

# Multifunction Process Controller

## OC 351

- ✓ 5 Digit Display
- ✓ 16 Bit ADC
- ✓ Free scalable Display
- ✓ 0/4-20mA, 60mV to 300V
- ✓ DC Process Signals
- ✓ AC true RMS Measurements
- ✓ Potentiometer Input
- ✓ Ohm Measurements
- ✓ Pt-100, Thermistors
- ✓ Thermocouples J,K,E,S,B,T,R,N
- ✓ Two Output Relays



**Model OC 351** is a 5 digit programmable controller with 16 Bit resolution. It is mainly designed for connection to process signals such as 0/4-20mA, 60mV to 300VDC or true RMS, RTD Sensors, Thermistors, Resistors, DIN Thermocouples and other industrial signal sources.

By using the keyboard, the input signal can be assigned to any two desired display values, such as 4-20mA = 0-18500.

The menu contains two Set Points, the Filter, the Tare, the Sampling Rate, the Display Resolution, the Display Counting, and the Password.

**Two Set Points** can be set within the entire display range. They activate two open collector transistors or two mechanical relays. Each set point has a programmable hysteresis and a selection of the relay status in the alarm conditions.

**Digital Filter** can be used in noisy environments or for unstable signals and calculates the average value of the preselected number of measurements prior they arrive at the display. The filter constant can be set from OFF to 99.

**Tare** can be activated with the keyboard and force the display to zero. The Tare remains memorized also when the instrument is switched-off from the supply. The Tare can be canceled at any time and the display returns to follow the original input signal.

**Pak and Hold** memory measures and stores the maximum value the display achieves during the desired measuring period. By using the keyboard, the stored value can be recalled at the display.

**Password** can be used to protect the instrument from unauthorized operation.

**Excitation** for external sensors is isolated and selectable for 10V, 12V or 24V-40mA. Optional 1mA constant current output is available for special applications.

The instrument is enclosed in a 48x96mm DIN cabinet and powered from the mains or DC supply. The front is IP65.

# SPECIFICATIONS

## INPUTS and RANGES

### Voltage

± 60mV to 300V DC or true RMS

### Current

0/4-20mA to 5A DC

or true RMS

**Pt-100**, 2, 3 or 4 terminals

**Thermistors** 2kΩ and 96kΩ

**DIN Thermocouples**

J, K, R,S, B, N, T, E.

### Cold Junction

Compensation 0 - 99 °C.

### Resistors

0-1 Ω to 0-100 kΩ.

2 or 4 terminals

### Potentiometer

Excitation 1.25V

## ACCURACY

### DC Ranges

± (0.01% from value +1Digit)

### True RMS

50Hz - 5 kHz: ± (0.1% from value + 2 Digits).

### Temperature

\* Pt-100/200: ± (1°C +1 Digit)

\* T/C, Thermis: ± (2°C +1 Digit)

## ADC

### Resolution

16 Bit.

### Sampling Rate

1-10 Measurements/sec.

selectable

### Linearity

± (1 LSB + 1 Digit).

### Temp. Coefficient

10 ppm/°C

## TARA

The Tara sets the display to zero. The Tara remains memorized also when the supply is switched-off. The Tara can be cancelled and the display returns to the original value.

## FILTER

Filter constants 0, 1 to 99 selectable with the keyboard.

## SET POINT OUTPUTS

SP1, SP2 WITH Open Collector  
60V-100mA or with two Relays  
5A-230VAC.

## DISPLAY

0 ... ± 99999, 7 Segments, red  
14.7 mm with decimal points.

## SUPPLY

Mains Supply:

115V/230V ± 10%, 48 - 60 Hz.

DC Supply 24V (Option)

## CABINET

DIN 48x96x100 mm (HxWxD).

Panel cut-out 45 x 90.5 mm.

Pluggable screw terminals.

IP65 from the front.

## EXCITATION

Supply fro external sensors:

10V, 12V, 24V / 40mA.

## TEMPERATURE

Working: 0 ... 60 °C.

Storing: -10 ... 85 °C.

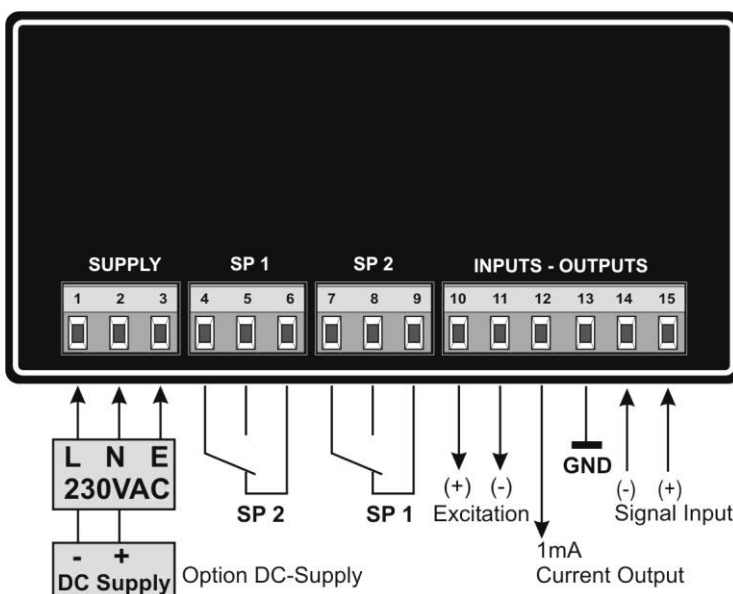
## EMC

EN 61000-3-2+A12

EN 61000-4-2, 3, 4, 5, 8, 11

EN 550222, A1, A2

## TERMINALS



## TO ORDER

OC351 - X - X - X		
Supply 115VAC -----	1	1 --- Input DC-V
230VAC -----	2	2 --- Input DC-I
24VDC isolated -----	3	3 --- Input AC-V
9-36VDC isolated -----	4	4 --- Input AC-I
		5 --- RTD-Thermometer
No Set Point Outputs -----	0	6 --- Thermocouples
Transistor Outputs -----	1	7 --- Resistor Measurement
Two Relays -----	2	8 --- Input Potentiometer
		9 --- Input Thermistor