



DATA SHEET

WLL24-2X430

WLL24
Fiber-optic sensors

SICK

Sensor Intelligence



Illustration may differ

FIBER-OPTIC SENSORS

WLL24-2X430

ORDERING INFORMATION

Type	part no.
WLL24-2X430	1026039

Further device versions and accessories at www.sick.com/WLL24



DETAILED TECHNICAL DATA

FEATURES

Device type	Fiber-optic amplifier
Device type detail	Stand-alone
Functional principle detail	Depending on the optical fiber cable used
Sensing range max.	Depending on the optical fiber cable used
Emitted beam	Light source LED Type of light Visible red light
Key LED figures	Normative reference EN 62471:2008-09 IEC 62471:2006, modified LED risk group marking Free group Wave length 660 nm Average service life 100,000 h at T _a = +25 °C
Display	LED yellow Status of digital output
Special applications	Explosive areas

SAFETY-RELATED PARAMETERS

MTTF _D	257 years
DC _{avg}	0 %
T _M (mission time)	20 years

ELECTRONICS

Supply voltage U_B	5 V DC ... 15.5 V DC ¹⁾
Ripple	$\leq 0.4 \text{ V}_{pp}$ ²⁾
Input voltage U_i max.	15.5 V ³⁾
Input power P_i max.	100 mW ³⁾
Input current I_i max.	53 mA ³⁾
Internal capacitance C_i max.	80 nF ³⁾
Internal inductance L_i max.	0 μH ³⁾
Protection class	II
Digital output	
Number	1
Type	NAMUR
Switching mode	Light switching
Circuit protection outputs	Reverse polarity protected
Response time	$\leq 10 \text{ ms}$
Switching frequency	50 Hz ⁴⁾

¹⁾ Limit values, supply with switching amplifier EN2Ex (internal resistor approx. 1 kOhm).

²⁾ May not fall below or exceed U_i tolerances.

³⁾ For connection to a separately certified intrinsically safe circuit only.

⁴⁾ With light/dark ratio 1:1.

MECHANICS

Housing	Rectangular
Dimensions (W x H x D)	27 mm x 87.5 mm x 74.7 mm
Connection	Male connector M12, 4-pin ¹⁾
Material	
Housing	Metal, zinc diecast
Weight	330 g

¹⁾ Connection rotatable by 90°.

AMBIENT DATA

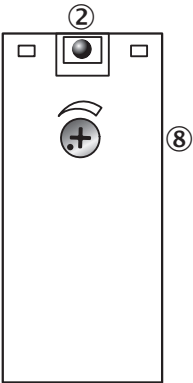
Enclosure rating	IP65 (EN 60529)
Type approval certificate	PTB 08 ATEX 2029
Certificate (IECEX)	IECEX PTB 14.0031
ATEX marking	ATEX II 2G Ex ia op is IIC T4 Gb according to directive 2014/34/EU
Ex area category	2G
Ambient operating temperature	-20 °C ... +60 °C
Ambient temperature, storage	-25 °C ... +70 °C

CERTIFICATES

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
CCC certificate	✓

ATEX certificate	✓
IECEx certificate	✓
Photobiological safety (DIN EN 62471) certificate	✓

ADJUSTMENTS

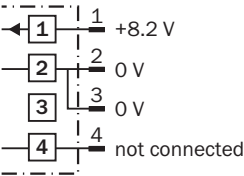


- ② LED signal strength indicator
- ⑧ sensitivity control

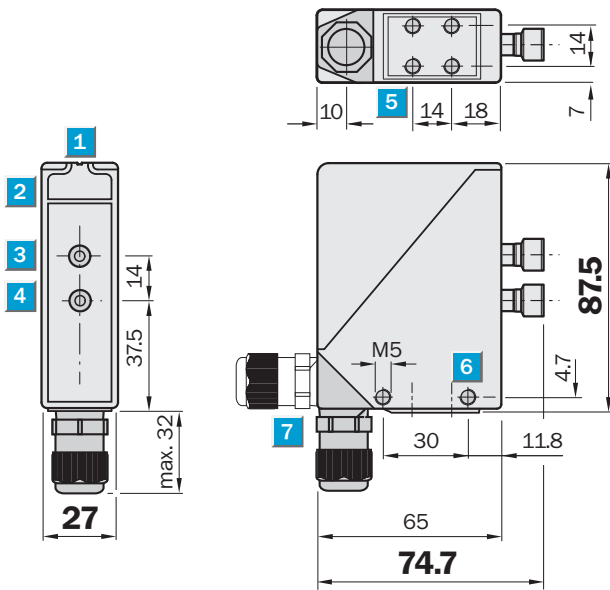
CONNECTION TYPE



CONNECTION DIAGRAM CD-122



DIMENSIONAL DRAWING



Dimensions in mm (inch)

- ① Alignment sight
- ② LED signal strength indicator
- ③ Center of optical axis, sender
- ④ Center of optical axis, receiver
- ⑤ M5 threaded mounting hole, 6 mm deep
- ⑥ M5 threaded mounting hole, through-hole
- ⑦ M16 screw fixing and plug rotatable by 90°

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/1026039



SICK AG
WALDKIRCH
GERMANY
SICK.COM

SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

SICK
Sensor Intelligence