COUNTERS/FRECMETERS/STOPWATCH

OM 611UQC



- 6 digit programmable projection
- 2x counter UP/DOWN IRC frequency
 phase repeat
- Measuring range < 800 kHz
- Calibration and filtration constant, Preset
- Data backup, Summation
- Size of DIN 96 x 48 mm
- Power supply 230 VAC

Options

Comparators • Excitation • Data output • Universal analog output • Real time Power supply: 24 VAC, 110 VAC, 10...30 VDC

Description

The OM 611UQC model is a universal 6 digit panel programmable UP/ DOWN counter/frequency meter/phase/repeat/period/evaluation of signal from IRC sensors and stopwatch.

The instrument is based on an 8-bit processor that secures high accuracy, stability and easy operation of the instrument.

Standard functions

Programmable display projection

| riegi anniabie aisp | nay projection |
|-----------------------|---|
| Measuring modes | counter/frequency meter/dual counter/UP-DW counter/counter for IRC sensors/repeat measure- |
| | ment |
| Calibration | calibration coefficient may be set in "CM"for every |
| | channel individually |
| Projection | -99999999999 with fixed or floating DP |
| | in adjustable format 10/24/60 |
| Measuring channels | A and B, two independent functions may be evalua- |
| Medsoning channels | ted from one measuring input |
| - . 1 | 0 1 |
| Time base | 0,05/0,5/1/2/5/10/20/50 s |
| Digital filters | |
| Filtration constant | limiting the maximum input frequency, suppressing |
| r infution constant | |
| | interfering impulses, 10 Hz2 kHz |
| Floating average | from 2255 measurements |
| Exponen. average | from 2255 measurements |
| n-th value | from 2255 measurements |
| Radius of insensitiv. | band of suppressed change of measured value |
| | |
| Function | |
| Preset | initial non-zero value, which is always read after |
| | instrument resetting |
| Summation | registration of the number upon shift operation |
| | o |
| Pre-division constant | increas. cal. constant 1/10/60/100/1000/3600 |
| Min/max. value | registration of min./max. value reached during |
| | measurements |
| Tare | designed to reset display upon non-zero input sig- |
| | nal |
| Top value | the display shows only max. (min.) value for a selec- |
| | ted time period |
| Round up/down | setting the projection step for display |
| Mathem. operation | polynome, 1/x, logarithm, exponential, power, root, |
| mainein. operation | sin x |
| | SID X |

between inp. A & B - A+B, A-B, A*B, A/B, (A-B)/B

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| External control | |
|------------------|-----|
| Hold | dis |
| Lock | cor |

display/instrument blocking control keys blocking

Operation

The instrument is set and controlled by five control keys located on the front panel. All programmable settings of the instrument are realised in two adjusting modes.

| Configuration menu | (hereinafter referred to as CM) is protected by an |
|--------------------|--|
| | optional number code and contains complete |
| | instrument setting |
| User menu | may contain arbitrary programming settings defined |
| | in "CM" with another selective restriction |
| | (see, change) |
| | TEDDOM TO A A A A A A A A A A A A A A A A A A |

All programmable parameters are stored in the EEPROM memory (they hold even after the instrument is switched off). The measured units may be projected on the display.



Excitation is suitable for feeding of sensors and transmitters. It has galvanic isolation, with continuously adjustable value in range of 2...24 VDC.

Comparators are assigned to monitor one, two, three or four 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. 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 w/ DIN MessBus/ASCII protocol.

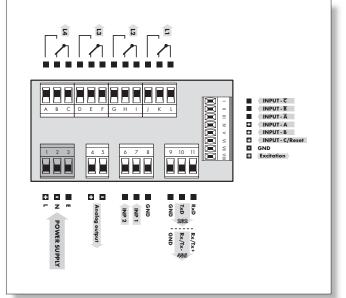
Analog outputs will find their place in applications where further evaluating or processing of measured data is required in external devices. We offer universal analog output with the option of selection of the type of output - voltage/current. The value of analog output corresponds with the displayed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

Real time is an internal time control of data collection. It is suitable everywhere where it is necessary to register measured data in a given time segment.



