

OMM 323UNI



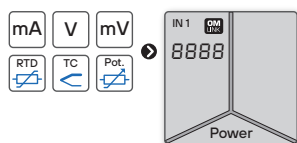
- 3.5-digit programmable projection
- Multifunction input UNI (DC, PM, RTD, T/C, DU)
- Digital filters, Tare, Linearization
- Size of DIN 48 x 24 mm
- Power supply 10...30VDC/24 VAC

The OMM 323 model range are inexpensive 3.5-digit panel programmable instruments designed for simple applications.

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

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

UNIVERSAL INSTRUMENT



OPERATION

The instrument is controlled by four buttons situated under the front panel. 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 performing 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 (settings hold even after the instrument is switched off).

STANDARD FUNCTIONS

PROGRAMMABLE PROJECTION

Selection: of input type and measuring range

Setting: manual, optional projection on the display may be set in menu for both limit values of the input signal, e.g. input 0...19.99 V > 0...150.0

Projection: -999...9999

COMPENSATION

Wiring (RTD, OHM): automatic (3-wire) or manual in menu (2-wire)

Probes (RTD): internal wiring (resistance of conductors in the measuring head)

CJC (T/C): manual or automatic (terminal temperature)

FUNCTIONS

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

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

DIGITAL FILTERS

Exponential average: from 2...100 measurements

Rounding: setting the projection step for display

EXTERNAL CONTROL

Hold: display/instrument blocking

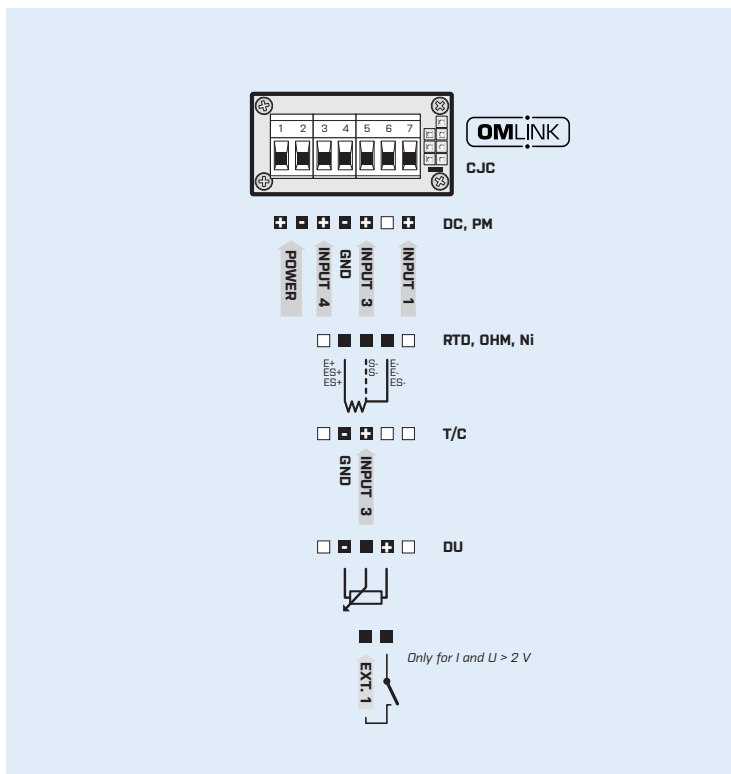
Tare: designed to reset display upon non-zero input signal

