GUARANTEE
2
YEARS

OMM 37

3 1/2 DIGIT

DC VOLTMETER/AMMETER
PROCESS MONITOR
THERMOMETER FOR PT 100

SAFETY INSTRUCTIONS

Please, read the enclosed safety instructions carefully and observe them!
These instruments should be safeguarded by isolated or common fuses (breakers)!
For safety information the EN 61 010-1 + A2 standard must be observed.
This instrument is not explosion-safe!

TECHNICAL DATA

Measuring instruments of the OMM 37 series conform to the European regulation 89/336/EWG and the Ordinance 168/1997 Coll.

They are up to the following European and Czech standards:
CNS EN 55 022, class B
CNS EN 61000-4-2, -4, -5, -6, -8, -9, -10, -11

The instruments are applicable for unlimited use in agricultural and industrial areas.

CONNECTION

Supply of energy from the main line has to be isolated from the measuring leads.

CE

ORBIT MERRET, spol. s r.o.
Vodňanská 675/30
198 00 Prague 9
Czech Republic

Tel: +420 - 281 040 200
Fax: +420 - 281 040 299
e-mail: orbit@merret.cz
www.orbit.merret.cz

DESCRIPTION

The OMM 37 model series include simple 3 1/2 digit panel instruments in these alternatives:

DC	DC voltmeter/ammeter
PM	Process monitor
RTD	Thermometer for Pt 100 sensors

For their dimensions the instruments are suitable for mosaic panel installation.

ADJUSTABLE DISPLAY PROJECTION

Setting	by potentiometers from the back of the instrument (in the range of approx. ±10 %)
Projection	±1999

OPERATION

The instrument is designed for simple measurement without further control.
Placement of the decimal point is selectable by a jumper under the front panel.

EXTENSION

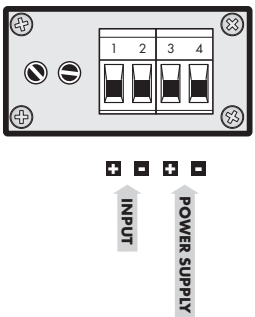
Isolated supply of the instrument with range of 7...30 VDC is designated for applications where galvanic separation must be used.

The lead for feeding the instrument should not be in the proximity of the incoming low-potential signals.

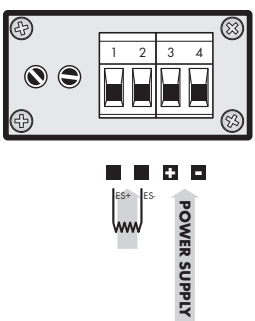
Contactors, motors with larger input power and other efficient elements should not be in the proximity of the instrument.

The lead into the input of the instrument (the measured quantity) should be in sufficient distance from all power leads and appliances. Provided this cannot be secured it is necessary to use shielded leads with connection to ground.

The instruments are tested in compliance with standards for use in industrial area, yet we recommend to abide by the above mentioned principles.



OMM 37DC, PM



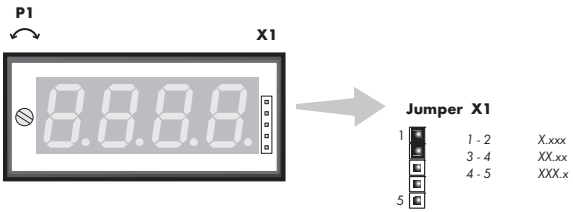
OMM 37RTD

SETTING BRIGHTNESS AND DECIMAL POINT

After removing the top cover frame the following settings are accessible

Decimal point
by jumper X1

Display brightness
by trimmer P1 under the front panel

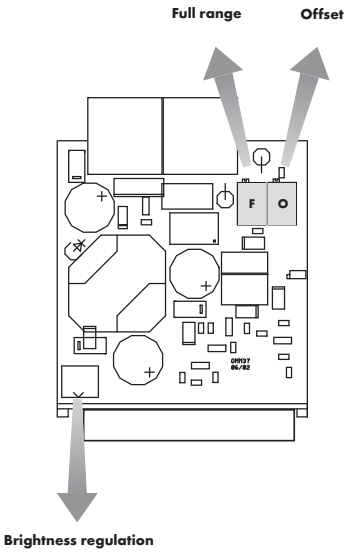


MODIFICATION FO THE MEASURING RANGE

The adjusting trimmers for correction of display projection are accessible at the input brackets of the instrument

