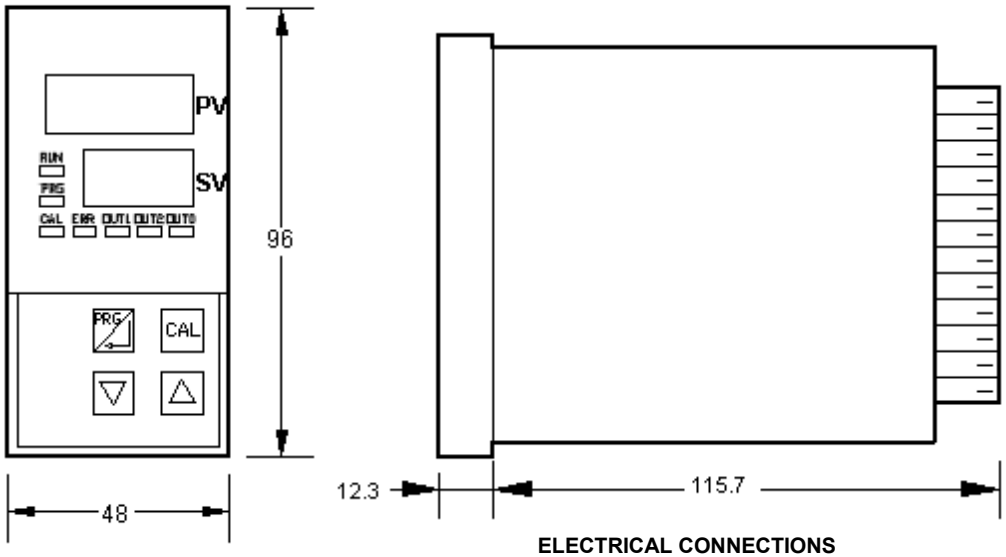
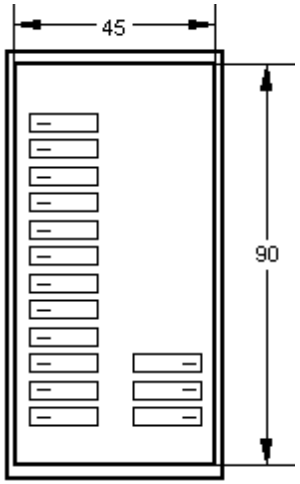
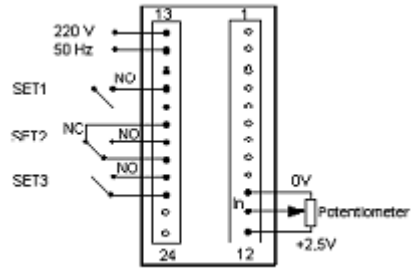
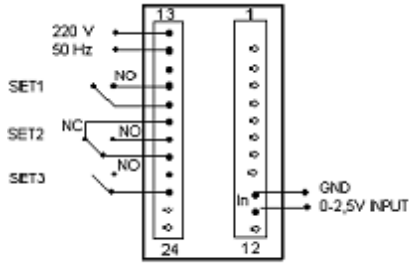




ELECTRICAL CONNECTIONS





Manufacturer:

OPKON
OPTIC ELECTRONIC LTD.
Terazidere Mah.60.Yil Cad.No:5/3
34035 Bayrampasa/ISTANBUL/TURKEY
TEL: 0 212 501 48 63
FAX: 0 212 501 48 83

OPKON
OPTIC ELECTRONIC LTD.

MODEL OP-LP1
MODEL OP-LP2

POSITION MEASUREMENT AND CONTROL DEVICE

Ver 2.0E

USER GUIDE

WARNING!

