

**OPTEX  
FA**

Photoelectric Sensor  
**D SERIES**  
DM-18T

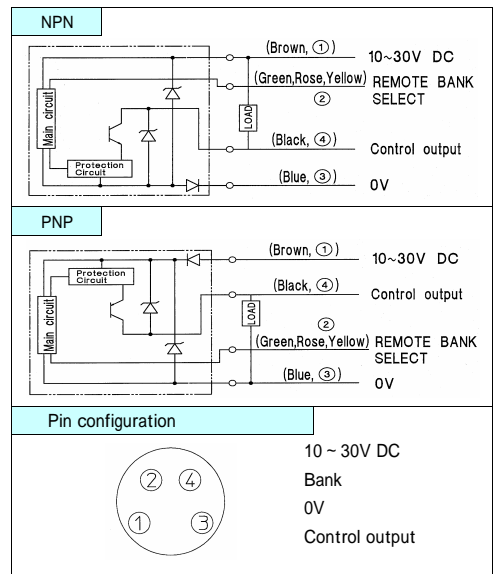
INSTRUCTION MANUAL

Confirm if the item 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.

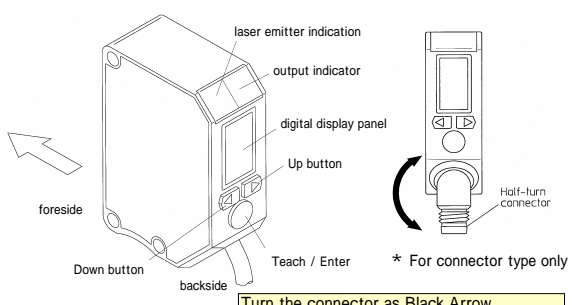
**Specification**

Type	Cable type DM-18T (N,P)	M8 Connector type 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)	
Indicator	Mark mode : 1 color (selected by teaching)    Color mode : RGB automatic selection	
Digital indicator	Output indicator (Orange LED)    Stable indicator (Green LED)	
Control output	7 segment, 3 digits LED    Green Bank No.    Red Function, Status	
Operation mode	NPN/PNP Open collector    100mA max./ DC30V	
Teaching	Light ON / Dark ON selectable	
Bank	Mark mode 2 point teach / Auto teach    Color mode : 1 point teach	
Protection category/ material	8 bank	
Weight	IEC IP67 / Housing : heat-resistant ABS(antibacterial) Front cover : PMMA    Button : TEEE	
	cable type: about 75g / connector type: about 20g	

**Input/Output Circuit Design**



**Parts Name**



Turn the connector as Black Arrow indicates, otherwise you will damage the connector. The damage will be unreparable.

