

## Photoelectric sensors

WTB27-3F2611



Nazwa modelu > [WTB27-3F2611](#)

Numer cz ci > [1027756](#)

### At a glance

- Precise background suppression with no scanning distance drift
- PinPoint technology: light-intensive red emitter LED with homogenous light spot
- Reliable operation in industrial environments - with ambient light, optical reflections and when devices are mounted opposite one another
- Scanning distance setting with potentiometer or easy teach-in
- Operating temperature: -40 °C – +60 °C
- UL approval

### Your benefits

- Very precise detection with no scanning distance drift in case of vibrations
- PinPoint technology can replace laser photoelectric proximity sensors in some applications, eliminating the need for laser safety measures, and the service life of the PinPoint LED is double that of conventional laser diodes
- Less downtime due to ASIC chip technology by SICK
- Reliable in operation with ambient light, optical reflections, and when devices are mounted opposite one another
- Reduces setup costs e.g. in case of format adjustment by IO-Link sensor communication interface
- Highly stable housing due to offset fixing holes
- For use at temperatures as low as -40 °C



### !Features!

Wymiary (Szer. x Wys. x Głęb.):	24,6 mm x 80,6 mm x 54 mm
Maks. strefa działania:	30 mm ... 1.600 mm
Sensing range:	100 mm ... 1.600 mm
Nadajnik światła:	LED <sup>2)</sup>
Rodzaj światła:	Światło podczerwone
Długość fali:	880 nm
Light spot diameter (distance):	25 mm (800 mm)
Rodzaj zabezpieczenia:	IP 65
Czas opóźnienia:	adjustable via time delay selector switch: 0,02 ... 0,5 s 0,5 ... 10 s
Adjustment of operating distance:	Potentiometer
Typ czasu:	Przełącznik z opóźniaczem

1) Obiekt odbijający 90% światła (standardowy biały zgodnie z norma DIN 5033) 2) Average service life 100,000 h at Ta = +25 °C

### !Mechanics/electronics!

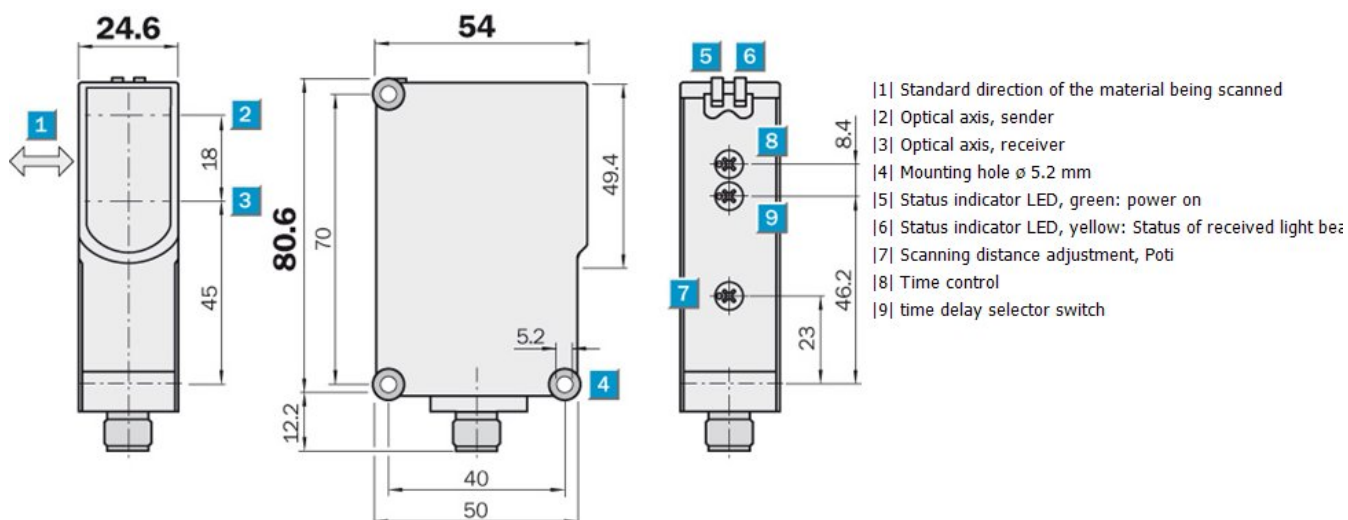
Napięcie zasilania:	10 V DC ... 30 V DC <sup>1)</sup>
Tętnienia resztkowe:	≤ 5 Vss <sup>2)</sup>
Pobór prądu:	≤ 40 mA <sup>3)</sup>
Wyjście przełączające:	PNP, przełączanie jasno/ciemno, wybierane, Komplementarne
Output current I <sub>max</sub> .:	≤ 100 mA
Czas reakcji:	≤ 1,5 ms <sup>4)</sup>
Switching frequency:	350 Hz with light/dark ratio 1:1
Sposób przyłączenia:	connector Q6, 6-pin, DC-coding
Ilość żył:	6
Klasa ochronności:	II <sup>5)</sup>
Układ zabezpieczenia:::	A B <sup>6) 7) 8)</sup> C
Ciężar:	100 g
Tworzywo, obudowa:	ABS
Tworzywo, układ optyczny:	PMMA
Wejście testowe, nadajnik wyłączony:	TE to 0 V
Napięcie sygnału PNP HIGH/LOW:	approx. VS - 2.5 V / 0 V

