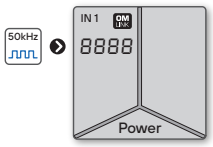
OMM 323UQC

- 4-digit programmable projection
- Counter/frequency/clock/timer
- 0.1 Hz...50 kHz; UP/DW counter, IRC
- Digital filters, Tare, Linearization, Sum
- Size of DIN 48 x 24 mm
- Power supply 10...30 VDC / 24 VAC

Type OM 323UQC is an inexpensive 4-digit universal panel counter/frequency meter/timer/clock, designed for maximum usefulness and user comfort while maintaining its fair price.

The instrument is based on a microcontroller, which ensure good accuracy, stability and easy operation of the instrument.

UNIVERSAL COUNTER



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
Input: NPN, PNP, on contact, IRC,
Setting: measuring mode counter/frequency/timer with adjustable calibration coefficient, time base and projection
Measuring modes: counter/frequency/UP-DW counter/frequency/counter for IRC
Measur. channels: A and B, from one measuring input two independent functions may be evaluated (counter/frequency)
Time base: 0.5/1/5/10 s
Projection: -999...9999 with fixed or floating DT format 10/24/60

FUNCTIONS
Linearization: non-linear signal is converted by a 25-point linear interpolation
Tare: designed to reset display upon non-zero input signal
Preset: initial nonzero value that is always read after resetting the device
Current value: one-off setting of the initial value
Summation: registration of figures upon shift operation

DIGITAL FILTERS
Exponential average: from 2...100 measurements
1/Fr.: filter to convert frequency to time
Rounding: setting the projection step for display
Input filter: passes the input signal up to 5...1 000 Hz

EXTERNAL CONTROL
Hold: display/instrument blocking
Lock: control keys blocking
Resetting: counter resetting
Start/Stop: timer/clock control
Sum: projection/resetting
Projection: counter/frequency measurement

TECHNICAL DATA

INPUT

No. of inputs	1 The range is adjustable in the instrument menu	
UQC Input	on contact, TTL, NPN/PNP 0...60 V, comparation levels are adjustable in the menu or automatic	
Input frequency	0.1 Hz...50 kHz 0.1 Hz...20 kHz 0.1 Hz...20 kHz 0.1 Hz...20 kHz 0.1 Hz...10 kHz	SINGLE UP/DW UP-DW QUADR., frequency QUADR., counter, duty cycle 50 %
Measuring mode	SINGLE QUADR UP/DW UP - DW TIME	counter/frequency counter/frequency for IRC sensors UP/DW counter/frequency - measures on inputs A, B (direction) and can display numbers/frequency UP - DW counter/frequency - measures on inputs A (UP), B (DW) and can display numbers/frequency Timer
Time base	0.5 / 1 / 5 / 10 s	
Multiplication constant	0.001...9999	
Dividing constant	0.001...9999	
Preset	0...9999	
Input filter	0 / 5 / 40 / 100 / 1000 Hz	
Functions	Preset Summation One time setting of the initial value	

EXTERNAL INPUT

No. of inputs	1, on contact	
Function	OFF TARE HOLD CLEAR SUMA CLR.ST. CL.SUM. COUNT.	no function assigned tare activation measurement paused display reseting sum showing counter/timer reset and preset sum reset switching counter/frequency display

PROJECTION

Display	-999...9999, single color 7-segment LED 99.59 hours / minutes 23.59 hours / minutes 59.59 minutes / seconds 99.59 minutes / seconds	 TIME TIME TIME TIME
Digit height	9.1 mm	
Display color	red or green	
Decimal point	adjustable - in menu	
Brightness	adjustable or automatically controllable	

INSTRUMENT SPECIFICATION

TC	50 ppm/°C
Accuracy	±0.05 % of value + 1 digit
Overload	2x
Functions	Tare, data backup, Preset, Summation
Digital filters	exponential average, rounding
Linearization	linear interpolation in 25 points *setup only via OM Link*
OM Link	company communication interface for operation, setting and update of instruments
Watch-dog	reset after 500 ms
Calibration	at 25°C and 40 % r.h.

POWER SUPPLY

Range	10...30 VDC / 24 VAC, ±10 %, PF ≥ 0.4, I_{STP} < 45 A / 1 ms, isolated
Consumption	< 1 W / 1.1 VA

MECHANIC PROPERTIES

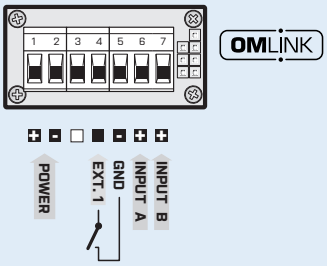
Material	Noryl GFN2 SE1, incombustible UL 94 V-I, black
Dimensions	48 x 24 x 72 mm (w x h x d)
Panel cutout	43.5 x 21.5 mm (w x h)

OPERATING CONDITIONS

Connection	connector terminal blocks, section < 1.5 mm²
Stabilization period	within 5 minutes after switch-on
Working temperat.	-20°...60°C
Storage temperat.	-20°...85°C
Working humidity	< 95 % r.v., non condensing
Protection	IP42, front panel only
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2.5 kVAC for 1 min. between power supply and input
Insulation resist.*	for pollution degree II, measuring cat. III power supply > 300 V (PI)
EMC	EN 61326-1, Industrial area
Seismic qualification	IEC/IEEE 60980-344 Edition 1.0, 2020, par. 6, 9
Mechanical resistance	EN 60068-2-6 ed. 2:2008

* PI - Primary insulation, DI - Double insulation

CONNECTION



ORDER CODE

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Power supply	10...30 VDC / 24 VAC	**0**		
	10...30 VDC / 24 VAC, isolated	**1**		
Display color	red		**1**	
	green		**2**	
Specification	customized version, do not fill in			**00**

Basic configuration of the instrument is indicated in bold.