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**OPKON**<sup>®</sup>  
 OPTIC ELECTRONIC LTD.

**MODEL OP-MD3**

DIGITAL DISPLAY  
 FOR POTENTIOMETRIC  
 SENSORS OR 0-5V INPUT

Ver 2.0E  
**USER GUIDE**



**WARNING!**

**READ CAREFULLY BEFORE POWER ON**

1. Complete electrical connections according to the schematic at the third page.
2. Check Supply Voltage 220V (or 24V optional) AC, or DC, due to Specifications on the equipment.
3. Use only shielded cable for sensors.
4. Keep away the equipment from direct heat source.
5. MODEL OP-MD3 is not suitable for outdoor use.
6. Keep away the equipment from water or other liquid drains.
7. Do not open, modify or replace any component in the equipment, if any problem occurs please contact an authorised OPKON technical service or OPKON directly.

**ELECTRICAL SPECIFICATIONS:**

Microcontroller based  
 10 bit Analog/Digital converter  
 Up to 200 kSPS  
 Two point calibration

Power supply	:220V ± % 20 (or 24V optional) ,50 Hz
Power consumption	:<4 VA(protected by fuse 50mA)
Sensor supply voltage	:+5V or +12VDC(selectable by jumper)
Sensor supply current	:Max.100mA(no fuse)
Input	:Potentiometric or 0-5V DC

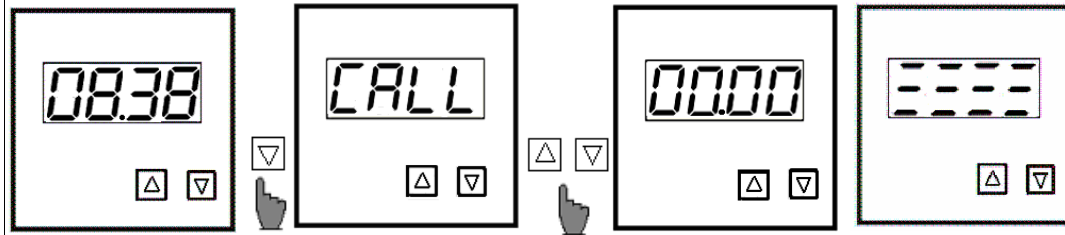
**MECHANICAL SPECIFICATIONS:**

Dimensions	:48x48x100 mm
Panel cut dimensions	:45x45mm
Body	:ABS plastic
Working temperature	:0-60 °C
Storage temperature	:-10°C ... +80°C
Humidity	:<%90 RH

## PROGRAMMING MODEL-MD3

### 1) TWO POINT CALIBRATION

#### Lower Calibration Point :

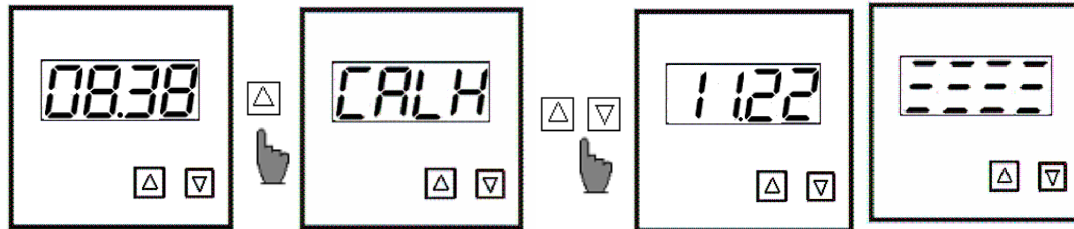


• Move the Sensor mechanically to the zero position.

1. **Press DOWN** button continuously, until the word CALL appears on the screen.
2. **Press UP / DOWN** to set the value on the screen zero or any value desired.
3. **Wait 2 second** without pressing any button, the last screen appears.

• After this, the equipment goes back to operation mode. So the *Lower Calibration Point* was defined..

#### Upper Calibration Point :

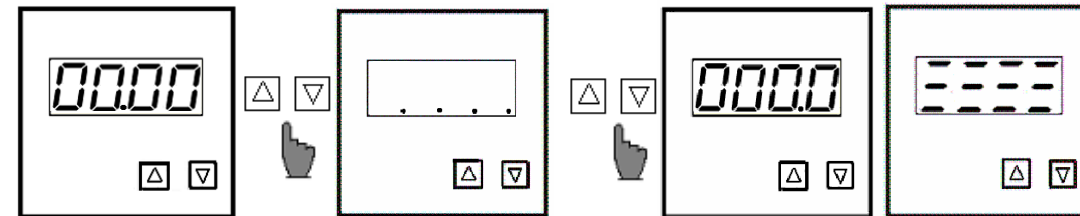


• Move the Sensor mechanically to the maximum position.

1. **Press UP** button continuously, until the word CALH appears on the screen.
2. **Press UP / DOWN** to set a desired value.
3. **Wait 2 second** without pressing any button, the last screen appears.

• After this, the equipment goes back to operation mode. So the *Upper Calibration Point* was defined.

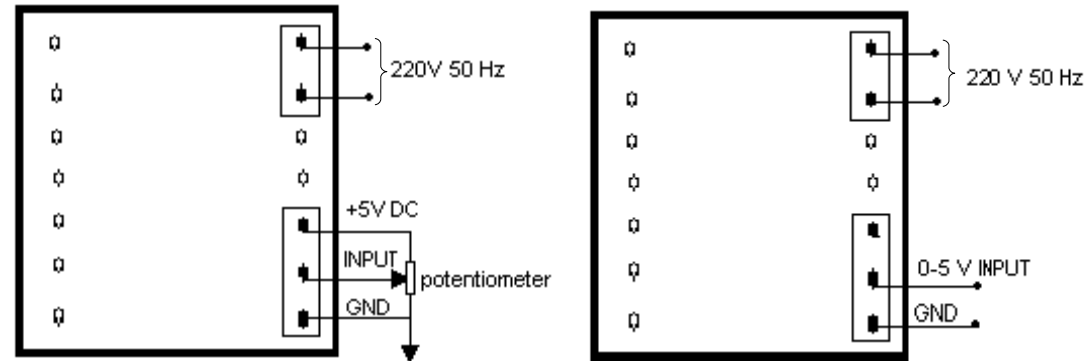
### 2) SETTING THE DECIMAL POINT



1. **Press UP/DOWN** button at the same time and continuously, until the second screen appears.
2. **Press UP/DOWN** buttons to select the decimal point.
3. **Wait 2 second** without pressing any button, the last screen appears.

• After this, the equipment goes back to operation mode. So the *Decimal Point* was defined.

### ELECTRICAL CONNECTIONS



Potentiometric sensor input

0-5 V input