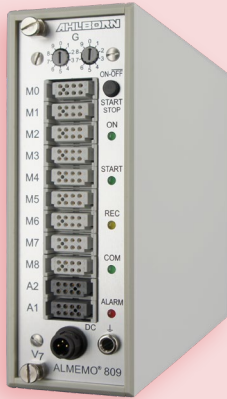


## ALMEMO® 809



### ALMEMO® precision measuring instrument, latest V7 generation

**Nine measuring inputs for all sensors**  
**Operates as data logger or PC interface**  
**Increased measuring accuracy, fast sampling rate, with ALMEMO® D7 sensors up to 1000 measuring operations per second**

#### Data logger from our latest V7 generation.

Data logger ALMEMO® 809 offers outstanding functions and applications using our latest D7 sensors. This measuring instrument operates either as data logger or as PC interface using the WinControl measuring software (an accessory). The device parameters can be fully configured by means of the ALMEMO® Control software (included in delivery).

#### New digital ALMEMO® D7 sensors

With these digital ALMEMO® D7 sensors the existing ALMEMO® system is enhanced by many new functions. These operate via an all-digital interface to the ALMEMO® 809 measuring instrument ensuring high-speed serial transmission of all measured values. The measuring ranges of ALMEMO® D7 plugs are independent of the measuring instrument and can be expanded as and when required for new applications.

Measured values can be displayed with up to 8 digits (depending on quantity and range) and the units with up to 6 characters. Sensor designation and information can be up to 20 characters. Each ALMEMO® D7 sensor has its own processor. They all work in parallel at their own sensor-specific sampling rate. D7 sensors thus attain very high measuring speeds in dynamic measuring operations. Scanning times on the ALMEMO® 809 can be set individually for quick-acting and slow-acting sensors. The ALMEMO® D7 plug can process up to 10 channels for measured values and function values. This includes new applications, especially for multi-purpose sensors (e.g. Meteorological sensors) and for linking up to complex third-party devices (e.g. chemical analysers, power analysers).

#### Measuring inputs for nine ALMEMO® sensors, all generations

Data logger ALMEMO® 809 incorporates nine measuring inputs. The measuring instrument can process up to 90 measuring channels - depending on the sensors connected. All new and already existing sensors designed for any measurable variable can be connected and evaluated. Sensors using analog signals pass via the integrated high-speed, high-resolution A/D converter. Additional electrical isolation between measuring inputs and power supply (device ground) increases measuring quality. Digital D6 and the latest digital D7 sensors transfer measured values to the measuring instrument directly in digital form.

The measuring instrument supports all ALMEMO® plug connectors and sensor functions. All sensor parameters for

ALMEMO® standard / D6 / D7 sensors can be fully configured by means of the ALMEMO® Control software (included in delivery).

#### Data logger for all storage applications

For the purpose of saving measured values the device incorporates an 8-MB flash memory. This can also be configured as a ring memory for monitoring tasks.

To save larger data quantities an external memory is available in the form of a plug-in SD card.

For autonomous long-term monitoring the data logger can also be run in energy-saving sleep mode.

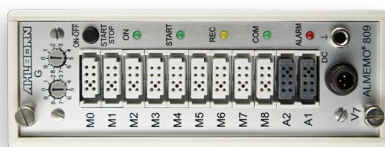
#### Other equipment

With two ALMEMO® output sockets it is possible to connect simultaneously a PC / network, an ALMEMO® output interface with relays and analog output, or an ALMEMO® memory connector with an SD card.

There are five LEDs for indicating various operating states. The operating key is used to switch on the device and to start / stop a measuring operation.

With option KL it is possible - for an ALMEMO® sensor (e.g. temperature or pressure sensors) - to program multi-point adjustment or linearization in the ALMEMO® plug itself. This option is possible with all ALMEMO® plug versions, standard connectors (analog or DIGI), ALMEMO® D6 and D7 plugs.

## ALMEMO® 809



## Precision measuring instrument, latest V7 generation, nine measuring inputs Data logger with internal memory or external memory connector (accessory)

### Technical data

<b>Measuring inputs</b>	Nine ALMEMO® input sockets suitable for all generations of ALMEMO® sensors, analog sensors, D6 and D7 sensors	<b>Standard equipment</b>	Operation	1 key, 5 LEDs, 2 coding switches
<b>Precision class</b>	AA see page 16	<b>Memory</b>	Memory	8-MB flash memory (400,000 up to 1.5 million meas. values)
<b>Total sampling rate:</b>	up to 2000 measurements/s	<b>Date and time-of-day</b>	Date and time-of-day	Real-time clock (4.7 ppm) with lithium buffer battery
<b>Sampling rate for analog sensors, D6 sensors</b>	2.5 / 10 / 50 / 100 mops	<b>Power supply</b>	Mains adapter	ZB1212NA12 100 to 240 VAC to 12 VDC, 1.5 A, electrically isolated
<b>Electrical isolation for analog sensors</b>	with semiconductor relays (50 V) Additional electrical isolation between measuring inputs and power supply (device ground)	<b>Current consumption without Input and output modules</b>	active mode	approx. 50 mA
<b>Channels</b>	Up to 90 measuring channels per device		Sleep mode	approx. 0.05 mA
<b>Sensor power supply</b>	12 V, maximum 400 mA	<b>Housing</b>		180 x 049 x 137 mm (LxWxH) Polystyrene (PS) Weight approx. 490 g
<b>Outputs</b>	Two ALMEMO® sockets, suitable for all output modules (data / analog / trigger / relay cables, memory connector, etc.)	<b>Environmental conditions and general technical data</b>		see page 16 onwards

### Accessories

	Order no.
Plug-in memory with micro SD card, including USB card reader (see chapter „General accessories“)	ZA1904SD
DC adapter cable, 10 to 30 VDC, 12 V / 1 A, electrically isolated	ZB3090UK2
WinControl software for measured data acquisition per device up to 20 channels for any number of devices and channels	SW5600WC1 SW5600WC2

Note on WinControl measuring software  
WinControl measuring software is suitable for version 7 and above.  
For versions and description see Chapter Software.

### Connecting cables

	Order no.
USB data cable, electrically isolated	ZA1919DKU
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 VDC)	ZA1006EKG

### Options

	Order no.
Multi-point adjustment and / or linearization can - with all ALMEMO® plug versions - be programmed by users themselves	OA809KL
Temperature ranges for 8 refrigerants	SB0000R2

### Standard delivery

	Order no.
Measuring instrument, Mains unit ZB1212NA12, Manufacturer's test certificate <b>Precision measuring instrument ALMEMO® 809</b>	MA809

DAkKS / DKD or factory calibration KE90xx, electrical, for measuring instruments, see chapter „Calibration certificates“.  
The DAkKS calibration meets the requirements of DIN EN ISO/IEC 17025 for test equipment.