OMM 350

OMLINK

The OMM 350 model series are small 6-digit panel programmable instruments designed for maximum usefulness and user comfort while maintaining its fair price. There are two versions available: UNI and DC.

The OMM 350UNI type is a multifunction instrument with the option of configuration for 8 different input options, easily configurable in the instrument menu. Version OMM 350DC is suitable for measurement of larger ranges of DC voltage and current.

The instrument is based on an 8-bit microcontroller with A/D converter, which ensures good accuracy, stability and easy operation of the instrument.

- 6-DIGIT PROGRAMMABLE PROJECTION
- MULTIFUNCTION INPUT (DC, PM, RTD, T/C, DU)
- DIGITAL FILTERS, LINEARIZATION
- SIZE OF DIN 72 X 24 MM
- POWER SUPPLY 10...30 V AC/DC

- Option
  Comparators

OMM 350DC
DC VOLTMETER AND AMMETER

OMM 350UNI
DC VOLTMETER AND AMMETER
PROCESS MONITOR
OHMMETER
THERMOMETER FOR Pt/Cu/Ni/Termocouples
DISPLAY UNIT FOR LINEAR POTENTIOMETERS

OPERATION

The instrument is set and controlled by four control keys 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 perform firmware updates (with OML cable).

All settings 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.

STANDARD FUNCTIONS

PROGRAMMABLE PROJECTION

Setting: manual, optional display projection may be set in the menu for both limit values of input signal, e.g. input 0...19,99 V ⇨ 0...150,0
Projection: -99999...999999

COMPENSATION

of conduct (RTD, OHM): automatic (3- and 4-wire) or manual in menu (2-wire)
of conduct in probe (RTD): internal connection (conduct resistance in measuring head)
of CJC (T/C): manual or automatic, in menu it is possible to perform selection of the type of thermocouple and compensation of cold junctions, which is adjustable or automatic (temperature at the input brackets)

LINEARIZATION

Linearization: through linear interpolation in 25 points (solely via OM Link)

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

TECHNICAL DATA

PROJECTION
Display: -99999...999999, red or green 7-segment LED, digit height 9,1mm
Decimal point: setting - in menu
Brightness: setting - in menu

INSTRUMENT ACCURACY
TK: 50 ppm/°C
Accuracy: ±0,2% of range + 1 digit (for projection ±1999)
±0,3% of range + 1 digit **T/C**
Accuracy of cold junction measurement: ±1,5°C
Rate: 0,5...10 meas./s
Overload capacity: 10x (t < 30 ms) - not for 200 V and 5A; 2x
Resolution: 0,1°C (RTD), 1°C (T/C)
Watch-dog: reset after 500 ms
Functions: HOLD, LOCK, Digital filters
OM Link: Company communication interface for operation, setting and update of instruments
Calibration: at 25°C and 40% r.h..

COMPARATORS
Type: digital, setting in menu, contact switch-on < 50 ms
Limit: -99999...999999
Hysteresis: 999999
Delay: 0...99,9 s
Output: 2x bistable relays (48 VAC/30 VDC, 3 A)

POWER SUPPLY
10...30 VDC/24 VAC, max. 4 VA, PF≥0,4, I_{STP}< 45 A/1,1 ms, isolated

MECHANIC PROPERTIES
Material: Noryl GFN2 SE1, incombustible UL 94 V-I
Dimensions: 72 x 24 x 106 mm
Panel cutout: 68 x 22,5 mm

OPERATING CONDITIONS
Connection: connector terminal board, section < 1,5/2,5 mm²
Stabilization period: within 15 minutes after switch-on
Working temperature: -20°...60°C
Storage temperature: -20°...85°C
Cover: IP42 (front panel only)
El. safety: EN 61010-1, A2
Dielectric strength: 2,5 kVAC after 1 min between supply and input
2,5 kVAC after 1 min between supply and relay output
Insulation resistance: for pollution degree II, measuring cat. III.
Power supply, input > 300 V (PI), 250 V (DI)
EMC: EN 61326-1
Seismic capacity: IEC 980: 1993, par. 6

PI - Primary insulation, DI - Double insulation

MEASURING RANGES

OMM 350 is a multifunction instrument available in following types and ranges

Type UNI

DC:	±20/±60/±1 000 mV
PM:	0...20 mA/4...20 mA/0...2 V/ 0...5 V /0...10 V
OHM:	0...300 Ω/0...1,5 kΩ/0...3 kΩ/0...30 kΩ
RTD:	Pt 50/100/Pt 500/Pt 1 000
Cu:	Cu 50/Cu 100
Ni:	Ni 1 000/10 000
T/C:	J/K/T/E/B/S/R/N/L
DU:	Linear potentiometer (min. 500 Ω)

Type DC

DC - Hi:	±1 A/±5 A/±20 V/±40 V/±100 V/±200 V

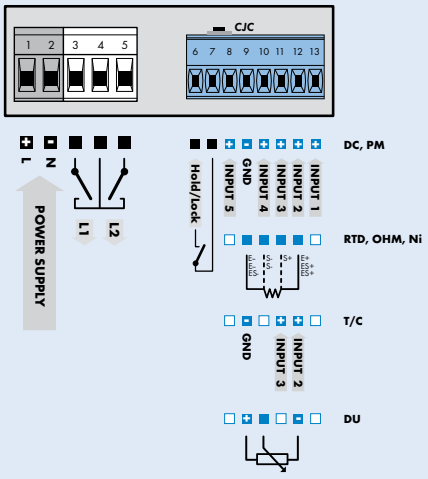
CONNECTING INDIVIDUAL INPUTS

	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5
DC	0...1 V		0...60 mV	0...20 mV	
PM	0...5/10 V			0...2 V	0...20 mA, 4...20 mA
T/C			J/K/E/N/L	B/S/R/T	
DC/Hi	±100/±200 V	±20/40 V			±1/±5 A

ORDER CODE SPECIFICATION

	UNI
A	Pt 100/0...300 Ω
B	Pt 500/0...1 500 Ω
C	Pt 1 000/Ni 1 000/0...3 kΩ
D	Ni 10 000/0...30 kΩ
Z	on request

CONNECTION



ORDER CODE

OMM 350 ☐☐☐ - **0** ☐☐☐ - ☐

Type		**U**	**N**	**I**	•	•	•	•	
Order code shall not include blank spaces!			**D**	**C**	•		•	•	
Power supply	**10...30 V AC/DC, isolated**				**0**				
Measuring range, see table „Order code specification"*						**?**			
Comparators	**no**						**0**		
	1x relay (Form A)						**1**		
	2x relays (Form A)						**2**		
	1x open collector						**3**		
	2x open collector						**4**		
Display color	**red**							**1**	
	green							**2**	
Other	**customer version, do not fill in**								**00**

*In the „UNI" type the measuring range is selected under the order code solely for RTD, NI, OHM. For other types this item has no significance with default setting „A" !

Default execution is shown in bold