

OSM47 series Color Sensor



Product features:

- ※ Support two-way switch output,NPN/PNP can be set.,
- ※ Button setup
- ※ OLED digital display, clear and bright
- ※ Full Metal Jacket is durable and has better protection performance.
- ※ Compact and integrated body design, supporting IO-Link.
- ※ Support three detection modes, and detect up to 15 colors at the same time.



| TYPE | Measurement range | Light source | Output | Difference frequency number | Connection | Wiring |
|-------------------------|-------------------|--------------|---------------------------|-----------------------------|---------------|--------|
| OSM47-CK500C2B6 | 30 ...500mm | White LED | NPN/PNP optional | 2 | 2m Cable | Fig.1 |
| OSM47-CK500C2B6Q12.1 | 30 ...500mm | White LED | NPN/PNP optional | 2 | M12 Connector | Fig.2 |
| OSM47-CK500C2B6/IO | 30 ...500mm | White LED | NPN/PNP optional +IO/Link | 2 | 2m Cable | Fig.1 |
| OSM47-CK500C2B6Q12.1/IO | 30 ...500mm | White LED | NPN/PNP optional +IO/Link | 2 | M12 Connector | Fig.2 |

Technical Specification

| | | | |
|------------------------------------|---|-----------------------------|---|
| Power supply | 10...30VDC±10% Including pulse fluctuation 0.5V(P-P) | Input externally | 1 channel can be used to trigger external |
| Power Consumption | <1.56W | Beam diameter | Adjustable spot Approx.φ3.5mm@100mm; Approx.φ9mm@250mm; Approx.φ18mm@500mm |
| Light source | White LED | Load current | 65mA at 24VDC |
| Control output*2 | 2*NPN/PNP optional | Switch mode | N.O./N.C. switchable |
| communication mode | IO_Link(model/IO is applicable) | Connections | M12 Connector/Cable |
| Difference frequency number | Different frequency can be set, Maximum number of two | withstand voltage | 1000V/AC/ 50/60Hz 60s |
| response time | 200us/1ms/10ms/500ms | Insulation impedance | ≥50MΩ (500VDC) |
| Circuit protection | Short-circuit protection Reverse polarity protection Over-load protection | | |

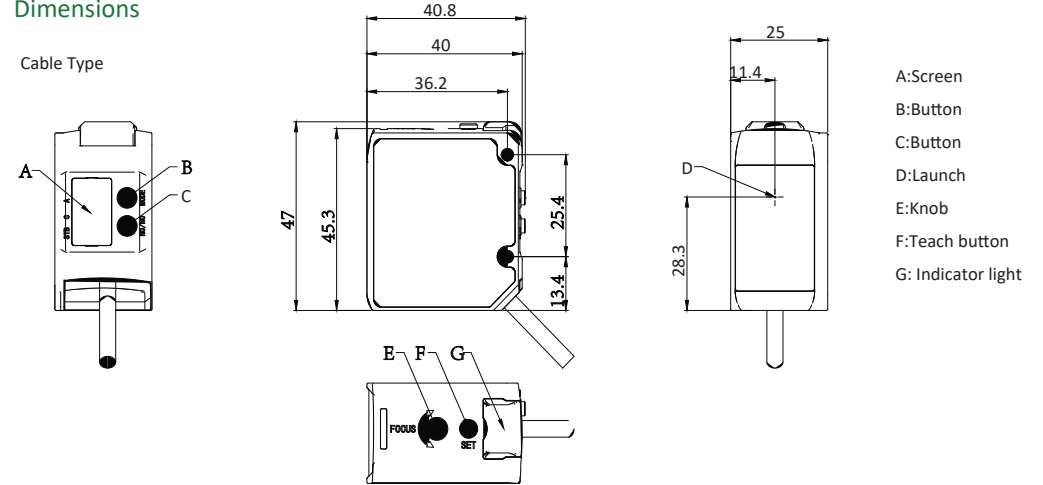


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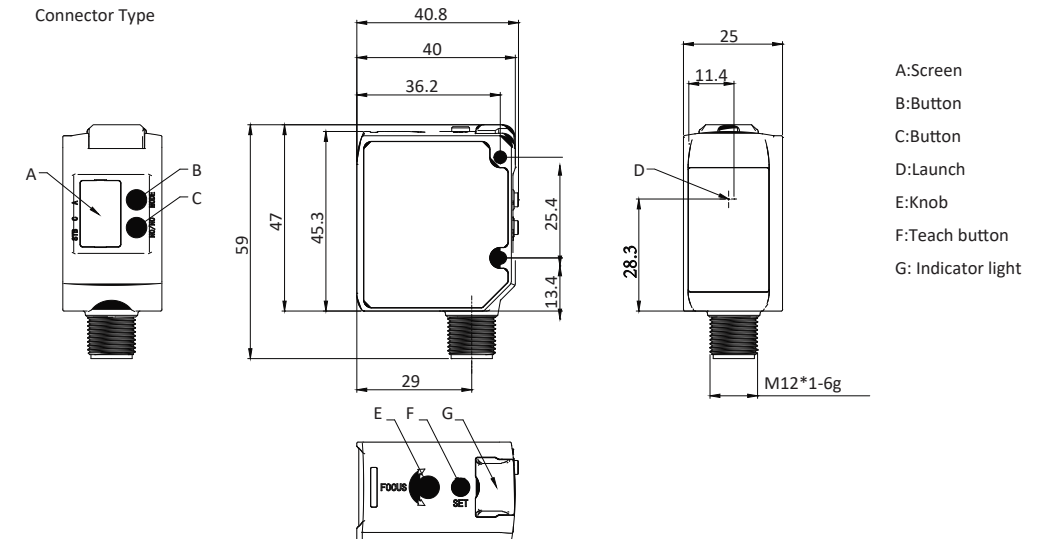
| | | | |
|-----------------------------------|---|-----------------------------|--|
| Anti-ambient light ability | Incandescent lamp: below 1000Lux; Sunlight:below 20000Lux | Vibration resistance | complex amplitude 1.5mm 10...50Hz (X,Y,Z direction 2 hours each) |
| Housing material | die-casting zinc | shock resistance | 500m/s(50G)X,Y,Z three times each |
| Storage temperature | -40°C...+70°C | Protection structure | IP67 |
| Operation temperature | -20°C...+50°C | Dimensions | 40.8*47*25mm |

Dimensions

Cable Type

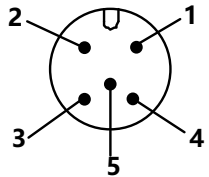


Connector Type



5.接口定义和接线图

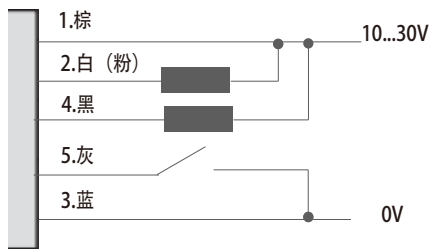
| | 功能 | 出线式线芯颜色 | 插件式线序 |
|---|-----------|---------|-------|
| 1 | 电源正 | 棕 | 棕 |
| 2 | NPN/PNP 1 | 粉 | 白 |
| 3 | 电源负 | 蓝 | 蓝 |
| 4 | NPN/PNP 2 | 黑 | 黑 |
| 5 | 外部输入设置 | 灰 | 灰 |



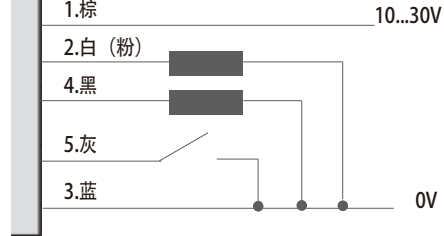
本产品初始设定时可以选择NPN/PNP输出。请对不使用的输入/输出线单独进行绝缘处理。

