

OM 47AC



- **4 1/2 digit projection**
- **199,99 mV ... 300,0 V**
- **199,99 mA ... 5,000 A**
- **Size of DIN 96 x 48 mm**
- **Power supply 230 VAC**

Options

Dual comparator • Excitation • Analogue output • Power supply 24 VAC, 110 VAC, 10...30 VDC

Description

The OM 47AC model is a 4 1/2 digit panel AC voltmeter/ammeter with great accuracy and stability.

Operation

In its basic version the instrument is designed for simple measurement without further control. In version with dual comparator its setting is performed by two control keys and potentiometers. Placement of the decimal point is selectable by a shorting link under the front panel.

Calibration

Contingent corrections of display projection may be performed by a trimmer under the front panel (approx 10 %).

Options

Dual comparator serves to monitor two limit values with relay output. The limits have adjustable hysteresis. Reaching the preset limits (top over/bottom under) is signalled by LED and at the same time by the switch-on of the relevant relay.

Analogue outputs will find their place in applications where further evaluating or processing of measured data is required in external devices. We offer several types of current and voltage outputs. The analogue output value corresponds with the input signal.

Technical data

| MEASURING RANGE | | Impedance/Max. drop | |
|------------------|---------------|---------------------|---------|
| Voltage: | 0...199,99 mV | > 1 MOhm | Input A |
| | 0...1,9999 V | 1 MOhm | Input A |
| | 0...19,999 V | 1 MOhm | Input A |
| | 0...199,99 V | 1 MOhm | Input B |
| | 0...300,0 V | 1 MOhm | Input B |
| Current: | 0...199,99 mA | < 200 mV | Input A |
| | 0...1,9999 A | < 200 mV | Input A |
| | 0...5,000 A | < 50 mV | Input A |
| Frequency range: | 40...2 500 Hz | | |

PROJECTION

| | |
|----------------|---|
| Display: | 19999, red or green 7-segment LED, digit height 14 mm |
| Decimal point: | adjustable - by shorting link |
| Brightness: | adjustable - by potentiometer under the front panel |

INSTRUMENT ACCURACY

| | |
|--------------------|--|
| Tempco: | 100 ppm/°C |
| Accuracy: | ±0,5 % of range (< 100 Hz, crest factor 1-2) |
| Rate: | 1,2/2,5/5/10 measurements/s |
| Overload capacity: | 10x (t < 30 ms) - does not apply for 300 V and 5 A, 2x (long-term) at 25°C and 40 % r.h. |
| Calibration: | |

COMPARATOR

| | |
|----------------|--|
| Type: | analogue, adjustable by potentiometers under the front panel |
| Limit 1 and 2: | 0...19999 |
| Hysteresis: | < 2 % of range, adjustable by potentiometers inside the instrument |
| Outputs: | 2 relays with switch-on contact (250 VAC/30 VDC, 3 A) |

ANALOGUE OUTPUTS

| | |
|----------------|--|
| Type: | (non)isolated, analogue output corresponds with the input signal |
| Non-linearity: | 0,3 % of range |
| Tempco: | 100 ppm/°C |
| Rate: | response to change of value < 40 ms |
| Voltage: | 0...2 V, 0...5 V, 0...10 V |
| Current: | 0/4...20 mA (compensation of conduct up to 600 Ohm) |

POWER SUPPLY

| |
|--|
| 24/110/230 VAC, 50/60 Hz, ±10 %, 5 VA |
| 10...30 VDC/max. 300 mA, (24 VDC/110 mA), isolated |

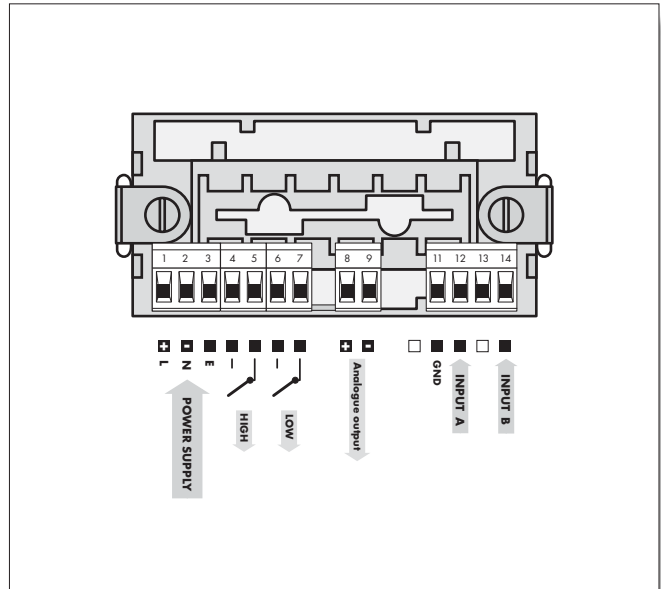
MECHANIC PROPERTIES

| | |
|-------------|---|
| Material: | Noryl GFN2 SE1, incombustible UL 94 V-1 |
| Dimensions: | 96 x 48 x 110 mm |
| Panel cut: | 92 x 45 mm |

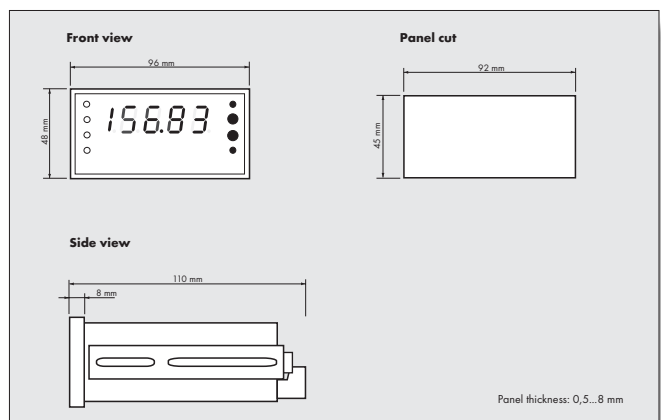
OPERATING CONDITIONS

| | |
|-----------------------|---|
| Connection: | connector terminal board, 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: | IP40, upon request IP64 (front panel only) |
| Construction: | safety class I |
| Electrical safety: | EN 61010-1, A2 |
| Overvoltage category: | for pollution degree II |
| | III. - instrument power supply, relay outputs (300 V) |
| | II. - input, output (300 V) |
| EMC: | EN 61000-3-2+A12; EN 61000-4-2, 3, 4, 5, 8, 11; EN 55022, A1, A2 |

Connection



Dimensions



Order code

| OM 47AC - xxxxxx | |
|--------------------------|------------------------|
| Power supply | Display color |
| 0: 24 VAC/50 Hz | 1: red |
| 1: 230 VAC/50 Hz | 2: green |
| 3: 110 VAC/50 Hz | Type of AO |
| 4: 10...30 VDC, isolated | 0: non-isolated |
| Input | 1: isolated |
| A: 0...199,99 mV | Analogue output |
| B: 0...1,9999 mV | 0: no |
| C: 0...19,999 V | 1: 0...2 V |
| D: 0...199,99 V | 2: 0...5 V |
| E: 0...300,0 V | 3: 0...10 V |
| M: 0...199,99 mA | 4: 0...20 mA |
| N: 0...1,9999 A | 5: 4...20 mA |
| P: 0...5,000 A | |
| Comparators | |
| 0: no | |
| 1: yes | |