## BARGRAPH FOR DATA LINES

- THREE-COLOR BARGRAPH - 50 LED
- INPUT: RS 232/485
- ASCII, MODBUS RTU
- DIGITAL FILTERS, LINEARIZATION
- SIZE OF DIN 144 x 48 MM
- POWER SUPPLY 10...30 V AC/DC; 80...250 V AC/DC
- Option
  Comparators

# **OMB** 500RS

OMLINK

The OMB 200/300/500UNI model series are simple bargraphs.
Type OMB 500RS is a bargraph for data lines RS 232/485.
The instrument is based on a single-chip microcontroller, which secures an 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.

**OMB** 500RS
DATA DISPLAY RS 232/485

## 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

**COMPARATORS** are assigned to monitor one or two limit values 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**
**Input:** RS 232/485
**Protocol:** ASCII - Master/Slave/Universal or MODBUS RTU
**Projection:** -99999...999999
**Projection:** 50 LED

**FUNCTIONS**
**Linearization:** through linear interpolation in 25 points (solely via OM Link)

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

## TECHNICAL DATA

### INPUT

| | | |
|---|---|---|
| **RS** | **Input** | RS 232/RS 485 |
| | **Protocol** | **ASCII**<br>- data display, controlled from the master system<br>**ASCII - Master**<br>- the instrument controls data sending from the slave system<br>- „COMM" can be used to select the received data<br>- the instrument asks with the rate of 10 queries/s<br>**ASCII - Slave**<br>- Passive bus display where other devices or computers communicate in „MAST." mode. If the „COMM" and the requested data are correctly received, they will be displayed by the instrument<br>**ASCII - Universal**<br>- in dynamic menu items (Stat, Ad.Un, Sign, Data, Stop, Req.) you can build your own communication protocol format<br>**MODBUS RTU** |
| | **Format** | 8 bit + no parity + 1 stop bit<br>7 bit + even parity + 1 stop bit |
| | **Rate** | 300...230 400 Baud |

### PROJECTION

Display: 50 LED
Bar color: red/green/orange
Decimal point: adjustable - in menu
Brightness: adjustable - in menu

### INSTRUMENT ACCURACY

TK: 50 ppm/°C
Linearization: linear interpol. in 25 points (only via OM Link)
Digital filters: exponential average, rounding
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.

### COMPARATOR

Type: digital, menu adjustable, contact switch-on < 50 ms
Hysteresis mode: switching limit, hysteresis band „Lim ±1/2 Hys." and time (0...99,9 s) determining the switching delay
Output: 1...2x relays Form A (250 VAC/30 VDC, 3 A);
1...2x open collector (30 VDC/100 mA)

### POWER SUPPLY

Range: 10...30 V AC/DC, ±10 %, PF≥0,4, $I_{STP}$< 45 A/1 ms, isolated
80...250 V AC/DC, ±10 %, PF≥0,4, $I_{STP}$< 45 A/1 ms, isolated
Consumption: < 3,5 W/3,9 VA
Power supply is protected by a fuse inside the instrument.

### MECHANIC PROPERTIES

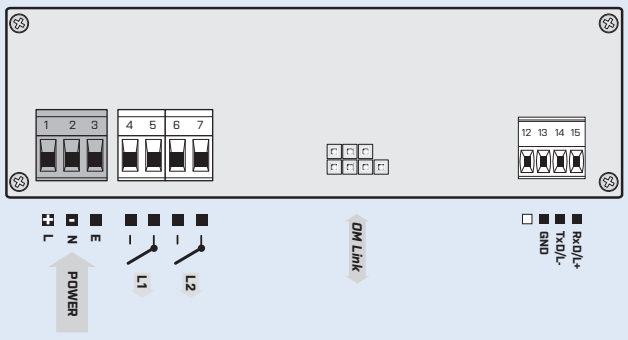
Material: Noryl GFN2 SE1, incombustible UL 94 V-I
Dimensions: 144 x 48 x 75 mm (w x h x d)
Panel cutout: 138 x 43,5 mm (w x h)

### OPERATING CONDITIONS

Connection: connector terminal blocks, section < 1,5/2,5 mm²
Stabilization period: within 15 minutes after switch-on
Working temperature: -20°...60°C
Storage temperature: -20°...85°C
Protection: IP40 (front panel only)
El. safety: EN 61010-1, A2
Dielectric strength: 4 kVAC per 1 min test between supply and input
4 kVAC per 1 min test between input and relay output
Insulation resistance: for pollution degree II, measuring cat. III
power supply > 300 V (PI)
input, output > 300 V (PI), 150 V (DI)
EMC: EN 61326-1

PI - Primary insulation, DI - Double insulation

## CONNECTION




## ORDER CODE

**OMB 500RS** - ☐☐ - ☐

| | | | | |
|---|---|---|---|---|
| Power supply | 10...30 V AC/DC | **0** | | |
| | **80...250 V AC/DC** | **1** | | |
| Comparators | **no** | | **0** | |
| | 1x relay (Form A) | | **1** | |
| | 2x relay (Form A) | | **2** | |
| | 1x open collector | | **3** | |
| | 2x open collector | | **4** | |
| Specification | **customized version, do not fill in** | | | **00** |

Basic configuration of the instrument is indicated in bold.