负载 (输入设备)

选择NPN输出时



选择PNP输出时

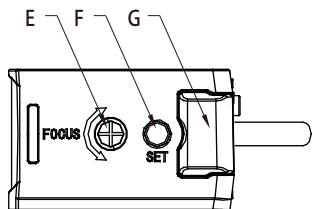


6.使用说明

6.1 指示及按键说明

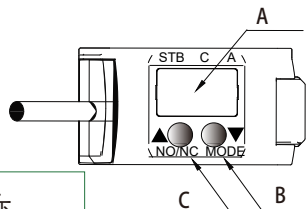
E: 调整光点直径旋钮, 具体参考6.3
F: SET按钮, 调整灵敏度的方法不同, 操作方法也不同, 具体参考6.6

A: 指示灯状态
STB: 稳定入光时亮绿灯
C: C/C+I 模式时亮绿灯
A: C+I/超级I模式动作时亮绿灯



G: 状态指示灯

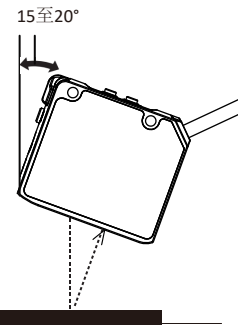
C: ▲ 按钮
■ 1s以下
 变更设定值
■ 3s以上
 切换N.O./N.C.



B: ▼ 按钮
■ 1s以下
 变更设定值
■ 3s以上
 进入设定画面

6.2 设置

- 安装孔的紧固扭矩: 0.63 N.m(M3螺丝)
- 检测不稳定时, 可能是检测目标有光泽。这种情况下, 请将传感器倾斜斜约15至20°。

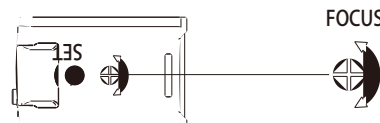


• 关于环境光

如果变频器荧光灯等高频亮灯方式的灯光直接进入或反射到检测目标上以后再进入接收部, 有可能发生误动作。这种情况下, 请采取安装遮光板或更改安装位置等措施。

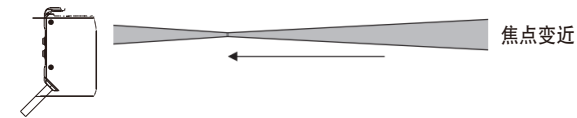
6.3 调整光点直径

可以用侧面的旋钮调整光点直径

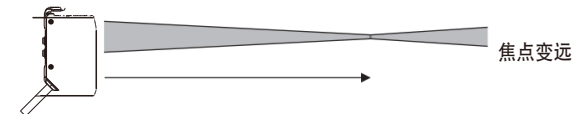


注意: 调整旋钮时的扭矩: 0.2N.m以下

向右侧转动则焦点距离变近。

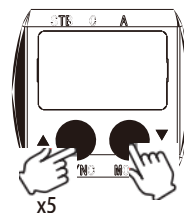


向左侧转动则焦点距变远。

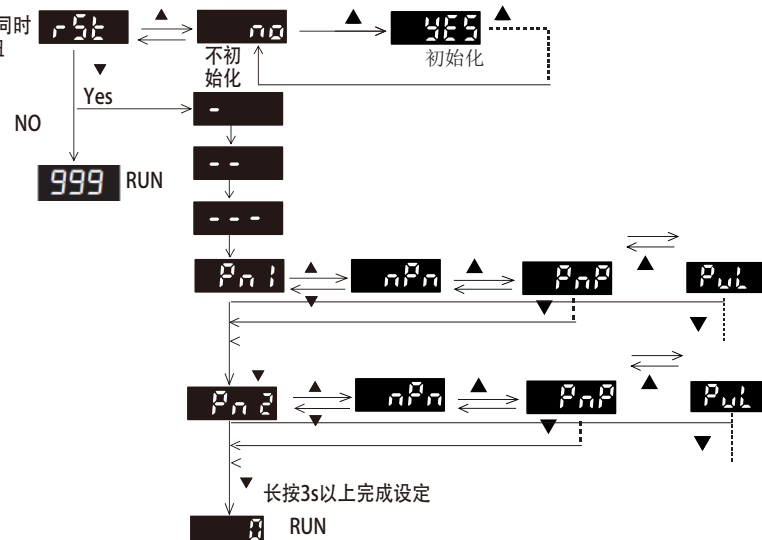


6.4 初始化和初始设定 (NPN/PNP/PUL选择)

购买本产品后首次接通电源时及执行初始化时, 应进行初始设定 (NPN/PNP/PUL选择)



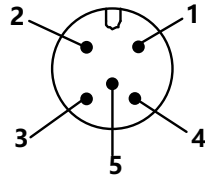
按▼按钮的同时
按5次▲按钮



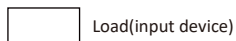
初始设定完成后, 将无法再变更“NPN/PNP/PUL选择”的设定。若要变更, 需再次执行初始化。

5.Interface definition and wiring diagram

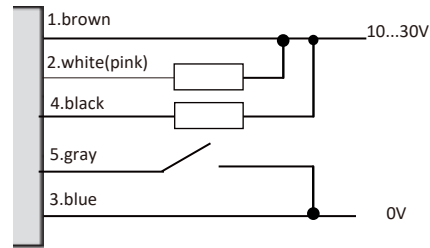
| | Function | Cabel product core color | Plug-in product line sequence |
|---|-------------------------|--------------------------|-------------------------------|
| 1 | Positive power supply | Brown | Brown |
| 2 | NPN/PNP 1 | Pink | White |
| 3 | Power negative | Blue | Blue |
| 4 | NPN/PNP 2 | Black | Black |
| 5 | External input Settings | Gray | Gray |



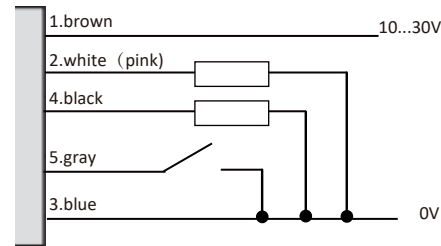
Either an NPN or a PNP output can be selected during the initial setup of this product. Independently insulate any unused I/O wires.



When NPN output is selected



When PNP output is selected

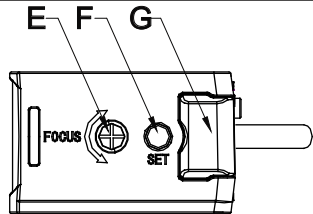


6. Instructions

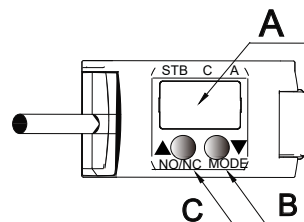
6.1 Part Functions

E: Adjust the dot diameter knob, refer to 6.3
 F:SET button, adjust the sensitivity of the method is different, the operation method is also different, refer to 6.6

A Function Indicators
 STB: Illuminates green when receiving stable light
 C: Illuminates green when using C/C+I mode
 A: Illuminates green when using C+/Super I mode



G:status indicator light

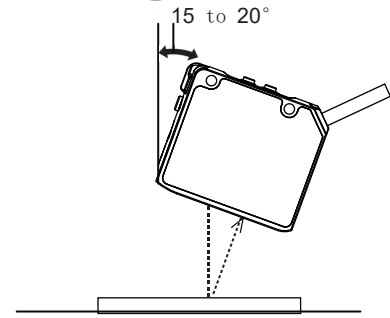


C ▲Button
 ■ Press (1s or less)
 Adjusts setting value
 ■ Hold (3s or more)
 Switches between N.O./N.C.

