



Photoelectric sensors
W12-3, Fotoprzełącznik refleksyjny,
autocollimation

WL12-3N2431



Nazwa modelu > **WL12-3N2431**

Numer części > **1041440**



At a glance

- Retro-reflective with autocollimation principle
- Rugged housing designed to withstands harsh environments
- PinPoint LED technology with highly visible light spot
- Rugged die-cast zinc housing, optional Teflon® coating
- Dovetail mounting - mounting holes and oblong holes
- Highly visible status LEDs
- Sensing range adjustment via potentiometer

Your benefits

High immunity to ambient light and crosstalk ensures fewer false readings and less downtime

Quick and easy setup due to highly visible PinPoint LED light spot

Highly visible status LEDs simplify sensitivity adjustments and reduce installation time

Rugged metal housing (optional Teflon® coating available) requires fewer maintenance costs due to its resistance to high-pressure cleaning

Increased reliability in harsh wash down environments

Easy installation using SICK accessories



Cechy

Wymiary (Szer. x Wys. x Głęb.):	15,6 mm x 48,5 mm x 42 mm
Maks. strefa działania:	0 m ... 7 m ¹⁾
Sensing range:	0 m ... 5 m ²⁾
Housing desig (light emission):	Prostopadłościenna
Nadajnik światła:	LED ³⁾
Rodzaj światła:	widzialne światło czerwone
Długość fali:	640 nm
Nastawienie czułości:	Potencjometr, 5 obrotów
Zasada działania czujnika/Sposób detekcji:	Fotoprzełącznik refleksyjny, autocollimation
Light spot (distance):	100 mm (3 m)

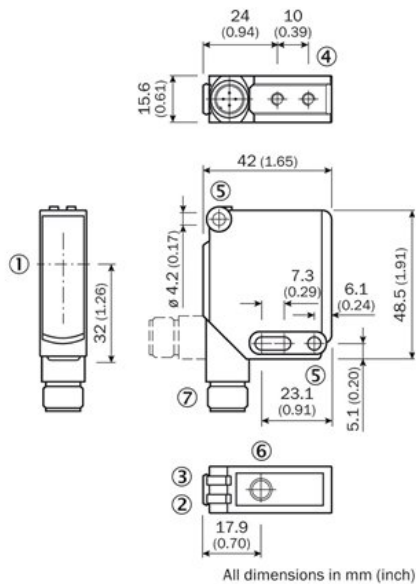
^{1) 2)} PL80A ³⁾ Average service life 100,000 h at Ta = +25 °C

Mechanika/elektronika

Rodzaj zabezpieczenia:	IP 66 IP 67 IP 69K
Napięcie zasilania:	10 V DC ... 30 V DC ¹⁾
Tętnienia resztkowe:	$\leq 5 V_{SS}$ ²⁾
Pobór prądu:	$\leq 40 \text{ mA}$ ³⁾
Wyjście przełączające:	NPN, przełączanie jasno/ciemno, wybierane, Komplementarne
Output current I _{max} :	100 mA
Czas reakcji:	$\leq 330 \mu\text{s}$ ⁴⁾
Switching frequency:	1.500 Hz ⁵⁾
Sposób przyłączenia:	Connector M12, 4-pin
Klasa ochronności:	II
Układ zabezpieczenia:::	A C ⁶⁾ 7) 8) D
Ciężar:	120 g
Ambient temperature, operation:	-40 °C ... 60 °C
Ambient temperature, storage:	-40 °C ... 75 °C
Filtr polaryzacyjny:	✓
Napięcie sygnału NPN HIGH/LOW:	approx. $V_S / < 2.5 \text{ V}$
Special device:	-
Kąt promieniowania:	Ca. 1,5 °
UL File-No.:	UL No. NRKH.E181493 & cUL No. NRKH7.E181493

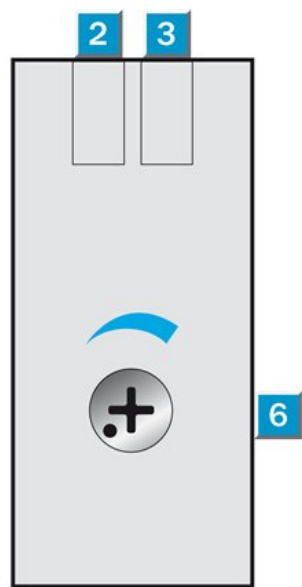
¹⁾ Limit values, operation in short-circuit protected network max. 8 A ²⁾ May not exceed or fall short of V_S ³⁾ Without load ⁴⁾ Signal transit time with resistive load ⁵⁾
 With light/dark ratio 1:1 ⁶⁾ A = V_S connections reverse-polarity protected ⁷⁾ C = interference suppression ⁸⁾ D = outputs overcurrent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

Dimensional drawing



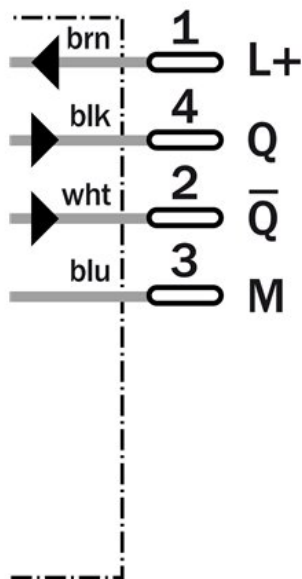
- [1] Optical axis, sender and receiver
- [2] LED indicator yellow: Light received
- [3] LED indicator, green: power on, teach-in mode I, LED indicator, blue: teach-in mode II
- [4] M4 threaded mounting hole, 4 mm deep
- [5] Mounting hole, Ø 4.2 mm
- [6] Single-teach-in button, function 1: teach-in sensitivity on reflector, function 2: change operation/teach-in mode
- [7] M12 plug, 5-pin

Einstell-Möglichkeiten

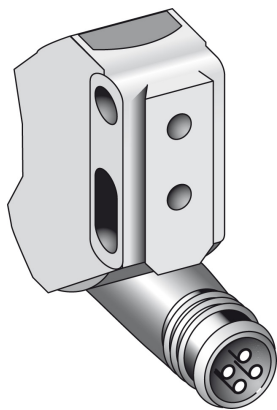


- |4| Status indicator LED green: supply voltage active
- |5| Status indicator LED, yellow: Status of received light beam
- |8| Scanning distance adjustment, Poti

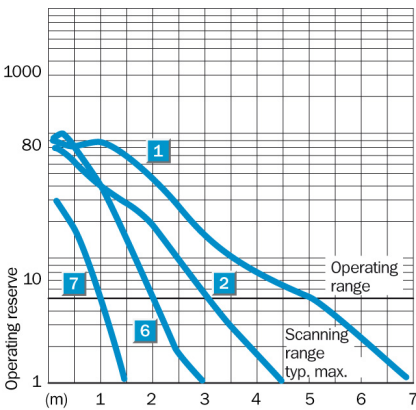
Connection diagram



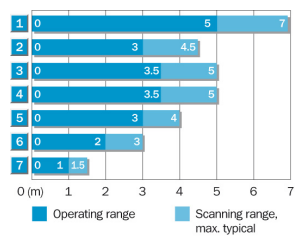
Connection type



Characteristic curve



Sensing range diagram



Reflector type	Operating range
1 PL 80 A	0 ... 5.0 m
2 C 110	0 ... 3.0 m
3 PL 50 A	0 ... 3.5 m
4 PL 40 A	0 ... 3.5 m
5 PL 30 A	0 ... 3.0 m
6 PL 20 A	0 ... 2.0 m
7 Reflective tape	0 ... 1.0 m

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