

# Flat Proximity Sensor

# PRF



Model Number Legend

**PRF** - □ - □□ - □

1      2      3 4      5

#### 1. Series

PRF

#### 2. Sensing Surface

T: Top Sensing

#### 3. Sensing Distance

5: 5 mm

#### 4. Output

NO: NPN - NO

PO: PNP - NO

NC: NPN - NC

PC: PNP - NC

DO: 2 wire DC - NO

DC: 2 wire DC - NC

#### 5. Connection

2M: 2m Cable

#### #. Accessories included

Check Nut: 1 Pair

#### Example:

PRF-T-5NO-2M

PRF Series - Top Sensing - 5mm Sensing Distance, NPN NO - 2 meter Cable

**NOTE:** Contact us for models not shown in catalogue.

## Product Highlights

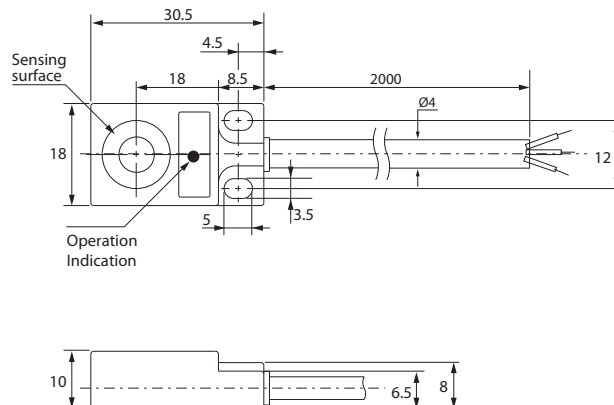
### ◆ 5mm Sensing

The PRF series has a unique top-light construction with the sensing surface towards the top.

The sensor is designed in such a way that the maximum sensing distance is achieved with the minimum sensor size. The sensor is spread over a larger area and the dedicated IC enhances the sensing distance. The PRF realizes a sensing distance of 5mm with a sensor thickness of 10mm.

| Output Type               |                    | NPN                                                                           | PNP            | DC 2 Wire            |
|---------------------------|--------------------|-------------------------------------------------------------------------------|----------------|----------------------|
| Model                     | NPN - NO           | PRF-T-5NO-2M                                                                  | PRF-T-5PO-2M   | PRF-T-5DO-2M         |
|                           | PNP - NO           | PRF-T-5NC-2M                                                                  | PRF-T-5PC-2M   | PRF-T-5DC-2M         |
| Sensing Distance          |                    | 5mm                                                                           |                |                      |
| Standard Sensing Target   |                    | 20mm x 20mm x 1 mm iron piece                                                 |                |                      |
| Hysteresis                |                    | ± 20%                                                                         |                |                      |
| Response Frequency / Time |                    | 500Hz/ 0.5ms                                                                  |                |                      |
| Supply Voltage            |                    | 12 - 24 VDC ±10% Ripple                                                       |                |                      |
| Output                    | Type               | NPN - NO or NC                                                                | PNP - NO or NC | DC 2 wire - NO or NC |
|                           | Switching Capacity | 100mA (overload 120mA) @ 24VDC                                                |                |                      |
|                           | No Load Current    | 200mA                                                                         |                |                      |
| Indication                |                    | Operation: Red LED                                                            |                |                      |
| Protection Circuits       |                    | Power supply polarity, output polarity protection                             | -              |                      |
| Voltage Influence         |                    | ± 5% max. of sensing distance (ref. sensing distance taken at 24VDC)          |                |                      |
| Temperature Influence     |                    | ± 10% max. of sensing distance (ref. sensing distance taken at 25°C)          |                |                      |
| Vibration Resistance      |                    | 10 - 55Hz, 0.5mm for 2 hours in X, Y, Z directions (destruction)              |                |                      |
| Shock Resistance          |                    | 20 G (10 times) in X, Y, Z direction for 3 times (destruction)                |                |                      |
| Ambient Temperature       |                    | Operation: -15° ~ 60° C; Storage: -30° ~ 70° C (non-freezing; non-condensing) |                |                      |
| Ambient Humidity          |                    | Operation: 35 ~ 80% RH; Storage: 35 ~ 95% RH (non-condensing)                 |                |                      |
| Protection Class          |                    | IP67                                                                          |                |                      |
| Weight                    |                    | Approx. 40g                                                                   |                |                      |
| Material                  |                    | ABS                                                                           |                |                      |

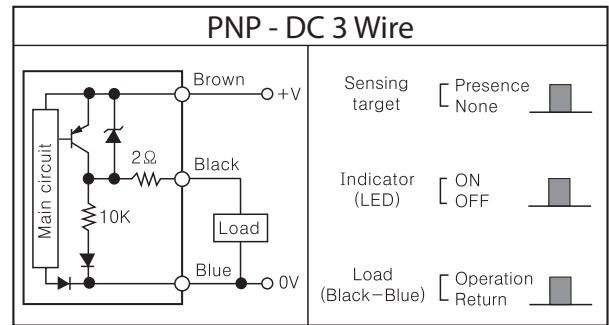
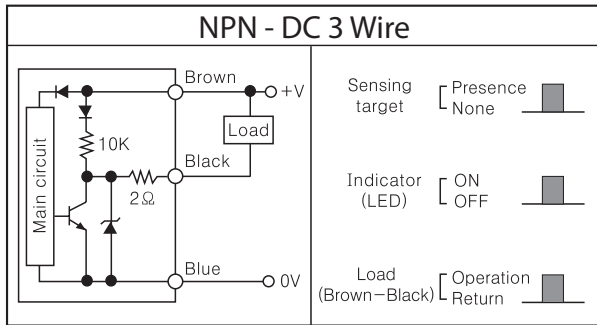
## Sensor Dimension Drawing



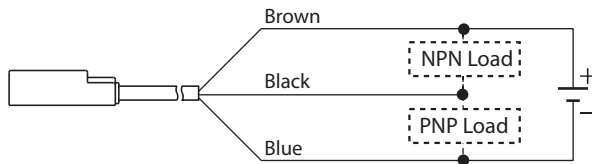
All dimensions are in mm

# Control Output Diagram

PRF



# Connection



Brown : DC 10~30V  
 Blue : 0V  
 Black : Control Output

- Proximity Sensors
- Photoelectric Sensors
- Measurement Sensors
- Vision & Safety Sensors

- Control
- Weighing
- Automation
- Components

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