



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

WLT280L-2N1536



Photoelectric sensors

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

Model Name > [WLT280L-2N1536](#)
Part No. > [6048072](#)



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 (EN 60825-1:2008-5, IEC 60825-1:2007-03)
Light spot diameter (distance):	Ø 50 mm (18 m)
Adjustment of operating distance:	Potentiometer

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

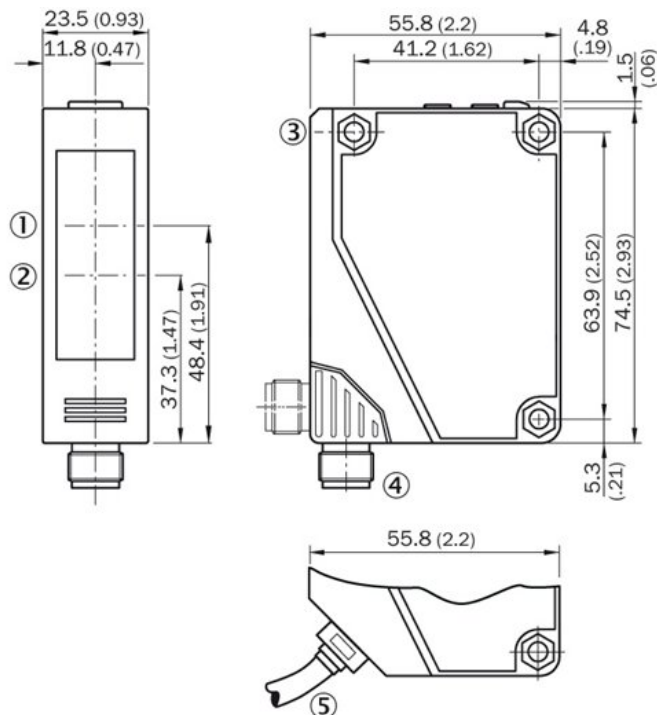
Mechanics/electronics

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

Response time:	$\leq 2 \text{ ms}$ ⁴⁾
Switching frequency:	250 Hz ⁵⁾
Connection type:	Cable 2 m, 5-pin, 2 m ⁶⁾
Cable material:	PVC
Conductor cross-section:	0.18 mm ²
Cable diameter:	Ø 3.8 mm
Circuit protection:::	A, B, C, D ⁷⁾ 8) 9) 10)
Protection class:	III
Weight:	120 g
Housing material:	ABS
Optics material:	PMMA
Enclosure rating:	IP 67
Items supplied:	Mounting bracket BEF-W280
EMC:	EN 60947-5-2 ¹¹⁾
Ambient operating temperature:	-10 °C ... 50 °C
Ambient storage temperature:	-40 °C ... 70 °C
Switching mode characteristic:	Open collector

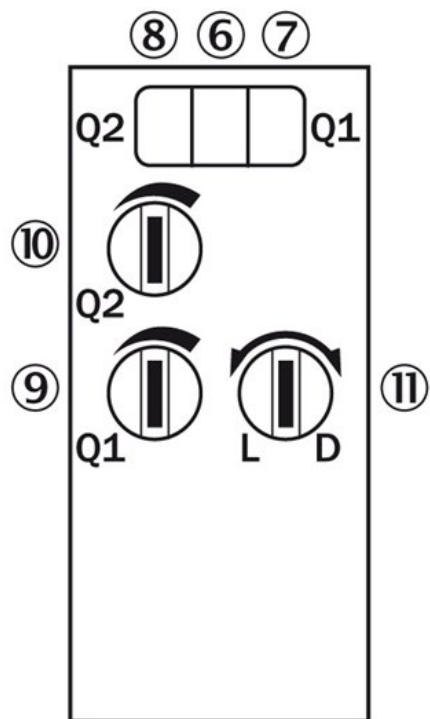
¹⁾ Limit values, operation in short-circuit protected network max. 8 A ²⁾ May not exceed or fall short of V_S tolerances ³⁾ Without load ⁴⁾ Signal transit time with resistive load ⁵⁾ With light/dark ratio 1:1 ⁶⁾ Do not bend below 0 °C ⁷⁾ A = V_S connections reverse-polarity protected ⁸⁾ B = output reverse-polarity protected ⁹⁾ C = interference suppression ¹⁰⁾ D = outputs overcurrent and short-circuit protected ¹¹⁾ The devices meet the interference suppression requirements for industrial use (interference suppression class A). When used in residential areas it can cause interference.

Dimensional drawing



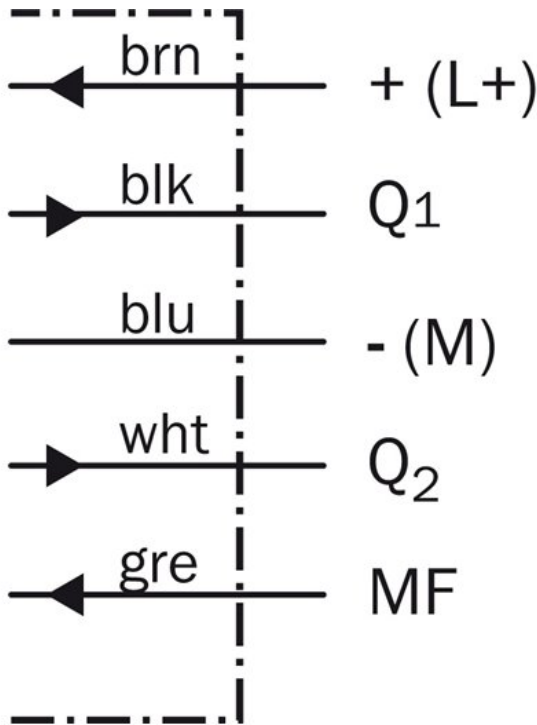
- [1] Center of optical axis, receiver
- [2] Center of optical axis, sender
- [3] Mounting hole, Ø 4.3 mm
- [4] Connector M12, 5-pin , rotatable by 90°
- [5] Cable, 2 m, 5-wire, Ø 3,8 mm

Adjustments possible

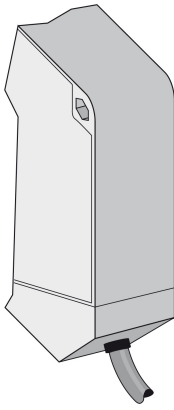


- |6| LED indicator green: Stability indicator
- |7| Status indicator LED, yellow: Status of received light beam (switching output 1)
- |8| Status indicator LED, yellow: Status of received light beam (switching output 2)
- |9| Sensing range adjustment: potentiometer for switching output 1
- |10| Sensing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

Connection diagram



Connection type



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