WL27-302630S12
W27-3

COMPACT PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

WL27-302630S12 | W27-3
COMPACT PHOTOELECTRIC SENSORS

Illustration may differ

Ordering information

Type	Part no.
WL27-302630S12	1045988

Other models and accessories ➜ www.sick.com/W27-3

Detailed technical data

Features

Functional principle	Photoelectric retro-reflective sensor
Functional principle detail	Dual lens
Dimensions (W x H x D)	24.6 mm x 80.6 mm x 54 mm
Housing design (light emission)	Rectangular
Sensing range max.	0.1 m ... 1.8 m [1]
Sensing range	0.1 mm ... 700 mm [1]
Focus	Approx. 1.5 °
Type of light	Visible red light
Light source	LED [2]
Light spot size (distance)	Ø 10 mm (400 m)
Angle of dispersion	Approx. 1.5 °
Wave length	660 nm
Adjustment	None
Special features	With semiconductor relay 24 VDC

[1] Reflector PL30A .

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

Mechanics/electronics

Supply voltage	10 V DC … 30 V DC [1]
Ripple	< 5 V_{pp} [2]
Current consumption	45 mA [3]
Switching output	Relay
Switching mode	Light switching
Switching current (switching voltage)	0.1 A (30 V DC) 0.1 A (20 V AC)
Response time	≤ 3 ms [4]
Switching frequency	200 Hz [5]
Connection type	Connector Q6, 6-pin, AC/UC-coding
Circuit protection	A [6] C [7]
Protection class	II [8]
Weight	120 g
Polarisation filter	✓
Special device	✓
Housing material	Plastic, ABS
Optics material	Plastic, PMMA
Enclosure rating	IP65
Ambient operating temperature	–40 °C … +60 °C
Ambient temperature, storage	–40 °C … +75 °C
UL File No.	NRKH.E181493 & NRKH7.E181493

[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] C = interference suppression.

[8] Reference voltage: 50 V DC.

Safety-related parameters

$MTTF_D$	1,147 years
DC_{avg}	0 %

Classifications

eCl@ss 5.0	27270902
eCl@ss 5.1.4	27270902
eCl@ss 6.0	27270902
eCl@ss 6.2	27270902
eCl@ss 7.0	27270902
eCl@ss 8.0	27270902
eCl@ss 8.1	27270902

eCl@ss 9.0	27270902
eCl@ss 10.0	27270902
eCl@ss 11.0	27270902
eCl@ss 12.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
ETIM 7.0	EC002717
ETIM 8.0	EC002717
UNSPSC 16.0901	39121528

Connection type
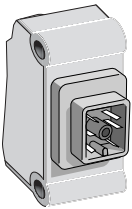
Connection diagram

Cd-183

BN	1	+ (L+)
BU	2	- (M)
GY	3	
BK	4	
WH	5	
	6	not connected
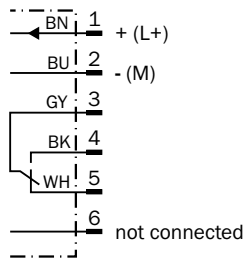
Dimensional drawing (Dimensions in mm (inch))

WL27-3, WSE27-3
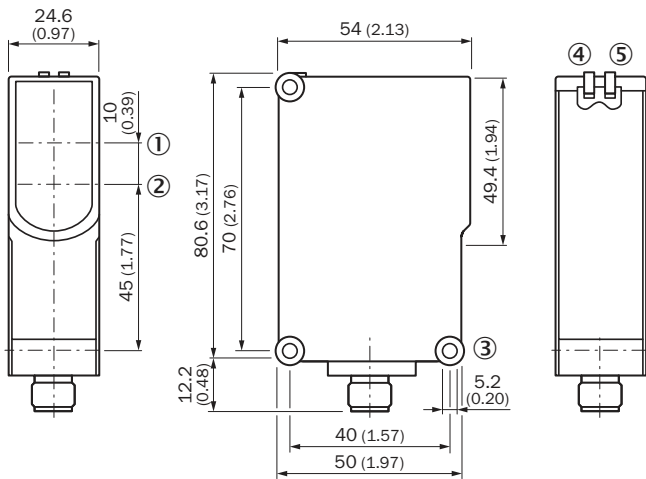
① Optical axis, sender
② Optical axis, receiver
③ Mounting hole ø 5.2 mm
④ LED indicator green: Supply voltage active
⑤ LED indicator yellow: Status of received light beam

Recommended accessories

Other models and accessories ➜ www.sick.com/W27-3

	Brief description	Type	Part no.
Device protection (mechanical)			
	Protective housing for W26, W27-3 and mounting rods with diameter 12 mm ... 20 mm, Zinc plated steel (protective housing), Zinc die cast (clamping bracket), Universal clamp BEF-KHS-KH1 (2022726), mounting hardware	BEF-SG-W27	2039601
Mounting brackets and plates			
	Universal mounting bracket for reflectors, steel, zinc coated	BEF-WN-REFX	2064574
Reflectors			
	Rectangular, screw connection, 84 mm x 84 mm, PMMA/ABS, Screw-on, 2 hole mounting	PL80A	1003865

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."

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