OMB 200/300/500



- Three-color bargraph 20/30/50 LED
- Multifunction input (PM, OHM, RTD, DU)
- Digital filter, Linearization

(OMLINK)

Power supply 10...30 V (250 V) AC/DC

Options

Comparators

OMB 200UNI OMB 300UNI OMB 500UNI 1x 20 LED 1x 30 LED

1(2)x 50 LED

PROCESS MONITOR

OHMMETER

THERMOMETER FOR PT THERMOMETER FOR NI

DISPLAY UNIT FOR LINEAR

POTENTIOMETERS

OMB x00RS

DATA DISPLAY

Description

The OMB 200/300/500UNI model series are simple bargraphs designed for maximum efficiency and user comfort while maintaining its low cost.

The OMB 200/300/500UNI type is a multifunction instrument with the option of configuration for 5 different types of inputs easily configurable in the instrument many.

The instrument is based on an 8-bit microcontroller with A/D converter, which secures good accuracy, stability and easy operation of the instrument.

Another version of the OMB 200/300/500 instrument is the RS type, a display device for projection of data from serial line RS 232/485.

By selecting the mode of insertion of the front plexiglass (reverse/face) you may choose the required printing of scale for vertical or horizontal design of the instrument.

Operation

The instrument is set and controlled by five control keys located on the front panel. All programmable settings of the instrument may be performed in two adjusting modes:

Profi menu contains complete instrument setting

Standard equipment is the OM Link interface, which together with operation program enables modification and filing of all instrument settings as well as perform firmware updates (with OML cable).

All settings are stored in the EEPROM memory (they hold even after the instrument is switched off).

Options

Comparators are assigned to monitor two limit values with relay output. The limits have adjustable hysteresis within the full range of the display as well as selectable delay of the switch-on in the range of 0...99,9 s. Reaching the preset limits is signalled by LED and simultaneously by the switch-on of the relevant relay.

Standard function

PROGRAMMABLE PROJECTION

Selection: of type of input measuring range

Setting: manual, in menu optional projection on the display may be set for both limit

values of the input signal Projection: 20, 30 or 50 LED

LINEARIZATION

Linearization: by linear interpolation in 25 points (solely via OM Link)

DIGITAL FILTERS

Exponential average: from 2...100 measurements Rounding: setting the projection step for display

EXTERNAL CONTROL

Hold display/instrument blocking Lock control keys blocking

Technical data

PROJECTION

Display: three-color LED (red/green/orange)

OMB 200 - 20 LED OMB 300 - 30 LED OMB 500 - 50 LED OMB 502 - 2x 50 LED Decimal point: setting - in menu Brightness: setting - in menu

INSTRUMENT ACCURACY

TC: 50 ppm/°C
Accuracy: 1 % of range + 1 digit Rate: 0,5/5/50/max. measurements/s Overload capacity: 10x (t < 30 ms); 2x Watch-dog: reset after 20 ms

Functions: HOLD, LOCK, Digital filters

OM Link: Company communication interface for operation, setting and update of instruments

Calibration: at 25 °C and 40 % r.h.

COMPARATOR

Type: digital, setting in prog. mode, contact switch < 50 ms

Limits: within full range Hysteresis: positive values

Output: 1(2)x bistable relays (250 VAC/30 VDC, 3 A), 1(2)x relays Form A (250 VAC/50 VDC, 3 A) only for

OMB 500/502

10...30 VDC/24 VAC, ±10%, max. 3 VA 10...30 V AC/DC, ±10 %, max. 10 VA (only for OMB 500/2) 80...250 V AC/DC, ±10 %, max. 10 VA (only for OMB 500/2)

MECHANIC PROPERTIES

Material: Noryl GFN2 SE1, incombustible UL 94 V-I Dimensions: OMB 200 72 x 24 x 100 mm OMB 300 96 x 24 x 100 mm OMB 500 144 x 48 x 75 mm Panel cutout: OMB 200 68 x 22.5 mm OMB 300 92 x 22,5 mm OMB 500 138 x 43,5 mm

OPERATING CONDITIONS

Connection: connectors, section < 2,5 mm²

Stabilization period: within 15 minutes after switch-on Working temperature: -20°....60°C
Storage temperature: -20°...85°C

Cover: IP40 (front panel only) El. safety: EN 61010-1, A2

Dielectric strength: 2,5 kVAC after 1 min between supply and input

Insulation resistance: for pollution degree II, measuring cat. III. power supply > 300 V (PI), 300 V (DI)

input, output, Exc. > 300 V (PI), 150 V (DI)

EMC: FN 61326-1

PI - Primary insulation, DI - Double insulation

Measuring ranges

OMB 200/300/500UNI is a multifunction instrument available in following types and ranges

0...20 mA/4...20 mA/0...2 V/ 0...5 V /0...10 V

онм: 0...100 kO

Pt 1000/KTY/Termistor RTD: Ni 1 000

DU: Linear potentiometer (min. 500 Ω)

typ OMB xxxRS

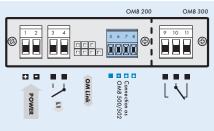
input RS 232/RS 485, protocol ASCII/MODBUS - RTU

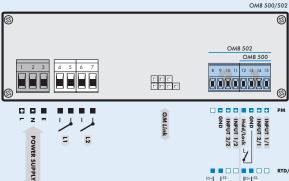
Connecting individual inputs

Order code

	INPUT 1	INPUT 2
PM	020 mA, 4 20 mA	0 2 V/05 V/010 V
ОНМ	0100 k Ω	
RTD	Pt 1 000/KTY/Termistor	
NI	Ni 1 000	
DU	Linear potentiometer (min. 500 Ω)	

Connection





RTD/OHM ES+ ES-■ □ □ □ ■ □ □ DU RxD/L+ TxD/L-GND

*GND (No. 9 and 13) are galvanically connected

OMB UNI-RS -2 0 0 Туре 3 0 0 5 0 0 • 5 0 2 • 10...30 V AC/DC 0 Power supply 80...250 V AC/DC 1 0 Comparators 1x relay *2x relays 2 Other customer version, do not fill in 0 * Only for type OMB 300 and OMB 500/502