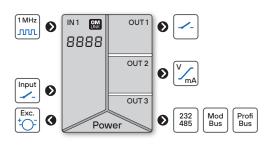
OMD 202UQC



UNIVERSAL LARGE COUNTER



OPERATION

The instrument is set and controlled by an IR remote control. 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).

The measured units can be displayed on the 6-digit display.

OPTION

EXCITATION for feeding sensors and transmitters. It is continuously adjustable in the range of 5...24 VDC.

COMPARATORS are assigned to monitor 1 - 4 limit values with relay output. As a user you can select the mode limit: LIMIT/BATCH/FROM-TO. 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.

DATA OUTPUTS are for their rate and accuracy suitable for transmission of the measured data for further projection or directly into the control systems. We offer an isolated RS232 and RS485 with the ASCII/PROFIBUS protocols.

ANALOG OUTPUTS will find their place in applications where further evaluating or processing of measured data is required in external devices. We offer universal analog output with the option of selection of the type of output - voltage/ current. The value of analog output corresponds with the displayed data. Its type and range are selectable in menu.

OMD 202UQC



- 4/6-digit programmable projection
- Counter/Frequency/Clock/Timer
- Three-color or higly luminous LED
- Digit height 57; 100; 125 mm, IR operation
- Digital filters, Tare, Linearization
- Power supply 10...30 V AC/DC; 80...250 V AC/DC

Option

The OMD 202 model series are large programmable displays for indoor and outdoor use with IP64 protection.

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Type OMD 202UQC is universal 6-digit two-channel programmable panel impulse counter/frequency meter/signal evaluation from IRC sensors and timer/clock.

The instrument is based on a single-chip microcontroller and a powerful programmable gate array, which secures high accuracy, stability and easy operation of the instrument.

Displays are suitable for projection of measured data in production lines and manufacture with good legibility up to 80 m.

STANDARD FUNCTIONS

PROGRAMMABLE PROJECTION

Input: NPN, PNP, on contact, IRC, line

Measuring modes: counter/frequency meter/UP-DW counter + frequency/counter for IRC + frequency

Calibration: in menu you can set calibration coefficient, time base and projection Measur. channels: A and B, two independent functions can be evaluated

Time base: 0.05/0.5/1/2/5/10/20 s /1/2/5/10/15 min

Projection: -999...9999/-99999...999999 with stabile or floating DT in format 10/24/60

FUNCTIONS

Linearization: non-linear signal is converted by a 50-point linear interpolation Tare: designed to reset display upon non-zero input signal

Min./max. value: registration of min./max. value reached during measurement Peak value: the display shows only max. or min. value

Mathemat. operations: polynom, 1/x, logarithm, exponential, power, root, sin x and operations between inputs

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

Time backup: time is running even when the power supply is turned off (the display is off)

DIGITAL FILTERS

Input filter: transmits input signal up to 1 MHz...10 min Floating/Exp./Arithm. average: from 2...30/100/100 measurements

Rounding: setting the projection step for display

EXTERNAL CONTROL

Lock: control keys blocking Hold: display/instrument blocking Tare: tare activation Resetting Min/Max: resetting min./max. value Resetting: counter resetting Start/Stop: timer/clock control

