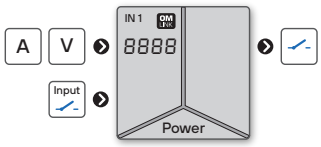
OML 343AC

- 3.5-digit programmable projection
- Range 0…1 A/5 A
  0…60 mV/300 mV
  0…24 V/50 V/120 V/250 V
- Digital filters, Tare
- Size of DIN 96 x 48 mm
- Power supply 10…30 VDC / 24 VAC

Option

Comparator

AC V-A METER



Type OML 343AC is an inexpensive programmable 3.5-digit panel alternative current VA-meter designed for simple applications with an instrument box depth of only 30 mm.

The instrument is based on a microcontroller and true RMS trasmitters, which ensures good accuracy, stability and easy operation of the instrument.

OPERATION

The instrument is set and controlled by five buttons accessible from the rear. 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

COMPARATOR is 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.

STANDARD FUNCTIONS

PROGRAMMABLE PROJECTION
Selection: 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…60 mV > 0…100.0
Projection: ±1999

FUNCTIONS
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

No. of inputs	1 The range is adjustable in the instrument menu		
AC Range	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 2
	0...50 V	1 MΩ	Input 1
	0...120 V	500 kΩ	Input 2
	0...250 V	1 MΩ	Input 1
Input frequency	0...400 Hz for amplitude up to 8 V		

EXTERNAL INPUT

No. of inputs	1, on contact
Function	OFF no function assigned LOCK control keys blocking HOLD measurement paused TARE tare activation

PROJECTION

Display	±1999, single color 7-segment LED
Digit height	14 mm
Display color	red or green
Decimal point	adjustable - in menu
Brightness	adjustable or automatically controllable

INSTRUMENT SPECIFICATION

TC	50 ppm/ºC
Accuracy	±0.3 % of FS + 1 digit
Rate	0.5...5 measurement/s
Overload	10x (t < 30 ms), 2x *not valid for 250 V and 5 A ranges*
Functions	Tare
Digital filters	exponential average, rounding
OM Link	company communication interface for operation, setting and update of instruments
Watch-dog	reset after 500 ms
Calibration	at 25ºC and 40 % r.h.

RELAYS / OC OUTPUT

No. of outputs	1
Type	digital, menu adjustable
Mode	HYSTER. active above set value
Function Relays/OC	CLOSE is closed in active mode OPEN is open in active mode READY output indicates error-free status ERROR output indicates an error condition
Limits	0...1999
Hysteresis	0...1999
Delay	0...99.9 s
Outputs	1x relay with switch-on contact (Form A) (250 VAC/30 VDC, 3 A)* 1x open collector (30 VDC/100 mA)
Relays	1/8 HP 277 VAC, 1/10 HP 125 V, Pilot Duty D300

* values apply for resistance load

POWER SUPPLY

Range	10...30 VDC / 24 VAC, ±10 %, PF ≥ 0.4, I_{STP}< 45 A / 1 ms, isolated
Consumption	< 1.8 W / 1.9 VA

MECHANIC PROPERTIES

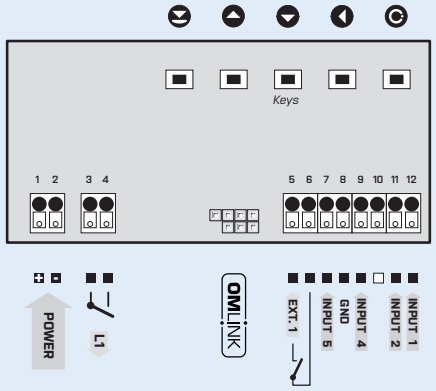
Material	PC, incombustible UL 94 V-I, black
Dimensions	96 x 48 x 30 mm (w x h x d)
Panel cutout	92 x 44 mm (w x h)

OPERATING CONDITIONS

Connection	terminal blocks, section < 1.5 mm²
Stabilization period	within 5 minutes after switch-on
Working temperat.	-20º...60ºC
Storage temperat.	-20º...85ºC
Working humidity	< 95 % r.v., non condensing
Protection	IP65, front panel only with a gasket
Construction	safety class I
El. safety	EN 61010-1, A2
Dielectric strength	2.5 kVAC for 1 min. between power supply and input 4 kVAC per 1 min test between input and relay output
Insulation resist.*	for pollution degree II, measuring cat. III power supply, input > 300 V (PI) input, output > 300 V (DI)
EMC	EN 61326-1, Industrial area
Seismic capacity	IEC 980: 1993, par. 6

* PI - Primary insulation, DI - Double insulation

CONNECTION



ORDER CODE

OML 343AC - [ ][ ][ ] - [ ]

Comparator	no	**0**			
	1x relay (Form A)	**1**			
	1x open collector	**2**			
Display color	red		**1**		
	green		**2**		
Gasket	no			**0**	
Silicone gasket between instrument and panel	yes			**1**	
Specification	customized version, do not fill in				**00**

Basic configuration of the instrument is indicated in bold.