

- ※ All type with sensitivity adjuster, easy to get the best sensing condition.
- ※ All DC type with NPN & PNP output, meet any control requirement.
- ※ All DC type having over load protection, and polarity reversed-Protection.
- ※ All AC type with surge protection, may avoided damaged.
- ※ Unique vertical type saving mounted space.
- ※ High solid compact structure, IP66 applied in poor circumstance suitable.



## Specification

| Power Type           | DC Type  | AC Type                         |
|----------------------|--|---------------------------------|
| Operating Voltage    | 10 ~ 30 VDC , Ripple < 20% of Vp-p               | 90 ~ 250 VAC , 50/60 Hz         |
| Output Method        | NPN & PNP  | SCR                             |
| Output Current       | 150mA max.                                       | 100mA max.                      |
| Residual Voltage     | 0.8V max.  |                                 |
| Leakage Current      | 0.8mA max.                                       | 2mA max.                        |
| Protection Circuit   | Short Circuit & Polarity Reversed Protection     | Surge Protection Circuit        |
| Response Time        | 2ms  | 10ms                            |
| Sensitivity Adjuster | 270° Trimmer                                     | Non                             |
| Hysteresis           | 10% of Sensing Distance max.                     |                                 |
| Illumination         | Lamplight < 10,000 Lux. ; Sunlight < 30,000 Lux. |                                 |
| Connection Method    | Lead Wire : 4 Cores / 5.0φ X 2m                  | Lead Wire : 3 Cores / 4.2φ X 2m |
|                      | Plug : 4 Pins                                    | Plug : 3 Pins                   |
| Housing Color        | Grey   | Blue                            |
| Housing Material     | Intensive Polymid                                |                                 |
| Operating Temp./Hum. | -20°C ~ +60°C ; 35% ~ 95% RH                     |                                 |
| Protection Class     | IP-66  |                                 |
| Weight               |  |                                 |

## Reflex Type

| Type      | Model          | Output Status | Sensing Direction | Sensing Distance | Operating Voltage    | Current Consumption | Output Method           | Sensitivity Adjuster |
|-----------|----------------|---------------|-------------------|------------------|----------------------|---------------------|-------------------------|----------------------|
| Lead Wire | CDR-10X        | NO            | Horizontal        | 10cm             | 10~30VDC             | 25mA max.           | NPN & PNP<br>150mA max. | 270°<br>Trimmer      |
|           | CDR-10XB       | NC            |                   |                  |                      |                     |                         |                      |
|           | CDR-30X        | NO            |                   | 30cm             |                      |                     |                         |                      |
|           | CDR-30XB       | NC            |                   |                  |                      |                     |                         |                      |
|           | CDR-30X-V      | NO            | Vertical          | 30cm             |                      |                     |                         |                      |
|           | CDR-30XB-V     | NC            |                   |                  |                      |                     |                         |                      |
|           | CAR-10X        | NO            | Horizontal        | 10cm             | 90~250VAC<br>50/60Hz | 0.5VA max.          | SCR<br>100mA            | 270°<br>Trimmer      |
|           | CAR-10XB       | NC            |                   |                  |                      |                     |                         |                      |
|           | CAR-10X-V      | NO            | Vertical          | 10cm             |                      |                     |                         |                      |
|           | CAR-10XB-V     | NC            |                   |                  |                      |                     |                         |                      |
| Connector | CDR-10X-M12    | NO            | Horizontal        | 10cm             | 10~30VDC             | 25mA max.           | NPN & PNP<br>150mA max. | 270°<br>Trimmer      |
|           | CDR-10XB-M12   | NC            |                   |                  |                      |                     |                         |                      |
|           | CDR-30X-M12    | NO            | Horizontal        | 30cm             |                      |                     |                         |                      |
|           | CDR-30XB-M12   | NC            |                   |                  |                      |                     |                         |                      |
|           | CDR-30X-V-M12  | NO            | Vertical          | 30cm             |                      |                     |                         |                      |
|           | CDR-30XB-V-M12 | NC            |                   |                  |                      |                     |                         |                      |

## Mirror Reflex Type

| Type      | Model          | Output Status | Sensing Direction | Sensing Distance | Operating Voltage | Current Consumption | Output Method           | Sensitivity Adjuster |          |           |                         |                 |
|-----------|----------------|---------------|-------------------|------------------|-------------------|---------------------|-------------------------|----------------------|----------|-----------|-------------------------|-----------------|
| Lead Wire | CDM-1MR        | NO            | Horizontal        | 0.1m~1.6m        | 10~30VDC          | 20mA max.           | NPN & PNP<br>150mA max. | 270°<br>Trimmer      |          |           |                         |                 |
|           | CDM-1MRB       | NC            |                   |                  |                   |                     |                         |                      |          |           |                         |                 |
|           | CDM-2MX        | NO            |                   | 0.1m~2.5m        |                   |                     |                         |                      |          |           |                         |                 |
|           | CDM-2MXB       | NC            |                   |                  |                   |                     |                         |                      |          |           |                         |                 |
|           | CDM-2MX-V      | NO            | Vertical          | 0.1m~2.0m        |                   |                     |                         |                      |          |           |                         |                 |
|           | CDM-2MXB-V     | NC            |                   |                  |                   |                     |                         |                      |          |           |                         |                 |
|           | CAM-2MX        | NO            | Horizontal        | 0.1m~2.0m        | 90~250VAC         | 0.5VA max.          | SCR<br>100mA            | 270°<br>Trimmer      |          |           |                         |                 |
|           | CAM-2MXB       | NC            |                   |                  |                   |                     |                         |                      |          |           |                         |                 |
|           | CAM-2MX-V      | NO            | Vertical          |                  |                   |                     |                         |                      |          |           |                         |                 |
|           | CAM-2MXB-V     | NC            |                   |                  |                   |                     |                         |                      |          |           |                         |                 |
| Connector | CDM-2MX-M12    | NO            | Horizontal        | 0.1m~2.5m        |                   |                     |                         |                      | 10~30VDC | 20mA max. | NPN & PNP<br>150mA max. | 270°<br>Trimmer |
|           | CDM-2MXB-M12   | NC            |                   |                  |                   |                     |                         |                      |          |           |                         |                 |
|           | CDM-2MX-V-M12  | NO            | Vertical          | 0.1m~2.0m        |                   |                     |                         |                      |          |           |                         |                 |
|           | CDM-2MXB-V-M12 | NC            |                   |                  |                   |                     |                         |                      |          |           |                         |                 |

