

## Plastic square shape photoelectric sensors PSR series



### Features

- ◆ 18mm threaded cylindrical installation or side installation, it is an ideal substitute for various styles of sensors;
- ◆ Large angle, long distance, easy to install and debug;
- ◆ With 360° visible bright LED status indicator;



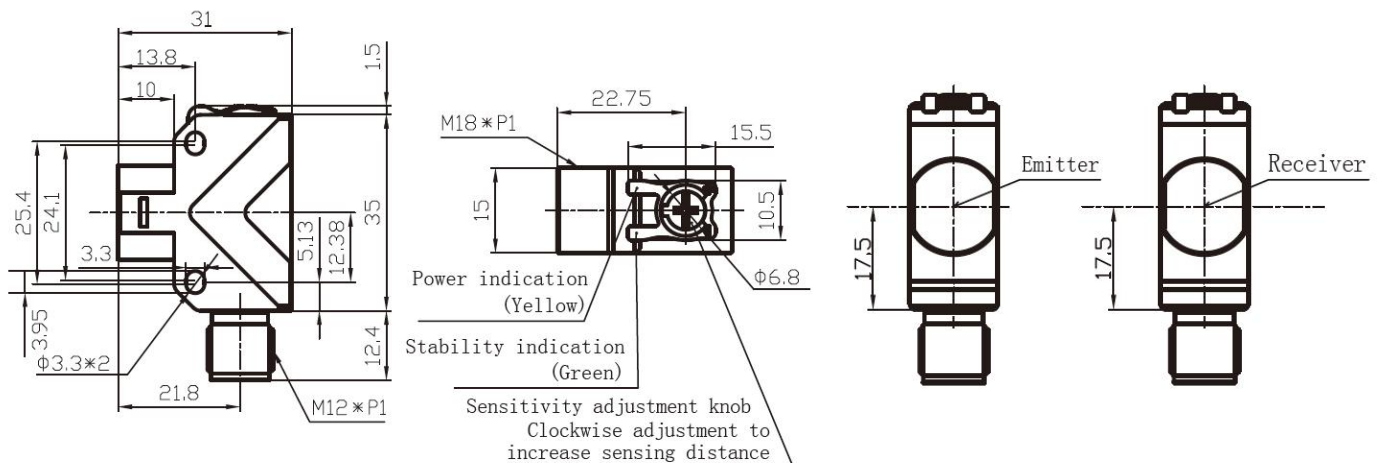
### Part number

|     | Emitter      | Receiver       |     | Emitter      | Receiver       |
|-----|--------------|----------------|-----|--------------|----------------|
| NPN | PSR-TM20D-E2 | PSR-TM20DNB-E2 | PNP | PSR-TM20D-E2 | PSR-TM20DPB-E2 |

### Technical specifications

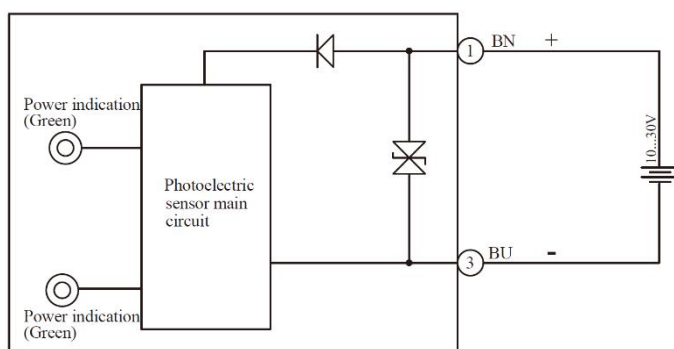
|                     |                                                                |                       |                                                   |
|---------------------|----------------------------------------------------------------|-----------------------|---------------------------------------------------|
| Detection type      | Through beam                                                   | Anti-ambient light    | Anti-ambient light interference < 10,000lx;       |
| Rated distance [Sn] | 0...20m                                                        |                       | Incandescent light interference < 3,000lx         |
| Standard target     | > Φ15mm opaque object                                          | Indicator display     | Green light: power indicator                      |
| Light source        | Infrared LED (850nm)                                           |                       | Yellow light: output indication, short circuit or |
| Direction angle     | > 4°                                                           |                       | overload indication (flashing)                    |
| Output              | NO/NC                                                          | Ambient temperature   | -15°C...60°C                                      |
| Supply voltage      | 10...30VDC                                                     | Ambient humidity      | 35-95%RH (non-condensing)                         |
| Load current        | ≤100mA                                                         | Voltage withstand     | 1000V/AC 50/60Hz 60s                              |
| Residual voltage    | ≤1V (Receiver)                                                 | Insulation resistance | ≥50MΩ (500VDC)                                    |
| Distance adjustment | Single-turn potentiometer                                      | Vibration resistance  | 10...50Hz (0.5mm)                                 |
| Consumption current | ≤15mA (Emitter), ≤18mA (Receiver)                              | Degree of protection  | IP67                                              |
| Circuit protection  | Short-circuit, overload, reverse polarity and zener protection | Housing material      | ABS                                               |
| Response time       | ≤1ms                                                           | Installation method   | Composite installation                            |
| NO/NC adjustment    | NO: 2 feet is connected to the positive electrode;             | Optical components    | Plastic PMMA                                      |
|                     | NC: 2 feet is connected to the negative electrode;             | Weight                | 10g                                               |
|                     |                                                                | Connection type       | M12 connector                                     |

### Dimensions

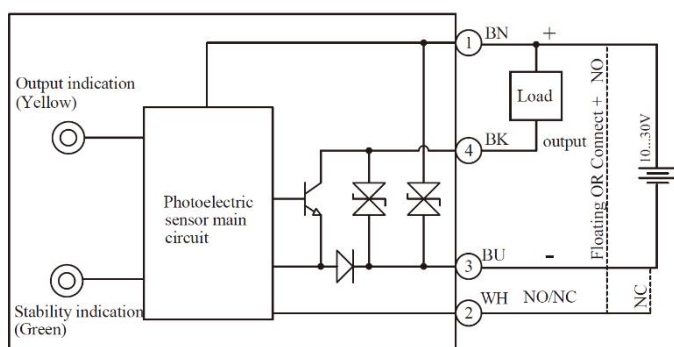


## Wiring diagram

Emitter



NPN



PNP

