



Photoelectric sensors
W280L-2 Long Range, Photoelectric proximity
sensor, Background suppression

WLT280L-2P2536



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Background suppression

Model Name > [WLT280L-2P2536](#)
Part No. > [6048069](#)



Illustration may differ

At a glance

- WLT280L-2: Sensing distance up to 18 m with reflector P250
- Visible red Class 1 laser
- 2 x switching outputs and light/dark switch
- Disable laser by wire

Your benefits

- One sensor with two outputs and two status LEDs improves application flexibility and reduces the number of sensors needed
- Quick and easy commissioning with sensing range adjustment potentiometers and status LEDs - one for each output
- Quick and easy alignment with a red Class 1 laser
- Rotatable connector and light/dark switch for mounting and installation flexibility



Features

| | |
|----------------------------------|--------------------------------------------------------|
| Sensor/detection principle: | Photoelectric proximity sensor, Background suppression |
| Dimensions (W x H x D): | 23.5 mm x 76 mm x 55.8 mm |
| Housing design (light emission): | Rectangular |
| Sensing range max.: | 200 mm ... 18,000 mm ¹⁾ |
| Sensing range: | 200 mm ... 18,000 mm |
| Type of light: | Visible red light |
| Light source: | Laser ²⁾ |
| Laser class: | 1, 1 (EN 60825-1:2008-5, IEC 60825-1:2007-03) |
| Adjustment: | Potentiometer |
| Light spot size (distance): | Ø 50 mm (18 m) |

¹⁾ Reflector P250, PL80A ²⁾ Average service life of 100,000 h at T_A = +25 °C

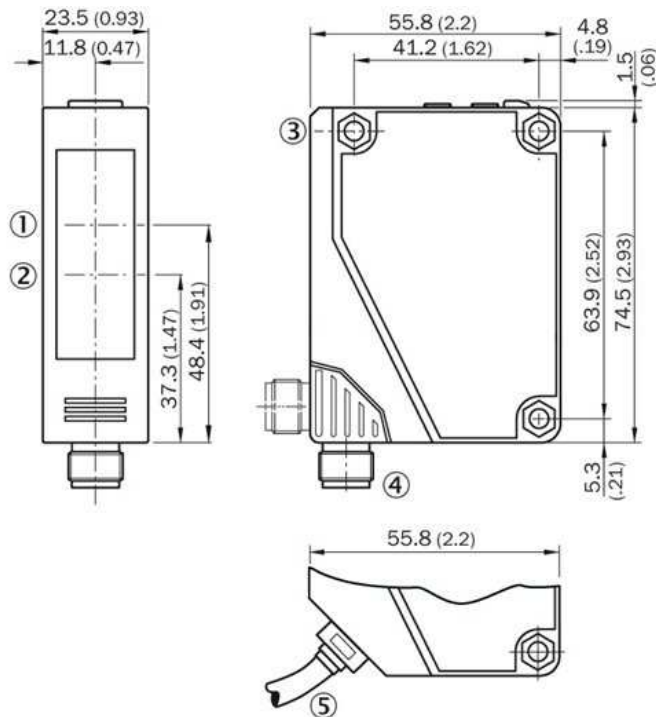
Mechanics/electronics

| | |
|------------------------------------|-----------------------------------------|
| Supply voltage: | 10 V DC ... 30 V DC ¹⁾ |
| Residual ripple: | ≤ 3 Vpp ²⁾ |
| Power consumption: | ≤ 70 mA ³⁾ |
| Output type: | 2 x PNP, open collector |
| Switching mode: | Light/dark switching |
| Switching mode selector: | Selectable via light/dark rotary switch |
| Output current I _{max.} : | ≤ 100 mA |

| | |
|--------------------------------|-------------------------------------------|
| Response time: | $\leq 2 \text{ ms}$ ⁴⁾ |
| Switching frequency: | $\pm 250 \text{ Hz}$ ⁵⁾ |
| Electrical connection: | Connector M12, 5-pin |
| Circuit protection::: | A, B, C, D ^{6) 7) 8) 9)} |
| Protection class: | III |
| Weight: | 120 g |
| Optics material: | PMMA |
| Enclosure rating: | IP 67 |
| Items supplied: | Mounting bracket BEF-W280, Reflector P250 |
| EMC: | EN 60947-5-2 |
| Ambient temperature operation: | -10 °C ... +50 °C |
| Ambient storage temperature: | -40 °C ... +70 °C |
| UL File No.: | NRKH2.E300503 & NRKH8.E300503 |
| Housing material: | ABS, Plastic |

