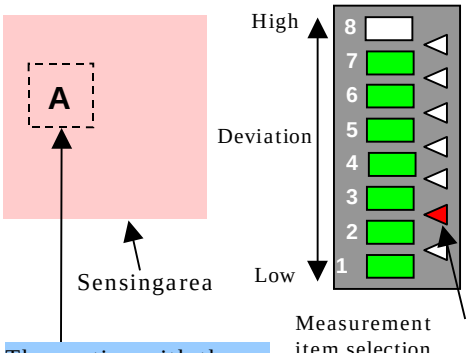
Measurement Item : PATT/PLN

Whether measurement is patterned or plain is determined automatically by comparing the contrast with the background within the detection range. When teaching is finished, all the level indicators will light for 0.5 s, and the buzzer will sound twice.

Pattern Measurement

If the deviation level is higher than the set level of measurement item selection, pattern measurement will be performed.



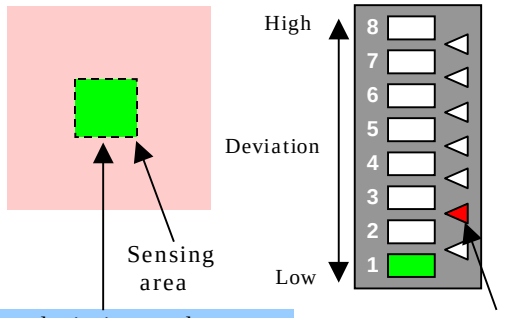
The portion with the highest deviation is registered as a model.

Automatic selection

Plain Measurement

If the set level of measurement item selection is higher than the deviation level, plain measurement will be performed.

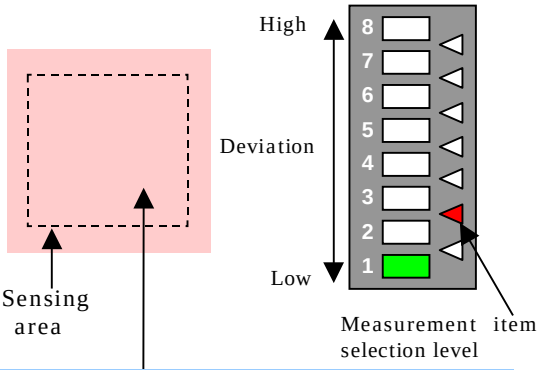
Plain Measurement with A.T.OFF



The deviation and average density in the Teaching area are registered.

*) By another mode, it is possible to enlarge Sensing area.

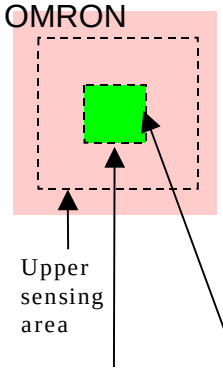
Plain Measurement with A.T.ON



The deviation and average density in the area enclosed by dotted lines are registered.
The dotted lines are not projected.

*) By another mode, it is possible to enlarge Sensing area.

The pattern is outside the Sensing area.



Teaching is performed in the Teaching area. The pattern close to the edge of the sensing area is not registered as a model because such a pattern may not be always located in the sensing area and accurate measurement cannot be performed. In this example, the deviation level in the area enclosed by the dotted line is small. Therefore, plain measurement will be performed.

Teaching Area
The deviation and average density in the Teaching area are registered in the above example.

Sensing area
The sensing area is restricted so that the pattern close to the edge will not influence the results of object discrimination.

POINT

The set level of measurement item selection is increased or decreased by pressing the SELECT buttons. Adjust the level according to the background and deviation. The level is factory - set between 2 and 3.
If the object has some light - color lines or light - color patterns, pattern measurement may be performed. In this case, by increasing the set level of measurement item selection, plain measurement will be performed.

