


BA2M-DDT

Small, diffuse reflective type with long sensing distance


■ Features

- Realization of long sensing distance (2m) by special optical design.
- Built-in stable light ON indicator.
- Includes sensitivity adjustment function.
- 2 color LED display.

 Please read "Caution for your safety" in operation manual before using.



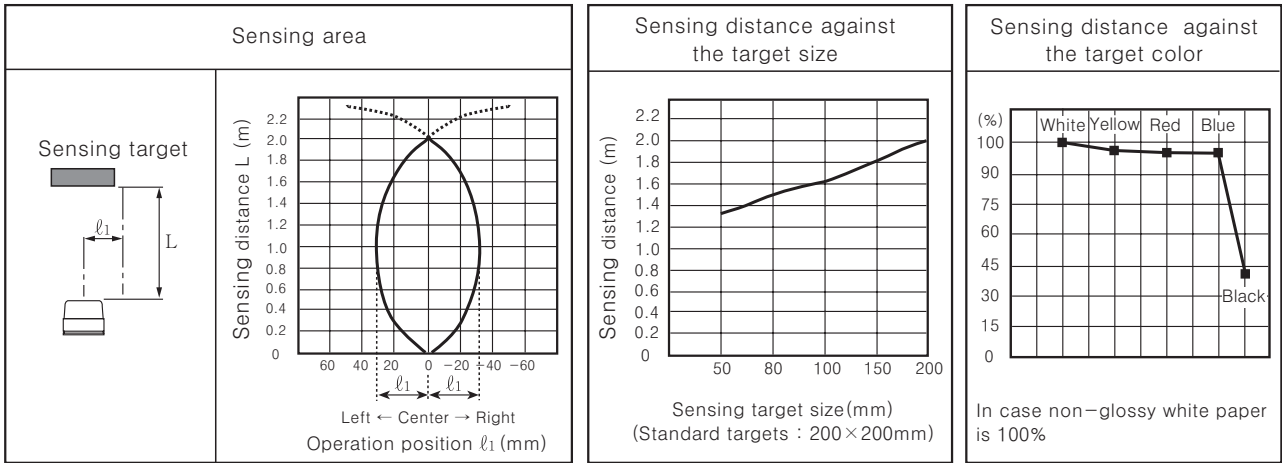
■ Specifications

| Model | BA2M-DDT | BA2M-DDT-P |
|------------------------|---|------------|
| Sensing type | Diffuse reflective | |
| Sensing distance (★) | 2m | |
| Sensing target | Opaque, Translucent, Transparent material | |
| Hysteresis | Max. 20% at rated setting distance | |
| Response time | Approx. 1ms | |
| Power supply | 12-24VDC ±10% (Ripple P-P : Max. 10%) | |
| Current consumption | Max. 15mA (Max. 30mA when the output is ON) | |
| Light source | Infrared LED (850nm modulated) | |
| Sensitivity adjustment | Adjuster | |
| Operation mode | Light ON (Dark ON mode is optional) | |
| Control output | NPN or PNP open collector output Load voltage : Max. 26.4VDC, Load current : Max. 100mA, Residual voltage ⇒ NPN : Max. 1V, PNP : (Min. Power supply - 2.5V) | |
| Protection circuit | Reverse power polarity, Output short-circuit (Overcurrent) protection circuit | |
| Receiver | Photo diode (Built-in IC) | |
| Indicator | 2 color LED [Operation : Red, Stable : Yellow (Red+Green)] | |
| Insulation resistance | Min. 20MΩ (at 500VDC mega) | |
| Noise strength | ±240V the square wave noise (pulse width: 1μs) by the noise simulator | |
| Dielectric strength | 1000VAC 50/60Hz for 1minute | |
| Vibration | 1.5mm amplitude at frequency of 10 ~ 55Hz in each of X, Y, Z directions for 2 hours | |
| Shock | 100m/s ² (10G) in X, Y, Z directions for 3 times | |
| Ambient illumination | Sunlight : Max. 11,000lx, Incandescent lamp : Max. 3,000lx (Receiving illumination) | |
| Ambient temperature | -20 ~ +55°C (at non-freezing status), Storage : -25 ~ +70°C | |
| Ambient humidity | 35 ~ 85%RH | |
| Protection | IP50 (IEC standard) | |
| Material | Case : PBT, Display : PC, Lens : PMMA | |
| Cable | 3P, φ 3mm, Length : 2m | |
| Accessory | Adjustment driver | |
| Approval |  | |
| Unit weight | Approx. 50g | |

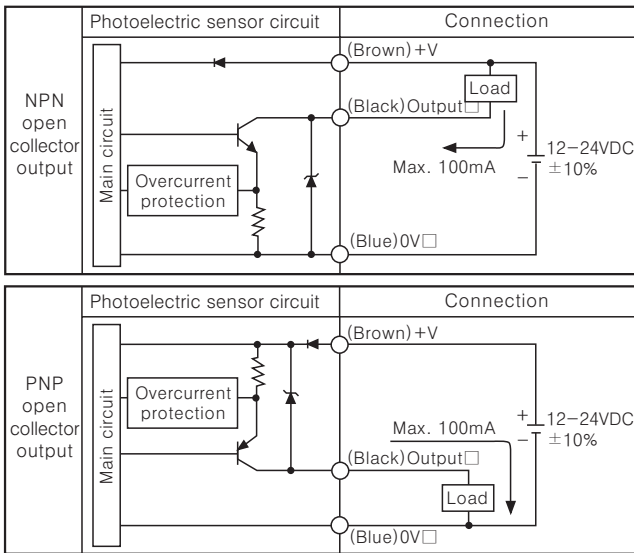
* (★) It is for Non-glossy white paper (200×200mm).

