



## Photoelectric sensors Z2, Photoelectric proximity sensor, energetic

ZT2-P4238



**Model Name** > ZT2-P4238  
**Part No.** > 1045493



*Illustration may differ*

#### At a glance

- Sensing distances of 50 mm, 60 mm, 100 mm or 155 mm, which are non-adjustable
- Infrared LED emitter
- Compact, transparent housing with 360° status indication
- M18 front mount and 24-25.4 mm slotted side through holes compatible with competitor devices
- Connection system: angled cable outlet (60°) or M12 or M8 plug connector

#### Your benefits

- Low-cost proximity sensor for standard applications with small sensing distances
- Suitable for applications where the light spot needs to be invisible
- Clear housing provides 360° status indication for simple troubleshooting
- Simple and unique mounting options lower installation costs
- Compatibility with competitor products for easy integration into existing systems



#### Features

|                                  |                                           |
|----------------------------------|-------------------------------------------|
| Sensor/detection principle:      | Photoelectric proximity sensor, energetic |
| Dimensions (W x H x D):          | 13.6 mm x 41.9 mm x 31.7 mm               |
| Housing design (light emission): | Hybrid                                    |
| Thread diameter (housing):       | M18 x 1                                   |
| Sensing range max.:              | 1 mm ... 100 mm <sup>1)</sup>             |
| Sensing range:                   | 1 mm ... 100 mm                           |
| Type of light:                   | Infrared light                            |
| Light source:                    | LED <sup>2)</sup>                         |
| Wave length:                     | 880 nm                                    |
| Light spot size (distance):      | 20 mm (100 mm)                            |

<sup>1)</sup> Object with 90 % reflectance (referred to standard white DIN 5033) <sup>2)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

#### Mechanics/electronics

|                                   |                                   |
|-----------------------------------|-----------------------------------|
| Supply voltage:                   | 10 V DC ... 30 V DC <sup>1)</sup> |
| Power consumption:                | < 20 mA <sup>2)</sup>             |
| Output type:                      | PNP                               |
| Switching mode:                   | Light switching                   |
| Output current I <sub>max</sub> : | 50 mA                             |
| Switching frequency:              | 200 Hz <sup>3)</sup>              |

|                                |                                             |
|--------------------------------|---------------------------------------------|
| Connection type:               | Connector M8, 4-pin                         |
| Circuit protection::           | A, D <sup>4) 5)</sup>                       |
| Protection class:              | III <sup>6)</sup>                           |
| Housing material:              | Glass fiber reinforced ABS plastic, Plastic |
| Enclosure rating:              | IP 67                                       |
| Items supplied:                | Mounting nut M18                            |
| Ambient operating temperature: | -25 °C ... 50 °C                            |
| Ambient storage temperature:   | -40 °C ... 70 °C                            |

1) Limit values 2) Without load 3) With light/dark ratio 1:1 4)  $A = V_S$  connections reverse-polarity protected 5) D = outputs overcurrent and short-circuit protected 6)

Reference voltage 50 V DC

### Dimensional drawing

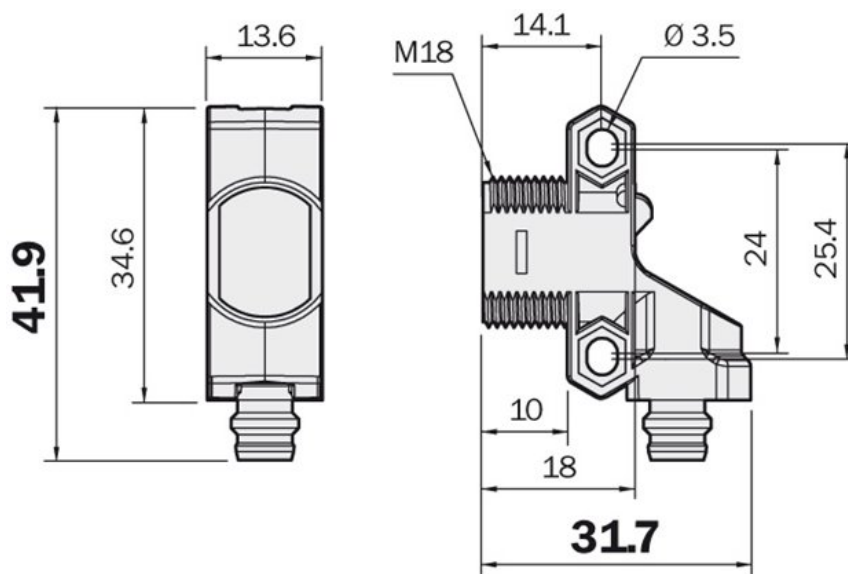


Diagram of a 4-bit bus system with four lines:

- Line 1: brn (brown), labeled  $+ (L+)$
- Line 2: wht (white), labeled not connected
- Line 3: blu (blue), labeled  $- (M)$
- Line 4: blk (black), labeled  $Q$

## A 3D perspective view of a rectangular metal component. The component has a threaded base with a hexagonal nut-like structure. On the right side, there is a multi-pin connector with four pins visible. The component is shown in a light gray color with black outlines.

|   | ①   | ②  | ③  |
|---|-----|----|----|
| ① | 1   | 3  | 6  |
| ② | 100 | 82 | 74 |

Distance in mm (inch)

0 20 (0.79) 40 (1.57) 60 (2.36) 80 (3.15) 100 (3.94)

■ Sensing range ■ Sensing range typ. max.

- ① Sensing range on white, 90 % remission
- ② Sensing range on gray, 18 % remission
- ③ Sensing range on black, 6 % remission

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