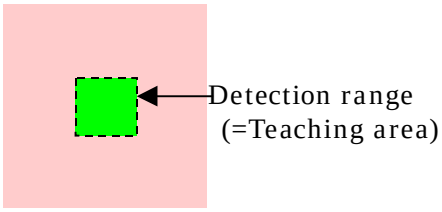
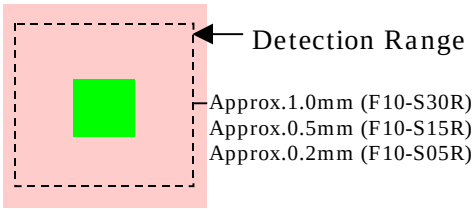
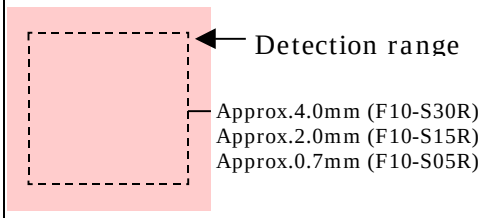
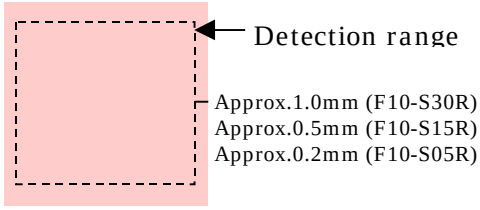
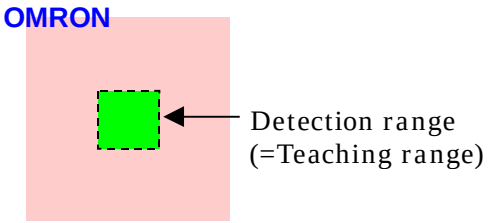
Note:) Do not turn OFF the Sensor before the Sensor is set to MONITOR mode, otherwise the teaching data will be lost.

Change of Plain Measurement Detection Range Selection Mode

*Detection range at Plain Measurement

Detection range at Plain Measurement is as following.

Mode 1 and 2 can be changed by the operation at the power supply input.

<table>
<tr><td></td><td colspan="2">Plain Measurement detection range selection mode</td></tr>
<tr><td></td><td>Mode 1(Initial setting)</td><td>Mode 2</td></tr>
<tr><td>A
Plain Measurement with A.T.OFF</td><td>Detection range at measurement becomes the same size as the teaching area.
 
</td><td>Detection can be enlarged.
It becomes the following dotted line frame.
 
</td></tr>
<tr><td rowspan="2">B
Plain Measurement with A.T.ON</td><td>Detection range at measurement becomes the following dotted line frame.
 
</td><td>Detection can be enlarged.
It becomes the following dotted line frame.
 
</td></tr>
<tr><td colspan="2">Detection range becomes small when a pattern is in the end as the following figure.
 
</td></tr>
</table>

When using F10-C30/C35/C50/C55

When switching banks setting around of a bank to switch for Plain Measurement detection range selection mode different from the bank causes **Plain Measurement detection range type error**. Please note that you set the same mode as a bank to switch to around of the bank.

Mode Change Process

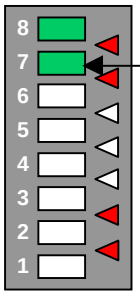
Process)

1 Change the Mode selector to TEACH, while the power supply is turning off. .

2. Turn on the power supply, while pushing the Teach/display button.

3. Release the Teach/display button after confirming that the illumination of each 2 pieces of the upper and the lower side of the Threshold Indicators.

4. The current Plain Measurement detection range selection mode is displayed to the Level Indicators.



Level Indicators that is lighted	Plain Measurement detection range selection mode
Level 7,8	Mode 1 (Initial setting)
Level 1,2	Mode 2

5. Mode can be switched with the UP/DOWN selection buttons.

6. By pushing the Teach/display button after switching it's confirmed.

Please do not turn off the power supply before pushing the Teach/display button. The setting is not changed

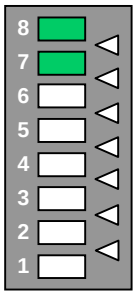
Monitor Mode

Plain Measurement detection range selection mode can be confirmed by processing as following.

Process)

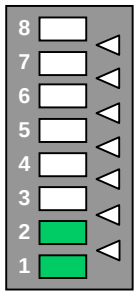
1. Switch Mode Selector to MON.
2. Push the Teach/display button for more than 2 seconds.
   Plain Measurement detection range selection mode is displayed.

Mode 1



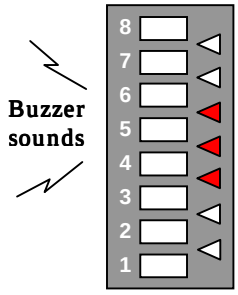
Action is returned to the normal Monitor mode after Level Indicators 7 and 8 are lighted for 3 seconds.

Mode 2



Action is returned to the normal Monitor mode after Level Indicators 1 and 2 are lighted for 3 seconds.

Trouble Shooting

Problem	Probable cause	Remedy
 This LED of the threshold indicators flashes and the buzzer sounds three times.	**Plain Measurement detection range type error** The Plain Measurement detection range selection mode in which F10 is currently set is different from that in which it is set when executing teaching, therefore, the sensor was set to MONITOR or RUN mode.	Perform again the teaching of the Sensor in TEACH mode or change the Plain Measurement detection range selection mode set up in F10. Or, confirm whether you change it to applicable bank in case of F10-C30/C35/C50/C55. → Refer to 4.1. TEACH mode.