

# OMB 200/300/500



- OMB 200** 1x 20 LED
- OMB 300** 1x 30 LED
- OMB 500** 1(2)x 50 LED
- PROCESS MONITOR**
- OHMMETER**
- THERMOMETER FOR Pt**
- THERMOMETER FOR Ni**
- DISPLAY INSTRUMENT FOR LINEAR POTENTIOMETERS**

## Description

The OMB 200/300/500 model series are simple vertical bargraphs designed for maximum purposefulness and comfort of the user while maintaining its good price.

The OMB 200/300/500UNI models are multifunction instrument with the option of configuration for 5 various types of inputs easily configurable in the instrument menu.

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

## Operation

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

**Light menu** is protected by optional number code and contains solely items necessary for instrument setting

**Profi menu** is protected by optional number code and 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). The program is also designed for visualization and filing of measured values from more instruments .

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.

- **Vertical tri-color bargraph 20/30/50 LED**
- **Multifunction input (PM, OHM, RTD, DU)**
- **Digital filter, Linearization**
- **Voltage 10...30 V AC/DC**

**OMLINK**

## Options

- Comparators

## Standard functions

### PROGRAMMABLE PROJECTION

**Selection:** of input type and 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 (UC):** setting the projection step for display

### EXTERNAL CONTROL

**Lock** control keys blocking

**Hold** display/instrument blocking

NEW

## Technical data

### PROJECTION

**Display:** tri-color LED (red/green/orange)  
 OMB 200 - 20 LED  
 OMB 300 - 30 LED  
 OMB 500 - 50 LED  
 OMB 502 - 2x 50 LED  
**Decimal point:** adjustable - in menu  
**Brightness:** adjustable - in menu

### INSTRUMENT ACCURACY

**TC:** 100 ppm/°C  
**Accuracy:** ±1% of the range + 1 digit  
**Rate:** 0,5/5/50/max. measurements/s  
**Overload capacity:** 10x (t < 30 ms); 2x  
**Watch-dog:** reset after 20 ms  
**Function:** 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, adjustable in menu, contact switch-on < 50 ms  
**Limit 1 and 2:** ±1999  
**Hysteresis:** 0...1999  
**Delay:** 0...99,9 s  
**Output:** 1 relay with switch-on contact (250 VAC/30 VDC, 3 A)  
 1 relay with switching contact (250 VAC/30 VDC, 3 A)

### POWER SUPPLY

10...30 V AC/DC, ±10%, 3 VA

### 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 72 x 24 mm  
 OMB 300 92 x 22,5 mm  
 OMB 500 138 x 43,5 mm

### OPERATING CONDITIONS

**Connection:** connector terminal board, section < 2,5 mm<sup>2</sup>  
**Stabilization period:** within 15 minutes after switch-on  
**Working temperature:** 0°...60°C  
**Storage temperature:** -10°...85°C  
**Cover:** IP40 (front panel only)  
**El. safety:** EN 61010-1, A2  
**Insulation resistance:** for pollution degree II, measuring cat. III.  
 power supply > 300 V (ZI), 300 V (DI)  
 input, output > 300 V (ZI), 250 V (DI)  
**EMC:** EN 61000-3-2+A12; EN 61000-4-2, 3, 4, 5, 8, 11; EN 550222, A1, A2

PI - Primary insulation, DI - Double insulation

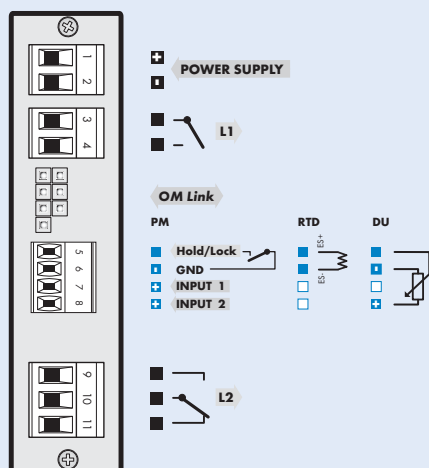
## Measuring ranges

OMB 200/300/500UNI are multifunction instruments in the following types and ranges

**PM:** 0...20 mA/4...20 mA/0...2 V/ 0...5 V /0...10 V  
**OHM:** 0...100 kΩ  
**RTD:** Pt 1000/KTY/Termistor  
**Ni:** Ni 1 000  
**DU:** Linear potentiometer (min. 500 Ω)

	INPUT 1	INPUT 2
PM	0...20 mA, 4... 20 mA	0... 2 V/0...5 V/0...10 V
OHM	0...100 k Ω	
RTD	Pt 1 000/KTY/Termistor	
NI	Ni 1 000	
DU	Linear potentiometer (min. 500 Ω)	

## Connection



## Order code

**OMB**    -

Type	2	0	0	•
	3	0	0	•
	5	0	0	•
	5	0	2	•

Comparators	no	0
	1x relay	1
	2x relay*	2

\* Only for type OMB 300 and OMB 500/502