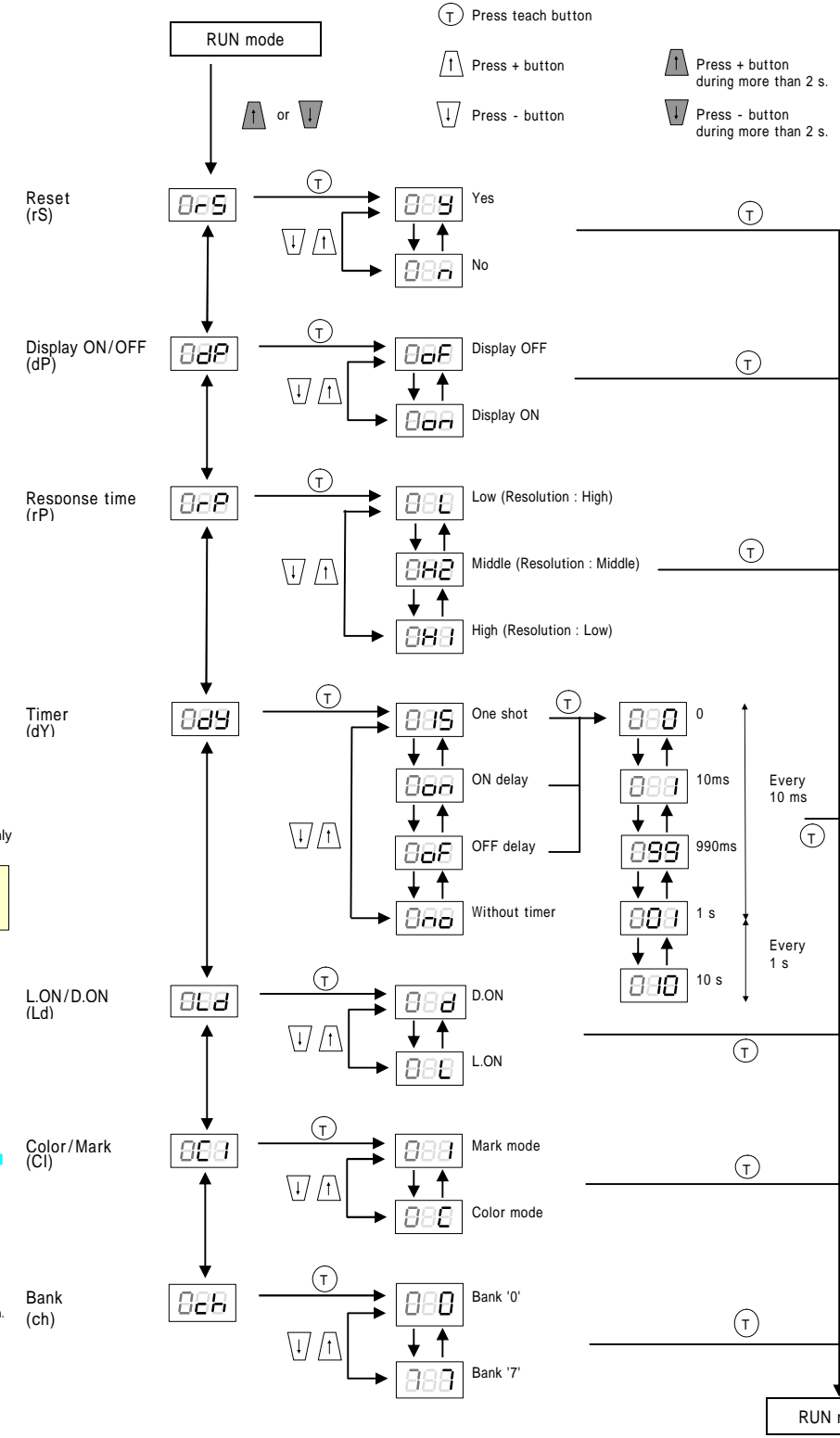
Status Indicator	Color mode	Mark mode
RUN mode	Indicate matching level compare to teaching color.	indicates amount of incoming light.
Thresh level adjust mode	Indicate thresh level. After teaching, thresh level is 80.	Indicate thresh level. After teaching, thresh level is 80.
Function select mode	Indicate selectable function.	

**Warnings**

- For safety use**
- Warm-up period (approx. 100 msec) must be secured.
  - Should avoid to use sensor outside or at the place where 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.

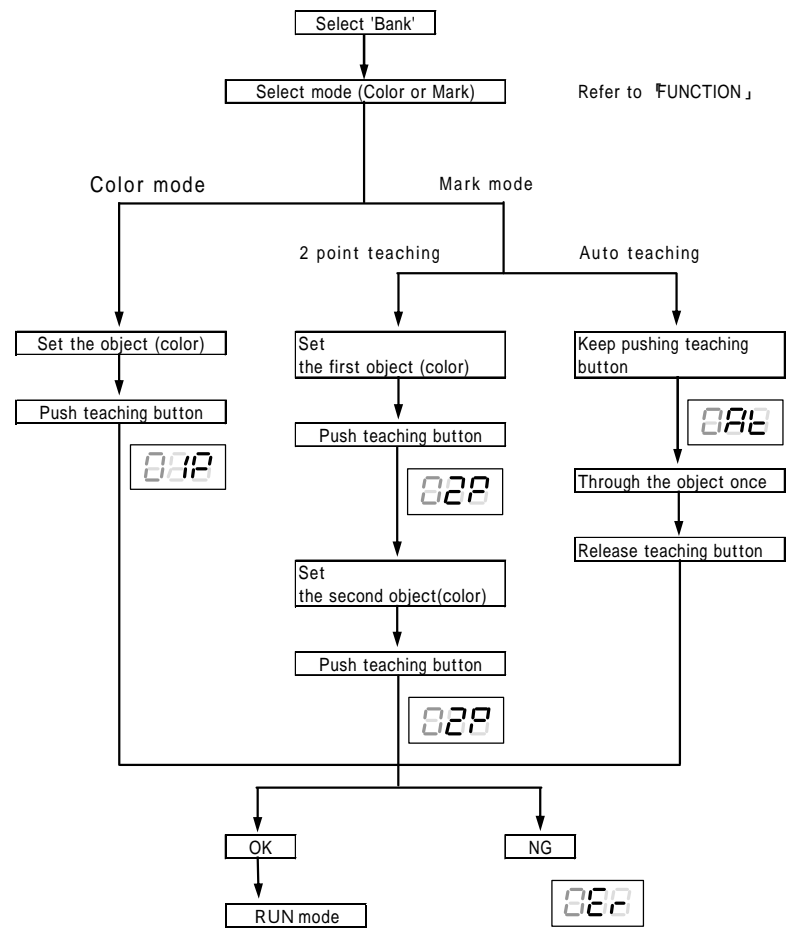
**! Must not use this item as safety equipment for the purpose of human body protection.**