## Thru Beam Type

| Type      | Model          | Output Status | Sensing Direction | Sensing Distance | Operating Voltage | Current Consumption | Output Method      | Sensitivity Adjuster |
|-----------|----------------|---------------|-------------------|------------------|-------------------|---------------------|--------------------|----------------------|
| Lead Wire | CDT-10MX       | NO            | Horizontal        | 10m              | 10~30VDC          | P<20mA<br>R<25mA    | NPN & PNP<br>150mA | 270°<br>Trimmer      |
|           | CDT-10MXB      | NC            |                   |                  |                   |                     |                    |                      |
|           | CDT-6MX-V      | NO            | Vertical          | 6m               |                   |                     |                    |                      |
|           | CDT-6MXB-V     | NC            |                   |                  |                   |                     |                    |                      |
| Connector | CDT-10MX-M12   | NO            | Horizontal        | 10m              | 10~30VDC          | P<20mA<br>R<25mA    | NPN & PNP<br>150mA | 270°<br>Trimmer      |
|           | CDT-10MXB-M12  | NC            |                   |                  |                   |                     |                    |                      |
|           | CDT-6MX-V-M12  | NO            | Vertical          | 6m               |                   |                     |                    |                      |
|           | CDT-6MXB-V-M12 | NC            |                   |                  |                   |                     |                    |                      |

## Guiding of Model

Ex. **CDR-30X-B-V-M12**

① ② ③ ④ ⑤ ⑥

### ① Model

CDR=DC Reflex Type  
 CAR=AC Reflex Type  
 CDM=DC Mirror Reflex Type  
 CAM=AC Mirror Reflex Type  
 CDT=DC Thru Beam Type

### ② Sensing Distance

30=30cm  
 2M=2m  
 10M=10m

### ③ Light Source

X=Infrared LED  
 R=Red LED

### ④ Output Status

B=NC Type  
 Non=NO Type

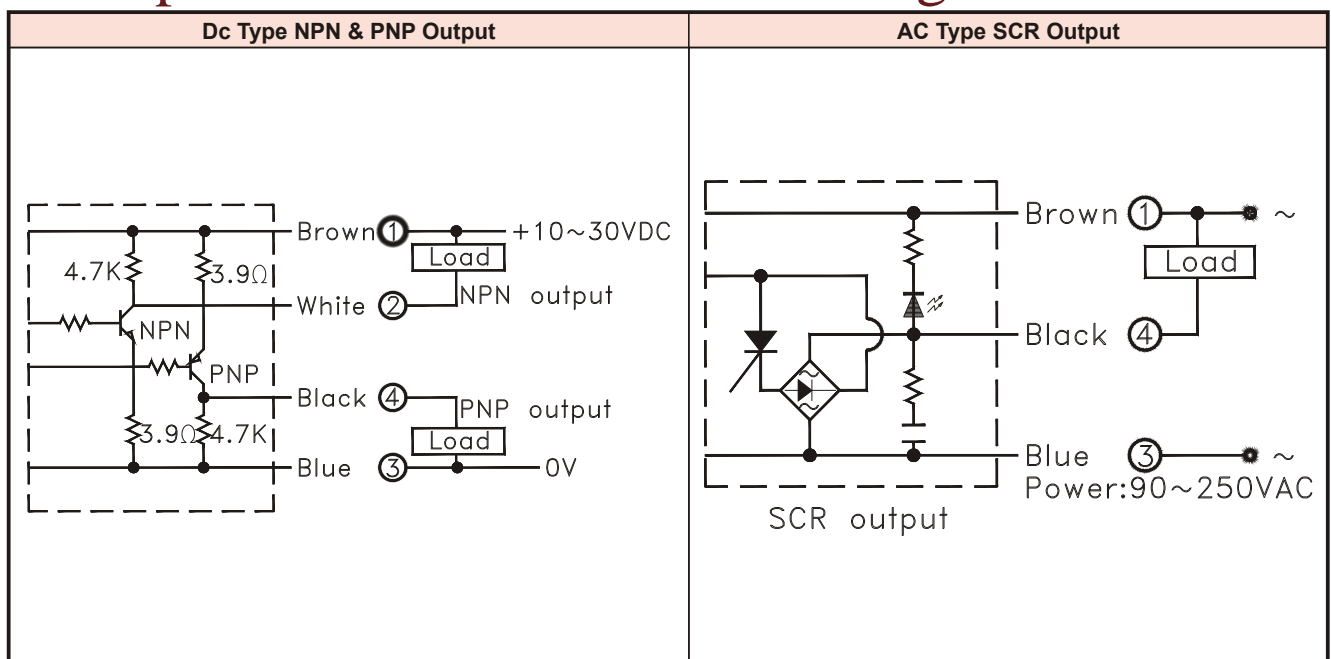
### ⑤ Sensing Direction

V=Vertical Type  
 Non=Horizontal Type

### ⑥ Connector Type

M12= M12x1.0

## Output Circuit & Connection Diagram



Dimension

