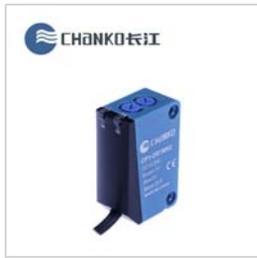


# Product

## CPY Series

Location > Product (</en/products.html>) > Photoelectric Sensor (</en/category/Photoelectric-sensor.html>) > CPY Series (</en/category/cpy-series.html>) > CPY Series (</en/products/CPY Series.html>)





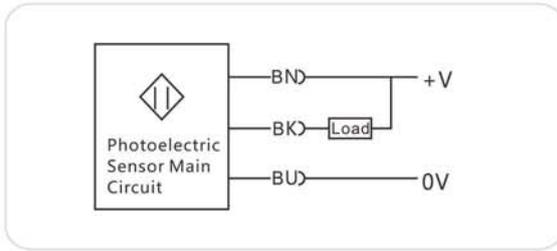
**Parameter      Online Inquiry**

## CPY Small Rectangular Photoelectric Sensor

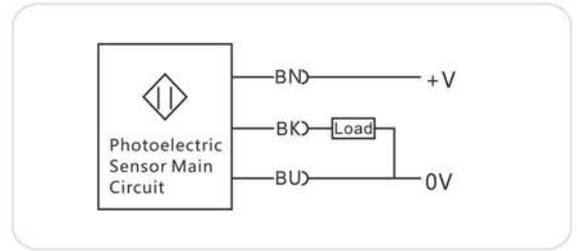
### Specification

| Sensor Type                     |                       | Through Beam Reflection   |                         | Polarized Reflection                    |                | Diffuse Reflection    |               |              |  |
|---------------------------------|-----------------------|---|-------------------------|---|----------------|-----------------------|---------------|--------------|--|
| Type                            | Cable                 | NPN   | CPY-TR40MN3             | CPY-TR20MN3                             | CPY-RMR2MN3    | CPY-DR100N3           | CPY-DR300N3   | CPY-DR1MN3   |  |
|                                 |                       | PNP   | CPY-TR40MP3             | CPY-TR20MP3                             | CPY-RMR2MP3    | CPY-DR100P3           | CPY-DR300P3   | CPY-DR1MP3   |  |
|                                 | M12 Connector         | NPN   | CPY-TR40MN3-A           | CPY-TR20MN3-A                           | CPY-RMR2MN3-A  | CPY-DR100N3-A         | CPY-DR300N3-A | CPY-DR1MN3-A |  |
|                                 |                       | PNP   | CPY-TR40MP3-A           | CPY-TR20MP3-A                           | CPY-RMR2MP3-A  | CPY-DR100P3-A         | CPY-DR300P3-A | CPY-DR1MP3-A |  |
| Sensing Distance                |                       | 40m   | 20m                     | 2m                                      | 100mm          | 300mm                 | 1m            |              |  |
| Spot diameter                   |                       | 1m distance Spot diameter 100mm   |                         |   |                |                       |               |              |  |
| Standard Detection Object       |                       | Opaque objects above $\Phi 10\text{mm}$   |                         | Opaque objects above $\Phi 75\text{mm}$ |                | White paper:300×300mm |               |              |  |
| Return Difference               |                       | -   |                         | Less than 20% of detection distance     |                |                       |               |              |  |
| Direction Angle                 |                       | $\leq 2^\circ$  |                         |   |                |                       |               |              |  |
| Light Source (Wavelength)       |                       | Red emitting diode (617nm)  |                         |   |                |                       |               |              |  |
| Supply Voltage                  |                       | DC12-24V±10% Pulsation (P-P) is less than 10% (DC10-30V)  |                         |   |                |                       |               |              |  |
| Consumed Current                |                       | Light projection 20mA<br>Light receiving below 25mA   |                         | Less than 25mA                          |                |                       |               |              |  |
| Control Output                  |                       | NPN/PNP, load current below 100mA (residual voltage below 3V when the cable is 2m)                    |                         |   |                |                       |               |              |  |
| Action Mode                     |                       | Light ON(entering light action) / Dark ON(shading action) switches freely                             |                         |   |                |                       |               |              |  |
| Indicator                       |                       | Action indicator (red), stable indicator (green)  |                         |   |                |                       |               |              |  |
| Protection Circuit              |                       | Power supply reverse connection protection, surge protection, output reverse connection protection    |                         |   |                |                       |               |              |  |
| Response Time                   |                       | 0.5ms   |                         |   |                |                       |               |              |  |
| Sensitivity Adjustment          |                       | Single knob   |                         |   |                |                       |               |              |  |
| Ambient Illumination (Receiver) |                       | Lighting collecting surface illumination incandescent lamp: below 3000lx, sunlight: less than 10000lx |                         |   |                |                       |               |              |  |
| Ambient Temperature Range       |                       | Working: -25 ~ +55 °C / Storing: -25 ~ +65 °C (no freeze, no dew)                                     |                         |   |                |                       |               |              |  |
| Ambient Humidity Range          |                       | Working: 35~85%RH/ Storing: 35~95%RH (no dew)   |                         |   |                |                       |               |              |  |
| Insulation Resistance           |                       | Above 20M $\Omega$ (DC500V megger)  |                         |   |                |                       |               |              |  |
| Withstand Voltage               |                       | AC 1,000V 50/60Hz 1min between the whole charging part and the shell                                  |                         |   |                |                       |               |              |  |
| Vibration (Durability)          |                       | Up and down 1.5mm at 10~55Hz for each 2 hours in X / Y / Z directions                                 |                         |   |                |                       |               |              |  |
| Impact (Durability)             |                       | 300m/s <sup>2</sup> for each 10 times in X / Y / Z directions   |                         |   |                |                       |               |              |  |
| IP Grade                        |                       | IEC standard IP65 (Note: no knob IP67)  |                         |   |                |                       |               |              |  |
| Weight / Length                 |                       | About 68g / 2m  | About 65g / 2m          | About 35g / 2m                          | About 35g / 2m |                       |               |              |  |
| Material                        | Case                  |   |                         |   |                |                       | PBT           |              |  |
|                                 | Lens / Display Window |   |                         |   |                |                       | PC            |              |  |
|                                 | Cable                 |   |                         |   |                |                       | POM           |              |  |
| Accessory                       |                       | Instructions  | Instructions, reflector |   | Instructions   |                       |               |              |  |

