OMM 650UC

OMLINK

The OMM 650UC type is a universal low-cost counter/frequencymeter/stopwatch.
The instrument is based on an 8-bit microcontroller, which ensures good accuracy, stability and easy operation of the instrument.

- 6-DIGIT PROGRAMMABLE PROJECTION
- COUNTER/FREQUENCY/TIMER/CLOCK
- DIGITAL FILTERS, LINEARIZATION
- SIZE OF DIN 72 x 24 MM
- POWER SUPPLY 10...30 V AC/DC
- Option
  Comparators

OMM 650UC
UNIVERSAL COUNTER

OPERATION

The instrument is set and controlled by four control keys located on 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 perform firmware updates (with OML cable).

All settings are stored in the EEPROM memory (they hold even after the instrument is switched off).

OPTION

COMPARATORS are assigned to monitor two limit values with relay output. The limits have adjustable hysteresis within the full range of the display as well as selectable delay of the switch-on in the range of 0...99,9 s. Reaching the preset limits is signalled by LED and simultaneously by the switch-on of the relevant relay.

TIME BACKUP is suitable where time needs to be measured even in case of supply voltage outage (upon power supply outage the instrument does not display)

STANDARD FUNCTIONS

PROGRAMMABLE PROJECTION
Setting: measuring mode counter/frequency/timer/clock with adjustable calibration coefficient, time base and projection
Projection: -99999...999999

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
Filtration constant: transmits input signal up to 5...1 000 Hz

FUNCTIONS
Preset: initial non-zero value, which is always read after resetting the instrument to zero
Setting current value: initial value, e.g. the amount currently passed-through

EXTERNAL CONTROL
Hold: display/instrument blocking
Lock: control keys blocking
Resetting: counter resetting
Start/Stop: stopwatch/timer control

TECHNICAL DATA

PROJECTION

Display: -99999...999999, red or green 7-segment LED, digit height 9,1 mm
Decimal point: setting - in menu
Brightness: setting - in menu

INSTRUMENT ACCURACY

TK: 50 ppm/°C
Accuracy: ±0,05 % of value + 1 digit
±0,01% of value ±2ms (stopwatch)
±0,01% of value ±130ms (RTC)
Overload capacity: 2x; 10x (t < 30 ms) - not for 300 V
Watch-dog: reset after 500 ms
Functions: HOLD, LOCK, Digital filters
Functions: Data backup, Time backup, Preset
Input filters: Filtration constant, Rounding
Time base: 0,5/1/5/10/50 s
Calibration constant: 0,00001...999999
Filtration constant: 0/5/40/100/1000 Hz
PRESET: 0...999999
OM Link: Company communication interface for operation, setting and update of instruments
Calibration: at 25°C and 40 % r.h.

COMPARATORS

Type: digital, setting in menu, contact switch-on < 50 ms
Limit: -99999...999999
Hysteresis: 0...999999
Delay: 0...99,9 s
Output: 2x bistable relays (48 VAC/30 VDC, 3 A)

POWER SUPPLY

10...30 VDC/24 VAC, max. 4 VA, PF ≥ 0,4, I_{STP} < 45 A/1,1 ms, isolated

MECHANICAL PROPERTIES

Material: Noryl GFN2 SE1, incombustible UL 94 V-I
Dimensions: 72 x 24 x 106 mm
Panel cutout: 68 x 21,5 mm

OPERATING CONDITIONS

Connection: connector terminal board, section < 1,5/2,5 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
2,5 kVAC after 1 min between supply and relay output
Insulation resistance: for pollution degree II, measuring cat. III.
Power supply, input > 300 V (PI), 150 V (DI)
EMC: EN 61326-1
Seismic capacity: IEC 980: 1993, par. 6

PI - Primary insulation, DI - Double insulation

MEASURING RANGES

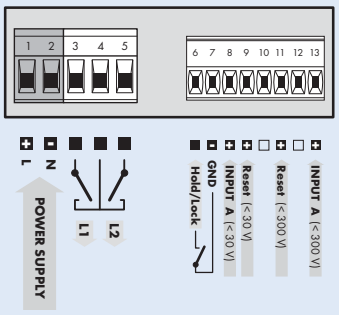
OMM 650 is a multifunction instrument available in following types

UC: 0...30/300 V, comparation levels are adjustable in the menu
input frequency 0,02 Hz...50 kHz

Measuring modes

SINGLE Counter/Frequencymeter
UP/DW UP/DW Counter/Frequencymeter
- used in inputs A, B (direction) and can display count/frequency
TIME Stopwatch
RTC Timer

CONNECTION



ORDER CODE

OMM 650UC - **0** -

Power supply	**10...30 V AC/DC, isolated**	**0**				
Comparators	**no**		**0**			
	1x relay (Form A)		**1**			
	2x relays (Form A)		**2**			
	1x open collector		**3**			
	2x open collectors		**4**			
Time backup	**no**			**0**		
Only for measuring mode „Watch"	yes			**1**		
Display color	**red**				**1**	
	green				**2**	
Other	**customer version, do not fill in**					**00**

Default execution is shown in bold