B ▼Button
 ■ Press (1s or less)
 Adjusts setting value
 ■ Hold (3s or more)
 witches to the setting screen

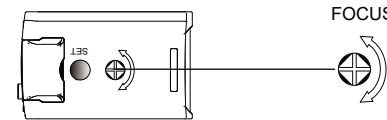
6.2 Installation

- Tightening torque for the mounting holes: 0.63 N·m (M3 screw)
- If the workpiece contains a glossy surface that could interfere with stable detection, tilt the sensor approx. 15° to 20°. If tilting the sensor does not improve detection.
- High-frequency light, such as that from an inverter fluorescent lamp, entering the receiver directly or after reflecting from the workpiece may lead to malfunctions. In this situation, implement countermeasures such as installing a light shielding plate or changing the product's installation position.



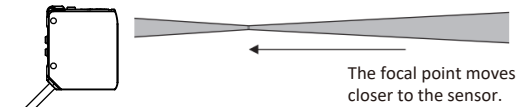
6.3 Adjusting the Spot Diameter

Use the dial on the side of the sensor to adjust the spot diameter.

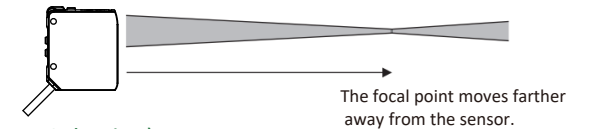


NOTICE:Dial turning torque:0.2 N · m or less

Turn the dial to the right to decrease the focal distance.

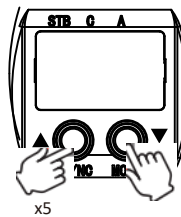


Turn the dial to the left to increase the focal distance.

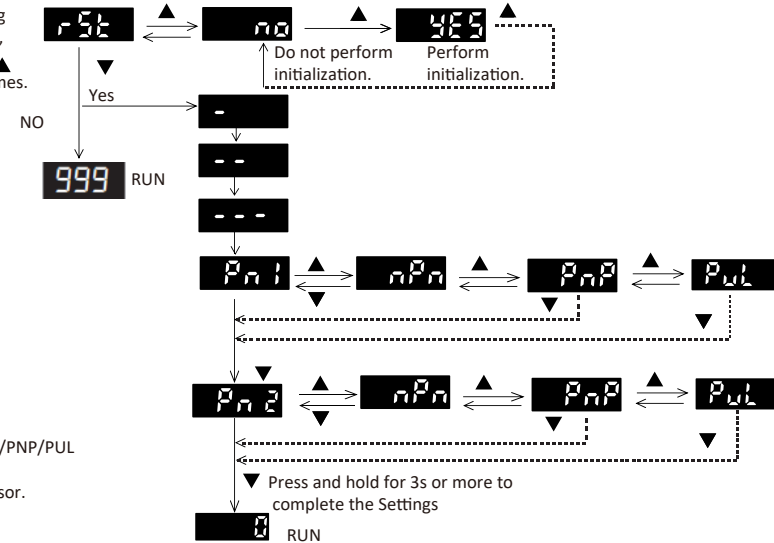


6.4 Initialization&Initial Settings (NPN/PNP/PUL Selection)

When the power is turned on for the first time after purchase, or initialization is performed, the initial setting (NPN/PNP/PUL selection) is required as shown below.



While pressing the [▼] button, press the [▲] button five times.



After the initial setup is complete, "NPN/PNP/PUL selection" setting cannot be changed. To change this setting, initialize the sensor.

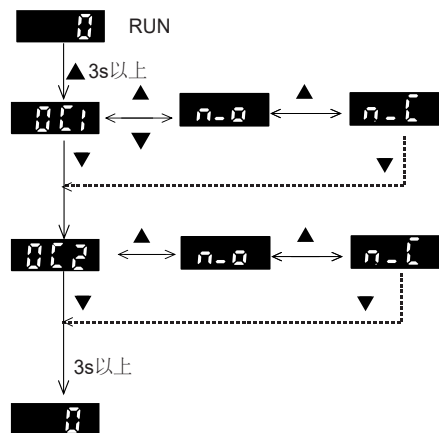
6.5 基本设定

6.5.1 切换输出逻辑 (切换N.O./N.C.)

设定 N.O./N.C.

- n-o (Lon) : 符合设定的条件则输出 ON (入光时 ON)
- n-c (don) : 不符合设定的条件则输出 ON (非入光时 ON)

()表示的是超级 I 模式, 显示 Lon 和 Don.



6.5.2 检测模式

本产品有四个检测模式, 变更检测模式时, 请参照详细设定

| 检测模式 | 说明 |
|-----------|--------------------------------|
| Auto(初始值) | 调整灵敏度时, 自动从C+I模式或C模式中 选择最适合的模式 |
| C+I模式 | 用颜色成分 (R,G,B)和明暗 (受光量) 来检测。 |
| C模式 | 用颜色成分 (R,G,B)来检测。 |
| 超级I模式 | 用明暗 (受光量) 来检测。 |

6.6 调整灵敏度

6.6.1 Auto/C+I/C模式

关于显示值

*一致度

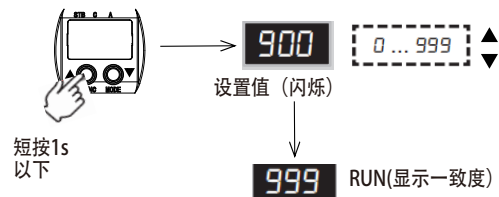
显示作为基准设定的检测目标的“颜色”和当前正在检测的检测目标的“颜色”的一致程度。
显示范围: 0 至 999 (越一致值越大。)

*设定值

在多大程度上与作为基准设定的检测目标的“颜色”一致就判定为相同“颜色”, 这种程度显示为阈值。
确认或手动微调设定值时, 请参照“确认、调整设定值”。

确认、调整设定值

设定值的数值越大, 检测越严格, 越小则越松。



※实施调谐后闪烁显示的数值即为设定值。

※执行标样调谐及标样追加调谐后, 无法加大设定值。

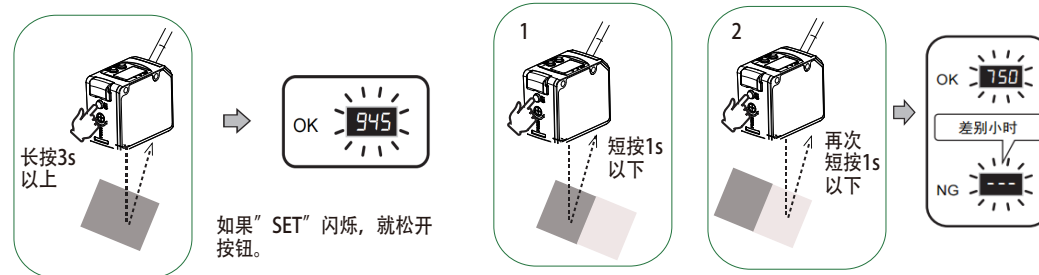
设定灵敏度 (从以下 3 个方法中选择一个)

1 点调谐 (检测指定的1个“颜色”时)

设定要作为基准的检测目标的“颜色”。选择 [Auto] 时, 作为 [C+I 模式] 动作。
“6.5.2 检测模式”