READ CAREFULLY BEFORE POWER ON

1. **Complete electrical connections according to the schematic at the last page.**
2. **Check Supply Voltage 220V 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-LP1 and MODEL OP-LP2 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
12 bit Analog/Digital converter
Offset calibration
Screen filter
Hysteresis
Rs485 serial communication

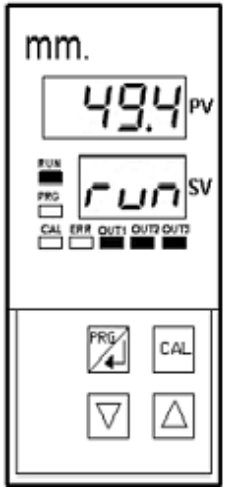
Power Supply	:220V ± % 20 ,50 Hz
Power Consumption	:<4 VA(protected by fuse 50mA)
Transducer supply voltage	:+5V or +12VDC(selectable by jumper)
Transducer supply current	:Max.100mA(no fuse)
Relays max. ratings	:Relay1 1xNO+NC 8A,230V AC Relay2 1xNO+NC 8A,230V AC Relay3 1xNO+NC 8A,230V AC
Output Suply voltage	:0 - 5VDC
Input Voltage	:0 - 5VDC
Input	:Potentiometric (Resistive potentiometer> 50 ohm.) or 0-5V input

MECHANICAL SPECIFICATIONS:

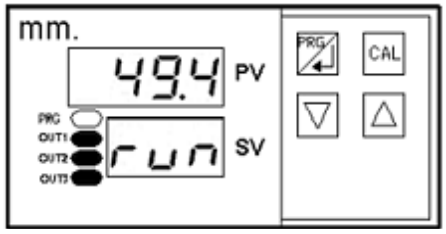
Dimensions	:48x96x128 mm (LP1) , 96x48x128 mm (LP2)
Panel cut dimensions	:45x90 mm (LP1) , 90x45 mm (LP2)
Body	:ABS plastic
Working temperature	:0-60 ºC
Storage temperature	:-10ºC …+80ºC

DESCRIPTIONS

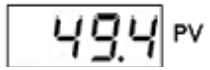
MODEL OP-LP1 (VERTICAL)



MODELOP-LP2 (HORIZONTAL)



PROCESS DISPLAY



MENU AND PARAMETER DISPLAY

BUTTONS

PRG **Enters to** Set Parameter menu.
Saves the values.
Turns on When programming.

CAL **Enters** to Device Parameter menu.

▽ **Changes** the values down.

△ **Changes** the values up.
Used to adjust Offset.

LED INDICATORS

RUN Turns on While device is running.

PRG

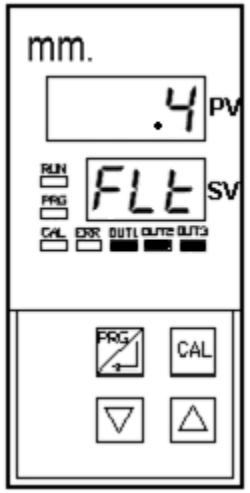
CAL Turns on When Calibrating the device.

ERR Turns on an error occured.

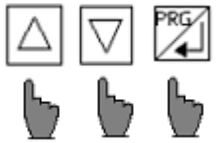
OUT1 Turns on When Relay1 is activated.

OUT2 Turns on When Relay2 is activated.

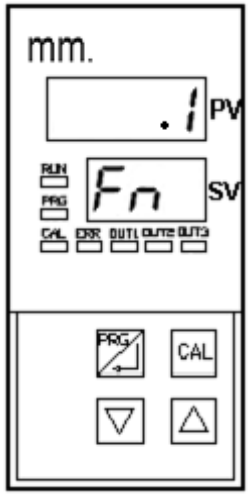
OUT3 Turns on When Relay3 is activated.



Flt Parameter is used to Fitler the vibrations coming from a system Which is the Transducer connected .