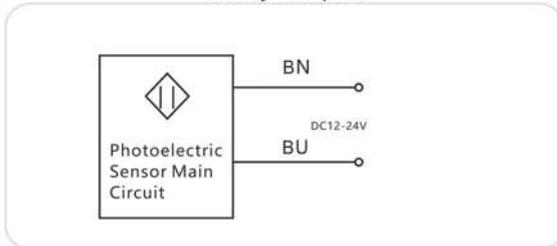
**NPN**



**PNP**

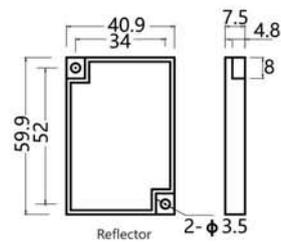
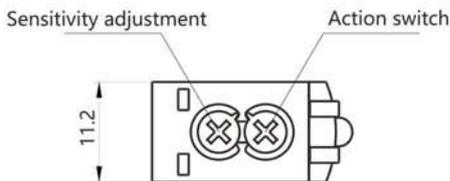
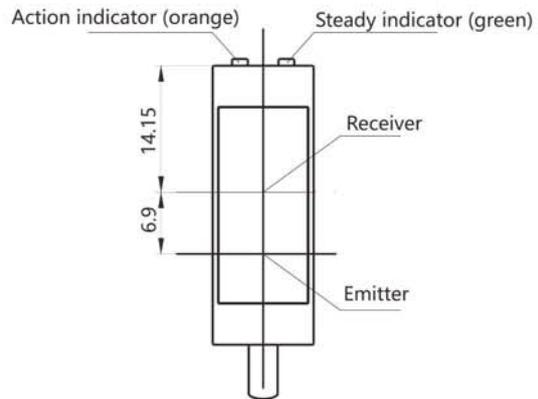
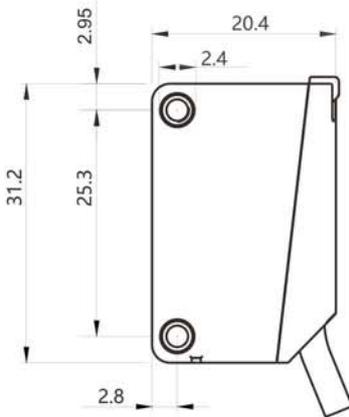


**Through Beam Reflection Light Emitter (Relay Output)**



**CPY Outline Dimension Diagram**

●CPY-RM□□□□ /CPY-DR□□□□



**Product Description**