



## Photoelectric sensors W280, Photoelectric retro-reflective sensor

WL280-S230



**Model Name** > [WL280-S230](#)  
**Part No.** > [6027484](#)



*Illustration may differ*

#### At a glance

- Visible red light
- Potentiometer for sensitivity control
- Light/dark switching (DC devices)
- Rotatable connector, cable connector or terminal chamber
- Versions for 10 - 30 V DC or 24 - 240 V DC/AC voltage supply
- Stainless steel mounting bracket and P250 reflector are included in delivery
- AC/DC devices are compliant with EN61000-6-3 (electromagnetic interference for "residential, commercial and light-industrial environments")
- UL recognized

#### Your benefits

- Less contamination due to high operating reserves, reducing downtime
- DC and AC/DC devices available in the same housing, allowing electrical flexibility
- Potentiometer adjustment for application-specific operation
- Light/dark switching provides application flexibility
- All necessary mounting and operating accessories are included in delivery, enabling quick and easy setup: since mounting bracket (stainless steel 1.4301) and reflector are included in delivery scope
- Polarizing filter ensures reliable detection, even with shiny targets

**Note: This part is discontinued. Please see the replacement product under "Replacement Products" link. "**



#### Features

|                                  |                                                   |
|----------------------------------|---------------------------------------------------|
| Sensor/detection principle:      | Photoelectric retro-reflective sensor             |
| Dimensions (W x H x D):          | 23.5 mm x 74.5 mm x 63 mm                         |
| Housing design (light emission): | Rectangular                                       |
| Sensing range max.:              | 0.01 m ... 15 m <sup>1)</sup>                     |
| Sensing range::                  | 0.01 m ... 10 m, 0.01 m ... 13 m <sup>2) 3)</sup> |
| Type of light:                   | Visible red light                                 |
| Light source:                    | LED <sup>4)</sup>                                 |
| Angle of dispersion:             | 1.6 °                                             |
| Adjustment:                      | Sensitivity adjustment                            |
| Light spot size (distance):      | 10 m                                              |

1) 3) PL80A 2) P250 4) Average service life of 100,000 h at  $T_A = +25\text{ °C}$

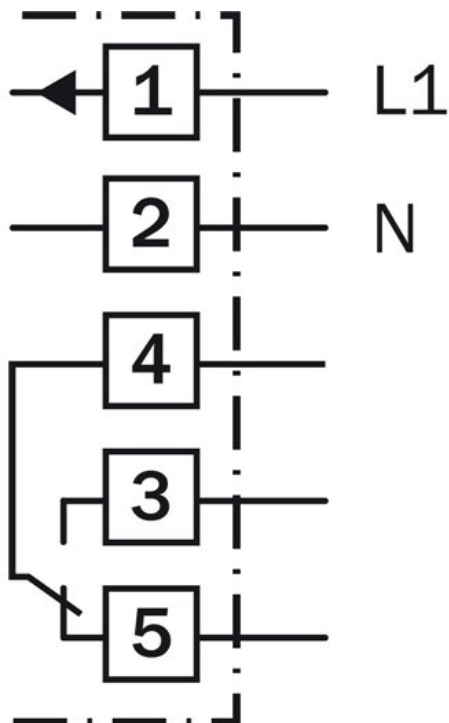
## Mechanics/electronics

|                                        |                                                             |
|----------------------------------------|-------------------------------------------------------------|
| Supply voltage::                       | 24 V AC ... 240 V AC, 24 V DC ... 240 V DC <sup>1) 2)</sup> |
| Power consumption:                     | ≤ 5 VA                                                      |
| Output type:                           | Relay                                                       |
| Output function:                       | Change-over contacts                                        |
| Switching mode:                        | Light switching <sup>3)</sup>                               |
| Output characteristic:                 | Electrically isolated                                       |
| Switching current (switching voltage): | 3 A (240 V AC), 3 A (30 V DC)                               |
| Response time:                         | ≤ 20 ms                                                     |
| Switching frequency:                   | 25 Hz <sup>4)</sup>                                         |
| Connection type:                       | Cable gland                                                 |
| Circuit protection::                   | A, C <sup>5) 6)</sup>                                       |
| Protection class:                      | II <sup>7)</sup>                                            |
| Weight:                                | 150 g                                                       |
| Polarisation filter:                   | ✓                                                           |
| Special device:                        | -                                                           |
| Housing material:                      | ABS, Plastic                                                |
| Optics material:                       | PMMA                                                        |
| Enclosure rating:                      | IP 66                                                       |
| Items supplied:                        | Mounting bracket BEF-W280, Reflector P250                   |
| Usage category:                        | AC-15, DC-13, According to EN 60947-1                       |
| Ambient operating temperature:         | -25 °C ... 55 °C                                            |
| Ambient storage temperature:           | -40 °C ... 70 °C                                            |

