

# D Series Sensor

## DM-18 Mark/RGB Sensor

### OPERATION MANUAL

- Confirm if the items meets your needs.
- Before the use, you should first thoroughly read this manual and operate correctly as mentioned.
- You should keep this manual at hand for proper use.

## SPECIFICATION

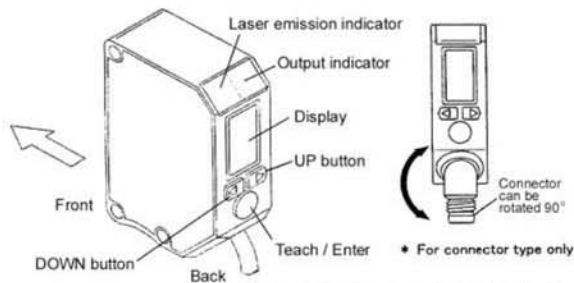
Type	Cable type	M8 Connector type
	DM-18TC (N,P)	DM-18TC (N,P)
Scanning range	18mm ± 2mm	
Supply voltage	DC10 ~ 30V including 10% ripple (P-P)	
Current consumption	40mA max.	
Response time	Mark mode: 0.25/0.5/1.2ms selectable    Color mode: 0.8/1.6/4ms selectable	
Timer	Off delay / On delay / One shot delay (10msec increment : 0-1,000msec, 1sec increment for 1-10sec)	
Light source	R (634nm) / G (517nm) / B (469nm)	
	Mark mode: 1 color (selected by teaching)	Color mode: RGB automatic selection
Indicator	Output indicator (Orange LED), Stable indicator (Green LED)	
Digital indicator	7 segment, 3 digits LED    Green: Bank No.    Red: Function, Status	
Control output	NPN/PNP Open collector    100mA max./ DC30V	
Operation mode	Light ON / Dark ON selectable	
Teaching	Mark mode: 2 point teach / Auto teach    Color mode: 1 point teach	
Bank	8 bank	
Protection category/ material	IEC IP67 / Housing: heat-resistant ABS(antibacterial) Front cover: PMMA Button: TEEE	
Weight	cable type: about 75g / connector type: about 20g	

### Cautions

- Warm-up period (apprx. 100 msec) must be secured.
- Should avoid to use sensor at any place where the receiver is influenced by environmental illuminance directly.
- Gaps in indicated values and detection features are possible due to dispersion.
- Use of controls or adjustments or performance of procedures other than the specified herein may result in hazardous radiation exposure.

**! Must not use this item as safety equipment for the purpose of human body protection.**

### Parts Name

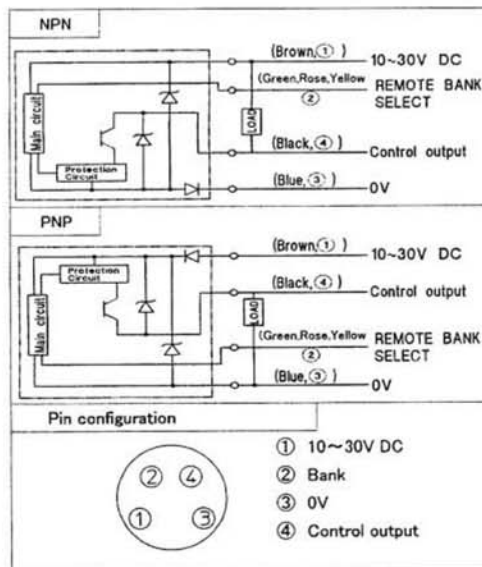


Turn the connector as shown by the Arrow, otherwise you will damage the connector. The damage will be unreparable.

