

ALMEMO® MEASURING INSTRUMENTS

01

new!

ALMEMO® 2450-1
compact measuring instrument with
more than 35 measuring ranges with just one
measuring input, interface
and option analog output (internal)



Technical features :

- ▶ Handy display device with 1 ALMEMO® input socket and 4 channels.
- ▶ Generously dimensioned 2-row static 7 / 16 segment display including units.
- ▶ Easy and convenient to operate by means of 7 keys.
- ▶ More than 35 measuring ranges for thermocouple and NTC sensors; ready-to-use connectors are available for customer-specific thermocouple sensors (see Chapter 08), Capacitive humidity sensors, dew-point sensors, moisture detection probes, moisture in wood, FHA636MF (see Chap. 09), Pressure transducers, FDA602L/D, FD8214, FD8612, speed transducers, turbine flow meters (see Chapter 11), Split-core type transformers FEA604, voltage and current measuring modules ZA990xAB (see Chapter 12), Meteorological radiation probe head FLA613 (see Chapter 13), Carbon dioxide sensor, hand-held, FYA600CO2H, carbon monoxide probe, ozone probe (see Chapter 16), Infra-red temperature sensor FIA908CSH (see Chapter 18).
- ▶ Support for ALMEMO® connectors with multi-point calibration.
- ▶ Measuring functions : Measured value, zero-setting, saving of maximum / minimum values, hold function.
- ▶ Test functions : Segment monitoring, range monitoring, sensor breakage indication, battery voltage check and display.

Measuring instrument 2450-1 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

Measuring instrument ALMEMO® 2450-1
1 measuring input for ALMEMO® sensors, LC display, 7 keys plus interface via 2 ALMEMO® output sockets A1, A2 and 1 ALMEMO® socket DC for mains adapter including 3 AA alkaline batteries and operating instructions including manufacturer's test certificate

Order No. MA24501

Technical data :

Measuring input	1 ALMEMO® socket
Channels	Maximum 4 (sensor-type-specific, measuring and function channels)
A/D converter	delta-sigma, 15-bit resolution technical data see page 01.05
Measuring ranges	(see pages 01.06 / 01.07) NiCr-Ni (K), NiCroSil-NiSi(N), Fe-CuNi (L), Cu-CuNi (U), Cu-CuNi (T), PtRh10-Pt (S), NTC, Fe-CuNi (J) -200 to +950 °C Voltage -26 to +26 mV, -260 to +260mV, 0 to +2.6 V Current 0 to 32 mA, 4 to 20 mA Humidity, capacitive 0 to 100 % r. H.(%rH, HcrH, HrH) Dew point, mixture ratio, partial vapor pressure, enthalpy, digital input (0/100 %), rotating vanes, frequency, pulse, rotational speed, digital
Resolution	see pages 01.06 / 01.07
Linearization accuracy	see pages 01.06 / 01.07
Connector supply	Battery / mains: 9 V, max. 150 mA Option U 9 V, maximum 70 mA
Outputs	2 ALMEMO® sockets for all interface cables with option OA24501 RS485 interface internal, electrically isol., via socked DC with option OA2450Rx only 1 ALMEMO® socket P0 for internal analog output
Standard equipment	
LC display 7 segments	Measured value 5 char., 15 mm Function 4½ char., 9 mm Units 2 characters, 9 mm 9 symbols
16 segments	7 silicone keys
Keypad	
Power supply	10 ... 30V DC not electr. isol. Battery 3 AA alkaline batteries Current consumption 10 mA without input modules Mains adapter : ZA1312NA1 230 VAC to 12 VDC, 200 mA, electrically isolated, via ALMEMO® socket DC
Housing	ABS (maximum 70 °C) (LxWxH) 127 x 83 x 42 mm
Operating temperature	-10 to +60 °C
Atmospheric humidity (ambient)	10 to 90 % r. H. (non-condensing)

Options

Power supply, electr. isol., 9 to 30 VDC, 80 mA, including ALMEMO® connector for socket 10...30V DC OA2450U
RS485 interface, built-in, including Option U OA24501
Analog outputs, electrically isolated , built-in, including ALMEMO® connector for socket P0
Single analog output, 0 to 10 V (0.5 mV / digit) OA2450R2
Single analog output, 0 to 20 mA (1 µA / digit) OA2450R3
Double analog output, 0 to 10 V (0.5 mV / digit) OA2450R22
Double analog output, 0 to 20 mA (1 µA / digit) OA2450R32
IP54 protection (if water-proof connectors are used) OA2450W

Accessories

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, electrically isolated, 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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