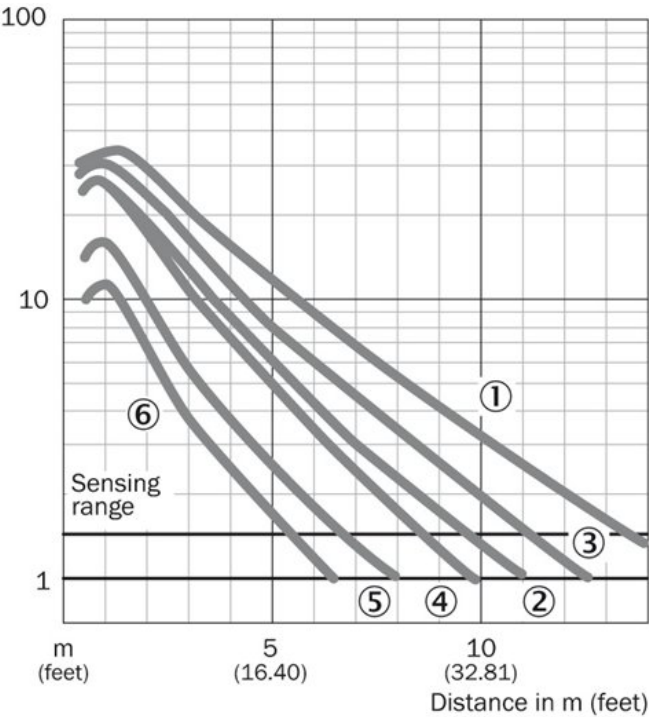
1) 2) ±10 % 3) Provide suitable spark suppression for inductive or capacitive loads 4) With light/dark ratio 1:1 5) A = V<sub>S</sub> connections reverse-polarity protected 6) C = interference suppression 7) Rated voltage 250 V AC/DC



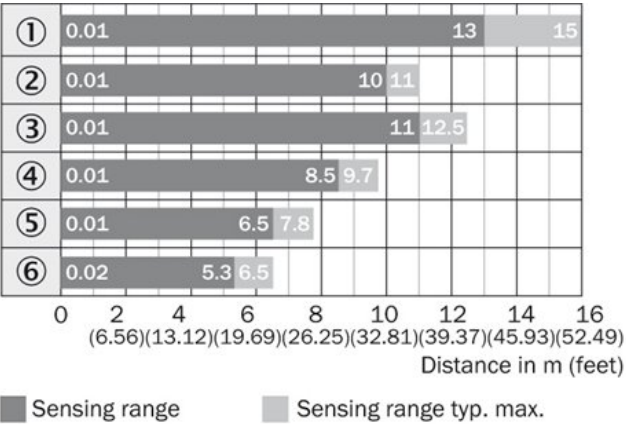
Connection diagram



Characteristic curve



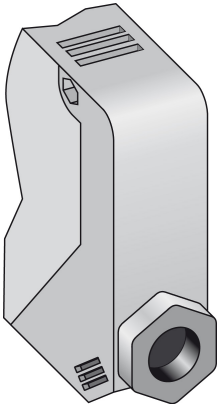
Sensing range diagram



Reflector type

- ① PL80A
- ② P250
- ③ PL50A/PL40A
- ④ PL30A/PL31A
- ⑤ PL20A
- ⑥ Reflective tape Diamond Grade

Connection type



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