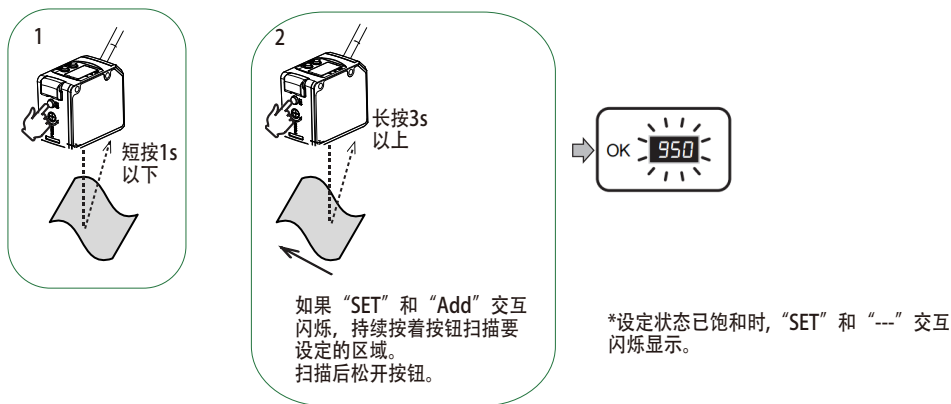
2 点调谐 (进行 2 个“颜色”的判别时)

设定要作为基准的检测目标的“颜色”和要判别的检测目标的“颜色”。(第 1 点是基准颜色)



标样调谐 (容许相同检测目标内的偏差时)

容许设定的检测目标的“颜色”不均匀及检测目标的偏差等。
短按 [SET] 按钮时, 注册基准的“颜色”, 长按时持续采样。设定为在采样中追加基准, 判定为相同“颜色”。追加了基准时, 指示灯绿色闪烁 (1次)。执行标样调谐时, 设定值变为 950 (初始值)。变更这个值时, 请参照“7.8标样调谐设定值”。另外, 选择 [Auto] 时, 作为 [C+I 模式]动作。“6.5.2检测模式”



<标样调谐时的注意事项>

- 持续到表示追加基准的绿灯不再点亮。
- 标样调谐后如果再次进行标样调谐, 则最早进行标样调谐时的设定内容被覆盖。
- 标样调谐后还要追加容许范围时, 请进行标样追加调谐。
- 设定状态已饱和时显示“---”。还要追加容许范围时, 请降低“7.8 标样调谐设定值”重新执行标样调谐。
- 标样调谐后, 即使变更标样调谐设定值, 设定值也不会生效。

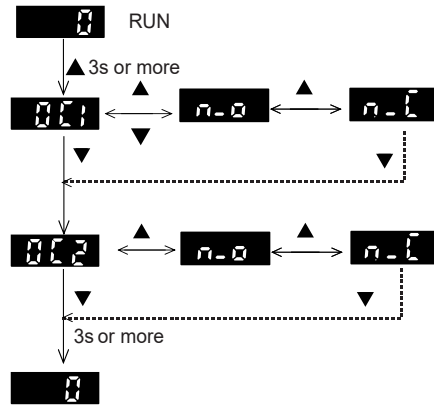
6.5 Basic Settings

6.5.1 Output Logic Selection(N.O./N.C. Selection)

Set the output logic to N.O. or N.C..

- n.o (Lon) turns the output on when the registered condition is met (turns the output on when light is received)
- n.c (don) turns the output on when a condition other than the registered condition is met (turns the output on when light is not received)

* The condition within parentheses indicates the condition when super I mode is selected.



6.5.2 Detection Mode

This sensor contains four detection modes.

| Detection mode | Explanation |
|----------------|---|
| Auto(default) | When adjusting the sensitivity, the optimal mode is automatically selected between C+I or C. |
| C+I mode | Detection is performed according to the color components (R, G, B) and illumination (the received light intensity). |
| C mode | Detection is performed according to the color components (R, G, B) only. |
| Super I mode | Detection is performed according to the illumination (the received light intensity) only. |

6.6 Sensitivity Adjustment

6.6.1 Auto/C+I/C Mode

About the display value

*Conformity

The level of conformity of the current detected workpiece to the registered reference workpiece.

Display range: 0 to 999 (The more the workpiece conform to reference workpiece, the higher the value.)

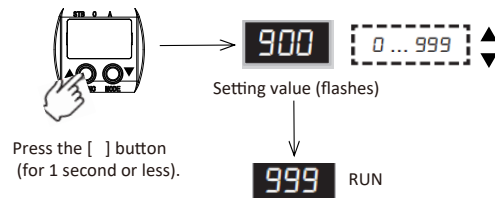
* Setting value

The threshold of conformity at which a workpiece is judged to be the same as the registered workpiece.

To check or manually make fine adjustments to the setting value, see "Checking and adjusting the setting value".

Checking and adjusting the setting value

When a larger setting value is in place, the detection tolerance is tight.

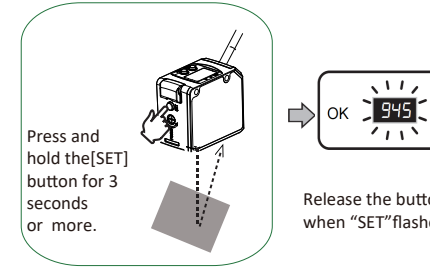


- ※The blinking numeric value that appears after calibration is the setting value.
- ※ After master calibration or master addition calibration has been executed, the setting value cannot be increased.

Setting the sensitivity (apply one of the following three methods)

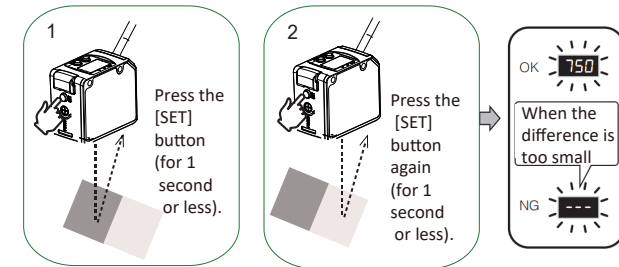
1-point calibration (use to detect 1 specific color)

Register the color of the workpiece to be detected. (When Auto mode is used, this function operates in C+I.)



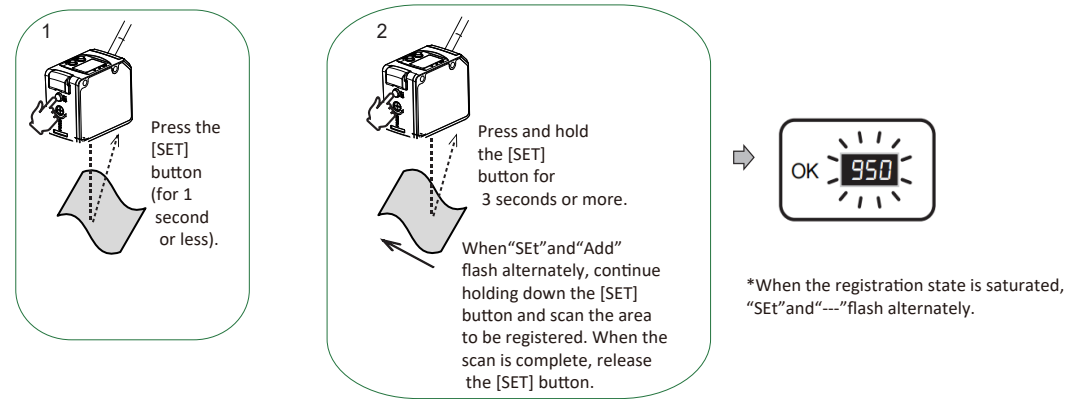
2-point calibration (use to differentiate between 2 colors)

Register the color of the reference workpiece and the color to be differentiated. (The first point is used as the reference color.)



Master calibration (use to permit color variations within the same workpiece)

Press the [SET] button to register the reference color. Then, press and hold the [SET] button to perform sampling. During sampling, references are added and are set to be judged as the same color. When a reference is added, the indicator flashes (once) in green. When master calibration is executed, the setting value becomes 950(default). To change this value, see "7.8 Master Calibration Set Value". (When Auto mode is used, this function operates in C+I.)