**Functions**



Response time, L.ON/D.ON, Color/Mark mode can be set for each Bank.

**Teaching**



**L.ON / D.ON**

**Color mode**  
L.ON    Output is active when matched  
D.ON    Output is active when un-matched

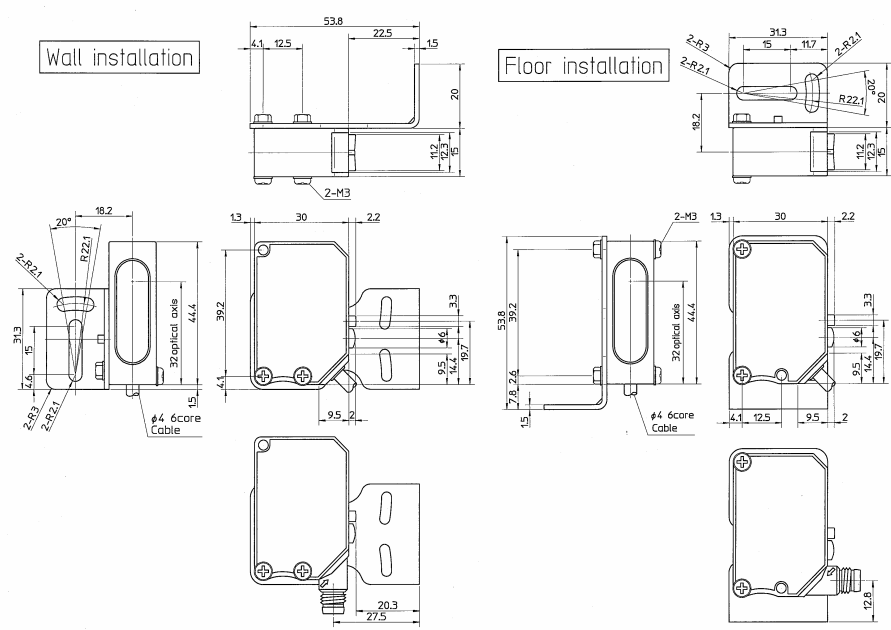
**Mark mode**  
L.ON    Output is active for high reflection  
D.ON    Output is active for low reflection

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

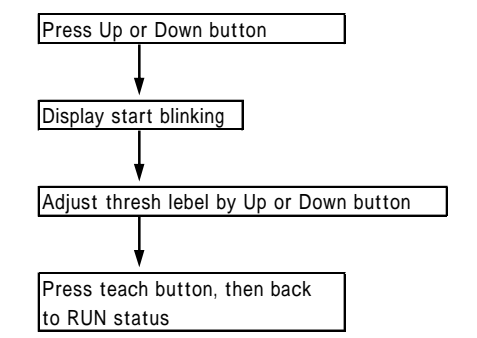
**Key lock**

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

**Dimensions**



**Manual adjustment of Threshold**



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

**Remote Bank Selection**

Cable type

Bank No.	Green	Rose	Yellow
0	0	0	0
1	0	0	1
2	0	1	0
3	0	1	1
4	1	0	0
5	1	0	1
6	1	1	0
7	1	1	1

**Connector type**

Bank No.	No. 2 pin
0	0
1	1

Connector type can select only 1 and 2 by remote selection. (Function select by button is 8 banks.)

0	NPN	Open or connect to +V
	PNP	Open or connect to 0V
1	NPN	Connect to 0V
	PNP	Connect to +V

Specifications and equipment are subject to change without any obligations on the part of manufacture.

For more information, questions and comments regarding products, please contact us below.

Manufactured and sold by :  
**OPTEX FA CO., LTD.**

607-8085 Kyoto, Yamashina, Takehanadonomaecho 46-1, JAPAN  
Tel : +81-(0)75-594-8123  
Fax : +81-(0)75-594-8124

Website : <http://www.optex-fa.com>