

# ALMEMO® Measuring Instruments

## ALMEMO® 2690-8A



**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, 5 measuring inputs. Runs on rechargeable batteries, charging via the device itself**

## Technical data and functions ALMEMO® 2690-8A

- 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
- 5 measuring inputs, electrically isolated
- Integrated atmospheric pressure sensor, for automatic pressure compensation, inter alia for Pitot tube flow measurement and humidity variables
- 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
- Option GT for 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 200,000 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 (standard), high-speed charging in the device itself using the mains unit, included in delivery
- Modern housing with rubberized impact protection and folding stand.

## Technical data

Precision class	AA (see page 01.04)	Keypad	9 tactile silicone keys (4 soft-keys)
Measuring rate	(100), 50, 10 and 2.5 mops	Memory	EEPROM sufficient for 200,000 measured values
Measuring inputs	5 ALMEMO® input sockets	Date and time-of-day	Real-time clock, buffered with battery
Electrical isolation	with semiconductor relays (50 V) for analog sensors	Power supply	
Option GT	Additional electrical isolation between measuring inputs and power supply (device ground)	Rechargeable battery/ies	3 AA batteries NiMH or alkaline integrated, high-speed charging (2.5 hours)
Additional channels	4 function channels, device-internal	Mains adapter	ZA1312NA12 100 to 240 VAC to 12 VDC, 1.5 A electrically isolated
Sensor power supply		DC adapter cable	electrically isolated ZA2690-UK2 10 to 30 V, 1 A
Rechargeable battery/ies	6 / 9 / 12 V, maximum 0.5 A	Current consumption (without input and output modules)	
Mains adapter	12 V, maximum 0.5 A	Active mode	approx. 17 mA
Atmospheric pressure sensor	Integrated	With illumination	approx. 25 to 140 mA
Measuring range	700 to 1100 mbar	Sleep mode	approx. 0.05 mA
Accuracy	±2.5 mbar (at 23 °C ±5 K)	Housing	209 x 107 x 54 mm (LxWxH) ABS, 570 g
Outputs	2 ALMEMO® sockets, suitable for all output modules (analog / data / trigger / relay cables, memory, etc.)	Environmental conditions and general technical data	see page 01.04 onwards
Graphics display	128 x 128 pixels, 16 rows		
Illumination	5 white LEDs, 3 brightness levels		

## ALMEMO® 2690-8A



**Precision measuring instrument, 5 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	ZA2690UK2
Generously dimensioned carry case, aluminum profile frame / ABS	ZB2590TK2

### Connecting cables

	Order no.
Ethernet data cable, electrically isolated	ZA1945DK
Analog output cable, electrically isolated , 1 x 20mA	ZA1601RI
Analog output cable, electrically isolated , 2 x 10V	ZA1602RU
Trigger and alarm cable (2 relays, 0.5 A, 50 V)	ZA1006EKG
Network technology, Bluetooth modules (see chapter „Networking“)	

### Options

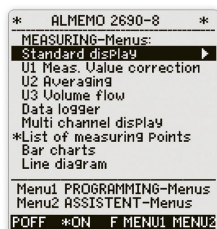
	Order no.
Measuring module electrically isolated	OA2690GT
Multi-point adjustment, special linearization, management of calibration data	OA2690KL
Temperature ranges for 8 refrigerants	SB0000R2
Measuring rate 500 mops (SD card required)	SA0000Q5
DIN rail mounting	OA2290HS

### Standard delivery

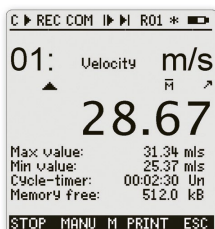
	Order no.
3 rechargeable NiMH batteries, rubberized protection, mains unit ZA1312NA12, USB data cable ZA1919DKU, Case ZB2490TK2, Operating instructions, manufacturer's test certificate	
<b>Precision measuring instrument ALMEMO® 2690-8A in case set</b>	<b>MA26908AKSU</b>
as above but with RS232 data cable ZA1909DK5	
<b>Precision measuring instrument ALMEMO® 2690-8A in case set</b>	<b>MA26908AKS</b>

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.

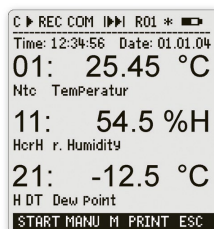
## Operating concept as for precision measuring instruments ALMEMO® 2690, 2890 und 5690 / 5790



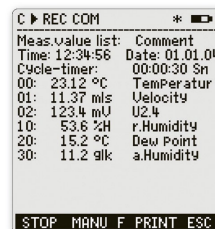
Menu selection



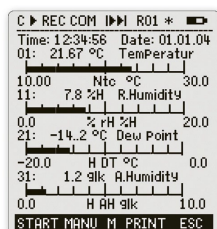
Standard display



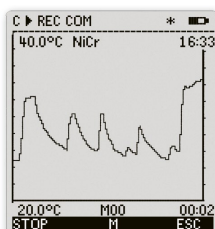
Multi-channel display



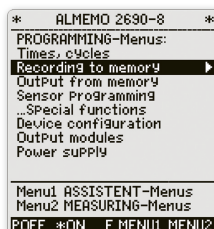
Measuring points list



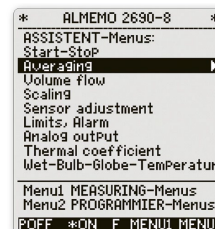
Bar chart



Line diagram



Programming menu



Assistent menu