TECHNICAL DATA

INPUT		PROJECTION		POWER SUPPLY	
No. of inputs	1 The range is adjustable in the instrument menu	Display	-999...9999, single color 7-segment LED	Range	10...30 VDC / 24 VAC, ±10 %, PF ≥ 0.4, $I_{max} < 45 A / 1 ms$, isolated
DC Range	±30 mV > 10 MΩ Input 3	Digit height	9.1 mm	Consumption	< 1 W / 11 VA
	±60 mV > 10 MΩ Input 3	Display color	red or green	MECHANIC PROPERTIES	
	±1000 mV > 10 MΩ Input 3	Decimal point	adjustable - in menu	Material	Noryl GFN2 SE1, incombustible UL 94 V-1, black
	±20 V 1 MΩ Input 1	Brightness	adjustable or automatically controllable	Dimensions	48 x 24 x 72 mm (w x h x d)
	±40 V 1 MΩ Input 1	INSTRUMENT SPECIFICATION		Panel cutout	43.5 x 21.5 mm (w x h)
±80 V 1 MΩ Input 1	TC	50 ppm/°C	OPERATING CONDITIONS		
±90 mA < 1 V Input 4	Accuracy	±0.15 % of FS + 1 digit ±0.3 % of FS + 1 digit T/C <i>the specified accuracy applies to 20 measurements/s</i>	Connection	connector terminal blocks, section < 1.5 mm²	
±180 mA < 2 V Input 4	Rate	0.5...20 measurements/s	Stabilization period	within 5 minutes after switch-on	
PM Range	±5 mA < 200 V Input 4	Overload	10x (t < 30 ms), 2x	Working temperat.	-20°...60°C
	±20 mA < 200 V Input 4	Compensation of conduct	< 30 Ω RTD	Storage temperat.	-20°...85°C
4...20 mA < 200 V Input 4	Measurement accuracy CJC	±1.5°C T/C	Resolution	0.1°C RTD 1°C T/C	
±2 V 1 MΩ Input 1	Resolution	0.1°C RTD 1°C T/C	Functions	Tare	
±5 V 1 MΩ Input 1	Digital filters	exponential average, rounding	Linearization	linear interpolation in 25 points <i>setup only via OM Link</i>	
±10 V 1 MΩ Input 1	OM Link	company communication interface for operation, setting and update of instruments	Watch-dog	reset after 500 ms	
OHM Range	0...100 / 300 Ω	Connection	2, 3- and 4-wire with broken cable/sensor detection	Calibration	at 25°C and 40 % r.h.
	0...15 / 3 / 24 / 30 kΩ		Range	Pt 100 / 500 / 1 000, 3 850 ppm/°C -50°...450°C	EXTERNAL INPUT
RTD Range	Pt 100, 3 920 ppm/°C -50°...450°C	No. of inputs		1, on contact	
	Pt 50, 3 910 ppm/°C -200°...1100°C	Function	OFF no function assigned TARE tare activation HOLD measurement paused		
Pt 100, 3 910 ppm/°C -200°...450°C	Connection	2, 3- and 4-wire with broken cable/sensor detection			
Ni Range		Ni 1 000 / 10 000, 5 000 ppm/°C -50°...250°C	2, 3- and 4-wire with broken cable/sensor detection		
	Ni 1 000 / 10 000, 6 180 ppm/°C -200°...250°C	Range	Cu 50 / 100, 4 260 ppm/°C -50°...200°C		
Cu 50 / 100, 4 280 ppm/°C -200°...200°C	Connection		2, 3- and 4-wire with broken cable/sensor detection		
T/C Range		J (Fe-CuNi) -200°...900°C	CJC	adjustable -20°...99°C or automatical	
	K (NiCr-Ni) -200°...1 300°C				
	T (Cu-CuNi) -200°...400°C				
	E (NiCr-CuNi) -200°...690°C				
	B (PtRh30-PtRh6) 300°...1 820°C				
	S (PtRh10-Pt) -50°...1 760°C				
	R (Pt13Rh-Pt) -50°...1 740°C				
	N (Omegalloy) -200°...1 300°C				
	L (Fe-CuNi) -200°...900°C				
	with broken cable/sensor detection				
	DU Sensor power supply			2.5 VDC / 6 mA, potentiometer resistance > 500 Ω	

* PI - Primary insulation, DI - Double insulation

CONNECTION



ORDER CODE

OMM 323UNI		-	□	-	□
Display color	red	1	□	□	□
	green	2	□	□	□
Specification	customized version, do not fill in input 1 > 0...199.9 V	00	□	□	□
		01	□	□	□

Basic configuration of the instrument is indicated in bold.