

# ALMEMO® MEASURING INSTRUMENTS

01

**new!**

**ALMEMO® 2490-1**  
compact measuring instrument  
with more than 65 measuring ranges, with just  
one measuring input, with memory for 100  
measured values, plus interface and option with  
internal analog output

**ALMEMO® 2490-2**  
with 2 measuring inputs



## Technical features :

- ▶ Universal measuring instrument with 1 or 2 ALMEMO® input sockets, 8 channels, 4 internal function channels (e.g. differential values)
- ▶ Memory sufficient for 100 measured values, can be called up and viewed in the display
- ▶ High-resolution A/D converter, 16-bit, 10 mops
- ▶ More than 65 standard measuring ranges
- ▶ Support for ALMEMO® connectors with multi-point calibration, special linearization, and special measuring ranges
- ▶ Generously dimensioned 2-row static 7 / 16 segment display including units
- ▶ Easy and convenient to operate by means of 7 keys
- ▶ Measuring functions : Measured value, zero-setting, sensor adjustment, saving of maximum / minimum values, memory for 100 measured values, cold junction compensation, and temperature compensation
- ▶ Test functions : Segment monitoring, range monitoring,

## Universal measuring instrument ALMEMO® 2490 with ALMEMO® interface :

- ▶ 2 ALMEMO® output sockets for all interface cables, network cables, trigger / relay cables
- ▶ Complete sensor and device programming.
- ▶ ALMEMO® socket DC for mains adapter.
- ▶ **Option with electrically isolated internal RS485:** via ALMEMO® socket DC.
- ▶ **Option with electrically isolated internal analog output :** ALMEMO® socket P0 for analog output (scalable with keyboard).

## Extent of the delivery

Includes 3 AA alkaline batteries, operating instructions, and manufacturer's test certificate

Universal measuring instrument ALMEMO® 2490-1  
1 measuring input, memory for 100 measured values, LC display, 7 keys, interface via 2 ALMEMO® output sockets A1, A2, and 1 ALMEMO® socket DC for mains adapter

**Order no. MA24901**

Universal measuring instrument ALMEMO® 2490-2  
like 2490-1, plus 2 measuring inputs

**Order no. MA24902**

## Technical data :

|   |  |
|---|--|
| Measuring inputs                                    |  |
| 2490-1  | 1 ALMEMO® input socket   |
| 2490-2  | 2 ALMEMO® input sockets  |
| electrically isolated with semiconductor relays 50V |  |
| Channels  | Per sensor, max. 4 channels (sensor-type-specific, measuring and function channels), only 2490-2: plus 4 internal function chan. |
| A/D converter                                       | delta-sigma, 16-bit<br>For technical data see page 01.05.  |
| Measuring ranges as on page 01.06, but              |  |
| Volts DC  | -2.0 to +2.6 V   |
| Milliamperes DC                                     | -26 to +26 mA  |
| Connector supply                                    | Battery / mains: 9 V, max. 150 mA  |
| Option U  | 9 V, maximum 70 mA   |
| Outputs   | 2 ALMEMO® sockets for all interface cables, version V6 RS485 interface internal, electrically isol., via socked DC               |
| with option OA2490I                                 |  |
| with option OA2490Rx only                           | 1 ALMEMO® socket P0 for internal analog output   |
| Standard equipment                                  |  |
| LC display 7 segments                               | Measured value 5 char., 15 mm  |
|   | Function 4½ characters, 9 mm   |
| 16 segments   | Units 2 characters, 9 mm   |
|   | 9 symbols  |
| Keypad  | 7 silicone keys  |
| Power supply  | 10 ... 30V DC not electr. isol.  |
| Battery   | 3 AA alkaline batteries  |
| Current consumption                                 | approx. 20 mA without input modules  |
| Mains adapter                                       | ZA1312NA1<br>230 VAC to 12 VDC, 200 mA   |
| Housing   | ABS (maximum 70 °C)<br>(LxWxH) 127 x 83 x 42 mm  |

Other general data see Technical Data, page 01.05

## Options :

|  |           |
|--|-----------|
| Power supply, electrically isolated, 9 to 30 VDC, 80 mA, including ALMEMO® connector for socket DC | OA2490U   |
| RS485 interface, built-in, including Option U  | OA2490I   |
| Analog outputs, electrically isolated, built-in, including ALMEMO® connector for socket P0         |           |
| Single analog output, 0 to 10 V (0.5 mV / digit)   | OA2490R2  |
| Single analog output, 0 to 20 mA (1 µA / digit)  | OA2490R3  |
| Double analog output, 0 to 10 V (0.5 mV / digit)   | OA2490R22 |
| Double analog output, 0 to 20 mA (1 µA / digit)  | OA2490R32 |
| IP54 protection (if water-proof connectors are used)   | OA2490W   |

## Accessories (see ALMEMO® 2490-1L/-2L page 01.14)

|  |           |
|--|-----------|
| Top hat rail mounting                                    | ZB2490HS  |
| Rubberized impact protection, gray                       | ZB2490GS2 |
| Magnetic fastening                                       | ZB2490MH  |
| Mains adapter 12 V, 200 mA, with ALMEMO® connector       | ZA1312NA1 |
| DC adapter cable   |           |
| 10 to 30 VDC, 12 V / 0.25 A, electrically isolated       | ZA2690UK  |
| Analog output cable, -1.25 to +2.0 V, 0.1 mV / digit, V6 | ZA1606RK  |
| V24 data cable, electr. isol., maximum 115.2 KB          | ZA1909DK5 |
| USB data cable, electr. isol., maximum 115.2 KB          | ZA1919DKU |
| Ethernet data cable, electr. isol., maximum 115.2 KB     | ZA1945DK  |
| Instrument case  | ZB2490TK  |

10/2008 We reserve the right to make technical changes.

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