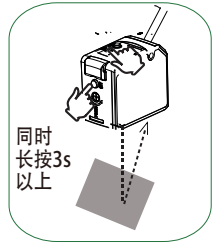
< Precautions for master calibration >

- Continue calibration until the green light that indicates reference addition does not turn on any more.
- If the master calibration is performed again, the registered contents from the first master calibration will be overwritten. To add an allowable range after the master calibration, perform the master addition calibration.
- If the registration status is saturated and "----" is displayed. Perform the master calibration again after lowering the "7.8 Master Calibration Set Value".
- Changing the master calibration set value after a master calibration has been performed, does not affect the current setting value, only subsequent calibrations.

容许工件个体间的偏差

标样追加调谐 (追加要容许的工件时)

设置已用其它调谐方法设定的“颜色”和要判定为相同“颜色”的检测目标, 长按 [SET]按钮+ [▼]按钮。
如果追加设定成功, “设定值”就闪烁3次, 返回通常画面 (此时, 设定值不改变)。
最初设定过的“颜色”和已追加设定的“颜色”之间的“颜色”也补充设定。

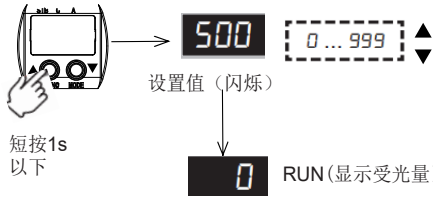


如果“Add”闪烁, 就松开按钮。

<标样追加调谐时的注意事项>

- 清空标样追加调谐时, 请进行其它调谐。
- 设定失败或设定状态已饱和时, 显示“---”。还要追加容许范围时, 请减小设定值, 重新执行标样追加调谐。

确认、调整设定值



短按1s
以下

RUN (显示受光量)

•最大灵敏度调谐 (要将灵敏度调到最大时)

6.6.2 超级I模式

关于显示值

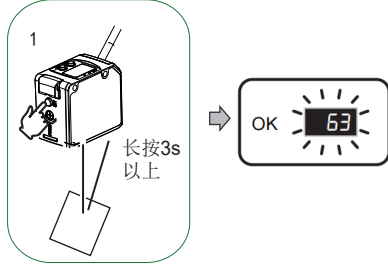
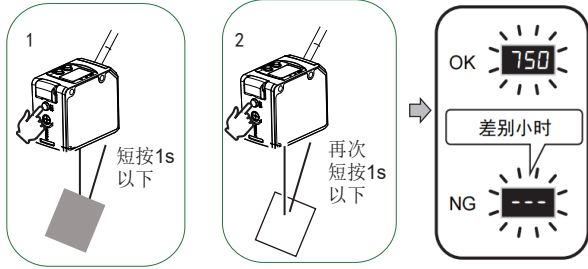
•受光量
显示当前的受光量。显示范围: 0 至 999 (受光量越多值越大。)

•设定值
到多大程度的受光量就判定为有检测目标, 这个显示为阈值。
确认或手动微调数值时, 请参照“确认、调整设定值”。

※实施调谐后闪烁显示的数值即为设定值。

设定灵敏度 (从以下2个方法中选择一个)

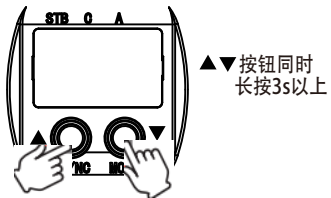
•2点调谐 (基本)



如果“set”闪烁, 就松开按钮。

6.7 锁键

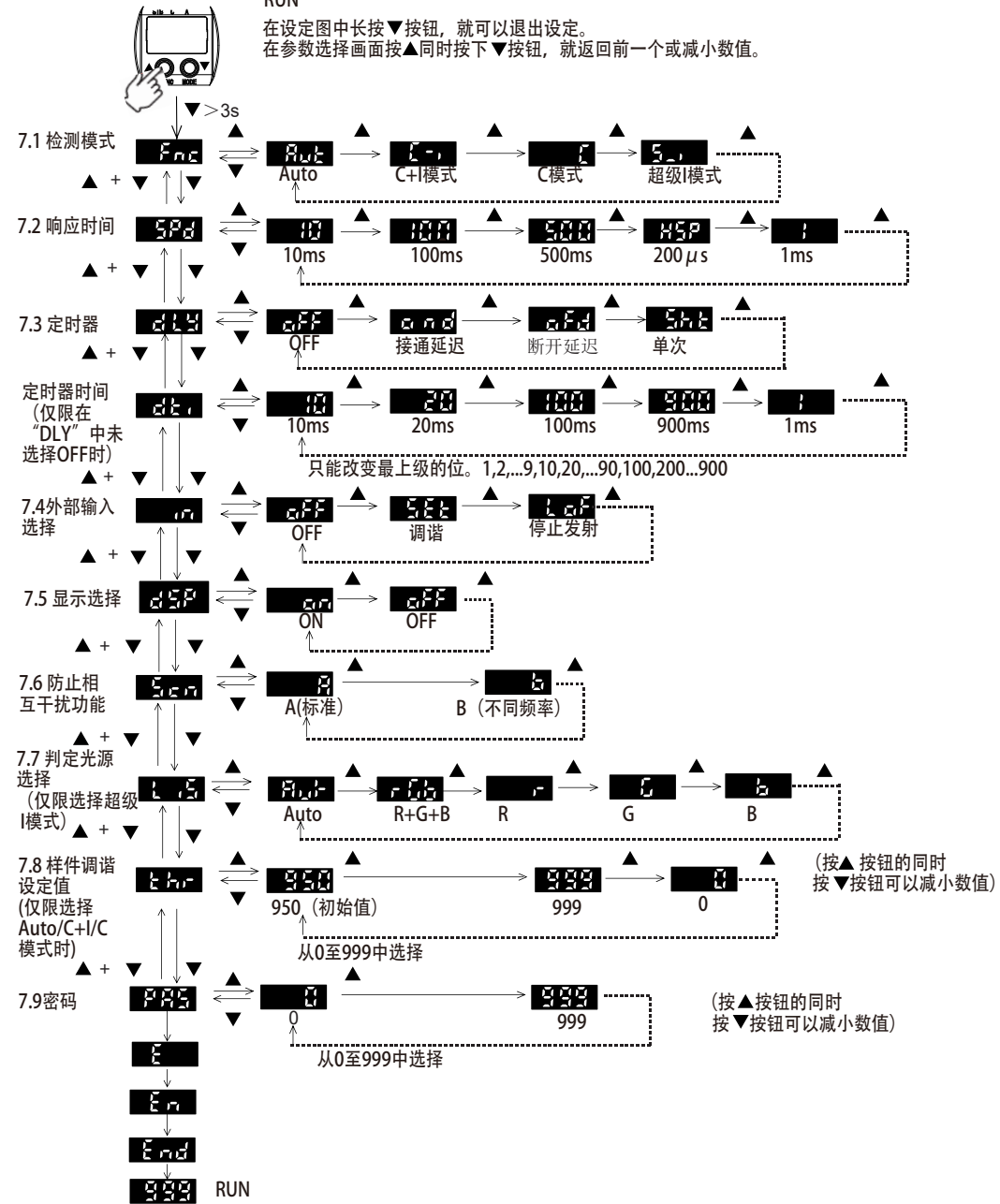
若需输入密码才能解除锁键, 则应先设定密码。
参照“7.9 密码”



7.使用说明

RUN

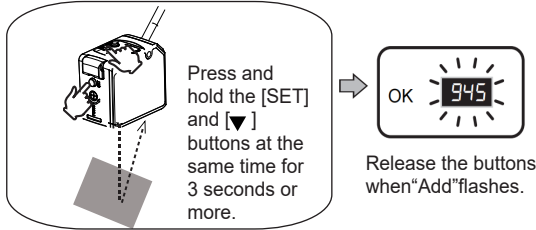
在设定图中长按▼按钮, 就可以退出设定。
在参数选择画面按▲同时按下▼按钮, 就返回前一个或减小数值。



Permitting color variations between different workpieces

Master addition calibration (when adding workpieces to be permitted)

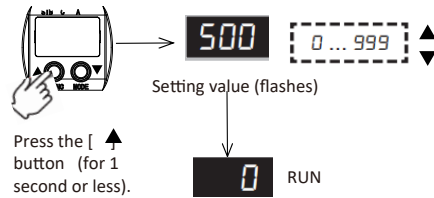
Position a workpiece which is to be judged the same as the current registered color. Then press and hold the [SET] button and the [▼] button. When the added registration is successful, the "setting value" flashes three times, and the sensor returns to the normal screen (the setting value is not changed at this point in time). In this case, references are added to permit colors between "the current registered color" and "the additional registered color".