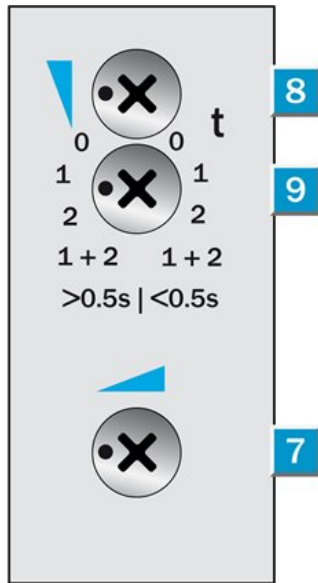
1) Limit values, operation in short-circuit protected network max. 8 A 2) May not exceed or fall short of V<sub>S</sub> <sup>3)</sup> Without load <sup>4)</sup> Signal transit time with resistive load <sup>5)</sup> Reference voltage 50 V DC <sup>6)</sup> A = VS connections reverse-polarity protected <sup>7)</sup> B = inputs and output reverse-polarity protected <sup>8)</sup> C = interference suppression

### !Ambient data!

Ambient temperature, operation:	-40 °C ... 60 °C
Ambient temperature, storage:	-40 °C ... 75 °C

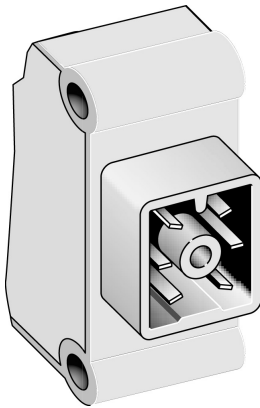
### Rysunek techniczny



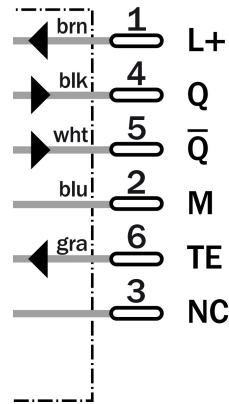


- [7] Scanning distance adjustment, Poti
- [8] Time control
- [9] time delay selector switch

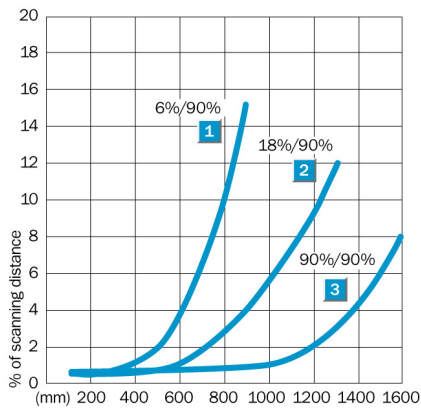
Typ połączenia



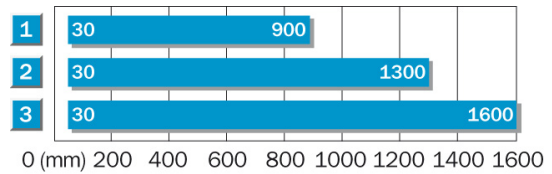
Schemat połączenia



Krzywa charakterystyki



Schemat zakresu pracy



- 1 Scanning distance on black, 6 % remission
- 2 Scanning distance on grey, 18 % remission
- 3 Scanning distance on white, 90 % remission

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