INPUT		PROJECTION		RELAYS OUTPUT		POWER SUPPLY			
lo. of inputs			-9999999	No. of outputs	up to 4	Range	1030 V AC/DC, ±10 %, PF ≥ 0.4, I _{STP} < 40 A / 1 m		
	The range is adjustable in the instrument menu		-99999999999 99.59.59 hours/minutes/seconds TIME	Туре	digital, menu adjustable		isolated 80250 V AC/DC, ±10 %, PF ≥ 0.4, I,< 40 A / 1 ms		
IQC Input	on contact, TTL, NPN/PNP, Line 030 V, comparation levels are adjustable in the menu		23.59.59 hours/minutes/seconds TIME 9999.59 hours/minutes TIME	Mode	HYSTER. active above set value WINDOW active in the set window / band BATCH active in set period		isolated Protection by fuse inside the device.		
Input	0.002 Hz1 MHz		9999.59 minuty/seconds TIME 59.59.99 minuty/seconds/hundredths TIME		C-PULS automatic counter resetting at the set	Consumption	< 22 W / 22 VA		
frequency	0.002 Hz100 kHz DUTY 0.002 Hz500 kHz QUADR., UP/DW		99.59.99 minuty/seconds/hundredths TIME 9.59.59.9 hours/min./seconds/hundredths TIME 9.99.59.9 davs/hours/minutes/seconds TIME		Value ON RUN output is active when the timer is running	MECHANIC PROPER	TIES		
Measuring mode	SINGLE counter/frequency A * B counter/frequency with function AND		99.23.59 days/hours/minutes TIME	E Function Relays/OC	CLOSE is closed in active mode	Material	anodized aluminium, black		
	xNOR counter/frequency with function NOR	Digit height	57 mm 100 mm		OPEN is open in active mode	Dimensions	see picture		
	DUTY duty cycle measurement OUADR counter/frequency for IRC sensors		125 mm	Limits	-99999999999	Installation	in panel or on wall wall/ceiling bracket included		
	UP/DW UP/DW counter/frequency	Display color	red or green with high brightness 1200 mcd	Hysteresis	0999999	Installation			
	 measures on inputs A, B (direction) 		red / green / orange	Delay	099.9 s		IONE		
	and can display numbers/frequenc UP-DW UP - DW counter/frequency	Description	last two characters on the display may be used for description of measured quantities	Outputs	14x relay with switch-on contact (Form A) (250 VAC/30 VDC. 3 A)*	OPERATING CONDI	TIONS		
	reasures on inputs A (UP), B (DW) and can display numbers/frequency TIME Timer		only for 6-digit display	Relays	(250 VAC/50 VDC, 5 A) 1/8 HP 277 VAC. 1/10 HP 125 V. Pilot Duty D300	Connection	connector terminal blocks, section < 1.5 / 2.5 mm ²		
		Decimal point	adjustable - in menu	Relays	* values apply for resistance load	Stabilization period	within 5 minutes after switch-on		
	RTC Clock	Brightness	adjustable - in menu	ANALOG OUTPUTS		Working temperat.	-20º60ºC		
Time base	0.05/1/2/3/5/10/20 s	INSTRUMENT SPECIFICATION		No. of outputs	1	Storage temperat.	-20º85ºC		
	1/2/5/10 min			Туре	isolated, adjustable with 16-bit DAC.	Working humidity	< 95 % r.v., non condensing		
Multiplication constant	0.00001999999	TC	50 ppm/ºC	Type	output type and range is selectable	Protection	IP64, front panel only		
Dividing	0.00001999999	Accuracy	±0.05 % of value + 1 digit	TC	15 ppm/°C	Construction	safety class I		
constant			±0.01% of value ±2 ms TIME ±0.01% of value ±130 ms RTC	Non-linearity	0.1 % from FS	El. safety	EN 61010-1, A2		
Preset	-99999999999	Overload	10x (t < 30 ms), 2x	Accuracy	±0.02 % of FS	Dielectric strength	4 kVAC per 1 min test between supply and input 4 kVAC per 1 min test between supply and data/		
Input filter	off 1/10/100/250/500/1 000 kHz	Digital filters	exponential / floating / arithmetic average, rouding	Rate	response to change of value < 1 ms		analog output		
	1/10/45/55/65/100Hz 2/5/10 s 1/10 min	Math functions	polynomial / inverse polynomial / logarithm / exponential / power / root	Ranges 02 / 5 / 10 V, ±10 V, resistive load ≥ 1 kΩ 05 / 20 mA /420 mA, compensation < 600 Ω/12 V or 1000 Ω / 24 V			4 kVAC per 1 min test between input and relay output 2.5 kVAC per 1 min test between input and data/		
Functions	Offset Tare	Linearization	linear interpolation in 180 points setup only via OM Link		Indication of error message (output < 3.2 mA)	Insulation resist.*	analog output for pollution degree II, measuring cat. III		
	Preset	Time backup	Lithium cell CR 2032, 3V/220 mAh	DATA OUTPUTS			power supply, input > 670 V (PI), 300 (DI) input, output, excitation > 300 V (PI), 150 V (DI)		
	Summation Min/Max value	OM Link	company communication interface for operation,	No. of outputs	1	FMC	EN 61326-1. Industrial area		
	Peak value	Wetch do a	setting and update of instruments reset after 500 ms	Protocol	ASCII, MESSBUS, Modbus RTU, PROFIBUS DP	Seismic capacity	IEC 980: 1993, par. 6		
	One time setting of the initial value Time backup (TIME / RTC)	Watch-dog				- sistine copuerty	* PI - Primary insulation, DI - Double insulati		
	Mathematic functions between channels	Calibration	at 25°C and 40 % r.h.	Data format	Data format 8 bit + no parity + 1 stop bit (ASCII) 7 bit + even parity + 1 stop bit (Messbus)		ri - riinary iisoladdi, Di - Duuble iiisoladu		
TERNAL INPUT				Rate	300230 400 Baud 9 600 Baud12 Mbaud (PROFIBUS)				
. of inputs	3, on contact			RS 232	isolated				

RS 485

EXCITATION Adjustable

No. of inputs	3, on contact							
Function	OFF HOLD LOCK TARE CL. TA CLEAR CL. ST. SUMA CL.SUM. CL. M.M.	no function assigned measurement paused control keys blocking tare activation tare resettingl display reseting resetting and preset of counter/clock sum showing sum reset resetting min/max value						

DIMENSIONS



Panel cut

	X1 mm	
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-	4 mm		
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Panel thickness: 0,5...50 mm

Height	Х	Y	X1	Y1
57-6	375	119	367	111
100-4	465	181	457	173
100-6	651	181	643	173
125-4	539	237	531	228
125-6	754	237	746	228

ORDER CODE

isolated, addressing (max. 31 instruments)

5...24 VDC, < 1.2 W, isolated

OMD 202UQC -[-[
Power supply	1030 VDC/24 VAC	0										
· • · · · · · · · · · · · · · · · · · ·	80250 V AC/DC	1										
Input	standard		А						_		- 1	
•	Line		с									
Comparators	none			0							- 1	
	1x relay			1								
	2x relays			2								
	3x relays			3								
	4x relays			4								
Analog output	no				0						1	
	yes (compensation < 600 $\Omega/12$ V)				1							
	yes (compensation < 1 000 $\Omega/24$ V)				2						- 1	
Data output	none					0						
	RS 232					1						
	RS 485					2						
	Modbus					3						
	PROFIBUS					4					- 1	
Excitation	no						0					
	yes						1				- 1	
Digit height	57 mm							1				
	100 mm							2				
	125 mm							3			- 1	
Number of digits	4 digits (100/125 mm)								1			
	6 digits								3		1	
Color/Display type	red (highly luminuous LED)									1		
	green (highly luminuous LED)									2		
	red/green/orange (7-segment LED)									3	1	
Specification	customized version, do not fill in											00

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