



## OM 352AC



The OMM 352 model series are small 3,5-digit panel programmable instruments designed for maximum usefulness and user comfort while maintaining its fair price.

Type OM 352AC is a multi-range alternating VA-meter.

The instrument is based on a single-chip microcontroller with a true RMS converter, which ensures good accuracy, stability and easy operation of the instrument.

### AC V-A METER

- 3,5-digit programmable projection
- Range: 0...1/5 A; 0...60/300 mV;  
0...24/50/90/120/250/450 V
- Digital filters, Linearization
- Size of DIN 96 x 48 mm
- Power supply 10...30 V AC/DC; 80...250 V AC/DC
  
- Option  
Comparators - Data output - Analog output  
Three-color display - 20 mm

**OM 352AC**  
AC VOLTMETER AND AMMETER

### OPERATION

The instrument is set and controlled by five buttons located on the front panel. All programmable settings of the instrument may be performed in three adjusting modes:

**LIGHT MENU** is protected by optional number code and contains solely items necessary for instrument setting.

**PROFI MENU** is protected by optional number code and contains complete instrument setting.

**USER MENU** may contain arbitrary items from the programming menu (LIGHT/PROFI), which determine the right (see, change). Access w/o password.

Standard equipment is the OM Link interface, which together with operation program enables modification and filing of all instrument settings as well as performing firmware updates (with OML cable). The program is also designed for visualization and filing of measured values from more instruments.

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

### OPTION

**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/PROFIBUS protocols.

**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. Its type and range are selectable in menu.

### STANDARD FUNCTIONS

#### PROGRAMMABLE PROJECTION

**Selection:** of input type and measuring range

**Setting:** manual, optional projection on the display may be set in menu for both limit values of the input signal, e.g. input 0...5,00 V > 0...100,0

**Projection:** ±1999

#### FUNCTIONS

**Linearization:** non-linear signals can be linearized by the means of a linearization table (up to 25 points)

**Tare:** designed to reset display upon non-zero input signal

#### DIGITAL FILTERS

**Exponential average:** from 2...100 measurements

**Rounding:** setting the projection step for display

#### EXTERNAL CONTROL

**Hold:** display/instrument blocking

**Lock:** control keys blocking

**Tare:** tare activation

## TECHNICAL DATA

### INPUT

Number of inputs	1		
AC Range	optional in configuration menu		
0...1 A	> 30 mV	Input 5	
0...5 A	> 150 mV	Input 5	
0...60 mV	1,2 kΩ	Input 4	
0...300 mV	1,2 kΩ	Input 4	
0...24 V	500 kΩ	Input 3	
0...50 V	1 MΩ	Input 2	
0...90 V	1,8 MΩ	Input 1	
0...120 V	500 kΩ	Input 3	
0...250 V	1 MΩ	Input 2	
0...450 V	1,8 MΩ	Input 1	
Input frequency	0...400 Hz for amplitude from 8 V		
External input	1 input, on contact		
The following functions can be assigned:			
OFF	input off		
HLD.	display stop		
LOC.	control keys blocking		
TAR.	tare activation		

### PROJECTION

**Display:** 0...1999, single color 7-segment LED;  
0...9999, 3-color 7-segment LED  
**Digit height:** 14 or 20 mm  
**Display color:** red or green (height 14 mm)  
red/green/orange (height 20 mm)  
**Decimal point:** adjustable - in menu  
**Brightness:** adjustable - in menu

### PROJECTION

**Display:** 1999, red or green 7-segment LED, height 14 mm,  
-999...9999, red/green 7-segment LED, height 20 mm  
**Decimal point:** adjustable - in menu  
**Brightness:** adjustable or automatically controllable

### INSTRUMENT ACCURACY

**TC:** 50 ppm/°C  
**Accuracy:** 0,3% of range + 1 digit (for projection 0...1999)  
**Rate:** 0,5/1,2/2,5/5 measurement/s  
**Overload capacity:** 2x; 10x (t < 30 ms) - not for > 250 V and 5 A  
**Linearization:** linear interpolation in 25 points (only via OM Link)  
**Digital filters:** exponential average, rounding  
**Functions:** Tare  
**OM Link:** company communication interface for operation, setting and update of instruments  
**Watch-dog:** reset after 500 ms  
**Calibration:** at 25°C and 40% r.h.

