

## OM 371DC



- **3 3/4 digit programmable projection**
- **60 mV ... 300,0 V / 39,99 mA ... 5,00 A**
- **Dual comparator, Tare**
- **Digital filter, Tare**
- **Size of DIN 96 x 48 mm**
- **Power supply 230 VAC**

### Extension

Data output • Universal analogue output • Power supply 24 VAC, 110 VAC, 8...32 VDC

### Description

The OM 371DC is a 3 3/4 digit panel programmable direct-current voltmeter/ammeter.

The instrument is based on an 8-bit  $\mu$ -controller with precise A/D converter, that secures high 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...39,99 V  $\Rightarrow$  projection 0...350,0 -999...3999

Projection

#### Digital filter

Radius of insensitiv. band of suppressed change of measured value

#### Function

Tare resetting display upon non-zero input signal

#### External control

Hold display/instrument blocking  
Lock control keys blocking

#### Output

Limits 2 relays with switching contact,  
The limits have both adjustable hysteresis and optional delay of the switch-on. Reaching the limits is signalled by LED and at the same time by the switch-on of the relevant relay.

### 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). The measured units may be projected on the display.

### Options

**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.

**Analogue outputs** will find their place in applications where further evaluating or processing of measured data is required in external devices. We offer universal analogue output with the option of selection of the type of output - voltage/current. The value of analogue output corresponds with the displayed data and its type and range are selectable in programming mode.

## Technical data

MEASURING RANGE		Impedance/Max. drop	
Voltage:	0...60 mV	1,8 MOhm	Input A
	0...150 mV	1,8 MOhm	Input A
	0...700 mV	1,8 MOhm	Input A
	0...0,399 V	1,8 MOhm	Input B
	0...3,999 V	1,8 MOhm	Input B
	0...39,99 V	1,8 MOhm	Input B
Current:	0...300,0 V	1,8 MOhm	Input B
	0...399,9 mA	< 260 mV	Input B
	0...1,000 A	< 50 mV	Input A
	0...5,00 A	< 50 mV	Input A

### PROJECTION

Display: -999...3999, red or green 14-segment LED, digit height 14 mm  
 Decimal point: adjustable - in Configuration menu  
 Brightness: adjustable - in Configuration/User menu

### INSTRUMENT ACCURACY

Tempco: 50 ppm/°C  
 Accuracy: ±0,15 % of range  
 Rate: 1,3 - 2,5 - 5 - 10 - 20 - 40 measurements/s  
 Overload capacity: 10x (t < 100 ms) - does not apply for 300 V and 5 A, 2x (long-term)  
 Watch-dog: reset after 1,2 s  
 Function: Hold - stop measuring (upon contact)  
 Lock - control keys blocking (upon contact), not simultaneously with Hold function  
 Digital filter - adjustable in Configuration menu  
 Tare - resetting display upon non-zero input signal at 25°C and 40 % r.h.

### COMPARATOR

Type: digital, adjustable in programming mode, contact switch-on < 10 ms  
 Limit 1 and 2: -999...3999  
 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 the output may be fitted with SSR (250 VAC, 1 A)

### DATA OUTPUTS

Data format: rate 150...115 200 Baud, 8 bit + no parity + 1 stop bit  
 RS 232: isolated  
 RS 485: isolated, addressing (max. 31 instruments)

### ANALOGUE OUTPUTS

Type: isolated, programmable with resolution max. 14 bit, analogue output corresponds with the displayed data, output type and range are selectable in Configuration menu  
 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 Hz  
 8...32 VDC/max. 300 mA, (24 VDC/max. 150 mA), isolated

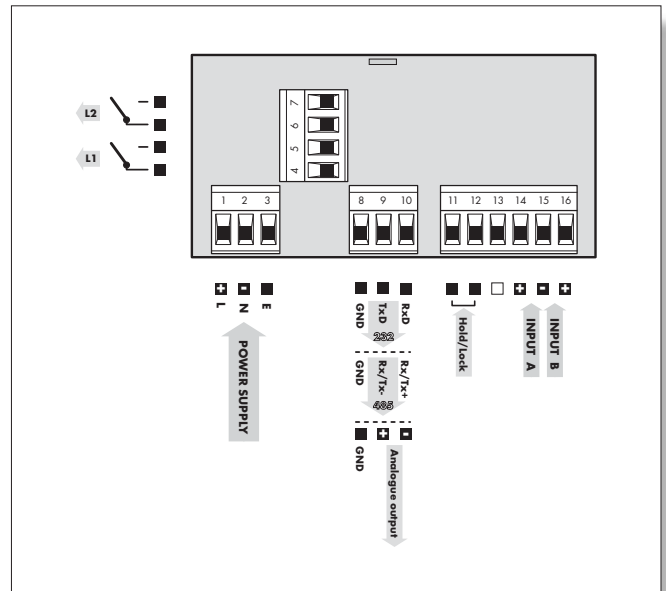
### MECHANIC PROPERTIES

Material: Noryl GFN2 SE1, incombustible UL 94 V-1  
 Dimensions: 96 x 48 x 120 mm  
 Panel cut-out: 90,5 x 45 mm

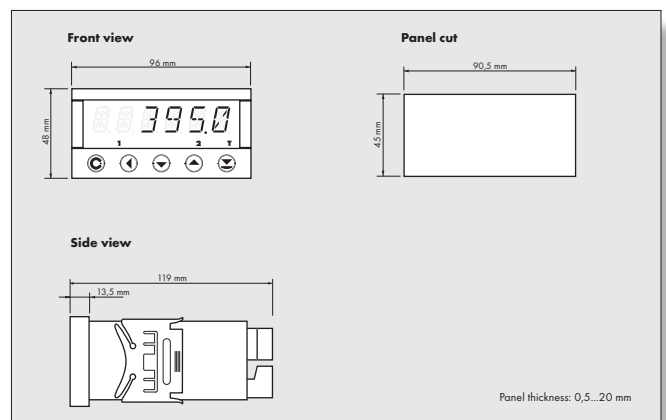
### OPERATING CONDITIONS

Connection: connector terminal board, conductor section up to 2,5 mm<sup>2</sup>  
 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, excitation (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

