



OMB 452

The OMB 452 model series are programmable, three-color panel bargraphs with auxiliary display and adjustable LCD scale. The instruments are designed as dimensional replacement of the ZEPAKOMP instruments. Available are types UNI, PWR and UQC.

Type OMB 452UNI is a multifunction instrument with the option of configuration for 8 different types of input, easily configurable in the instrument menu.

The instrument is based on an 8-bit microcontroller with multi-channel 24-bit sigma-delta converter, which secures high accuracy, stability and easy operation of the instrument.



- BARGRAPH - 50 LED WITH DISPLAY AND LCD SCALE
- MULTIFUNCTION INPUT (DC, PM, RTD, T/C, DU)
- DIGITAL FILTERS, TARE, LINEARIZATION
- SIZE OF DIN 160 x 80 MM
- POWER SUPPLY 80...250 V AC/DC
- Option
 - Comparators • Data output • Analog output • Data record
 - Power supply 10...30 V AC/DC

OMB 452UNI

DC VOLTMETER AND AMMETER
 PROCESS MONITOR
 OHMMETER
 THERMOMETER FOR PT/CU/NI/THERMOCOUPLES
 DISPLAY UNIT FOR LINEAR POTENTIOMETERS

OMB 452PWR

AC VOLTMETER AND AMMETER
 AC NETWORK ANALYSER

OMB 452UQC

UNIVERSAL COUNTER

OPERATION

The instrument is set and controlled by two control keys and a turn knob located on the front panel. All programmable settings of the instrument are implemented in three setting modes.

LIGHT MENU is protected by optional number code and contains solely items necessary for instrument setting

PROF MENU is protected by optional number code and contains complete instrument setting

USER MENU may contain arbitrary items from the programming menu (LIGHT/PROF), which determine the right (see, change). Access w/o password.

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).

OPTION

COMPARATORS are assigned to monitor one, two, three or four limit values with relay output. The user may select limits regime: LIMIT/DOSING/FROM-TO. 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.

DATA OUTPUTS are for their rate and accuracy suitable for transmission of the measured data for further projection or directly into the control systems. We offer an isolated RS232 and RS485 with the ASCII/MESSBUS/MODBUS/PROFIBUS protocol.

ANALOG OUTPUTS will find their place in applications where further evaluating or processing of measured data is required in external devices. We offer universal analog output with the option of selection of the type of output - voltage/current. The value of analog output corresponds with the displayed data and its type and range are selectable in menu.

MEASURED DATA RECORD is an internal time control of data collection. It is suitable where it is necessary to register measured values. Two modes may be used. FAST is designed for fast storage (40 records/s) of all measured values up to 8 000 records. Second mode is RTC, where data record is governed by Real Time with data storage in a selected time segment and cycle. Up to 266 000 values may be stored in the instrument memory. Data transmission into PC via serial interface RS232/485 and OM Link.

STANDARD FUNCTIONS**PROGRAMMABLE PROJECTION**

Selection: of input type and measuring range

Measuring range: adjustable as fixed or with automatic change (OHM)

Scale: LCD, freely programmable

Measuring modes (PWR): voltage (V_{RMS}), current (A_{RMS}), real power (W), frequency (Hz) and with calculation of Q, S, cos ϕ

Setting (UQC): measuring mode 2x counter (UP/DW, IRC)/2x frequency/timer/clock with adjustable calibration coefficient, time base and projection

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

Projection: 50 LED + 6-digit auxiliary display

COMPENSATION

Of conduct (RTD, OHM): automatic (3- and 4-wire) or manual in menu (2-wire)

of conduct in probe (RTD): internal connection (conduct resistance in measuring head)

of CJC (T/C): manual or automatic, in menu it is possible to perform selection of the type of thermocouple and compensation of cold junctions, which is adjustable or automatic

LINEARIZATION

Linearization (DC, PM, DU): through linear interpolation in 50 points (solely via OM Link)

DIGITAL FILTERS

Filtration constant (UQC): transmits input signal up to 10...2 000 Hz

Floating/Exp./Arithmetic average: from 2...30/100/100 measurements

Rounding: setting the projection step for display

EXCITATION

Range: 5...24 VDC, for feeding of sensors and transmitters

MATHEMATIC FUNCTIONS

Min/max. value: registration of min/max. value reached during measurement

Tare: designed to reset display upon non-zero input signal

Peak value: the display shows only max. or min. value

Mat. operations: polynome, 1/x, logarithm, exponential, power, root, sin x and at the same time between inputs - sum, difference, product, quotient

EXTERNAL CONTROL

Lock: control keys blocking

Hold: display/instrument blocking

Tare: tare activation

Resetting MM: resetting min/max value

