GUARANTEE 2 YEARS

OM 45

4 1/2 DIGIT

DC VOLTMETER/AMMETER
PROCESS MONITOR

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 OM 45 series conform to European regulation 89/336/EWG and Ordinance 168/1997 Coll.

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

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

CONNECTION

Power supply from the main line has to be isolated from the measuring leads.

CE

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2.1 Description

The OM 45 model series are simple 4 1/2 digit panel instruments, which are manufactured in the following alternatives:

OM 45DC	DC voltmeter/ammeter
OM 45PM	Process monitor

The instrument is based on a simple converter, which secures high accuracy and stability.
For their dimensions the instruments are suitable for mosaic panels mounting applications.

ADJUSTABLE DISPLAY PROJECTION

Setting	by potentiometers under the front panel (in the range of approx. ±10 %)
Projection	±19999

2.2 Operation

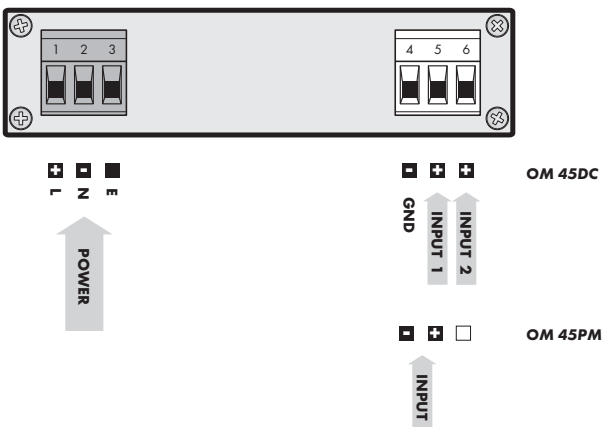
The instrument is designed for simple measurement without further control.
Placement of the decimal point is selectable by shorting link under the front panel.

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

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

The lead into the instrument input (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.



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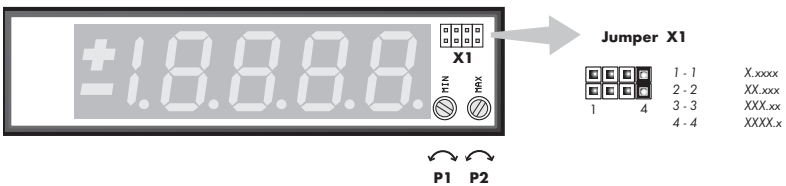
Grounding on terminal „E" has to be connected at all times.

Measuring range

Type	Input 1	Input 2
OM 45DC - U	±199,99 mV; ±1,9999 V; ±19,999 V	±199,99 V
OM 45DC - I	±1,9999 mA; ±19,999 mA; ±199,99 mA; ±1,9999 A; ±5,00 A	
OM 45PM	0...5 mA; 0...20 mA; 4...20 mA; ±2 V; ±5 V; ±10 V	



ADJUSTING ELEMENTS

- after removing the top cover frame the following settings are accessible
- decimal point - may be adjusted by shorting links

P1 setting the zero

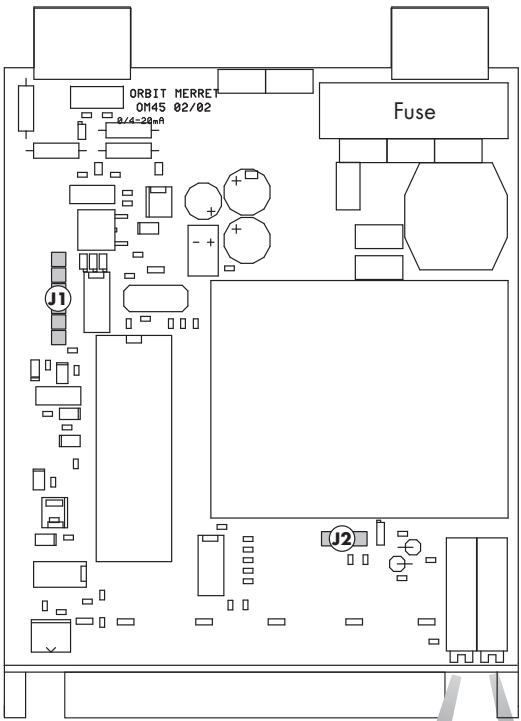
P2 setting the full range
- setting display projection (approx. ±10 %)