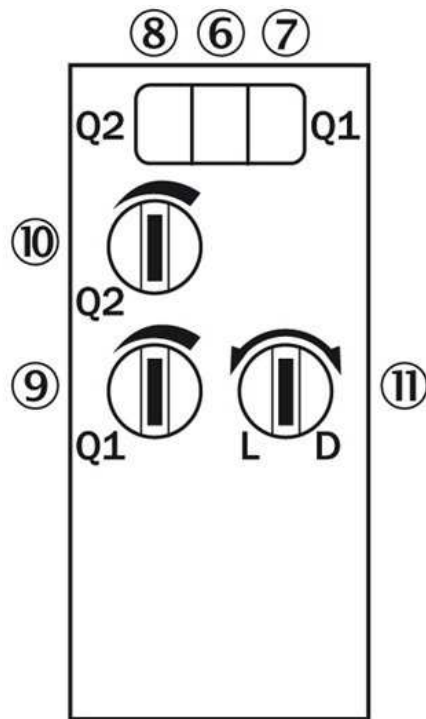
1) Limit values, operation in short-circuit protected network max. 8 A 2) May not exceed or fall short of V_S tolerances 3) Without load 4) Signal transit time with resistive load
⁵⁾ With light/dark ratio 1:1 ⁶⁾ A = V_S connections reverse-polarity protected ⁷⁾ B = output reverse-polarity protected ⁸⁾ C = interference suppression ⁹⁾ D = outputs overcurrent and short-circuit protected

Dimensional drawing



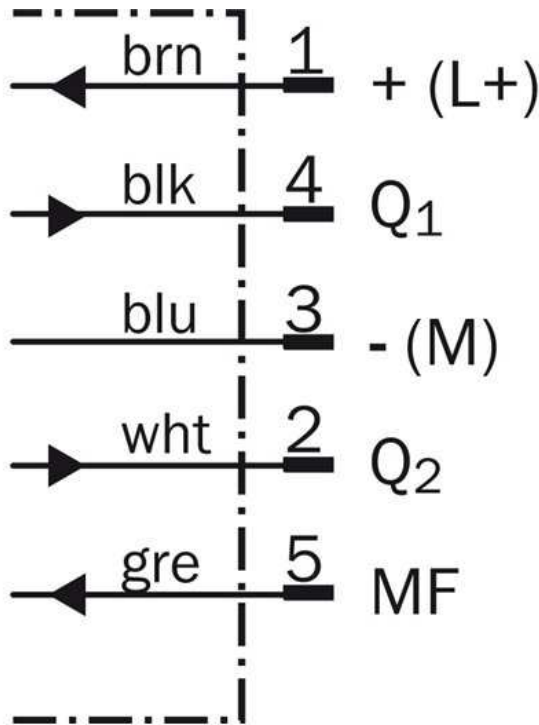
- |1| Center of optical axis, receiver
- |2| Center of optical axis, sender
- |3| Mounting hole, $\varnothing 4.3 \text{ mm}$
- |4| Connector M12, 5-pin, rotatable by 90°
- |5| Cable, 2 m, 5-wire, $\varnothing 3.8 \text{ mm}$

Adjustments possible

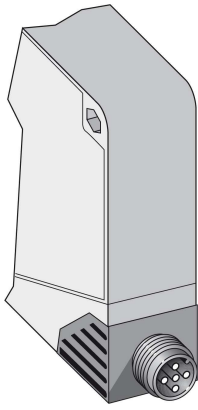


- |6| LED indicator green: Stability indicator
- |7| Status indicator LED, yellow: Status of received light beam (switching output 1)
- |8| Status indicator LED, yellow: Status of received light beam (switching output 2)
- |9| Sensing range adjustment: potentiometer for switching output 1
- |10| Sensing range adjustment: potentiometer for switching output 2
- |11| Light/dark selector

Connection diagram



Connection type



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