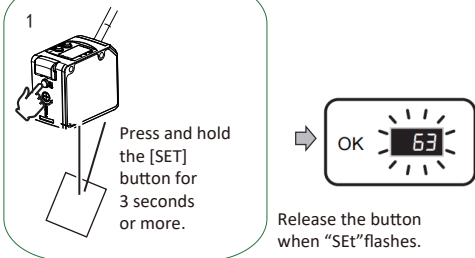
< Precautions for master addition calibration >

- To clear the master addition calibration, perform another calibration.
- If the setting fails or the registration state is saturated, "----" is displayed. To add an allowable range, lower the setting value, and perform the master addition calibration again.

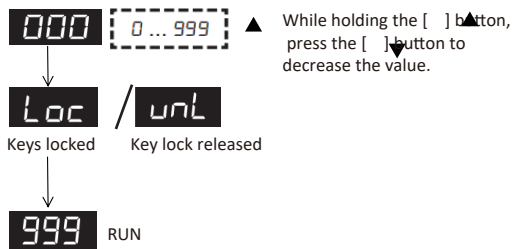
Checking and adjusting the setting value



• Maximum sensitivity calibration (use to increase the sensitivity of the sensor to detect small changes)



If necessary, enter the password to release the lock.



6.6.2 Super I Mode

About the display value

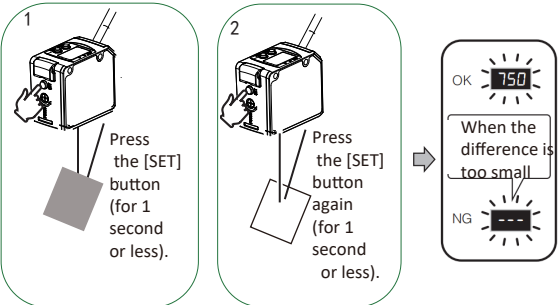
• Received light intensity
The current received light intensity is displayed.
Display range: 0 to 999 (The greater the received light intensity, the higher the value.)

• Setting value
The threshold at which the received light intensity is judged to indicate that a workpiece is present. To check or manually make fine adjustments to the value, see "Checking and adjusting the setting value"

* The blinking numeric value that appears after calibration is the setting value.

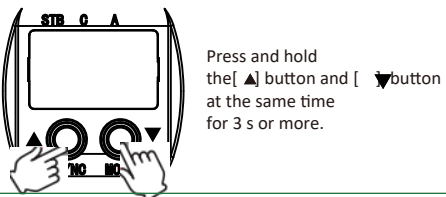
Setting the sensitivity (apply one of the following three methods)

• 2-point calibration (basic intensity differentiation)

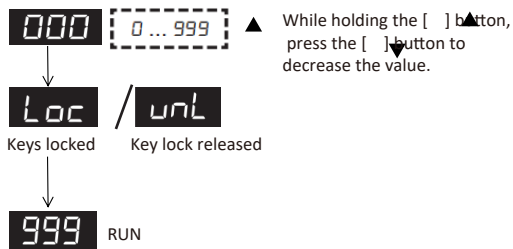


6.7 Key Lock

This function prevents operation mistakes, or the inadvertent changing of settings, by locking/disabling key operations. To require a password to release the key lock, set a password in advance. "7.9 Password"



If necessary, enter the password to release the lock.

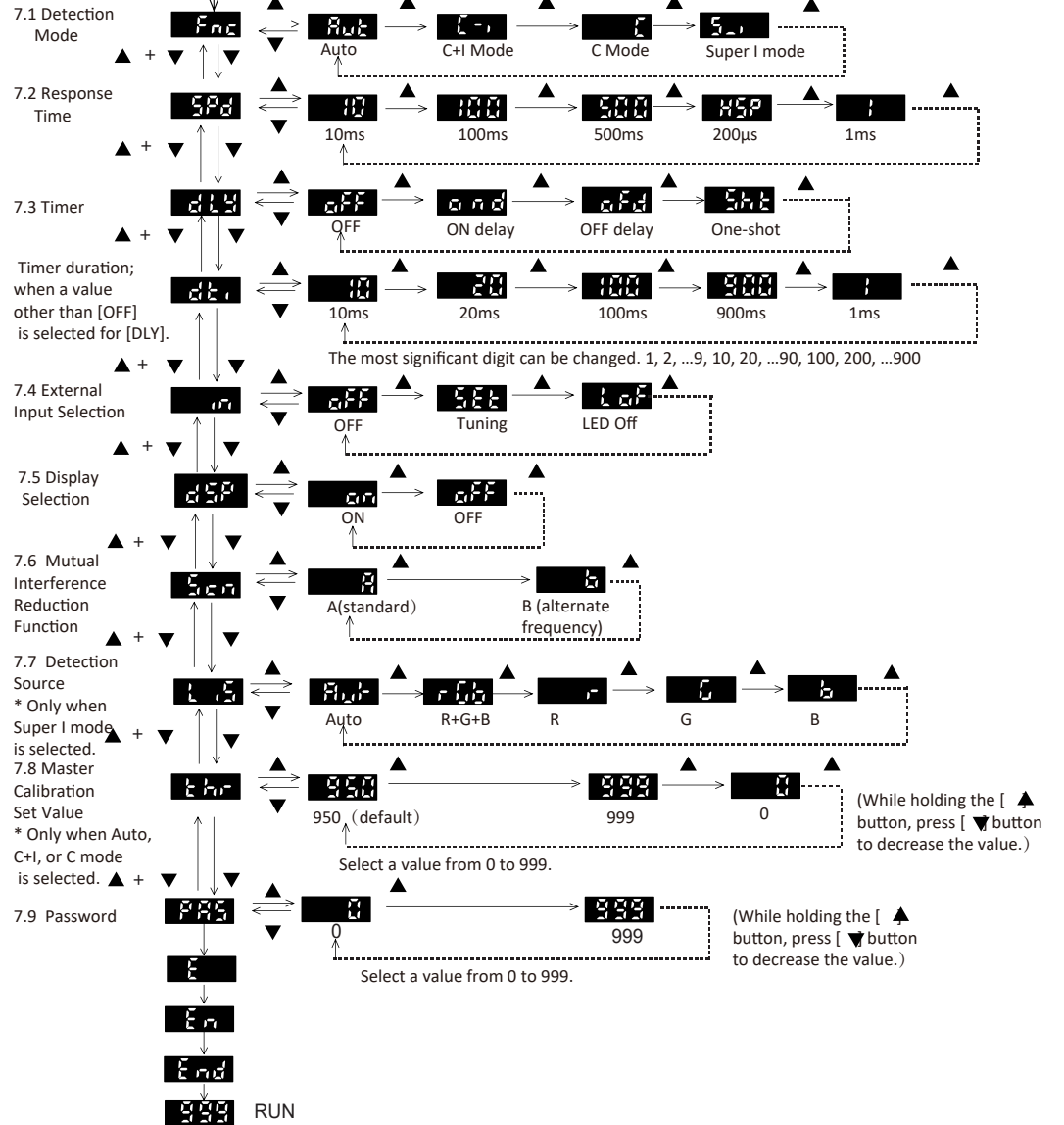


7. Setting

RUN

(Press and hold the [▼] button to enter the settings menu.)

