

OM 351AC



2003-3-en

- **3 1/2 digit programmable projection**
- **0...10; 100; 150; 250; 450 V**
- **0...60; 150; 300 mV; 0...1; 5 A**
- **Digital filter**
- **Size of DIN 96 x 48 mm**
- **Power supply 230 VAC**

Options

Dual comparator • Data output • Universal analog output • Power supply 24 VAC, 110 VAC, 10...30 VDC

Description

The OM 351AC is a low-cost 3 1/2 digit panel programmable AC voltmeter/ammeter.

The instrument is based on an 8-bit controller with A/D and RMS converter, that secures good accuracy, stability and easy operation of the instrument.

Standard functions

Programmable display projection

Setting manual, optional projection on the display may be set for the maximum input signal value in „CM“, e.g.: range 0...100 V ⇒ projection 0...22,5

Projection 0...1999

Digital filter

Radius of insensitiv. band of suppressed change of measured value
Exponential average from 2...100 measurements

External control

Hold display/instrument blocking
Lock control keys blocking or blocking access into “CM”

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)

All programmable parameters are stored in the EEPROM memory (they hold even after the instrument is switched off).

Options

Comparators are assigned to monitor 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.

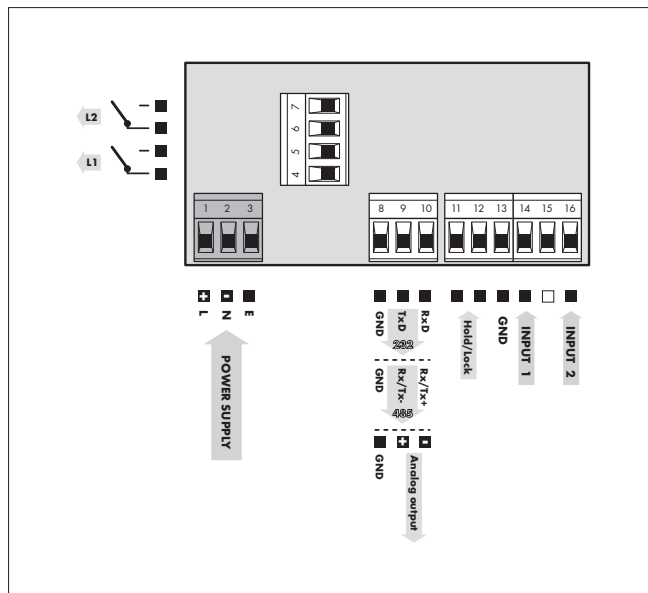
Data outputs are for their rate and accuracy suitable for transmission of the measured data for further projection or directly into the control systems. We offer an isolated RS232 and RS485 with the ASCII protocol.

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.

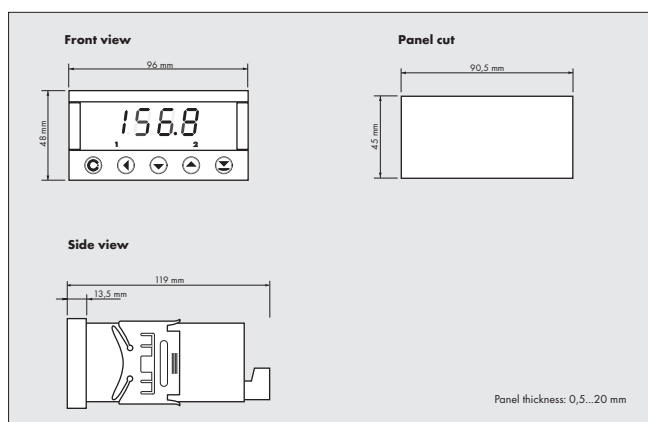
Technical data

| MEASURING RANGE | | Impedance/Max. drop | |
|---|---|---------------------|---------|
| rANGE U: | 0...10 V | 100 kOhm | Input 2 |
| | 0...100 V | 10 MOhm | Input 2 |
| | 0...150 V | 10 MOhm | Input 2 |
| | 0...250 V | 10 MOhm | Input 2 |
| | 0...450 V | 10 MOhm | Input 2 |
| Range I: | 0...60 mV | 100 kOhm | Input 1 |
| | 0...150 mV | 100 kOhm | Input 1 |
| | 0...300 mV | 100 kOhm | Input 1 |
| | 0...1,00 A | < 150 mV | Input 1 |
| | 0...5,00 A | < 150 mV | Input 1 |
| Frequency range: | 40...400 Hz | | |
| PROJECTION | | | |
| Display: | 1999, red or green 7-segment LED, digit height 14 mm | | |
| Decimal point: | adjustable - in Configuration menu | | |
| Brightness: | adjustable - in Configuration/User menu | | |
| INSTRUMENT ACCURACY | | | |
| Tempco: | 100 ppm/°C | | |
| Accuracy: | ±0,3 % of range (< 100 Hz, crest factor 1-2) + 1 digit | | |
| Rate: | 0,5 - 1,2 - 2,5 - 5 - 10 measurements/s | | |
| Overload capacity: | 10x (t < 30 ms) - does not apply for 250/450 V and 5 A, 2x (long-term) | | |
| Watch-dog: | reset after 20 ms | | |
| Function: | Hold - stop measuring (upon contact) Lock - control keys blocking (upon contact), not simultaneously with Hold function, Tare Digital filter - adjustable in Configuration menu | | |
| Calibration: | at 25°C and 40 % r.h. | | |
| COMPARATOR | | | |
| Type: | digital, adjustable in programming mode, contact switch-on < 30 ms | | |
| Limit 1 and 2: | 0...1999 | | |
| Hysteresis: | 0...999 | | |
| Delay: | 0...99,9 s | | |
| Outputs: | 2 relays with switch-on (switch-off) contact (250 VAC/30 VDC, 3 A) - the relay function is adjustable in Configuration menu upon request SSR (250 VAC, 1 A) or open collector may be fitted | | |
| DATA OUTPUTS | | | |
| Data format: | rate 1 200...38 400 Baud, 8 bit + no parity + 1 stop bit | | |
| RS 232 | isolated | | |
| RS 485 | isolated, addressing (max. 31 instruments) | | |
| ANALOG OUTPUTS | | | |
| Type: | isolated, programmable with resolution max. 5 000 points, analog 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 < 100 ms | | |
| Voltage: | 0...2 V/5 V/10 V | | |
| Current: | 0...5 mA/0/4...20 mA (compensation of conduct up to 600 Ohm) | | |
| POWER SUPPLY | | | |
| 24; 110; 230 VAC, 50/60 Hz, ±10 %, 3 VA | | | |
| 10...30 VDC/max. 300 mA, (24 VDC/110 mA), isolated | | | |
| - power supply is protected by a fuse inside the instrument | | | |
| MECHANIC PROPERTIES | | | |
| Material: | Noryl GFN2 SE1, incombustible UL 94 V-1 | | |
| Dimensions: | 96 x 48 x 120 mm | | |
| Panel cut: | 90,5 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: | IP65, (front panel only) | | |
| Construction: | safety class I | | |
| Electrical safety: | EN 61010-1, A2 | | |
| Overvoltage category: | for pollution degree II III. - instrument power supply, relay output (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

