OMM 323UQC

UNIVERSAL COUNTER

- 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 single-chip microcontroller and an A/D converter, which ensure good accuracy, stability and easy operation of the instrument.

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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 meter/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 signals can be linearized by the means of a linearization table (up to 25 points)
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

Number of inputs		1
UQC	Input	optional in configuration menu on contact, TTL, NPN/PNP 0...60 V, comparation levels are adjustable in the menu or automatic
	Input freq.	0,1 Hz...50 kHz (Mode SINGLE) 0,1 Hz...20 kHz (Mode UP/DW) 0,1 Hz...20 kHz (Mode UP-DW) 0,1 Hz...20 kHz (Mode QUADR. - frequency) 0,1 Hz...10 kHz (Mode QUADR. - counter) (for duty cycle 50 %)
	Measuring mode	SINGLE counter/frequency QUADR counter/frequency for IRC sensors UP/DW UP/DW counter/frequency - measures on inputs A, B (direction) and can display numbers/frequency UP - DW UP - DW counter/frequency - measures on inputs A (UP), B (DW) and can display numbers/frequency TIME Timer
	Time base	0,5/1/5/10 s
	Calibration 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		1 input, on contact **The following functions can be assigned:** OFF input off LOCK.K control keys blocking HOLD display stop TARE tare activation CLEAR display reset SUMA sum showing CLR.ST. counter/timer reset and preset CL.SUM. sum reset COUNT. switching counter/frequency display

PROJECTION

Display: -999...9999, single color 7-segment LED
Digit height: 9,1 mm
Display color: red or green
Decimal point: adjustable - in menu
Brightness: adjustable or automatically controllable

INSTRUMENT ACCURACY

TC: 50 ppm/°C
Accuracy: ±0,05 % of value + 1 digit
±0,01 % of value ±2ms (timer)
±0,01 % of value ±130ms (RTC)
Overload capacity: 2x; 10x (t < 30 ms)
Watch-dog: reset after 500 ms
Digital filters: exponential average, rounding
Functions: data backup, Preset, Summation
Input filters: filtration constant, rounding
OM Link: company communication interface for operation, setting and update of instruments
Calibration: at 25°C and 40 % r.h.

POWER SUPPLY

Range: 10...30 VDC/24 VAC, ±10 %, PF ≥ 0,4, I_{STP} < 45 A/1,1 ms
10...30 VDC/24 VAC, ±10 %, PF ≥ 0,4, I_{STP} < 45 A/1,1 ms, isolated
Consumption: < 1 W/1,1 VA

MECHANIC PROPERTIES

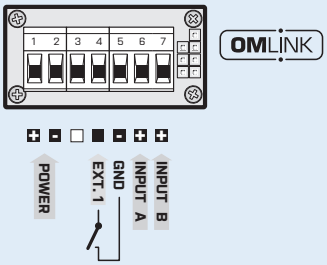
Material: Noryl GFN2 SE1, incombustible UL 94 V-I
Dimensions: 48 x 24 x 72 mm (w x h x d)
Panel cutout: 43,5 x 21,5 mm (w x h)

OPERATING CONDITIONS

Connection: connector terminal blocks, section < 1,5 mm²
Stabilization period: within 5 minutes after switch-on
Working temperature: -20°...60°C
Storage temperature: -20°...85°C
Protection: IP42 (front panel only)
El. safety: EN 61010-1, A2
Dielectric strength: 2,5 kVAC per 1 min test between supply and input
Insulation resistance: for pollution degree II, measuring cat. III
power supply > 300 V (PI)
EMC: EN 61326-1

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.