(On the parameter selection screen, press the [] button while holding the [▲] button to return to the previous screen.)



7.1 检测模式

选择检测模式。请参照6.5.2检测模式

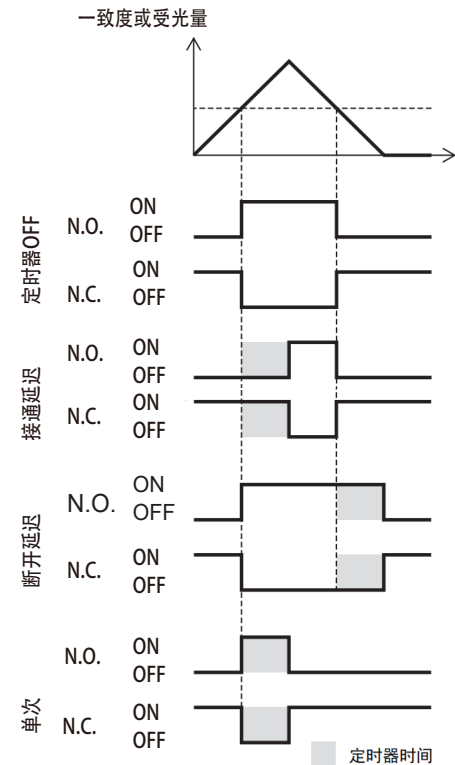
7.2 响应时间

响应时间设定得越长，检测精度越高、越准确。
检测目标高速移动、检测不稳定时，要将响应时间设定得较短。

7.3 定时器

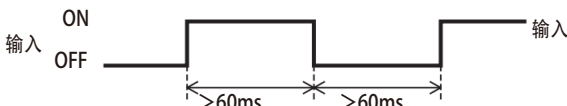
通过该功能，可延迟传感器的输出切换。

*接通延迟 [ond]
*断开延迟 [oFd]
*单次 [ShE]



7.4 外部输入选择

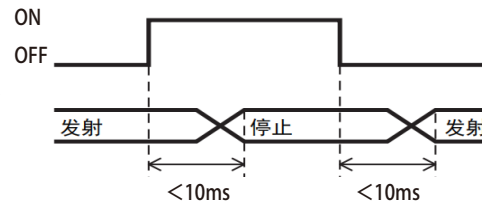
*调谐 [SEt]
执行与[SET]按钮相同的功能。



7.5 显示选择

选择[OFF]就可以使显示熄灭。

*停止发射 [LoF]
停止LED发射。



7.6.防止相互干扰功能

本产品通过变更发光周期，可以降低相互干涉的影响。在相近使用多台OSM47系列产品时，请设为互不相同的发光周期。但是，选择[B(不同频率)]时，响应时间延迟约20%。

7.7.判断光源选择

选择超级I模式时，判定使用到的RGB的光源，在选择[Auto]时，是由传感器在设定灵敏度时自动选择最适合的。选择[R+G+B]、[R]、[G]、[B]就可以固定

7.8.标样调谐设定值

使用[Auto/C+I/C模式]时，在执行标样调谐时设定的值变为固定值。可以在详细设定中变更该值。数值越大检测越严格，但设定标样调谐时，容易显示“---”。显示“---”时，请减小该值，重新进行标样调谐。

7.9.密码

可以设定密码用“6-7锁键”的解除。请从“1至999”中选择设定。选择“0”时不要求密码。

8.其它

8.1 非数值的显示

| 显示 | 内容 | 确认事项和对策 |
|----------------|---|----------------------|
| UUU | Auto/C+I/C模式下，反射光量过多时显示。当作一致度0动作。 | 请调整传感器设置角度，避免正反射光进入。 |
| nnn | Auto/C+I/C模式下，反射光量不足时显示。当作一致度0动作。 | 请确认检测距离是否在规格范围内。 |
| Loc | 锁键功能已启用 | 请解除锁键。 |
| - (显示条移动点亮) | 显示选择已OFF | 请将显示选择设为ON。 |
| E X X | XX为数字，开机显示“E X X”，表示异常状态。该异常绝大多数情况下均为数据存储模块存在异常 | |

8.2 非数值显示的输出

| 显示 | ON/OFF输出 | | 指示灯 |
|----------------|----------|------|-----|
| | N.O. | N.C. | |
| UUU | OFF | ON | 熄灭 |
| nnn | OFF | ON | 熄灭 |
| Loc | 照常 | 照常 | 照常 |
| - (显示条移动点亮) | 照常 | 照常 | 照常 |

8.3 初始值一览表

| 项目 | 初始值 |
|-------------|-------|
| NPN/PNP/PUL | NPN |
| N.O./N.C. | N.O. |
| 检测模式 | Auto |
| 响应时间 | 10ms |
| 定时器 | OFF |
| 定时器时间 | 10ms |
| 外部输入 | OFF |
| 显示选择 | ON |
| 判断光源选择 | Auto |
| 防止相互干扰功能 | A(标准) |
| 标样调谐设定值 | 950 |

7.1 Detection Mode

Select the desired detection mode. See "6.5.2 Detection Mode".

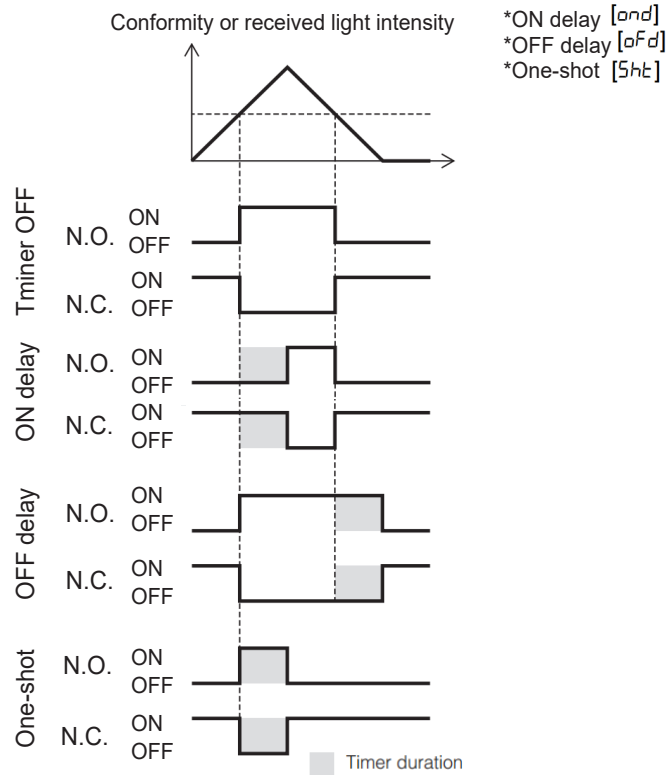
7.2 Response Time

The longer the response time, the more reliable and stable the detection.

When detection is unstable due to the workpieces moving at a high speed, set the response time to a smaller value.

7.3 Timer

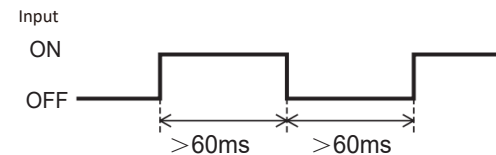
This function can be used to delay the timing of the sensor output switching.



