

ALMEMO® MEASURING INSTRUMENTS

new!

ALMEMO® 2490-1L
Universal measuring instrument for all
ALMEMO® sensors, with just one measuring
input, with memory for 100 measured values
ALMEMO® 2490-2L
with 2 measuring inputs



Technical features :

- ▶ 2 ALMEMO® input sockets for 2 ALMEMO® sensors, 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, sensor breakage indication, battery voltage check and display

Technical data :

Measuring inputs	
2490-1L	1 ALMEMO® input socket for 1 ALMEMO® sensor
2490-2L	2 ALMEMO® input sockets for 2 ALMEMO® sensors, electrically isolated with semiconductor relays 50V
Channels	Per sensor, max. 4 channels (sensor-type-specific, measuring and function channels), only 2490-2L plus 4 internal function chan.
A/D converter	delta-sigma, 16-bit 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
System accuracy	±0.03 % of meas. val. ±3 digits
Connector supply	Battery 9 V, max. 150 mA
Option U	9 V, maximum 80 mA
Outputs	none
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	
Battery	3 AA alkaline batteries
Current consumption	approx. 20 mA without input modules
Housing	ABS (maximum 70 °C) (LxWxH) 127 x 83 x 42 mm

Other general data see Technical Data, page 01.05

Extent of the delivery

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

Universal measuring instrument ALMEMO® 2490-1L
1 measuring input, memory for 100 measured values, LC display, 7 keys

Order no. MA24901L

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

Order no. MA24902

Options :

Top hat rail mounting	OA2490HS
RS485 interface, built-in, including OptionU	
Power supply, electr. isol., 9 to 30 VDC, 80 mA, including ALMEMO® connector for socket DC	OA2490I

Accessories :

Instrument case	ZB2490TK
-----------------	----------

ALMEMO® MEASURING INSTRUMENTS

new!

01

ALMEMO® 2490-1
Universal measuring instrument
for all ALMEMO® sensors, 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 :

- ▶ 1 or 2 ALMEMO® input sockets for ALMEMO® sensors, 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, sensor breakage indication, battery voltage check and display

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 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 for 1 ALMEMO® sensor
2490-2	2 ALMEMO® input sockets for 2 ALMEMO® sensors, electrically isolated with semiconductor relays 50V
Channels (sensor-type-specific, measuring and function channels), only 2490-2:	Per sensor, max. 4 channels plus 4 internal function chan.
A/D converter	delta-sigma, 16-bit 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
System accuracy	±0.03 % of meas. val. ±3 digits
Connector supply Option U	Battery / mains: 9 V, max. 150 mA 9 V, maximum 80 mA
Outputs	2 ALMEMO® sockets for all interface cables, version V6 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	
Battery	3 AA alkaline batteries
Current consumption	approx. 20 mA without input modules
Mains adapter	ZA1312NA1 230 VAC to 12 VDC, 200 mA
Housing	ABS (maximum 70 °C) (LxWxH) 127 x 83 x 42 mm
Other general data see Technical Data, page 01.05	

Options :

Top hat rail mounting	OA2490HS
Power supply, electrically isolated, 9 to 30 VDC, 80 mA, including ALMEMO® connector for socket DC	OA2490U
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

Accessories :

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

04/2007 We reserve the right to make technical changes.

AHLEBORN
 www.ahlborn.com

01.13