Full range
- setting display projection (approx. ±10 %)

Offset
- shifting zero
- (compensation of 2-wire lead for OMM 37RTD),
- the trimmer is fitted only in the OMM 37PM and RTD model



INPUT

the range is fixed, according to order ***DC***

±199,9 mV	1 MOhm
±1,999 V	1 MOhm
±19,99 V	1 MOhm
±199,9 V	1 MOhm
±199,9 µA	< 260 mV
±1,999 mA	< 260 mV
±19,99 mA	< 260 mV
±199,9 mA	< 260 mV

the range is fixed, according to order ***PM***

0...5 mA	< 260 mV
0...20 mA	< 260 mV
4...20 mA	< 260 mV
±2 V	1 MOhm
±5 V	1 MOhm
±10 V	1 MOhm

RTD

Pt 100 -20°...140°C
Type Pt: 100 Ohm, platinum element, s α=0,003850hm/Ohm/°C
Connection: 2 wire

PROJECTION

Display: ±1999, intensive red or green LED, digit height 9,1 mm
Decimal point: adjustable - by jumper
Brightness: adjustable - by trimmer inside the instrument

INSTRUMENT ACCURACY

TC: 100 ppm/°C
Accuracy: ±0,1 % of range
±0,8 % of range ***RTD***
Resolution: 1°C ***RTD***
Rate: 2,5 measurements/s
Overload: 10x (t < 100 ms), 2x (long-term)
Calibration: at 23°C and 40 % r.h.

POWER SUPPLY

7...12 V AC/DC, max. 100 mA (DC), 60 mA (AC)
7...30 V AC/DC, max. 160 mA (DC), 280 mA (AC), (24 VDC/55 mA), isolated

MECHANIC PROPERTIES

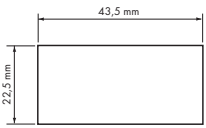
Connection: connector terminal board
conductor cross section up to 2,5 mm^2
Material: Noryl GFN2 SE1, incombustible UL 94 V-I
Dimensions: 48 x 24 x 75 mm
Panel Cut-out: 43,5 x 22,5 mm

OPERATING CONDITIONS

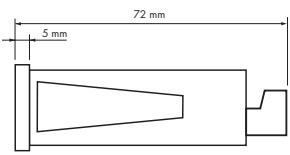
Stabilization period: within 15 minutes after switch-on
Working temp.: 0°...50°C
Storage temp.: -10°...85°C
Cover: IP42, (front panel only)
Overvoltage cat.: EN 61010-1, A2
III. - instrument power supply (300 V)
II. - input (300 V)
for pollution degree II
EMC: EN 61000-3-2+A12; EN 61000-4-2, 3, 4, 5, 8, 11; EN 550222, A1, A2

Front view

Panel cut



Side view



Panel thickness: 0,5...20 mm

Product	**OMM 37**	**DC**	**PM**	**RTD**
Type	. . . . .			
Manufact. No.	. . . . .			
Date of sale	. . . . .			

For this instrument applies a guarantee period of 24 months of the date of sale to the user. Defects occurring during this period due to manufacturing error or due to material faults shall be eliminated free of charge.

For instrument quality, function and construction the guarantee shall apply provided that the instrument was connected and used in compliance with the instructions for use.

The guarantee does not apply to defects caused by:

- mechanical damage
- transportation
- intervention of unqualified person including the user
- irreversible event
- other unprofessional interference

The manufacturer performs guarantee and post-guarantee repairs unless provided for otherwise.

Stamp, signature