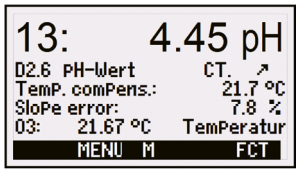
Temperature / humidity display in bar chart form



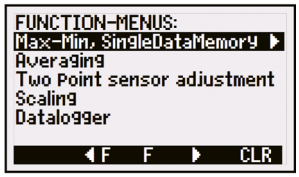
Flow reading, measured value with automatic temperature compensation and atmospheric pressure compensation



Overview of all sensors connected



pH reading, measured value with automatic temperature compensation



Function menus

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