### Status Indicator

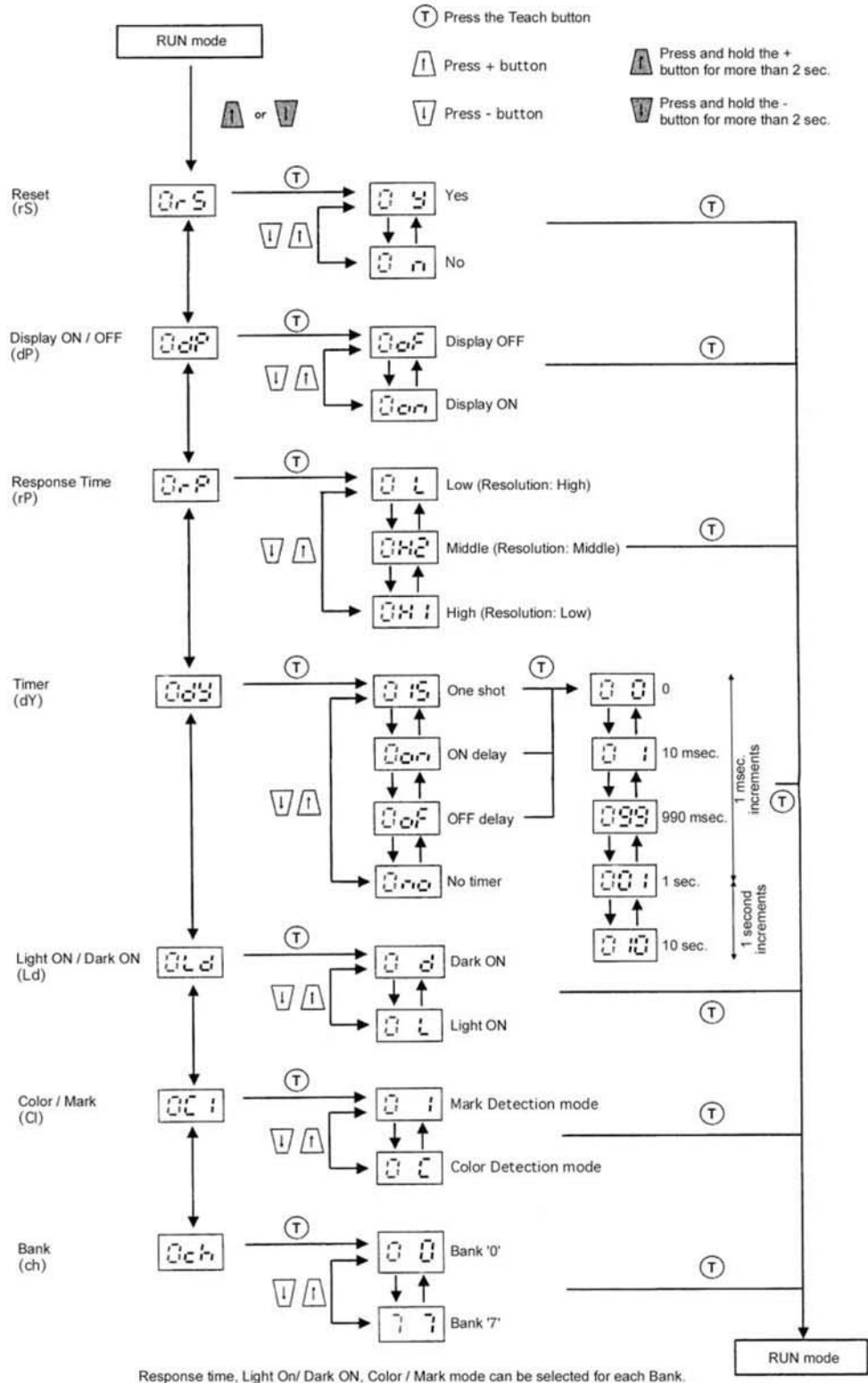
	Color Mode	Mark Mode
RUN mode	Indicates the matching level compared to the target color.	Indicates the amount of incoming light.
Threshold level adjust mode	Indicates the threshold level. After teaching the threshold level is 80.	Indicates the threshold level. After teaching the threshold level is 50.
Function select mode	Indicates the currently selected function.	

### Input/Output Circuit Design

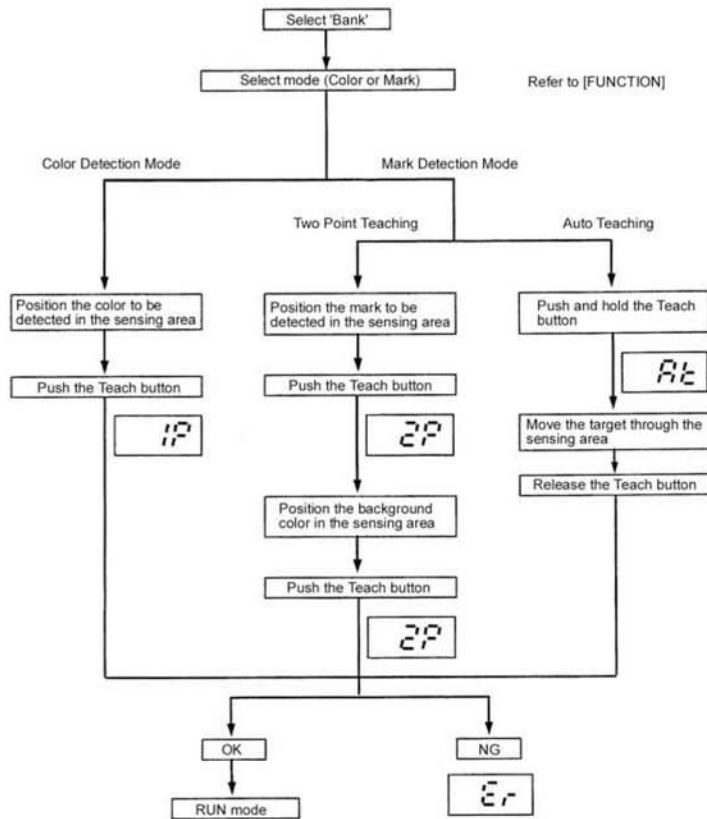


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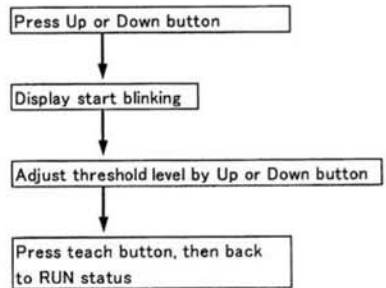
Functions



## TEACHING



## Manual adjustment of Threshold



If without pressing Teach button, it goes back to RUN automatically after 10 sec.

### L. ON/D. ON

Color mode

L.ON Output is active when matched

D.ON Output is active when un-matched

Mark mode

L.ON Output is active for high reflection

D.ON Output is active for low reflection

When 2 point teach, the 1st selected color will be ON.

### Key lock

Press both Up and Down button simultaneously for more than 2 sec.  
( Same procedure for unlock.)

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