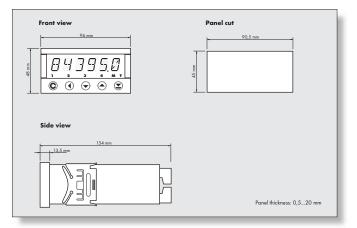
Technical data

| Type: up on contact, TL, NPM/PMP - Inn input 100 m/ Measurement: 12 UP/DOWN counter 2x counter UP or DOWN > 2x counter UP or DOWN 2x counter UP or DOWN > 10 up on DOWN 1x UP/DOWN FOR Counter - Frequency (period) measurement > 10 up on DOWN Procession > 0.02.000 000 hr (350 Mr (and the final final indight) 14 mm Decimal point: odjustable - in Configuration mean Brightness: odjustable - in Configuration /User menu Instrumentact > 0.05/0,3/1/2/5/10/20/50 s Calibration coefficient: > 0.001/0,9999 Function: > 0.01/0,001/000/3600 Presenting: > 0.99999 Function: > diptical dipticable in cogramming mode, contact switch on < 40 ms Presenting: > 0.99999 Function: > diptical dipticable in programming mode, contact switch on < 40 ms Time: > 0.9999 Function: > diptical dipticable in for gramming mode, contact switch on < 40 ms Time: > 0.99999 Contact > S9999 Delay: > 0.9999 Delay: > 0.9999 | INPUT | | |
|---|---|--|--|
| Messurement: 1: PU/DOWN counter 2x counter UP or DOWN 1: x former UP or DOWN 1x counter UP or DOWN 1: x former UP or DOWN 1x counter UP or DOWN 1: x former UP or DOWN 1x counter UP or DOWN 1: x former UP or DOWN 1x counter UP or DOWN 1: x former UP or DOWN POPECTION 9999999999, red or green 14-segment LED, digit height 14 mm Decimal point odiustable - in Configuration meu Brightness: 0.001/000/2000 Control Control 0.001/000/2500 Presenting: 0.001/000/2500 Readown anthematic operations between inputs; 0.001/000/2500 Stationerede-desplay value (max. 50000 dadu), transmission of st | Туре: | - line input | |
| PROJECTION P999999999, red or green 14-segment LED, digit height 14 mm Display: 99999999999, red or green 14-segment LED, digit height 14 mm Berind point: adjustable - in Configuration /User menu INSTRUMENT ACCURACY Emproc: 10000199999 | Measurement: | 1x UP/DOWN counter 2x counter UP or DOWN 1x counter UP or DOWN + 1x frequency (period) measurement 1x UP/DOWN for IRC counter + frequency (evaluates both edges of signals A & B) | |
| Display: -9999999999, red or green 14-segment LED, digit height 14 mm Decimal point: adjustable - in Configuration menu Brightness: adjustable - in Configuration/User menu INSTRUMENT ACCURACY Tempos: 60 ppm/°C Accuracy: 4.01 % of range (frequency) + 1 digit Time base: 0.05/0.5/1/2/5/10/20/50 Colbration coefficient: 0.001/0.002/0.065/0.05/0.02/0.5/1/2.kHz Predivision construit: 0/0.01/0.002/0.065/0.05/0.02/0.05/1/2.kHz Predivision construit: 0/0.99999 Function: data backp, mathematic operations between inputs, summation - registration of shift operation External control: NP P1. Type: digital, adjustable in programming mode, contact switch-on < 40 ms | Input frequency: | 0,02800 000 Hz (350 kHz for IRC input) | |
| Decimal point: adjustable - in Configuration /User menu Brightness: adjustable - in Configuration /User menu INSTRUMENT ACCURACY Empoce: 60 ppm/°C Accuracy: 40.01 % of range (frequency) + 1 digit Time base: 0.05/0.5/1/2/5/10/20/50 s Calibration constant: 0/00/002/0.45/0.055/0.065/0.1/0.2/0.5/1/2 kHz Pre-division constant: 1/10/6/01/000/1000/3600 Presetting: 099999 Function: data backup, mathematic operations between inputs, summation - registration of shift operation Summation - registration of shift operation External control: IVP 1, INP 2 - adjustable funct: Hold, Lock, Tare, resetting Real time: 15 ppm/°C time data-display value (max. 65000 data), transmission of stored data via RS 232 Calibration: at 25°C and 40 % ch COMPARATOR | PROJECTION | | |
| Tempo: 60 pm° C Accuracy: $40,01 \% \text{ of range (Frequency) + 1 digit Time base: 0,05/0.5/1/2/5/10/20/50 \text{ s}Colhardino conficient: 0,00001\dots.99999Filtration constant: 1/0/6/0.100/1000/13600Presetting: 0\dots.999999Function: data backup, mathematic operations between inputs,summation - registration of shift operationExternal control: INP 1, INP 2 - adjustable func: Hold, Lack, Tare, resettingReal time: IS ppm/°Ctime-date-display value (max. 65000 data), transmission of stored data via RS 232Calibration: at 25°C and 40 % r.h.COMPARATORType: digital, adjustable in programming mode, contact switch-on < 40 msLimit 14 99999.Delay: 0\dots.999.9Delay: 0\dots.999.9Delay: 0\dots.999.9Delay: 0\dots.999.9Delay: 0\dots.999.9Data format: rate 60038 400 Baud, 7 bit + even parity + 1 