WL23-2P2430S01

W23-2

SICK
Sensor Intelligence.

COMPACT PHOTOELECTRIC SENSORS

WL23-2P2430S01 | W23-2

COMPACT PHOTOELECTRIC SENSORS

Ordering information

Type	Part no.
WL23-2P2430S01	1041159

Other models and accessories ➜ www.sick.com/W23-2

Illustration may differ

Detailed technical data

Features

Sensor/ detection principle	Photoelectric retro-reflective sensor, 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 ... 4 m [1]
Sensing range	0.3 m ... 4 m [1]
Type of light	Visible red light
Light source	LED [2]
Light spot size (distance)	Ø 45 mm (2.7 m)
Angle of dispersion	1.5°
Wave length	660 nm
Adjustment	None
Special applications	Detecting objects wrapped in film
Special features	Reliable detection of stretch foil wrapped pallets

[1] Reflector 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	$\leq$ 5 V_{pp} [2]
Power consumption	35 mA [3]
Switching output	PNP
Output function	Complementary
Switching mode	Light/dark switching
Signal voltage PNP HIGH/LOW	Approx. V_S – 2.5 V / 0 V
Output current I$_{max.}$	$\leq$ 100 mA
Response time	$\leq$ 3.5 ms [4]
Switching frequency	150 Hz [5]
Connection type	Male connector M12, 4-pin
Circuit protection	A [6] C [7] D [8]
Protection class	II [9]
Weight	+ 100 g
Polarisation filter	✓
Special device	✓
Housing material	Plastic, ABS
Optics material	Plastic, PMMA
Enclosure rating	IP67
Ambient operating temperature	–25 °C … +60 °C
Ambient storage temperature	–40 °C … +70 °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] D = outputs overcurrent and short-circuit protected.
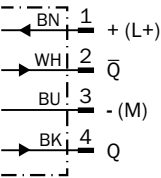
[9] Reference voltage: 50 V DC.

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

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ETIM 5.0	EC002717
ETIM 6.0	EC002717
UNSPSC 16.0901	39121528

Connection diagram

Cd-083

BN 1	+ (L+)
WH 2	$\overline{Q}$
BU 3	- (M)
BK 4	Q

Dimensional drawing (Dimensions in mm (inch))

WL23-2
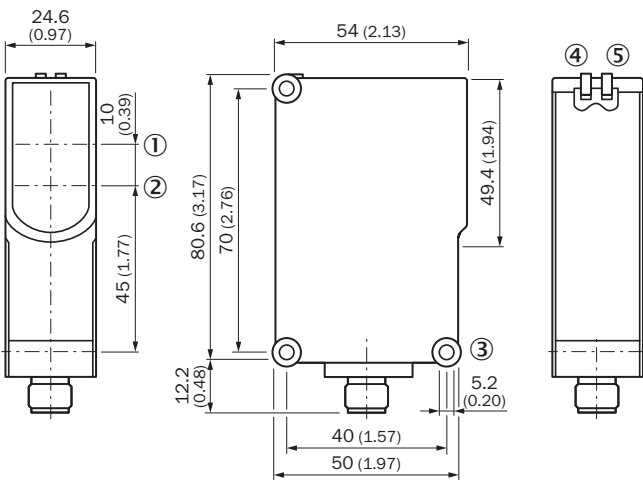
① Optical axis, sender
② Optical axis, receiver
③ Mounting hole ø 5.2 mm
④ LED indicator green: Supply voltage active
⑤ LED indicator yellow: Status of received light beam

Recommended accessories

Other models and accessories ➜ www.sick.com/W23-2

Brief description	Type	Part no.
Mounting brackets and plates		
Universal mounting bracket for reflectors, steel, zinc coated	BEF-WN-REFX	2064574

	Brief description	Type	Part no.
	Mounting bracket, steel, zinc coated, mounting hardware included	BEF-WN-W23	2019085
Plug connectors and cables			
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF2A14-050VB3XLEAX	2096235
	Head A: male connector, M12, 4-pin, straight Head B: - Cable: unshielded	STE-1204-G	6009932
Reflectors			
	Rectangular, screw connection, 47 mm x 47 mm, PMMA/ABS, Screw-on, 2 hole mounting	P250	5304812

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:

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