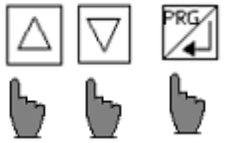


***-Press UP/DOWN* buttos to write FLt value on display.**
***-Press PRG* to save and pass next Parameter.**

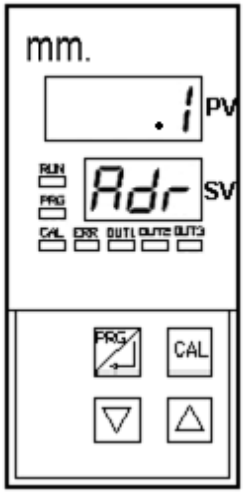


Fn Parameter is used to choose Offset Function active or passive.Pls refer to page of "OFFSET ADJUSTMENT "

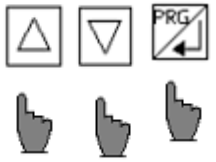
0 Offset Function is *passive.*
1 Offset Function is *active*.



***-Press UP/DOWN* buttos to write Fn value on display.**
***-Press PRG* to save and pass next Parameter.**



Adr Parameter is used to define an adress to device when running in a Network.



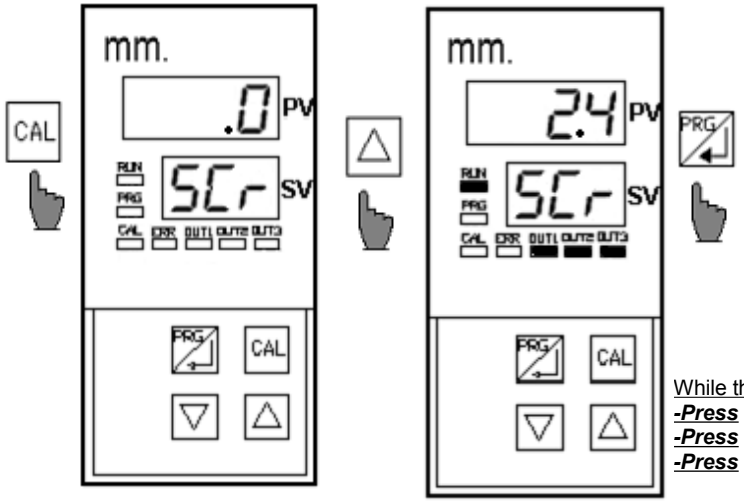
***-Press UP/DOWN* buttos to write Adr value on display.**
***-Press PRG* to save.Parameter.**

Thus the Device Parameter settings were completed.Device turns back run mode automatically.

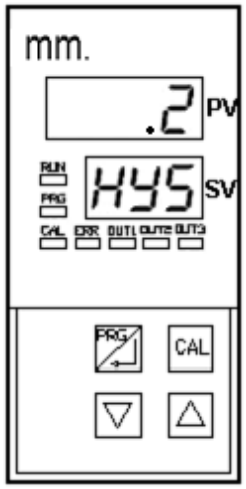
DEVICE PARAMETER MENU

In MODEL OP-LP1 and MODEL OP-LP2 devices 4 Parameters **HYS ,FLt ,Fn and Adr are available by user to adjust the device.**

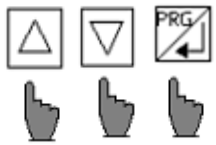
HYS : Hysteresis Parameter.
Flt : Fitler Parameter.
Fn : Offset Function Parameter .
Adr : Network Adress Parameter.
Setting these Parameters is shown below.



While the device is running;
-Press CAL button to enter menu.
-Press UP button to write **24** on display.
-Press PRG button.



