Photoelectric proximity sensor

**V**<sub>5</sub> Group

# **Proximity** photoelectric sensor EN18 series

#### Highlights

- Economical solution for numerous applications;
- Red or infrared light source;
- Variants with angled light exit;
- Robust metal housings (IP 67);
- Simple adjustment via potentiometer;
- 2 through holes as additional mounting possibility



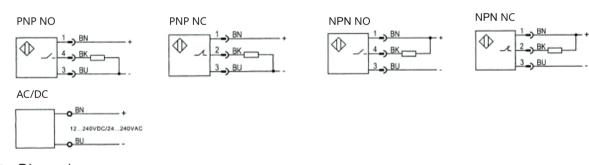


| Detection mode   | Model          | Distance | Light source | Friquency | Output | Switching mode   | Connection           |
|------------------|----------------|----------|--------------|-----------|--------|------------------|----------------------|
|                  | EN18-3A30PCI-C | 300 mm   | Infrared     | 1 KHz     | PNP    | Light on/Dark on | M12 Connector, 4 pin |
|                  | EN18-3A30NCI-C | 300 mm   | Infrared     | 1 KHz     | NPN    | Light on/Dark on | M12 Connector, 4 pin |
| Defuse type      | EN18-3A30PCI   | 300 mm   | Infrared     | 1 KHz     | PNP    | Light on/Dark on | 2m Cable, 4 wires    |
|                  | EN18-3A30NCI   | 300 mm   | Infrared     | 1 KHz     | NPN    | Light on/Dark on | 2m Cable, 4 wires    |
|                  | EN18-2A50LAI   | 500 mm   | Infrared     | 1 KHz     | Relay  | Dark on          | 2m Cable, 2 wires    |
|                  | EN18-2A50LBI   | 500 mm   | Infrared     | 1 KHz     | Relay  | Light on         | 2m Cable, 2 wires    |
|                  | EN18-3A50PAL   | 500 mm   | RED Laser    | 1 KHz     | PNP    | Dark on          | 2m Cable, 3 wires    |
|                  | EN18-3A50NAL   | 500 mm   | RED Laser    | 1 KHz     | NPN    | Dark on          | 2m Cable, 3 wires    |
|                  | EN18-3A50PAI   | 500 mm   | Infrared     | 1 KHz     | PNP    | Dark on          | 2m Cable, 3 wires    |
|                  | EN18-3A50NAI   | 500 mm   | Infrared     | 1 KHz     | NPN    | Dark on          | 2m Cable, 3 wires    |
| Data and and     | EN18-3B2PCI    | 2m       | Infrared     | 1 KHz     | PNP    | Light on/Dark on | 2m Cable, 4 wires    |
| Retro-reflective | EN18-3B2NCI    | 2m       | Infrared     | 1 KHz     | NPN    | Light on/Dark on | 2m Cable, 4 wires    |
| Through-beam     | EN18-3C5PCI-C  | 5m       | Infrared     | 1 KHz     | PNP    | Light on/Dark on | M12 Connector, 4 pin |

## Product parameters

| Туре                    |              | Diffuse  | Retro reflective           |  | Trough beam                                       |  |  |  |
|-------------------------|--------------|--|----------------------------|--|---|--|--|--|
|                         | NPN          | See part number in detailed p  | oduct brochure See part nu |  | ımber in detailed product brochure                |  |  |  |
| Model                   | PNP          | See part number in detailed p  | roduct brochure            | See part number in detailed product brochure |   |  |  |  |
| Products shape          |              |  |                            |  |   |  |  |  |
| Sensing range           |              | Defuse type 2-300mm<br>(white paper 100mm)   |                            |  | Trough beam type 2-5000mm<br>(Regular type model) |  |  |  |
| Black and white error   |              | 3%( distance 160mm)  |                            |  |   |  |  |  |
| Hysisteresis            |              | Less than 3% of rated detection distance   |                            |  |   |  |  |  |
| Output type switching   |              | N.O./N.C. via control white wire to power  |                            |  |   |  |  |  |
| Current consumption     |              | Max. 100mA   |                            |  |   |  |  |  |
| Light source            |              | Red light sour   |                            | Infrared light source 850nm                  |   |  |  |  |
|                         |              | JIS/IEC CLASS1,FDA CLASSI max. 4.5mW   |                            |  |   |  |  |  |
| Control output          |              | The load power supply voltage is max. DC26.4V, the load current is max. 100mA, the leakage current is less than 10 μ, and the collector is open circuit output |                            |  |   |  |  |  |
| Output residual voltage |              | Residual voltage below 1V (load current max. 10mA)   |                            |  |   |  |  |  |
| Power voltage           |              | residual voltage below 2V (load current max, 10 ~ 100mA)  DC 12~24V±10% ripple(P-P)max.10%   |                            |  |   |  |  |  |
| Response time           |              | max. 0.5ms   |                            |  |   |  |  |  |
| Ambient temperature     |              | Working:-25 +55 € ¥ Storage -40€ ~+70€   |                            |  |   |  |  |  |
| Ambient humidity        |              | Working:35~85%RH ¥ Storage -35~95%RH   |                            |  |   |  |  |  |
| Protection              |              | Power reverse protection / load short circuit protection / mutual  |                            |  |   |  |  |  |
| Ip level                |              | interference prevention function / output reverse connection protection IEC60529:IP65  |                            |  |   |  |  |  |
| Material                | shell        | Polybutylene terephthalate ¥ Brass Nickel Plated   |                            |  |   |  |  |  |
|                         | display unit | Polyester rubber   |                            |  |   |  |  |  |
|                         | lens         | Polyester rubber   |                            |  |   |  |  |  |

## ■ Input/Output circuit



#### Dimension