P3 setting the display brightness

X1 setting the decimal point
- by jumper

J1 - Measuring rate

1 - 2	10 meas./s
2 - 3	5 meas./s
4 - 5	2,5 meas./s
5 - 6	1,25 meas./s



J2 - Offset

1 - 2	by trimmer
2 - 3	without offset

Full range **Offset**

INPUT

the range is fixed, according to order			***DC***
	±199,99 mV	1 MOhm	Input 1
	±1,9999 V	1 MOhm	Input 1
	±19,999 V	1 MOhm	Input 1
	±199,99 V	1 MOhm	Input 2
	±199,99 µA	< 500 mV	Input 1
	±1,9999 mA	< 500 mV	Input 1
	±19,999 mA	< 500 mV	Input 1
	±199,99 mA	< 500 mV	Input 1

the range is fixed, according to order		***PM***
	0...5 mA	< 500 mV
	0...20 mA	< 500 mV
	4...20 mA	< 500 mV
	±2 V	1 MOhm
	±5 V	1 MOhm
	±10 V	1 MOhm

PROJECTION

Display:	±1999, red or green LED, digit height 14 mm
Decimal point:	adjustable by jumper
Brightness:	adjustable by potentiometer under the front panel

INSTRUMENT ACCURACY

TC:	100 ppm/°C
Accuracy:	±0,1 % of range
Rate:	1,2 - 2,5 - 5 - 10 measurements/s
Overload capacity:	10x (t < 100 ms), 2x (long-term)
Calibration:	at 25°C and 40 % r.h.

POWER SUPPLY

230 VAC, 50/60 Hz, ±10 %, 5 VA
12...24 VDC/max. 150 mA
Power supply is protected by a fuse inside the instrument
VAC (T 80 mA), VDC (T 630 mA)

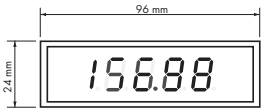
MECHANIC PROPERTIES

Material:	Noryl GFN2 SE1, incombustible UL 94 V-I
Dimensions:	96 x 24 x 125 mm
Panel cut-out:	92 x 22,5 mm

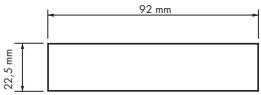
OPERATING CONDITIONS

Connection:	con. terminal board, conductor section up to 2,5 mm^2
Stabilization period:	within 15 minutes after switch-on
Working temp.:	0°...50°C
Storage temp.:	-10°...85°C
Shielding:	IP42, upon request IP64 - front panel only
El. safety:	EN 61010-1, A2
Dielectric strength:	2,5 kVAC after 1 min between supply and input
Insulation resistance:	for pollution degree II, measuring cat. III.
	AC power supply > 600 V (PI), 300 V (DI)
	DC power supply > 300 V (PI),150 V (DI)
EMC:	EN 61326-1

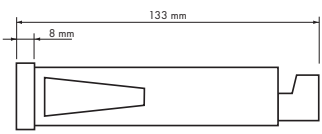
Front view



Panel cut



Side view



Panel thickness: 0,5...20 mm

Product	**OM 45**	**DC**	**PM**
Type	. . . . .		
Manufacturing No.	. . . . .		
Date of sale	. . . . .		

A guarantee period of 24 months from the date of sale to the user applies to this instrument.
Defects occuring during this period due to manufacture 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 instruction for use.

The guarantee shall not apply for defects caused by:

- mechanic damage
- in transport
- intervention of unqualified person incl. the user
- unavoidable event
- other unprofessional interventions

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

Stamp, signature