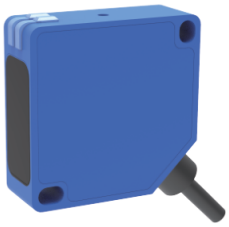
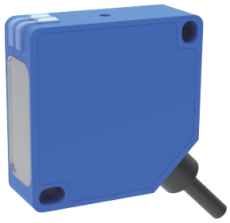
# Q50 Rectangular Photoelectric Sensor

BFDP-R50-N31I100-PC2 series · Sensing Distance: 1m / 2m / 5m · Operating Voltage: 10...30V DC

**IP65**
Ingress Protection



①②



③④

## KEY SPECIFICATIONS

| | |
|---|---|
| SENSING DISTANCE<br>**1m / 2m / 5m** | OPERATING VOLTAGE<br>**10...30V DC** |
| SWITCHING FREQ.<br>**200Hz** | AMBIENT TEMP.<br>**-25...55°C** |
| HOUSING<br>**50*50*18mm** | RESPONSE TIME<br>**≤5ms** |

FEATURES

- Long detection distance
- Quick response time

## MODEL CODES

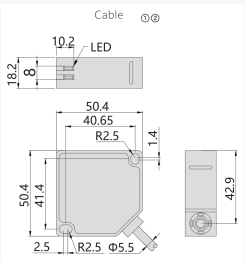
| Output Type | ① | ② | ③ | ④ |
|---|---|---|---|---|
| NPN N.O+N.C | **BFDP-R50-N31I100-PC2**<br>SKU 10104934 | **BFDP-R50-N31I200-PC2**<br>SKU 10104936 | **BFRP-R50-N31I500-PC2**<br>SKU 10104938 | **BFRP-R50-N31R500-PC2-F**<br>SKU 10104940 |
| PNP N.O+N.C | **BFDP-R50-P31I100-PC2**<br>SKU 10104935 | **BFDP-R50-P31I200-PC2**<br>SKU 10104937 | **BFRP-R50-P31I500-PC2**<br>SKU 10104939 | **BFRP-R50-P31R500-PC2-F**<br>SKU 10104941 |

## TECHNICAL DATA

| | |
|---|---|
| **Size** | 50*50*18mm |
| **Sensing distance** | ①: 1m<br>②: 2m<br>③: 5m<br>④: 5m |
| **Detection type** | ①: Diffuse reflection<br>②: Diffuse reflection<br>③: Retro-reflection<br>④: Retro-reflection |
| **Switching frequency** | 200Hz |
| **Operating voltage** | 10...30V DC |
| **Light source** | ①: Infrared light 880nm<br>②: Infrared light 880nm<br>③: Infrared light 880nm<br>④: Red light 650nm |
| **Response time** | ≤5ms |

| | |
|---|---|
| **Load current** | ≤200mA |
| **Power-on delay** | <100ms |
| **Sensitivity adjustment** | Single-turn potentiometer |
| **Light immunity** | <10000Lux |
| **Ambient temperature** | -25...55°C |
| **Ambient humidity** | 35...85% |
| **Housing material** | PBT |
| **Ingress protection** | IP65 |
| **Lens material** | PMMA |
| **Operation indicator** | Output: Yellow/Power: Red |
| **Connection** | 2m PVC Cable, 4*0.25mm² |
| **Accessories** | ①: None<br>②: None<br>③: FPFR-D83<br>④: FPFR-D83 |

## DIMENSIONAL DRAWINGS




*All dimensions in mm.*