ALMEMO® Measuring Instruments

**ALMEMO® 2470**

**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)

**Technical data, ALMEMO® 2470 series**

<table>
<thead>
<tr>
<th>精度级别</th>
<th>A (参见页面01.04)</th>
</tr>
</thead>
<tbody>
<tr>
<td>测量速率</td>
<td>2.5 / 10测量操作/秒</td>
</tr>
<tr>
<td>传感器供电模式</td>
<td>电池模式</td>
</tr>
</tbody>
</table>
|传感器电压 | 6 V, 400 mA  
9 V, 300 mA and 12 V, 200 mA |
|带有电源适配器 | 12 V, 400 mA |
|标准设备 |  |
|显示器 | 16行，5个字符，15 mm  
单位：2字符，9 mm  
7行，4 1/2个字符，9 mm  
21符号，照明：2个RGB LED |
|键盘 | 7个硅胶键 |

|电源供应 | 1个ALMEMO® DC插座 |
|适配器 | ZA1312NA10 100到230 VAC  
to 12 VDC, 2A,电隔离 |
|DC适配器电缆，电隔离 | ZA2690UK 10到30 V, 0.25 A |
|输入和输出模块的电流消耗 | 无输入和输出模块：约12 mA  
主动：约12 mA  
睡眠：约60 μA |
|外壳 | 127 x 83 x 42 mm（LxWxH）  
ABS，290g |

**ALMEMO® 2470系列，配件**

|橡胶保护，灰色 | ZB2490GS2 |
|仪器箱 | ZB2490TK2 |
|电源适配器 | ZA1312NA10 |
|DC电缆 | 10到30 V, 12 V / 0.25 A,电隔离 |
|DIN轨道安装 | ZA2690UK |
|磁性固定 | ZB2490HS |
|ZB2490MH |

**ALMEMO® professional measuring instrument with data logger function**

- Functions for all application areas, 1 or 2 measuring inputs
- Also with integrated sensor for temperature, atmospheric humidity, atmospheric pressure

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

1. 湿度  测量值超过限值（红色）。
2. 温度  测量值稳定（绿色）。

**Dual display**

1. 测量值在限值内（绿色）。
2. 电流最大值MAX超过限值（红色）。

**Programming of**

1. 保存到内存循环
2. 睡眠模式
**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**

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<td>Outputs</td>
<td>ALMEMO® DC socket for mains adapter or USB cable with supply ZA 1919 DKU5</td>
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<tr>
<td>Memory, internal</td>
<td>EEPROM sufficient for 100,000 measured values</td>
</tr>
<tr>
<td>Date and time-of-day</td>
<td>Real-time clock, buffered by device battery</td>
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<tr>
<td>Power supply</td>
<td>3 AA batteries</td>
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**Connecting cable**

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

**Option**

- Measuring instrument IP54 (if water-proof plugs / sensors are used) Order no. OA2470W

**Standard delivery**

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

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**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**

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**Connecting cable**

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

**Option**

- Measuring instrument IP54 (if water-proof plugs / sensors are used) Order no. OA2470W

**Standard delivery**

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

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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.
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 cables
- 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, Bluetooth modules (see chapter „Networking“)

Option
- Measuring instrument IP54 (if water-proof plugs / sensors are used): OA2470W

Standard delivery
- Rechargeable batteries, operating instructions, manufacturer’s test certificate, carry case, mains unit
- Professional measuring instrument ALMEMO® 2470-2: MA24702KN

Accessories
- Memory connector with micro SD card: ZA1904SD

Connecting cables
- 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, Bluetooth modules (see chapter „Networking“)

Option
- Measuring instrument IP54 (if water-proof plugs / sensors are used): OA2470W

Standard delivery
- Rechargeable batteries, operating instructions, manufacturer’s test certificate, carry case, mains unit
- Professional measuring instrument ALMEMO® 2470-2S: MA24702SKN

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DAkkS calibration meets all the requirements regarding test resources laid down in DIN EN ISO/IEC 17025.