7.4 External Input Selection

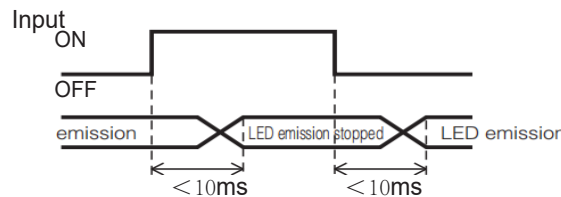
*Calibration [SET]

This external input performs the same function as pressing the [SET] button.



*Transmission OFF [LOF]

This external input stops the emission of the LED.



7.5 Display Selection

The display can be turned off by selecting [OFF].

7.6 Mutual Interference Reduction Function

The effect of mutual interference can be reduced by changing the light emission period. When using multiple OSM47 Series units in close proximity, set each unit to a different light emission period. When selecting frequency B (alternate frequency), the response time becomes approximately 20% slower.

7.7 Detection Light Source

When using Super I mode, the light source used for detection is automatically selected to provide optimal performance. To require the sensor to use a specific light source, adjust this setting to Red, Green, Blue, or RGB.

7.8 Master Calibration Set Value

When using Auto/C+I/C mode, a predetermined set value is used when master calibration is executed. The predetermined set value can be changed using this menu. When a larger setting value is used, the detection tolerance is tighter. In contrast, when the setting value is reduced, a wider detection tolerance is enabled. With a higher setting value, there is a higher possibility of saturation or "----" occurring after Master calibration. If Master calibration results in "----", perform Master calibration again after lowering this value.

7.9 Password

An optional password can be set to further prohibit unauthorized releasing of the "6-1 Key Lock". Select a value from 1 to 999 for this setting. If "0" is selected, the password will not be required.

8. Troubleshooting

8.1 Error Display

| Display | Cause | Solution |
|--|---|---|
| UUU | Displayed when excessive light is received by the sensor (Auto/C+I/C modes) | Adjust the sensor's installation angle so that specular reflections do not enter thereceiver. |
| nnn | Displayed when insufficient light is received by the sensor (Auto/C+I/C modes) | Check whether the detection distance is within specified range. |
| L0c | The key lock function is enabled. | Release the key lock. |
| - (The bar pulses across the display.) | The display selection is set to OFF. | Set the display selection to ON. |
| E X X | XX is a number. EXX is displayed when the system is powered on, indicating that the system is abnormal. In most cases, the data storage module is abnormal. | |

8.2 Output When an Error Occurs

| Display | Output Condition | | Indicator Condition |
|--|------------------|------|---------------------|
| | N.O. | N.C. | |
| UUU | OFF | ON | OFF |
| nnn | OFF | ON | OFF |
| L0c | Normal operation | | Normal operation |
| - (The bar pulses across the display.) | Normal operation | | Normal operation |

8.3 Default Settings/Values List

| Item | Initial value |
|--|---------------|
| NPN/PNP/PUL selection | NPN |
| N.O./N.C. selection | N.O. |
| Detection mode | Auto |
| Response time | 10ms |
| Timer | OFF |
| Timer duration | 10ms |
| External input | OFF |
| Display selection | ON |
| Mutual Interference Reduction Function | Auto |
| Detection light source | A(standard) |
| Master calibration setting value | 950 |

1.产品特性:

- 支持2路开关量输出, PNP/NPN
- 按键设置
- OLED数码显示, 清晰明亮
- 紧凑尺寸一体化机身设计, 支持IO-Link
- 支持三种检测模式, 最多同时检测15种颜色



2.产品型号:

| 型号 | 检测距离 | 光源 | 输出方式 | 差频数量 | 连接方式 | 接线图 |
|-------------------------|-------------|-------|-------------------|------|--------|-----|
| OSM47-CK500C2B6 | 30 ...500mm | 白色LED | NPN/PNP可选 | 2台 | 2米线缆 | 图1 |
| OSM47-CK500C2B6Q12.1 | 30 ...500mm | 白色LED | NPN/PNP可选 | 2台 | M12接插件 | 图2 |
| OSM47-CK500C2B6/IO | 30 ...500mm | 白色LED | NPN/PNP可选+IO/Link | 2台 | 2米线缆 | 图3 |
| OSM47-CK500C2B6Q12.1/IO | 30 ...500mm | 白色LED | NPN/PNP可选+IO/Link | 2台 | M12接插件 | 图4 |

注1): *M表示线缆长度, 单位米, 型号中无*M默认线缆长度为2米。

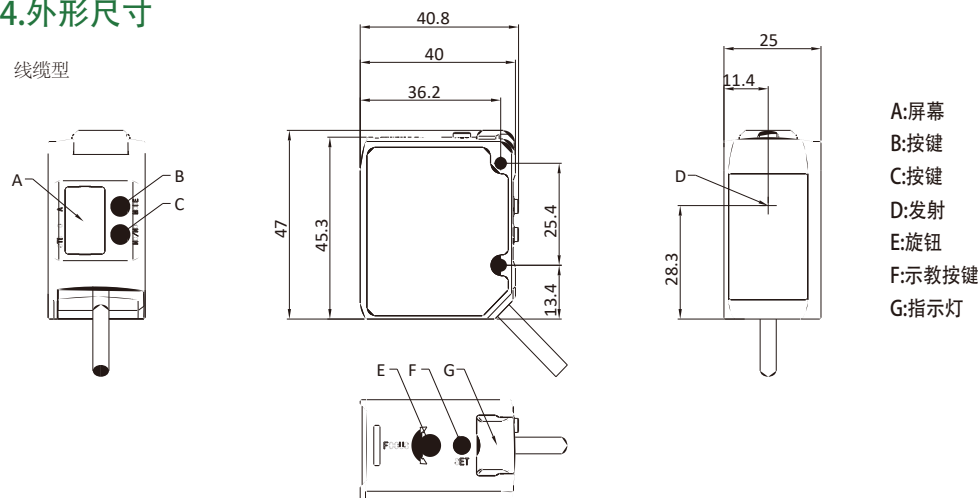
3.技术参数

| | | | |
|--------|-----------------------------------|------|--|
| 供电电压 | 10...30VDC±10% 包括脉冲波动0.5V(P-P) | 外部输入 | 1路可用于外部触发 |
| 功率 | <1.56W | 光斑直径 | 可变光点 约φ3.5mm@100mm; 约φ9mm@250mm; 约φ18mm@500mm |
| 光源 | 白色LED | 负载电流 | 24VDC时 65mA |
| 2路控制输出 | 2*NPN/PNP可选 | 开关模式 | N.O./N.C.可切换 |
| 通讯方式 | IO_Link(型号/IO适用) | 连接形式 | M12连接器 /线缆 |
| 差频数量 | 可设定不同频率, 最多2台 | 耐电压 | 1000V/AC/ 50/60Hz 60s |
| 响应时间 | 200us/1ms/10ms/500ms | 绝缘阻抗 | ≥50MΩ (500VDC) |
| 保护回路 | 反极性保护、短路保护、 过载保护 | | |

| | | | |
|--------|------------------------------------|------|---------------------|
| 抗环境光能力 | 白炽灯: 10000Lux以下; 阳光: 20000Lux以下 | 耐振动 | (X,Y,Z方向各2小时) |
| 材质 | 外壳: 压铸锌 | 耐冲击 | 500m/s(50G)X,Y,Z各3次 |
| 环境温度 | -40°C...+70°C | 防护等级 | IP67 |
| 工作温度 | -20°C...+50°C | 外型尺寸 | 40.8*47*25mm |

4.外形尺寸

线缆型



插件型

