

## Plastic cylindrical shape photoelectric sensors PR12S series



### Features

- ◆ Through beam reflection working principle;
- ◆ Excellent anti-interference performance
- ◆ High detection accuracy



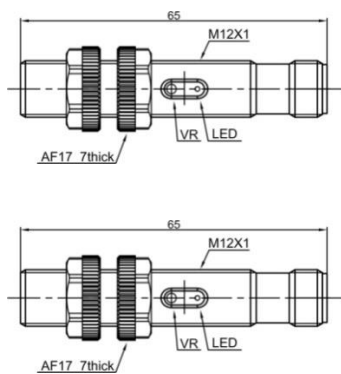
### Part number

|     |       | Emitter        |                  | Receiver |       |
|-----|-------|----------------|------------------|----------|-------|
| NPN | NO    | PR12S-TM10D-E2 | PR12S-TM10DNO-E2 | PNP      | NO    |
| NPN | NC    | PR12S-TM10D-E2 | PR12S-TM10DNC-E2 | PNP      | NC    |
| NPN | NO+NC | PR12S-TM10D-E2 | PR12S-TM10DNR-E2 | PNP      | NO+NC |

### Technical specifications

|                         |                             |                       |   |
|-------------------------|-----------------------------|-----------------------|---|
| Detection type          | Through beam                | Consumption current   | ≤25mA                                   |
| Rated distance [Sn]     | 10m (non-adjustable)        | Circuit protection    | Short-circuit and reverse polarity      |
| Standard target         | >φ10mm opaque object        | Response time         | < 8.2ms                                 |
| Light source            | Infrared LED (880nm)        | Output indicator      | Emitter: Green LED Receiver: Yellow LED |
| Dimensions              | M12*65mm                    | Ambient temperature   | -15°C...+55°C                           |
| Output                  | NO/NC (depends on receiver) | Ambient humidity      | 35-85%RH (non-condensing)               |
| Supply voltage          | 10...30 VDC                 | Voltage withstand     | 1000V/AC 50/60Hz 60s                    |
| Min target              | .....                       | Insulation resistance | ≥50MΩ(500VDC)                           |
| Hysteresis range [%/Sr] | .....                       | Vibration resistance  | 10...50Hz (0.5mm)                       |
| Repeat accuracy [R]     | ≤5%                         | Degree of protection  | IP67                                    |
| Load current            | ≤200mA (receiver)           | Housing material      | PBT                                     |
| Residual voltage        | ≤2.5V (receiver)            | Connection type       | M12 Connector                           |

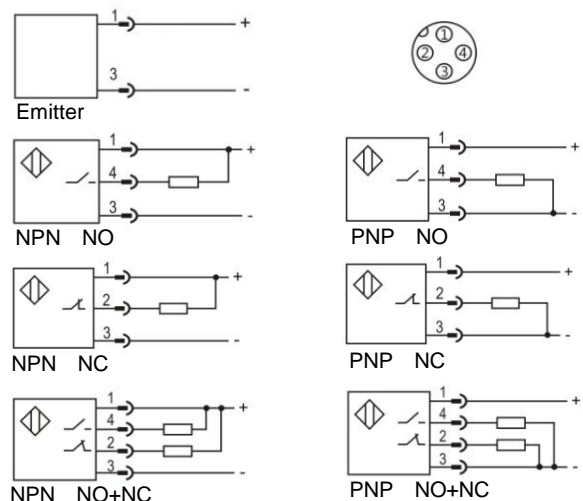
### Dimensions



Emitter

Receiver

### Wiring diagram



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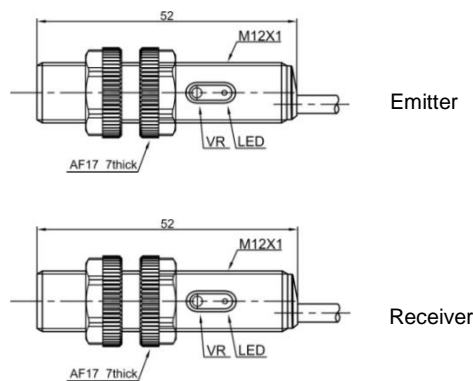
### Part number

|     |       | Emitter     | Receiver      |     |       | Emitter     | Receiver      |
|-----|-------|-------------|---------------|-----|-------|-------------|---------------|
| NPN | NO    | PR12S-TM10D | PR12S-TM10DNO | PNP | NO    | PR12S-TM10D | PR12S-TM10DPO |
| NPN | NC    | PR12S-TM10D | PR12S-TM10DNC | PNP | NC    | PR12S-TM10D | PR12S-TM10DPC |
| NPN | NO+NC | PR12S-TM10D | PR12S-TM10DNR | PNP | NO+NC | PR12S-TM10D | PR12S-TM10DPR |

### Technical specifications

|                         |                             |                       |   |
|-------------------------|-----------------------------|-----------------------|---|
| Detection type          | Through beam                | Consumption current   | ≤25mA                                   |
| Rated distance [Sn]     | 10m (non-adjustable)        | Circuit protection    | Short-circuit and reverse polarity      |
| Standard target         | >φ10mm opaque object        | Response time         | < 8.2ms                                 |
| Light source            | Infrared LED (880nm)        | Output indicator      | Emitter: Green LED Receiver: Yellow LED |
| Dimensions              | M12*52mm                    | Ambient temperature   | -15°C...+55°C                           |
| Output                  | NO/NC (depends on receiver) | Ambient humidity      | 35-85%RH (non-condensing)               |
| Supply voltage          | 10...30 VDC                 | Voltage withstand     | 1000V/AC 50/60Hz 60s                    |
| Min target              | .....                       | Insulation resistance | ≥50MΩ(500VDC)                           |
| Hysteresis range [%/Sr] | .....                       | Vibration resistance  | 10...50Hz (0.5mm)                       |
| Repeat accuracy [R]     | ≤5%                         | Degree of protection  | IP67                                    |
| Load current            | ≤200mA (receiver)           | Housing material      | PBT                                     |
| Residual voltage        | ≤2.5V (receiver)            | Connection type       | 2m PVC cable                            |

### Dimensions



### Wiring diagram