### COMPARATOR

**Type:** digital, menu adjustable, contact switch-on < 50 ms  
**Hysteresis mode:** switching limit, hysteresis band (Lim and ±1/2 Hys.) and time (±99,9 s) determining the switching delay  
**Output:** 1...2x Form A relays (250 VAC/30 VDC, 3 A);  
1...2x open collector (30 VDC/100 mA)

### DATA OUTPUTS

**Protocol:** ASCII, PROFIBUS DP  
**Data format:** 8 bit + no parity + 1 stop bit (ASCII)  
**Rate:** 300...230 400 Baud  
9 600 Baud...12 Mbaud (PROFIBUS)  
**RS 232:** isolated  
**RS 485:** isolated, addressing (max. 31 instruments)

### ANALOG OUTPUTS

**Type:** isolated, programmable with resolution of max. 4 000 points, analog output corresponds with the displayed data, type and range are selectable in menu  
**Non-linearity:** 0,2% of range  
**TC:** 50 ppm/°C  
**Rate:** response to change of value < 250 ms  
**Ranges:** 0...2/5/10 V, 0/4...20 mA (comp. < 600 Ω/12 V)

### POWER SUPPLY

**Range:** 10...30 V AC/DC, ±10%, PF≥0,4, I<sub>STEP</sub> < 40 A/1 ms, isolated  
80...250 V AC/DC, ±10%, PF≥0,4, I<sub>STEP</sub> < 40 A/1 ms, isolated  
**Consumption:** < 6,8 W/6,9 VA  
**Power supply is protected by a fuse inside the instrument.**

### MECHANIC PROPERTIES

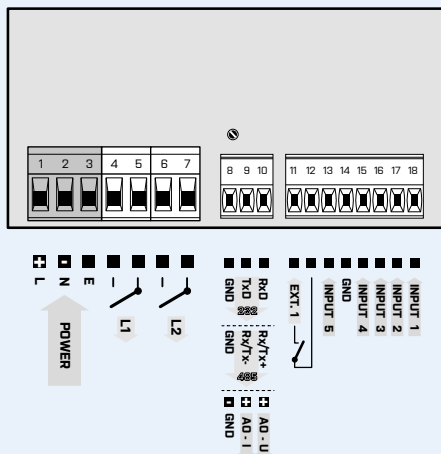
**Material:** Noryl GFN2 SE1, incombustible UL 94 V-1  
**Dimensions:** 96 x 48 x 120 mm (w x h x d)  
**Panel cutout:** 90,5 x 45 mm (w x h)

### OPERATING CONDITIONS

**Connection:** connector terminal blocks, section < 1,5/2,5 mm<sup>2</sup>  
**Stabilization period:** within 5 minutes after switch-on  
**Working temperature:** -20°...60°C  
**Storage temperature:** -20°...85°C  
**Protection:** IP64 (front panel only)  
**El. safety:** EN 61010-1, A2  
**Dielectric strength:** 4 kVAC per 1 min test between supply and input  
4 kVAC per 1 min test between supply and data/analog output  
4 kVAC per 1 min test between input and relay output  
2,5 kVAC per 1 min test between input and data/analog output  
**Insulation resistance:** for pollution degree II, measuring cat. III  
power supply > 670 V (PI), 300 V (DI)  
input, output, PN > 300 V (PI), 150 V (DI)  
**EMC:** EN 61326-1

PI - Primary insulation, DI - Double insulation

## CONNECTION



## ORDER CODE

### OM 352AC

- [ ] [ ] [ ] [ ] - [ ]

<b>Power supply</b>	10...30 V AC/DC	<b>0</b>			
	<b>80...250 V AC/DC</b>	<b>1</b>			
<b>Comparators</b>	no	<b>0</b>			
	1x relay (Form A)	<b>1</b>			
	2x relay (Form A)	<b>2</b>			
	1x open collector	<b>3</b>			
	2x open collector	<b>4</b>			
<b>Output</b>	no	<b>0</b>			
	Analog output	<b>2</b>			
	RS 232	<b>3</b>			
	RS 485	<b>4</b>			
	PROFIBUS	<b>6</b>			
<b>Display color</b>	<b>red (14 mm)</b>		<b>1</b>		
	green (14 mm)		<b>2</b>		
	red/green (20 mm)		<b>3</b>		
<b>Specification</b>	customized version, do not fill in				<b>00</b>

Basic configuration of the instrument is indicated in bold.