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Data logger ALMEMO® 2470





ALMEMO® data logger
Professional measuring instrument with functions for all application areas, 1 or 2 measuring inputs
Also with integrated sensor for temperature, atmospheric humidity, atmospheric pressure

Technical data and functions, ALMEMO® 2470 series

- Segmented color display with bright, white illumination. Clear and easy-to-understand display of programming and measured values in 5 different colors and alarm display on a red background.
- In the event of a limit value being overshot / undershot various freely configurable alarm messages are available, namely acoustic signal, visual LED signal, alarm display on a red background.
- With the 2470-1S /-2S these alarm messages are also configurable for long-term recording; in sleep mode the messages remain active and the most recent measured value is displayed continuously.
- Good measuring accuracy, measuring rate up to 10 measuring operations per second (mops)
- More than 65 standard measuring ranges
- Support for ALMEMO® plugs with multi-point adjustment, special linearization, and special measuring ranges
- Easy and convenient to operate by means of 7 keys, with configurable locking for keys and functions
- Measuring functions: Maximum and minimum values, measured value smoothing, zero-setting, sensor adjustment
- Programming functions: Limit values, sensor correction with base value and factor
- All ALMEMO® functions programmable via interface
- Modern, compact housing

Technical data, ALMEMO® 2470 series

Precision class	A (see general technical specifications)
Measuring rate	2.5 / 10 measuring operations per second
Sensor power supply Battery mode	
	Sensor voltage 6 V, 400 mA
	9 V, 300 mA and 12 V, 200 mA
With mains adapter	12 V, 400 mA
Standard equipment	
Display 16 segments	Measured value 5 characters, 15 mm
	Units 2 characters, 9 mm
7 segments	Function 4½ characters, 9 mm
	21 symbols, Illumination 2 RGB LEDs
Keypad	7 silicone keys

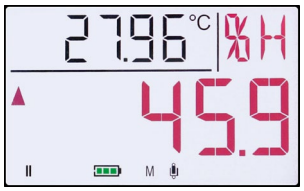
Power supply	1 ALMEMO® DC socket
Mains adapter	ZA1312NA12 100 to 230 VAC
	to 12 VDC, 1.5 A, electrically isolated
DC adapter cable, el. isol.	ZA2690UK 10 to 30 V, 0.25 A
Current consumption (without input and output modules)	
Active without illumination	approx. 12 mA
Active with illumination	approx. 30 mA
Sleep mode	approx. 60 µA
Housing	127 x 83 x 42 mm (LxWxH)
	ABS, 290 g
Environmental conditions see general technical data	

ALMEMO® 2470 series, accessories

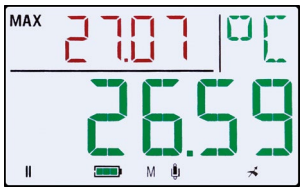
	Order no.		Order no.
Rubberized impact protection, gray	**ZB2490GS2**	DC cable 10 to 30 V, 12 V / 0.25 A, electr. isol.	**ZA2690UK**
Instrument case	**ZB2490TK2**	DIN rail mounting	**ZB2490HS**
Mains adapter 12 V / 1.5 A	**ZA1312NA12**	Magnetic fastening	**ZB2490MH**



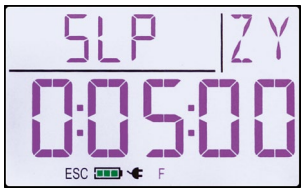
Automatic alarm (red background). Display shows incorrect measured value



Dual display
1. Humidity Measured value overshoots limit value (red).
2. Temperature



1. Measured value is inside limit values (green).
2. Peak value MAX overshoots limit value (red)



Programming of
1. Save-to-memory cycle
2. Sleep mode

ALMEMO® 2470-1S



**Professional measuring instrument,
1 measuring input
Data logger with integrated memory**

Technical data and functions

- Technical data and functions as for ALMEMO® 2470 series
- Data logger functions: Internal EEPROM, memory cycle, real-time clock
- Long-term recording in sleep mode with AA batteries
- Operating time up to 1.5 years with memory cycle of 15 minutes and temperature / humidity sensor.

Technical data

Measuring inputs	1 ALMEMO® input socket
Outputs	ALMEMO® DC socket for mains adapter or USB cable with supply ZA 1919 DKU5
Memory, internal	EEPROM sufficient for 100,000 measured values
Date and time-of-day	Real-time clock, buffered by device battery
Power supply	3 AA batteries

Connecting cable	Order no.
USB data cable with 5-V power supply	**ZA1919DKU5**

Standard delivery **Order no.**

Batteries, operating instructions, manufacturer's test certificate
Professional measuring instrument ALMEMO® 2470-1S **MA24701S**

ALMEMO® 2470-1SCRH



**Professional measuring instrument,
1 measuring input, Data logger with integrated memory, integrated sensor for temperature, atmospheric humidity, atmospheric pressure**

Technical data and functions

- Technical data and functions, as for ALMEMO® 2470 series
- Data logger functions
- Internal EEPROM, memory cycle, real-time clock
- Long-term recording in sleep mode with AA batteries
- Operating time up to 1.5 years with memory cycle of 15 minutes and temperature / humidity sensor.

