# ALMEMO® Measuring Instruments

## ALMEMO® 2490

ALMEMO® basic measuring instrument
**Ideal for all sorts of application, quick and easy to operate**
**1 or 2 measuring inputs,**
**over 65 measuring ranges**

## Technical data and functions ALMEMO® 2490 series

- Generously dimensioned 2-row static 7 / 16 segment display including units
- Easy and convenient to operate by means of 7 keys
- Over 65 standard measuring ranges
- Memory sufficient for 100 measured values, can be called up and viewed in the display
- Good measuring accuracy, measuring rate up to 10 measuring operations per second (mops)
- Support for ALMEMO® plugs with multi-point adjustment,

special linearization, and special measuring ranges
- Measuring functions : Measured value, zero-setting, sensor adjustment, saving of maximum / minimum values, memory for 100 values, cold junction compensation, and temperature compensation
- Test functions : Segment monitoring, range monitoring, sensor breakage indication, battery voltage check and display

## Technical data ALMEMO® 2490 series

| | | | |
|---|---|---|---|
| Precision class | B (see page 01.04) | Standard equipment | |
| Measuring rate | 2.5 / 10 measuring operations per second | LCD    7 segments | Measured value  5 characters, 15 mm |
| Measuring ranges as on page XREF - but | | | Function  4½ characters, 9 mm |
| Milliamperes DC | -26 to +26 mA | 16 segments | Units        2 characters, 9 mm |
| | | | 9 symbols |
| Battery set | 3 AA alkaline batteries | Keypad | 7 silicone keys |
| Current consumption | approx. 20 mA  without input modules | Housing | ABS (maximum 70 °C) |
| | | | 127 x 83 x 42 mm (LxWxH) |

## ALMEMO® 2490 series, accessories                                        Order no.

| | | | |
|---|---|---|---|
| DIN rail mounting | **ZB2490HS** | Magnetic fastening | **ZB2490MH** |
| Rubberized impact protection, green | **ZB2490GS1** | Instrument case | **ZB2490TK2** |

DIN rail mounting

Rubberized protection

Magnetic fastening

## ALMEMO® 2490-1 / -2

ALMEMO® 2490-1          ALMEMO® 2490-2

### Basic measuring instrument with interface
### Runs in battery mode or via mains unit

### Technical data and functions

- Technical data and functions, as for ALMEMO® 2490 series
- 2 ALMEMO® output sockets, suitable for all interface cables, network cables, trigger / relay cables
- Complete sensor and device programming via interface
- ALMEMO® DC socket for mains adapter.

### Technical data

Technical data, as for ALMEMO® 2490 series

| | |
|---|---|
| Measuring input | |
| 2490-1 | 1 ALMEMO® input socket |
| 2490-2 | 2 ALMEMO® input sockets, el. isol., with semicond. relays (50V) |
| Additional channels | 4 function channels, device-internal |
| Sensor power supply | 9 V, maximum 0.5 A |
| Option U | 9 V, maximum 70 mA |
| Power supply | 10 to 30 VDC not electr. isolated |
| Mains adapter | ZA1312NA10 |
| | 100 to 240 VAC to 12 VDC, 2 A |
| Outputs | 2 ALMEMO® sockets, suitable for all interface cables |
| with option OA2490I only | RS485 interfac |

### Accessories

| | Order no. |
|---|---|
| Mains adapter 12 V, 2 A, with ALMEMO® plug | **ZA1312NA10** |
| DC adapter cable | |
| 10 to 30 VDC, 12 V / 0.25 A, electrically isolated | **ZA2690UK** |

### 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") | |

### Option

| | Order no. |
|---|---|
| Power supply, electrically isolated, 10 to 30 VDC, 80 mA including ALMEMO® plug for DC socket | **OA2490U** |
| RS485 interface, internal, including option U | **OA2490I** |
| Analog outputs, electrically isolated, integrated internally (see page 01.56) ALMEMO® transmitter | |
| Measuring instrument IP54 (if water-proof plugs are used) | **OA2490W** |

### Standard delivery

| | Order no. |
|---|---|
| Batteries, operating instructions, manufacturer's test certificate | |
| **Basic measuring instrument ALMEMO® 2490-1** | **MA24901** |
| **Basic measuring instrument ALMEMO® 2490-2** | **MA24902** |

## ALMEMO® 2490-1L / -2L

ALMEMO® 2490-1L          ALMEMO® 2490-2L

### Basic measuring instrument
### Runs in battery mode

### Technical data and functions

- Technical data and functions, as for ALMEMO® 2490 series

### Technical data

Technical data, as for ALMEMO® 2490 series

| | |
|---|---|
| Measuring inputs | |
| 2490-1L | 1 ALMEMO® input socket |
| 2490-2L | 2 ALMEMO® input sockets, el. isol., with semicond. relays (50 V) |
| Sensor power supply | 9 V, maximum 0.5 A |
| Outputs | None |

### Option

| | Order no. |
|---|---|
| Measuring instrument IP54 (if water-proof plugs are used) | **OA2490W** |

### Standard delivery

| | Order no. |
|---|---|
| Batteries, operating instructions, manufacturer's test certificate | |
| **Basic measuring instrument ALMEMO® 2490-1L** | **MA24901L** |
| **Basic measuring instrument ALMEMO® 2490-2L** | **MA24902L** |

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.