stop bit (DIN MessBus),8 bit + no parity + 1 stop bit (ASCII)RS 232 isolated, two-way communicationRS 485 isolated, addressing (max. 31 instruments)ANALOG OUTPUTSType: solated, regrammable with resolution max. 10 000 points, analog output corre-sponds with the displayed data, output type and range are selectable in CMNon-linearity: 0.2 \% of rangeTempoc: 100 ppm/°CRete: response to change of value < 40 msValues: 0\dots.27 \% /107AUSCIONEACCITIONACLIANCY POPETTESARECIANCY POPETTESMAECIANC PROFERTIESMAECIANC PROFERTIESMaterial: Nonyl GFR2 SE1, incombustible UL 94 V1Dimensions: 96 \times 48 \times 154 \text{ mm}Pone cui: 90.5 \times 45 \text{ mm}OPERATING CONDITIONSOPERATING CONDITIONSOPE$ | Decimal point: | adjustable - in Configuration menu | |
| Accuracy: accuracy: accuracy: books010 % of range (frequency) + 1 digit ime base: books 0, 05, 05, 05, 07, 02, 05, 00, 05, 00, 10, 2, 00, 5, 17, 2 kHz Predivision constant: i10, 000, 000, 2000 presenting: accuracy: books of the backup, mathematic operations between inputs, summation - registration of shift operation summation - registration of shift operation time-date-display value (max. 65000 data), transmission of stored data via RS 232 Calibration: time-date-display value (max. 65000 data), transmission of stored data via RS 232 Calibration: time-date-display value (max. 65000 data), transmission of stored data via RS 232 Calibration: time-date-display value (max. 65000 data), transmission of stored data via RS 232 Calibration: time-date-display value (max. 65000 data), transmission of stored data via RS 232 Calibration: time-date-display value (max. 65000 data), transmission of stored data via RS 232 Calibration: time-date-display value (max. 65000 data), transmission of stored data via RS 232 Calibration: time-date-display value (max. 65000 data), transmission of stored data via RS 232 Calibration: time-date-display value (max. 65000 data), transmission of stored data via RS 232 Calibration: time-date-display value (max. 6200 VAC, 50 VDC, 3 A) up on request SSR (250 VAC, 1 A) or open collector may be fittedDATA OUTPUTS Data format: rate 64038 400 Baud, 7 bit + even parity + 1 stop bit (DIN MessBus), 8 bit + no parity + 1 stop bit (ASCII) RS 232 solated, mov-way communication RS 485 tisolated, addressing (max. 31 instruments)ANALOG OUTPUTS Uppe: lengo: loop pm/°C Rate: responds with the displayed data, output type and range are selectable in CM No-linearity: 0.2 % of range lengo: loop pm/°C Rate: response to change of value < 40 ms l | INSTRUMENT ACCU | IRACY | |
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| Limit 14 -999999999 Hysteresis: 09999 Delay: 099,9 s Outputs: 4 relays with switching contact (250 VAC/50 VDC, 3 A) upon request SSR (250 VAC, 1 A) or open collector may be fitted DATA OUTPUTS Data format: rate 60038 400 Boud, 7 bit + even parity + 1 stop bit (DIN MessBus), 8 bit + no parity + 1 stop bit (ASCII) RS 232 isolated, two-way communication RS 485 isolated, programmable with resolution max. 10 000 points, analog output corre- sponds with the displayed data, output type and range are selectable in CM Non-linearity: 0, 2 % of range Tempco: 100 ppm/°C Rate: response to change of value < 40 ms Voltage: 02 V/S V/10 V Current: 05 mA/20 mA/420 mA (compensation of conduct up to 600 0hm) EXCITATION Adjustable: 29 VDC/150 mA - 912 VDC/100 mA - 1524 VDC/80 mA POWER SUPPLY 24; 110; 230 VAC, 50/60 Hz, ±10 %, 7,5 VA 1030 VDC/max. 1,2 A, (24 VDC/350 mA), isolated - power supply is protected by a fuse inside the instrument MECHANIC PROPERTIES Material: Noryl GFN2 SEI, incombustible UL 94 V-1 Dimensions: 96 x 48 x 154 mm Panel cut: 90,5 x 45 mm Panel cut: 90,5 x 45 mm OPERATING CONDITIONS Connection: connector terminal board, conductor section up to 1,5/2,5 mm ² Stabilization period: within 15 minutes after switch-on Working temperature: 0°60°C, (storage temperature: -10°85°C) Covering: P65 (front panel only) Construction: safety class II Overvoltage category: EN 61010-1, Az, for pollution degree II III instrument power supply, relay outputs (300 V) | COMPARATOR | | |
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| EMC: EN 61000-3-2+A12; EN 61000-4-2, 3, 4, 5, 8, 11; EN 550222, A1, A2 | EMC: | II input, output, excitation (300 V) | |



Dimensions

Connection



Order code