Diffuse Reflective Type with Long Sensing Distance

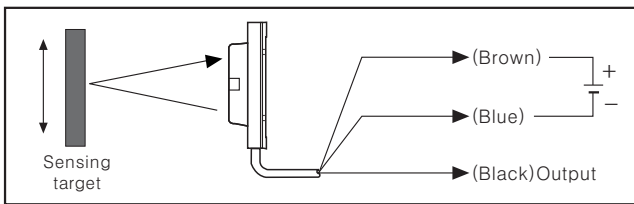
Feature data



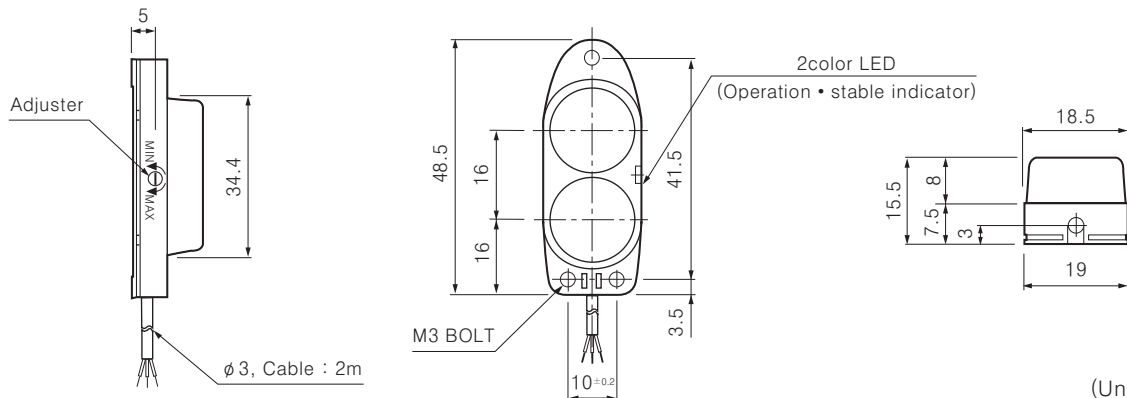
Control output diagram



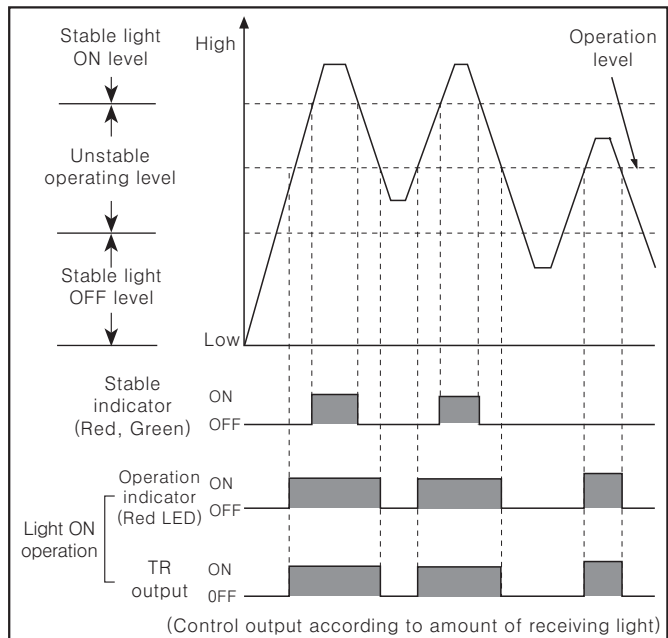
Connections



Dimensions



Operation mode



1. Waveform of operation indicator and output TR is for the Light ON mode. When it is Dark ON mode, the operation will be apposite. (Dark ON mode : Option)
2. If the control output terminal is short-circuit or over current than the rated current flows the unit, the sensor does not operate normally by protection circuit.

(A) Counter

(B) Timer

(C) Temp. controller

(D) Power controller

(E) Panel meter

(F) Tacho/Speed/Pulse meter

(G) Display unit

(H) Sensor controller

(I) Switching power supply

(J) Proximity sensor

(K) Photo electric sensor

(L) Pressure sensor

(M) Rotary encoder

(N) Stepping motor & Driver & Controller

(O) Graphic panel

(P) Production stoppage models & replacement