



WLT280L-2P2536

W280L-2 Long Range

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
WLT280L-2P2536	6048069

Other models and accessories → www.sick.com/W280L-2_Long_Range

Detailed technical data

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⁾
Light spot size (distance)	Ø 50 mm (18 m)
Laser class	1 (EN 60825-1:2008-5, IEC 60825-1:2007-03)
Adjustment	PotentiometerPotentiometer

¹⁾ Reflector P250, PL80A.

²⁾ Average service life: 100,000 h at T_U = +25 °C.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC ¹⁾
Ripple	≤ 3 V _{pp} ²⁾
Power consumption	≤ 70 mA ³⁾
Output type	PNP, Open Collector

¹⁾ Limit values when operated in short-circuit protected network: max. 8 A.

²⁾ May not exceed or fall below U_V 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.

Switching mode	Light/dark switching
Switching mode selector	Selectable via light/dark rotary switch
Output current I_{\max}	$\leq 100 \text{ mA}$
Response time	$\leq 2 \text{ ms}^{4)}$
Switching frequency	$\pm 250 \text{ Hz}^{5)}$
Connection type	Male connector M12, 5-pin
Circuit protection	A ⁶⁾ B ⁷⁾ C ⁸⁾ D ⁹⁾
Protection class	III
Weight	120 g
Housing material	ABSplastic
Optics material	Plastic, PMMA
Enclosure rating	IP 67
Items supplied	Mounting bracket BEF-W280, Reflector P250
EMC	EN 60947-5-2
Ambient operating temperature	$-10 \text{ }^{\circ}\text{C} \dots +50 \text{ }^{\circ}\text{C}$
Ambient storage temperature	$-40 \text{ }^{\circ}\text{C} \dots +70 \text{ }^{\circ}\text{C}$
UL File No.	NRKH2.E300503 & NRKH8.E300503

¹⁾ Limit values when operated in short-circuit protected network: max. 8 A.

²⁾ May not exceed or fall below U_V 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.

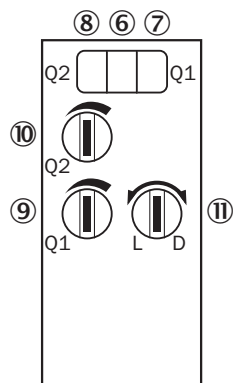
⁹⁾ D = outputs overcurrent and short-circuit protected.

Classifications

ECI@ss 5.0	27270902
ECI@ss 5.1.4	27270902
ECI@ss 6.0	27270902
ECI@ss 6.2	27270902
ECI@ss 7.0	27270902
ECI@ss 8.0	27270902
ECI@ss 8.1	27270902
ECI@ss 9.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
UNSPSC 16.0901	39121528

Adjustments possible

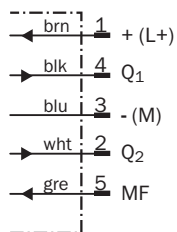
WxT280L-2xxxx6



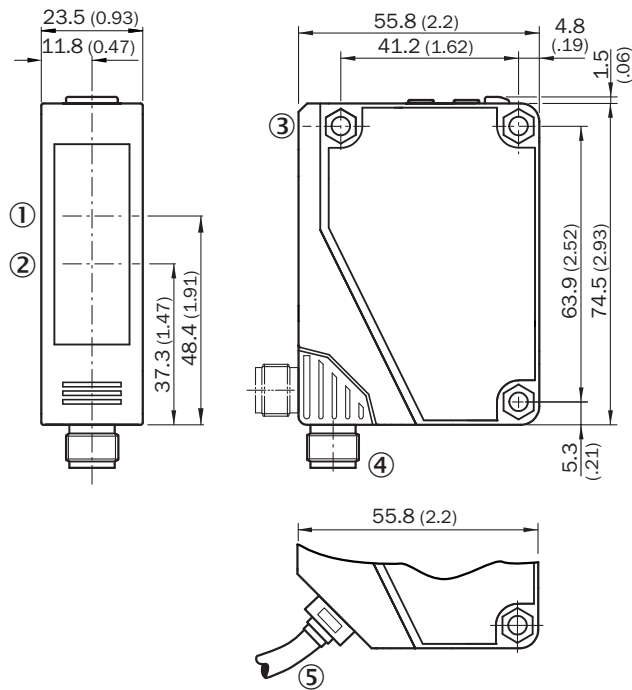
- ⑥ LED indicator green: Stability indicator
- ⑦ Status indicator LED, yellow: Status of received light beam (switching output 1)
- ⑧ Status indicator LED, yellow: Status of received light beam (switching output 2)
- ⑨ Sensing range adjustment: potentiometer for switching output 1
- ⑩ Sensing range adjustment: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

Connection diagram

Cd-211






Dimensional drawing (Dimensions in mm (inch))



Recommended accessories

Other models and accessories → www.sick.com/W280L-2_Long_Range

	Brief description	Type	Part no.
Universal bar clamp systems			
	Plate N04 for universal clamp, steel, Zinc plated steel (sheet), Zinc die cast (clamping bracket), Universal clamp (5322626), mounting hardware	BEF-KHS-N04	2051610
Mounting brackets and mounting plates			
	Mounting bracket, Stainless steel V2A (1.4301), mounting hardware included	BEF-W280	5313885
Plug connectors and cables			
	Head A: female connector, M12, 5-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1205-G02M	6008899

	Brief description	Type	Part no.
	Head A: female connector, M12, 5-pin, straight Head B: cable Cable: PVC, unshielded, 5 m	DOL-1205-G05M	6009868
	Head A: female connector, M12, 5-pin, straight Head B: cable Cable: PVC, unshielded, 10 m	DOL-1205-G10M	6010544
	Head A: female connector, M12, 5-pin, straight Head B: cable Cable: PVC, unshielded, 15 m	DOL-1205-G15M	6029215
Reflectors			
	Rectangular, screw connection, 47 mm x 47 mm, PMMA/ABS, Screw-on, 2 hole mounting	P250	5304812
	Rectangular, screw connection, 80 mm x 80 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL80A	1003865
	Fine triple, screw connection, suitable for laser sensors, 47 mm x 47 mm, PMMA/ABS, Screw-on, 2 hole mounting	P250F	5308843
	Fine triple, self-adhesive, suitable for laser sensors, Ø 23 mm, PMMA/ABS, self-adhesive	P25F-1	5319385
	Reflector with microprismatic reflex tape REF-AC1000, suitable for laser sensors, see alignment note, 23 mm x 23 mm, PMMA/ABS, Screw-on, 2 hole mounting	P41F	5315128
	Fine triple, screw connection, suitable for laser sensors, 18 mm x 18 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL10F	5311210
	Fine triple, screw connection, suitable for laser sensors, 38 mm x 16 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL20F	5308844
	Fine triple, screw connection, suitable for laser sensors, 56 mm x 28 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL30F	5326523
	Fine triple, screw connection, suitable for laser sensors, 76 mm x 45 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL81-1F	5325060
	Suitable for laser sensors, self-adhesive, cut, see alignment note, 56.3 mm x 56.3 mm, self-adhesive	REF-AC1000-56	4063030

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com