ALMEMO® Measuring Instruments

ALMEMO® 2590A

ALMEMO® professional measuring instrument with data logger function,
Comprehensive range of functions for all application areas,
Graphics display for showing measured values and programming,
2 or 4 measuring inputs

Technical data and functions, ALMEMO® 2590A series

- New variant, further developed
- 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 (other options also available)
- 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® 2590A series

Precision class	A (see page 01.05)
Measuring rate	2.5 / 10 measuring operations per second
Additional channels	4 function channels, device-internal
Sensor power supply	6 / 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	ZA1312NA7 230 VAC to 12 VDC, 1 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. 12mA
With illumination	approx. 32 mA
Sleep mode	approx. 0.05 mA
Housing	127 x 83 x 42 mm (LxWxH) ABS (maximum 70 °C) 290 g

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Serie ALMEMO® 2590A

Accessories	Order no.
Memory connector with micro SD (see page 06.02)	**ZA1904SD**
Mains adapter 12 V / 1 A	**ZA1312NA7**
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, Bluetooth modules (see chapter „Networking")	

Connecting cables	Order no.
USB data cable, electrically isolated	**ZA1919DKU**
Ethernet data cable, electrically isolated	**ZA1945DK**
Analog output cable, -1.25 to +2.0 V, 0.1 mV / digit	**ZA1601RK**
V24 data cable, electrically isolated.	**ZA1909DK5**
Network technology, Bluetooth modules (see chapter „Networking")	

ALMEMO® 2590-2A

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

Technical data and functions

- Technical data and functions as for ALMEMO® 2590A series

Technical data

Technical data as for ALMEMO® 2590A series

Measuring inputs	2 ALMEMO® input sockets, el. isol., with semicond. relays (50V)

Option	Order no.
Volume flow determined from matrix measuring as per DIN EN 12599	**OA2590VN**
Temperature ranges for 8 refrigerants	**SB0000R2**
Measuring instrument IP54 (if water-proof plugs are used)	**OA2590W**

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

ALMEMO® 2590-4AS

Professional measuring instrument, 4 measuring inputs, Data logger with internal memory or external memory connector

Technical data and functions

- Technical data and functions, as for ALMEMO® 2590A series
- Internal EEPROM sufficient for 100 000 measured values, configurable as linear or ring memory

Technical data

Technical data as for Serie ALMEMO® 2590A series

Measuring inputs	4 ALMEMO® input sockets, el. isol., with semicond. relays (50V)
Memory, internal EEPROM	sufficient for 100,000 measured values

Option	Order no.
Volume flow determined from matrix measuring as per DIN EN 12599	**OA2590VN**
Temperature ranges for 8 refrigerants	**SB0000R2**
Measuring instrument IP54 (if water-proof plugs are used))	**OA2590W**

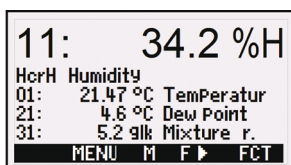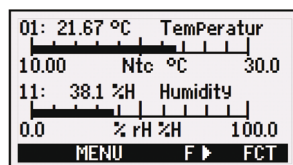| Standard delivery	Order no.
Measuring instrument, batteries, operating instructions, manufacturer's test certificate. **Professional measuring instrument ALMEMO® 2590-4AS**	**MA25904AS**
Measuring instrument, batteries, rubberized impact protection ZB2490GS1, Mains unit ZA1312NA7, USB data cable ZA1919DKU, Case ZB2490TK2, Operating instructions, manufacturer's test certificate **Professional measuring instrument ALMEMO® 2590-4AS Case set**	**MA25904ASKSU**

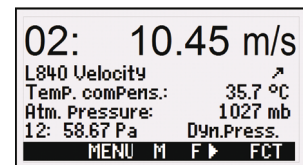DAkkS or works calibration KE90xx, electrical, for measuring instrument (see chapter „Calibration certificates"). DAkkS calibration meets all the requirements regarding test resources laid down in DIN EN ISO/IEC 17025.
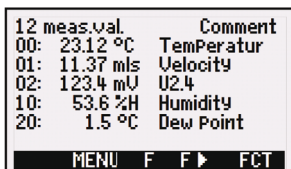
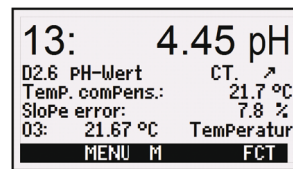Humidity reading with further humidity variables, e.g. temperature, dew point, mixture ratio

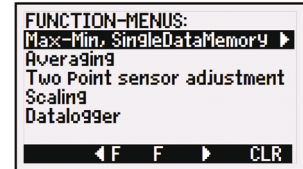Temperature / humidity display in bar chart form

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