



Data Sheet
OMM 323UNI

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- 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

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

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

User menu may contain arbitrary items from the programming menu (LIGHT/PROFI), 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).

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 amultifunction 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

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 protocole 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_{STEP} < 45 A/1,1 ms
 10...30 VDC/24 VAC, ±10%, 3 VA, PF≥0,4, I_{STEP} < 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

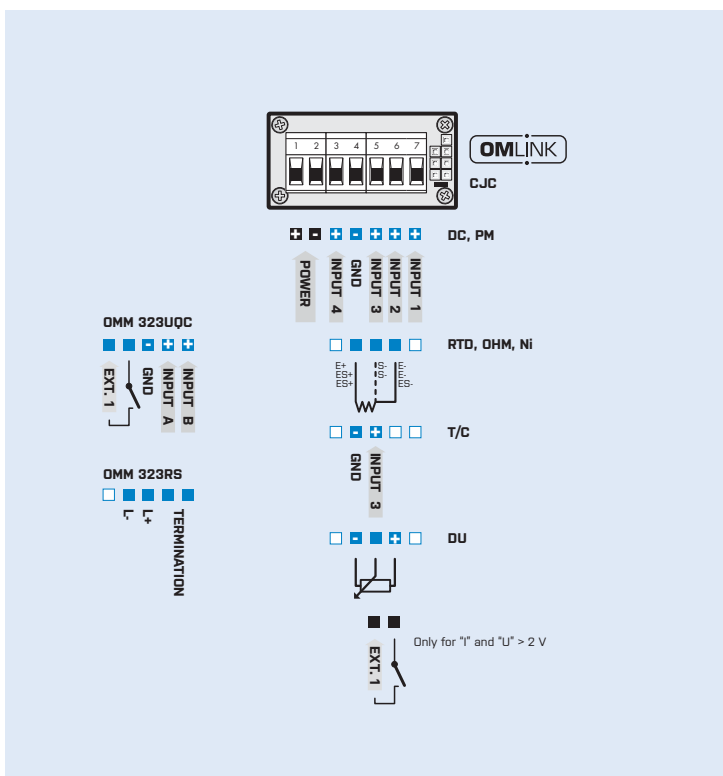
CONNECTING INDIVIDUAL INPUTS

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

ORDER CODE SPECIFICATION

RS	
A	ASCII
B	MODBUS RTU

CONNECTION



ORDER CODE

OMM 323

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

Default execution is shown in bold