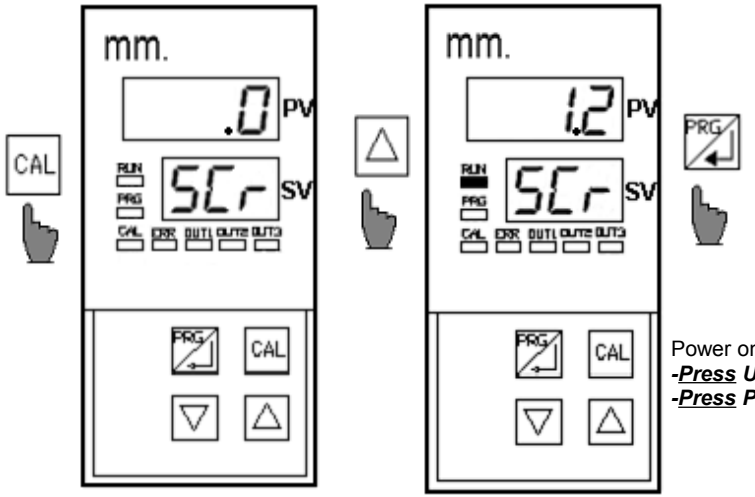
HYS Parameter is used to tolerate the values of Relays will be not activated.
Relays not active at ***SET values –(minus) HYS value***



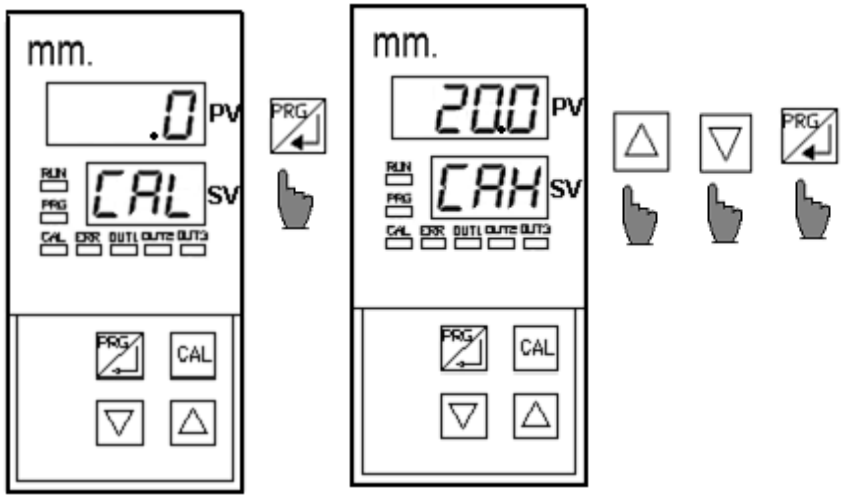
-Press UP/DOWN **buttos to write HYS value on display.**
-***Press PRG*** to save and pass next Parameter

CALIBRATION

At first power on Device must be calibrated. Every device must be calibrated according to used resistive transducer.CALIBRATION is shown below



Power on device and ***Press CAL*** button.
-Press UP button to write **12** on the display.
-Press PRG button.



CAL screen is definning the Lower Calibration Point screen.
Move the sensor to the *designated as minimum position* mechanicaly.

- Press PRG button.
- Device will designate *Zero* for this position *automatically*.

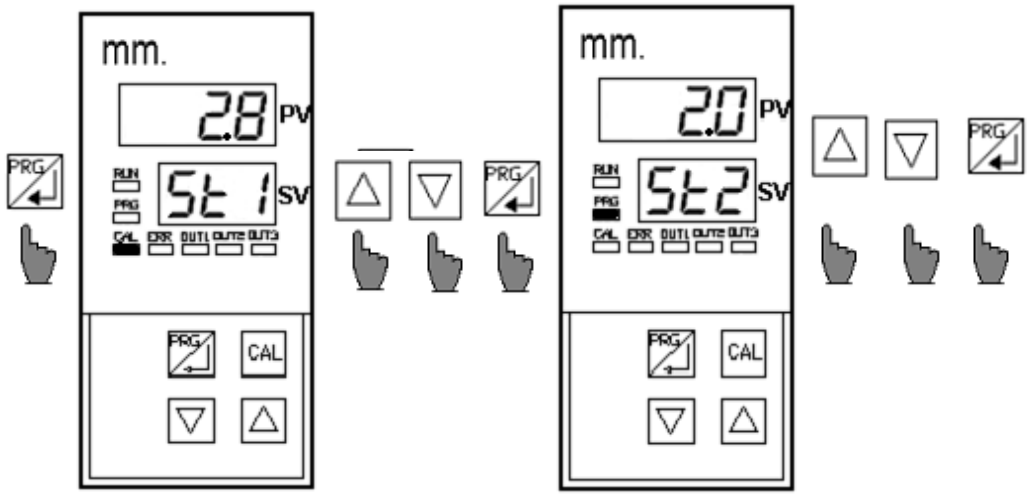
CAH screen is definning the Upper Calibration Point screen.
Move the sensor to the *designated as maximum position* mechanicaly.

