



- 3½-DIGIT PROGRAMMABLE PROJECTION
- MULTIFUNCTION INPUT UNI (DC, PM, RTD, T/C, DU)
- UNIVERSAL COUNTER
- DATA DISPLAY
- DIGITAL FILTERS, LINEARIZATION
- SIZE OF DIN 48 X 24MM
- POWER SUPPLY 10...30 V AC/DC

## OMM 323

**OMLINK**

The OMM 323 model range are inexpensive 3½ digit panel programmable instruments designed for simple applications. Versions UNI, RS and UQC are available.

Type OMM 323UNI is a multifunction instrument with the option of configuration for 8 different input options, easily configurable in the instrument's menu.

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

### OMM 323UNI

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

### OMM 323UQC

UNIVERSAL COUNTER

### OMM 323RS

DATA DISPLAY RS 485

### OPERATION

Instrument is controlled by 4 buttons which are accessed from the rear. All programmable settings of the instrument may be performed in three adjusting 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).

### STANDARD FUNCTIONS

#### PROGRAMMABLE PROJECTION

**Selection:** of input type and measuring range

**Setting (UNI):** manual, in menu optional projection on the display may be set for both limit values of the input signal, e.g. input 0...19,99 V ⇒ 0...150,0

**Setting (UQC):** measuring mode counter/frequency/timer/ counter for IRC/clock with adjustable calibration coefficient, time base and projection

**Measuring modes (UQC):** counter/frequency/UP-DW counter/frequency/couter for IRC

**Measuring channels (UQC):** A and B, from one measuring input two independent functions may be evaluated (counter/frequency)

**Input (RS):** RS 485, with protocols ASCII or MODBUS - RTU

**Projection:** 9999

#### 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:** 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

#### EXTERNAL CONTROL

**Hold:** display/instrument blocking

**Lock:** control keys blocking

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

## TECHNICAL DATA

### PROJECTION

**Display:** 9999, red or green 7-segment LED, digit height 9,1mm  
**Decimal point:** setting - in menu  
**Brightness:** setting - in menu

### INSTRUMENT ACCURACY

**TK:** 50 ppm/°C  
**Accuracy:** ±0,15% of range + 1 digit  
 ±0,3% of range + 1 digit **T/C**  
**Accuracy of cold junction measurement:** ±1,5°C  
**Rate:** 0,5...20 meas./s  
**Overload capacity:** 2x; 10x (t < 30 ms)  
**Resolution:** 0,1°C [RTD], 1°C [T/C]  
**Watch-dog:** reset after 500 ms  
**Functions:** HOLD, LOCK, Digital filters, Tare  
**OM Link:** Company communication interface for operation, setting and update of instruments  
**Calibration:** at 25°C and 40% r.h.

### POWER SUPPLY

10...30 VDC/24 VAC, ±10%, 3 VA, PF≥0,4, I<sub>STEP</sub> < 45 A/1,1 ms  
 10...30 VDC/24 VAC, ±10%, 3 VA, PF≥0,4, I<sub>STEP</sub> < 45 A/1,1 ms, isolated

### MECHANICAL PROPERTIES

**Material:** Noryl GFN2 SE1, incombustible UL 94 V-1  
**Dimensions:** 48 x 24 x 72 mm  
**Panel cutout:** 43,5 x 21,5 mm

### OPERATING CONDITIONS

**Connection:** connector terminal board, section < 1,5 mm²  
**Stabilization period:** within 15 minutes after switch-on  
**Working temperature:** -20°...60°C  
**Storage temperature:** -20°...85°C  
**Cover:** IP42 (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 [Z]  
**EMC:** EN 61326-1

PI - Primary insulation, DI - Double insulation

## MEASURING RANGES

OMM 323 is a multifunction instrument available in following types and ranges

### type UNI

**DC:** ±90/±180 mA, ±30/±60 mV; ±1/±20/±40/±80 V  
**PM:** ±20 mA/4...20 mA; ±2/±5/±10 V  
**OHM:** 0...100/300 Ω/0...3/24/30 kΩ  
**RTD:** Pt 50/100/1 000  
**Cu:** Cu 50/100  
**Ni:** Ni 1 000/10 000  
**T/C:** J/K/T/E/B/S/R/N/L  
**DU:** Linear potentiometer (min. 500 Ω)

### type UQC

**UQC:** 0...30 V, comparison levels are adjustable in the menu  
 input frequency 0,1 Hz...50 kHz [20 kHz for QUADR and UP/DW, 10 kHz for QUADR - counter]

### type RS

**RS** RS 485, with protocole ASCII or MODBUS - RTU

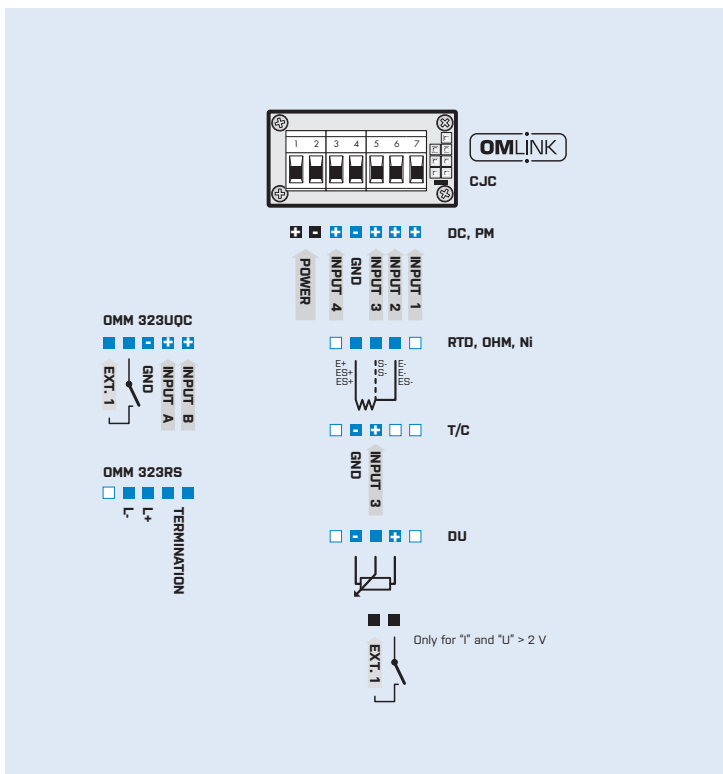
### CONNECTING INDIVIDUAL INPUTS

	INPUT 1	INPUT 2	INPUT 3	INPUT 4
<b>DC</b>	±20/±40/±80 V		±30/60 mV/±1 V	±90/±180 mA
<b>PM</b>	±2/±5/±10 V			±5/20 mA, 4...20 mA
<b>T/C</b>			J/K/T/E/B/S/R/N/L	

### ORDER CODE SPECIFICATION

RS	
<b>A</b>	ASCII
<b>B</b>	MODBUS RTU

## CONNECTION



## ORDER CODE

### OMM 323

Type	U	N	I	1	•	
	U	Q	C	•	•	
	R	S	•	•	•	
<b>Power supply</b>	10...30 V AC/DC	<b>0</b>				
	10...30 V AC/DC, isolated	<b>1</b>				
<b>Measuring range</b> , see table „Specification“				?		
<b>Display color</b>	red			<b>1</b>		
	green			<b>2</b>		
<b>Other</b>	customer version, do not fill in					<b>00</b>

Default execution is shown in bold