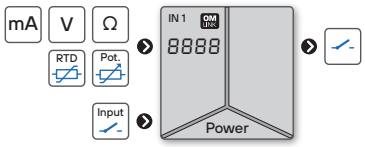
# OMB 200UNI

- Three-color bargraph - 20 LED
- Multifunction input (PM, OHM, RTD, DU)
- Digital filters, Linearization
- Size of DIN 72 x 24 mm
- Power supply 10...30 VDC / 24 VAC

## Option

Comparator

UNIVERSAL BARGRAPH




The OMB 200/300/500UNI model series are simple bargraphs designed for maximum efficiency and user comfort while maintaining their favourable price.

Type OMB 200UNI is a multifunction instrument with the option of configuration

for 5 various input options, easily configurable in the instrument menu.

The instrument is based on a microcontroller with ADC which secures good accuracy, stability and easy operation of the instrument.

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

## OPERATION

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

**LIGHT MENU** contains solely items necessary for instrument setting.

**PROFI MENU** contains complete instrument setting, which is accessible only via OM Link.

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

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

## OPTION

**COMPARATOR** is assigned to monitor one limit value with relay output. The limit has adjustable hysteresis within full range of the display and selectable delay of the switch-on within the range of 0...99 s. Reaching the preset limits is signalled by LED and simultaneously by the switch-on of the relevant relay.

## 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 LED

**FUNCTIONS**
**Linearization:** non-linear signal is converted by a 25-point linear interpolation

**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

### INPUT

| | | | |
|---|---|---|---|
| No. of inputs | 1<br>The range is adjustable in the instrument menu | | |
| PM Range | 0...20 mA<br>4...20 mA<br>0...2 V<br>0...5 V<br>0...10 V | < 1.2 V<br>< 1.2 V<br>182 kΩ<br>182 kΩ<br>182 kΩ | Input 1<br>Input 1<br>Input 2<br>Input 2<br>Input 2 |
| OHM Range | 0...100 kΩ | | |
| Connection | 2-wire | | |
| RTD Range | Pt 1 000, 3 850 ppm/°C | | -50°...450°C |
| Connection | 2-wire | | |
| Ni Range | Ni 1 000, 5 000 ppm/°C | | -50°...250°C |
| Connection | 2-wire | | |
| DU Sensor power supply | 2.5 VDC/6 mA,<br>potentiometer resistance > 500 Ω | | |

### EXTERNAL INPUT

| | |
|---|---|
| No. of inputs | 1, on contact |
| Function | OFF no function assigned<br>LOCK control keys blocking<br>HOLD measurement paused |

### PROJECTION

| | |
|---|---|
| Bargraph display | 20 LED |
| Bar color | red / green / orange |
| Brightness | adjustable - in menu |

### INSTRUMENT SPECIFICATION

| | |
|---|---|
| TC | 50 ppm/°C |
| Accuracy | ±1% of FS + 1 digit |
| Rate | 0.5...50 measurement/s |
| Overload | 10x (t < 30 ms), 2x |
| Compensation of conduct | < 30 Ω RTD |
| Digital filters | exponential average, rounding |
| Linearization | linear interpolation in 25 points<br>*setup only via OM Link* |
| OM Link | company communication interface for operation, setting and update of instruments |
| Watch-dog | reset after 25 ms |
| Calibration | at 25°C and 40 % r.h. |

### RELAYS OUTPUT

| | |
|---|---|
| No. of outputs | 1 |
| Type | digital, menu adjustable |
| Mode | HYSTER. active above set value |
| Function Relays | CLOSE is closed in active mode<br>OPEN is open in active mode |
| Limits | -99999...999999 |
| Hysteresis | 0...999999 |
| Delay | 0...99.9 s |
| Outputs | 1x bistable relays (250 VAC/250 VDC, 3 A/0,3 A) |
| Relays | 1/8 HP 277 VAC, 1/10 HP 125 V, Pilot Duty D300 |

* values apply for resistance load

### POWER SUPPLY

| | |
|---|---|
| Range | 10...30 V DC / AC, ±10 %, PF ≥ 0.4, $I_{STP}$ < 40 A / 1 ms, isolated |
| Consumption | < 1.8 W / 1.9 VA |

### MECHANIC PROPERTIES

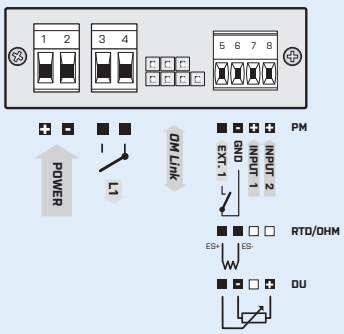
| | |
|---|---|
| Material | Noryl GFN2 SE1, incombustible UL 94 V-I, black |
| Dimensions | 72 x 24 x 100 mm (w x h x d) |
| Panel cutout | 68 x 21.5 mm (w x h) |

### OPERATING CONDITIONS

| | |
|---|---|
| Connection | connector terminal blocks, section < 1.5 / 2.5 mm² |
| Stabilization period | within 5 minutes after switch-on |
| Working temperat. | -20°...60°C |
| Storage temperat. | -20°...85°C |
| Working humidity | < 95 % r.v., non condensing |
| Protection | IP40, front panel only |
| Construction | safety class I |
| El. safety | EN 61010-1, A2 |
| Dielectric strength | 2.5 kVAC for 1 min. between power supply and input<br>4 kVAC per 1 min test between input and relay output |
| Insulation resist.* | for pollution degree II, measuring cat. III<br>power supply > 300 V (PI)<br>input, output > 300 V (PI), 150 V (DI) |
| EMC | EN 61326-1, Industrial area |
| Seismic qualification | IEC/IEEE 60980-344 Edition 1.0, 2020, par. 6, 9 |
| Mechanical resistance | EN 60068-2-6 ed. 2:2008 |

* PI - Primary insulation, DI - Double insulation

## CONNECTION




## ORDER CODE

**OMB 200UNI** - ☐ - ☐

| | | |
|---|---|---|
| **Comparator** | no | **0** |
| | 1x relay (Form A) | **1** |
| **Specification** | customized version, do not fill in | **00** |

Basic configuration of the instrument is indicated in bold.