Technical data

Measuring inputs	1 ALMEMO® input socket
Outputs	ALMEMO® DC socket for mains adapter or USB cable with supply ZA 1919 DKU5
Memory, internal	EEPROM sufficient for 100,000 measured values
Date and time-of-day	Real-time clock, buffered by device battery
Power supply	3 AA batteries

Digital sensor for humidity / temperature / air pressure FH0D 46-C2, slotted sensor cap, plugged in on the measuring instrument. General description and technical data (see chapter „Atmospheric humidity").

Connecting cable	Order no.
USB data cable with 5-V power supply	**ZA1919DKU5**

Standard delivery **Order no.**

Batteries, digital plug-in sensor for temperature, atmospheric humidity and air pressure, operating instructions, manufacturer's test certificate. **Professional meas. instrument ALMEMO® 2470-1SCRH** **MA24701SCRH**

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.

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ALMEMO® 2470-2



**Professional measuring instrument,
2 measuring inputs**

Technical data and functions

- Technical data and functions, as for ALMEMO® 2470 series
- Power supply, 3 AA rechargeable NiMH batteries, with charging via the device itself.

Technical data

Measuring inputs	2 ALMEMO® input sockets el. isol., with semicond. relays (50 V)
Additional channels	4 channels, device-internal (e.g. difference)
Outputs	ALMEMO® sockets A1 and A2, suitable for all output modules (analog, data, trigger, relay cables, etc.) (see chapter „Networking“)
Individual value memory	99 individual measured values
Power supply	3 AA rechargeable NiMH batteries Integrated charge circuitry

Connecting cable

	Order no.
USB data cable, electrically isolated	**ZA1919DKU**
USB data cable with 5-V power supply	**ZA1919DKU5**
V24 data cable, electrically isolated	**ZA1909DK5**
Ethernet data cable, electrically isolated	**ZA1945DK**
Analog output cable, -1.25 to +2.0 V, 0.1 mV / digit	**ZA1601RK**
Trigger and relay cable (2 relays, 500 mA, 50 V)	**ZA1006EKG**
Network technology, wireless modules (see chapter „Networking“)	

Standard delivery

Order no.

Rechargeable batteries, operating instructions, manufacturer‘s test certificate, carry case, mains unit

Professional measuring instrument ALMEMO® 2470-2 **MA24702KN**

ALMEMO® 2470-2S



**Professional measuring instrument,
2 measuring inputs,
Data logger with internal memory**

Technical data and functions

- Technical data and functions, as for ALMEMO® 2470 series
- Power supply, 3 AA rechargeable NiMH batteries, with charging via the device itself
- Data logger functions: Internal EEPROM or external memory connector (accessory), memory cycle, real-time clock
- Long-term recording in sleep mode, internal memory, AA rechargeable NiMH batteries. Operating time up to 1 year with memory cycle of 15 minutes and temperature / humidity sensor.

Technical data

Measuring inputs	2 ALMEMO® input sockets el. isol., with semicond. relays (50 V)
Additional channels	4 channels, device-internal (e.g. difference)
Outputs	ALMEMO® sockets A1 and A2, suitable for all output modules (analog, data, trigger, relay cables, etc.) (see chapter „Networking“)
Memory, internal EEPROM	sufficient for 100,000 measured values
Date and time-of-day	Real-time clock, buffered by device battery
Power supply	3 AA rechargeable NiMH batteries Integrated charge circuitry

Accessories

	Order no.
Memory connector with micro SD card	**ZA1904SD**

Connecting cable

	Order no.
USB data cable, electrically isolated	**ZA1919DKU**
USB data cable with 5-V power supply	**ZA1919DKU5**
V24 data cable, electrically isolated	**ZA1909DK5**
Ethernet data cable, electrically isolated	**ZA1945DK**
Analog output cable, -1.25 to +2.0 V, 0.1 mV / digit	**ZA1601RK**
Trigger and relay cable (2 relays, 500 mA, 50 V)	**ZA1006EKG**
Network technology, wireless modules (see chapter „Networking“)	

Standard delivery

Order no.

Rechargeable batteries, operating instructions, manufacturer‘s test certificate, carry case, mains unit

Professional measuring instrument ALMEMO® 2470-2S **MA24702SKN**

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.