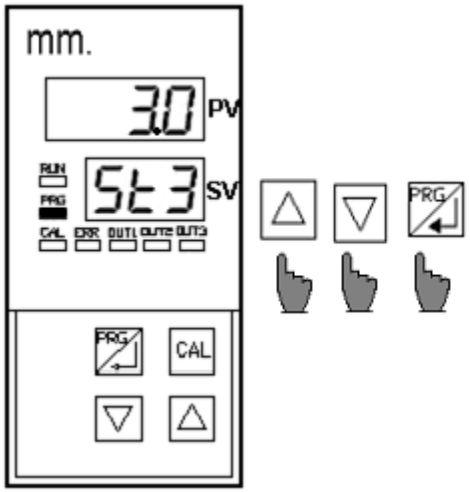
- Press UP/DOWN buttons to write **Upper Calibration Point** value on the display.
- Press PRG button.

Thus the ***calibration was completed.*** Device turns back run mode automatically.

SET PARAMETER MENU

In Set Parameter Menu 3 Parameters **St1** ,**St2** and **St3** are available.These Parameters indicate the value of **Relay1** ,**Relay2** and **Relay3** will be pulled.Adjusting the Parameters is shown below.





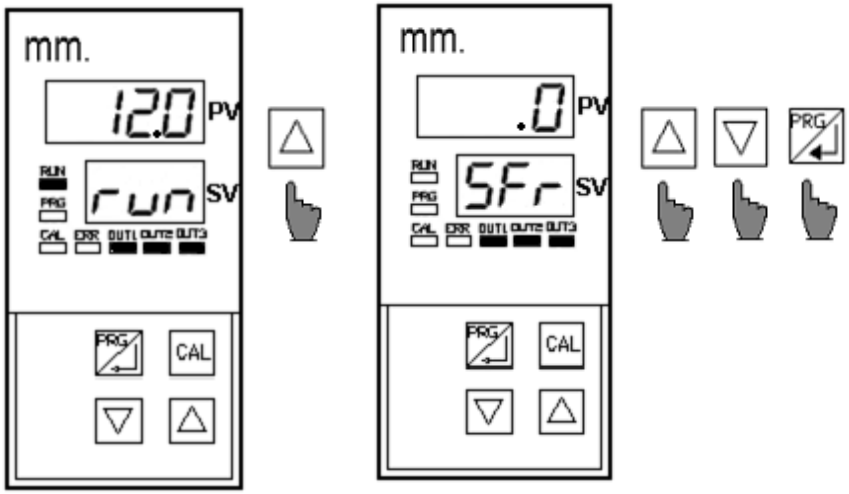
While the device is running;

- Press PRG button to enter menu..
- Press UP/DOWN buttons to write **St1** value.
- Press PRG button.
- Press UP/DOWN buttons to write **St2** value.
- Press PRG button.
- Press UP/DOWN buttons to write **St3** value.
- Press PRG button.

Thus the Parameters was adjusted.Device turns back run mode automatically.

OFFSET ADJUSTMENT

Offset Adjustment is used to define the position of transducer as ***zero or any other designated position*.Offset Adjustment is done as shown below.**



While the device is running;

Move the transducer to any position designated as offset point mechanically.

- Press UP button.
- Press UP/DOWN buttons to write zero or any value to offset the position of transducer.
- Press PRG buton.

Thus the Offset Adjustment was completed.Device turns back run mode automatically.