



## Photoelectric sensors W27-3, Through-beam photoelectric sensor

WSE27-3P2410S03



**Model Name** > **WSE27-3P2410S03**  
**Part No.** > **1054544**



*Illustration may differ*

#### At a glance

- Long sensing range with a high operating reserve
- Quick alignment with red emitter
- Resistant to environmental noise such as ambient light
- Optional alarm output, front screen heating, test input, time delays, and universal AC/DC voltage
- Operating temperature: -40 °C - +60 °C
- UL approval

#### Your benefits

- Less contamination due to high operating reserves, reducing downtime
- Optional features, such as time delays, enhance functionality when needed.
- Resistant to vibrations, reducing downtime
- Reliable operation in harsh environments with temperatures as low as -40 °C
- Durable housing with reinforced mounting holes withstands harsh conditions



#### Features

Sensor/detection principle:	Through-beam photoelectric sensor
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 m ... 45 m
Sensing range:	0 m ... 35 m
Type of light:	Infrared light
Light source:	LED <sup>1)</sup>
Wave length:	880 nm
Angle of dispersion:	Ca. 6 °
Special features:	Maximum sensing range 45 m, Switching frequency 300 Hz
Light spot size (distance):	Ø 3.7 m (25 m)

<sup>1)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

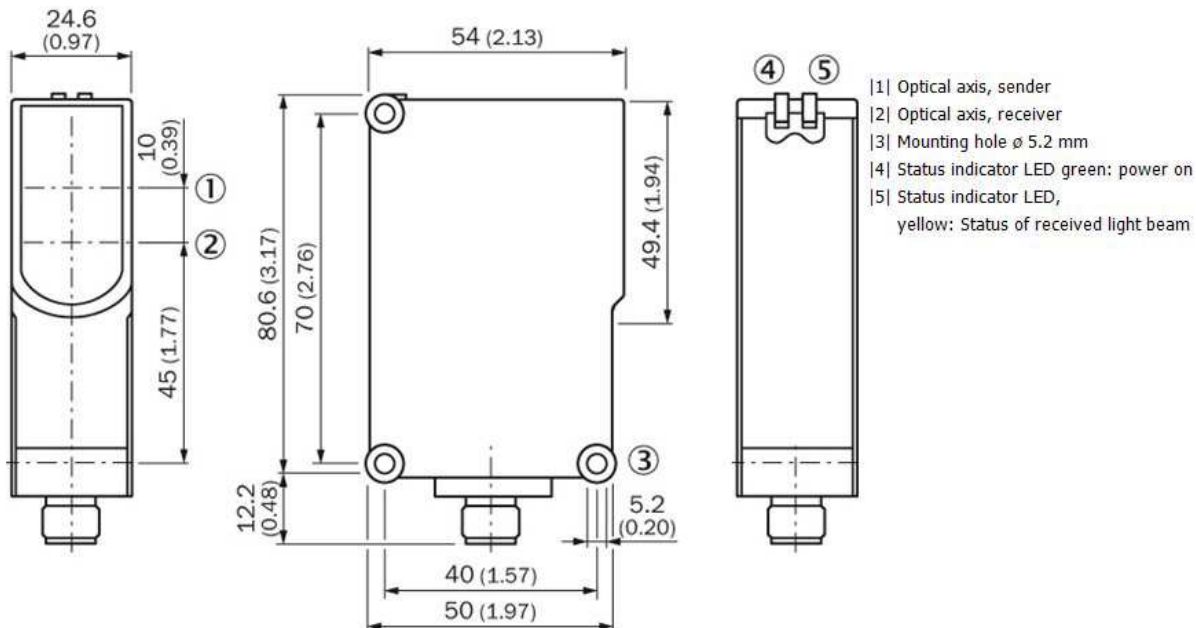
#### Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC <sup>1)</sup>
Power consumption, sender:	45 mA <sup>2)</sup>
Power consumption, receiver:	20 mA <sup>3)</sup>
Output type:	PNP
Output function:	Complementary

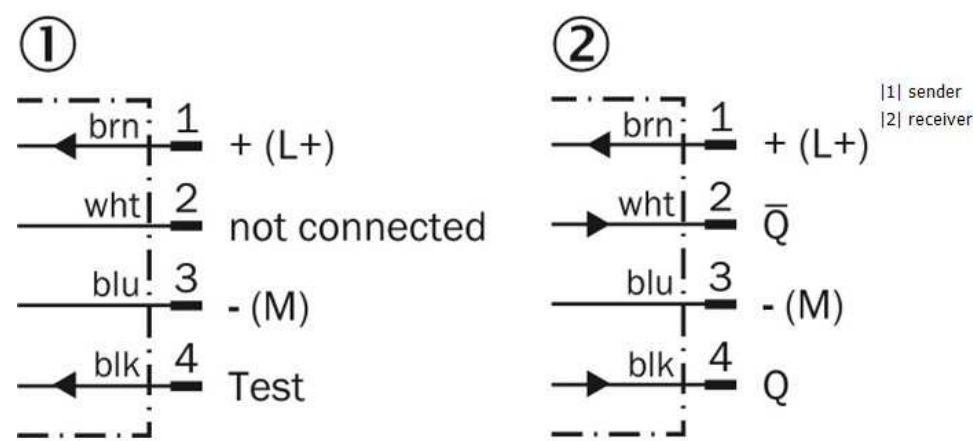
Switching mode:	Light/dark switching
Signal voltage PNP HIGH/LOW:	Approx. $V_S - 2.5 \text{ V} / 0 \text{ V}$
Output current $I_{\text{max}}$ :	$\leq 100 \text{ mA}$
Response time:	$\leq 1.7 \text{ ms}$ <sup>4)</sup>
Switching frequency:	300 Hz <sup>5)</sup>
Angle of reception:	Ca. $3^\circ$
Connection type:	Connector M12, 4-pin
Circuit protection:::	A, B, C <sup>6)</sup> <sup>7)</sup> <sup>8)</sup>
Protection class:	II <sup>9)</sup>
Weight:	200 g
Housing material:	ABS, Plastic
Optics material:	PMMA
Enclosure rating:	IP 66 IP 67
Test input sender off:	TE to 0 V
Ambient operating temperature:	$-40^\circ\text{C} \dots 60^\circ\text{C}$
Ambient storage temperature:	$-40^\circ\text{C} \dots 75^\circ\text{C}$
Part number of individual components:	Receiver, WE27-3P2410S03, 2060720, Sender, WS27-3D2410S03, 2060721
UL File No.:	NRKH.E181493 & NRKH7.E181493

<sup>1)</sup> Limit values, operation in short-circuit protected network max. 8 A <sup>2)</sup> <sup>3)</sup> Without load <sup>4)</sup> Signal transit time with resistive load <sup>5)</sup> With light/dark ratio 1:1 <sup>6)</sup>  $A = V_S$   
connections reverse-polarity protected <sup>7)</sup> B = inputs and output reverse-polarity protected <sup>8)</sup> C = interference suppression <sup>9)</sup> Reference voltage 50 V DC

## Dimensional drawing



Connection diagram



②

brn

1

+

(L+)

wht

2

Q̄

blu

3

- (M)

blk

4

Q

1

sender

2

receiver

Connection type



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