OMD 201

- **4/6 digit programmable projection**
- **Digit height 57/100/125 mm**
- **DC/AC/PM/OHM/RTD/TC/DU Counter/Frequency/Stopwatch/RS**
- **Mathematic functions**
- **Power supply 230 VAC**

Options

Comparators • Excitation • Data output • Universal analogue output
Power supply 24 VAC, 110 VAC, 10...28 VDC

Description

The OMD 201 model is a 4 or 6 digit large display.
The instrument is based on an 8-bit processor with very precise A/D converter, that secures high accuracy, stability and easy operation of the instrument. Given the IP64 cover the display is construed also for outdoor application. Connection is executed through cable bushings and also the connector for control keyboard has the necessary protection.
A holder for wall mounting applications may be supplied upon request to large display.

Standard functions

Programmable display projection

Setting	manual or automatic
Projection	±9999/±99999/±999999

Digital filters

Floating average	from 2...30 measurements
Exponen. average	from 2...100 measurements
n-th value	from 2...100 measurements
Radius of insensitiv.	band of suppressed change of measured value

Mathematic functions

Min/max. value	registration of min./max. value reached during measurements
Tare	designed to reset display upon non-zero input signal
Top value	the display shows only max. (min.) value for a selected time period

External control

Hold	display/instrument blocking
Tare	tare activation
Resetting MM	resetting min/max value to zero
Instrument setting	4 keybutton keyboard with 5 meter cable

Operation

The instrument is set and controlled by four control keys located on an individual box, which is connected with a 5 m cable. All programmable settings of the instrument are realised in two adjusting regimes.

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))

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 6-digit display.

Options

Comparators are assigned to monitor one or 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.
Excitation is suitable for feeding of sensors and transmitters. It is isolated, with continuously adjustable value in the range of 2...24 VDC.
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 DIN MessBus/ASCII protocol.
Analogue outputs will find their place in applications where further evaluating or processing of measured data is required in external devices. We offer universal analogue output with the option of selection of the type of output - voltage/current. The value of analogue output corresponds with the displayed data and its type and range are selectable in CM.

Technical data

MEASURING RANGE

DC-U	0...60/150/300 mV/0,3999/3,999/39,999/399,9 V	1 MOhm
DC-I	0...39,99/399,9 mA/1/5 A	< 260 mA
AC-U	0...0,3999/3,999/39,999/399,9 V	1 MOhm
AC-I	0...39,99/399,9 mA/1/5 A	< 260 mA
PM	0/4...20 mA/0...2/5/10 V	< 400 mV/1 MOhm
W	0...5 A/0...450 V	
OHM	0...0,399/3,999/39,99/100 kOhm	2, 3 , 4 wire
RTD	Pt 100/Pt 1000/Ni 1 000/Ni 10 000	2, 3 , 4 wire
T/C	J, K, T, E, B, S, R, N	
UQC	counter/frequency/watch	0...100 kHz
Data	RS 232/RS 485	

PROJECTION

Display:	4 (100/125 mm) or 6 digit (57/100/125 mm) three-color 7-segment LED, digit height 57, 100 or 125 mm
Decimal point:	adjustable - in Configuration menu
Brightness:	adjustable - in Configuration/User menu

INSTRUMENT ACCURACY

Watch-dog:	reset after 1,2 s
Setting:	external keyboard with 5 m cable
Standard function:	Digital filter - adjustable in Configuration menu
Mathematic functions:	min. and max. value, Tare, averaging, top value - according to the type of input section of OM 371/601
Calibration:	at 25°C and 40 % r.h.

COMPARATOR

Type:	digital, adjustable in programming mode, contact switch-on < 30 ms
Limit 1 and 2	999999, the limits setting depends on the used input section
Hysteresis:	0...99999
Delay:	0...99,9 s
Outputs:	2 relays with switching contact (250 VAC/50 VDC, 3 A)

DATA OUTPUTS

Data format:	rate 600...115 200 Baud 7 bit + even parity + 1 stop bit (DIN MessBus), 8 bit + no parity + 1 stop bit (ASCII)
RS 232	isolated
RS 485	isolated, addressing (max. 31 instruments)

ANALOGUE OUTPUTS

Type:	isolated, programmable with resolution max. 10 000 points, analogue output corresponds 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:	0...2 V/5 V/10 V
Current:	0...5 mA/20 mA/4...20 mA (compensation of conduct up to 600 Ohm)

The analogue and data outputs cannot be fitted in the instrument simultaneously

EXCITATION

Adjustable:	2....24 VDC/50 mA, isolated

POWER SUPPLY

24/110/230 VAC, 50/60 Hz, ±10 %, 15 VA
10...28 VDC/max. 2 A, (24 VDC/0,7 A), isolated
- power supply is protected by a fuse inside the instruments

MECHANIC PROPERTIES

Material:	anodized aluminium, black
Dimensions:	see dimensions
Panel cut:	see dimensions

OPERATING CONDITIONS

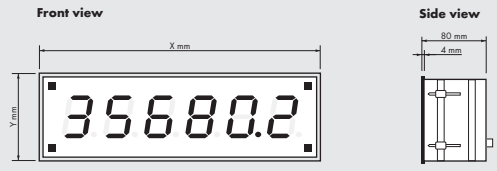
Connection:	cable bushings, terminal board inside, conductor section up to 2,5 mm^2
Stabilization period:	within 15 minutes after switch-on
Working temperature:	0°...60°C , (storage temperature: -10°...85°C)
Covering:	IP64
Construction:	safety class I
Power sup.isol.resist.:	against measuring input 300 V
Electrical safety:	EN 61010-1, A2
EMC:	EN 61000-3-2+A12; EN 61000-4-2, 3, 4, 5, 8, 11; EN 550222, A1, A2

Technical parameters for individual measuring quantities depend on the used input, which is identical with the OM 371 or OM 601 instruments.

Connection

To maintain the IP65 covering the display connection is realised through bushings directly on the terminal board inside the instrument.
The cable from control keyboard ends by a connector with IP64 covering.

Dimensions



Height	X	Y	X1	Y1
57	372	116	364	108
100-4	455	169	463	177
100-6	636	169	647	177
125-4	529	224	537	232
125-6	744	224	752	232

Panel thickness: 0,5...20 mm

Order code

OMD 201 - xxxxxxxxx

Power supply
0: 24 VAC/50 Hz
1: 230 VAC/50 Hz
3: 110 VAC/50 Hz
4: 10...28 VDC, isolated

Input
A: DC
B: AC
C: Process monitor
H: Thermometer - Pt 100
J: Thermometer - T/C
K: Display instrument for linear potentiometer
M: Counter/frequency meter/Watch
P: RS 232/485
Z: upon request

Comparators
0: no
1: yes

Display color
1: red
2: green

Number of digits
1: 4 digits (100/125 mm)
3: 6 digits

Digit height
1: 57 mm
2: 100 mm
3: 125 mm

Excitation
0: no
1: yes

Analogue output
0: no
1: yes

Data output
0: no
1: RS 232
2: RS 485

Please, state the required input range in your order!

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