



Photoelectric sensors W27-3, Through-beam photoelectric sensor

WSE27-3R2631



Model Name > WSE27-3R2631
Part No. > 1027795



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 ... 35 m
Sensing range:	0 m ... 25 m
Type of light:	Visible red light
Light source:	LED ¹⁾
Wave length:	645 nm
Sensitivity adjustment:	Potentiometer
Time type:	Switch on delay time delay off switch on delay and time delay off
Delay time:	Adjustable via time delay selector switch: 0.5 ... 10 s
Angle of dispersion:	Ca. 1.5 °
Light spot size (distance):	Ø 600 mm (25 m)

¹⁾ Average service life of 100,000 h at T_A = +25 °C

Mechanics/electronics

Supply voltage:	24 V AC/DC ... 240 V AC/DC ¹⁾
Power consumption:	≤ 5.5 VA

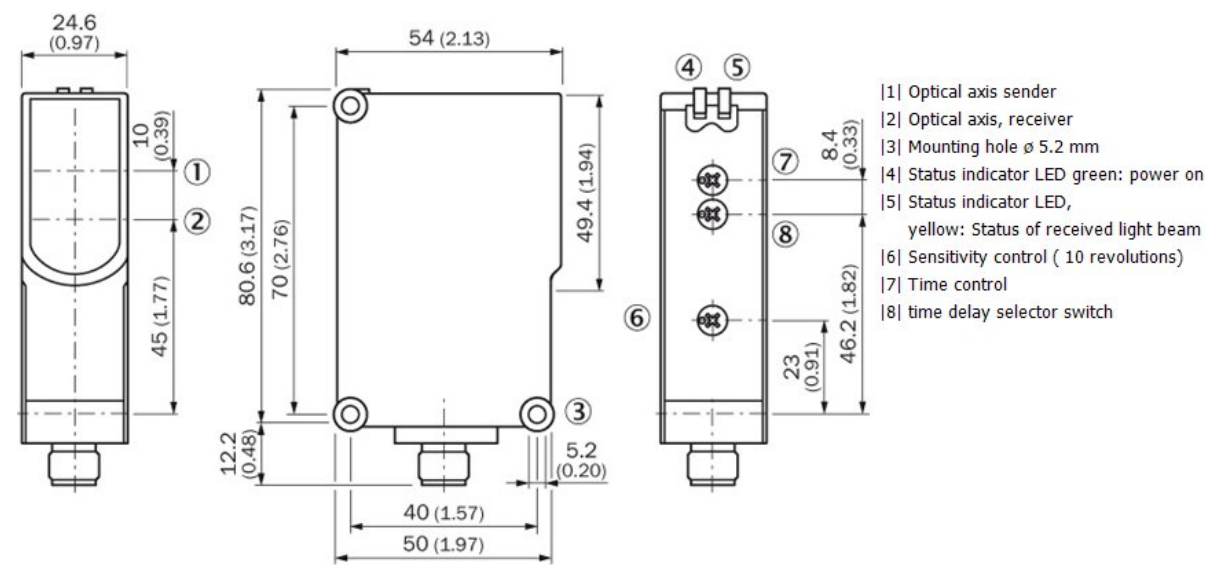
Output type:	Relay ²⁾
Output function:	Change-over contacts
Switching mode:	Light/dark-switching ³⁾
Output characteristic:	Electrically isolated
Switching mode selector:	Selectable via time delay selector switch
Switching current (switching voltage):	0.11 A (250 V DC), 3 A (24 V DC), 3 A (250 V AC)
Response time:	≤ 10 ms
Switching frequency:	10 Hz ⁴⁾
Angle of reception:	Ca. 3 °
Connection type:	Connector Q6, 6-pin, AC/UC-coding
Circuit protection::	A, C ^{5) 6)}
Protection class:	II ⁷⁾
Weight:	240 g
Front screen heating:	-
Special device:	-
Housing material:	ABS, Plastic
Optics material:	PMMA
Enclosure rating:	IP 65
Usage category:	AC-15, DC-13, According to EN 60947-1
Ambient operating temperature:	-40 °C ... 60 °C ⁸⁾
Ambient storage temperature:	-40 °C ... 75 °C
UL File-No.:	UL No. NRKH.E181493 & cUL No. NRKH7.E181493
Part number of individual components:	Receiver, WE27-3R2631, 2038939, Sender, WS27-3U2630, 2033597

¹⁾ +/- 10 % ^{2) 3)} Provide suitable spark suppression for inductive or capacitive loads. Relay contacts are separated from the power supply by a basic isolation of 3 mm.

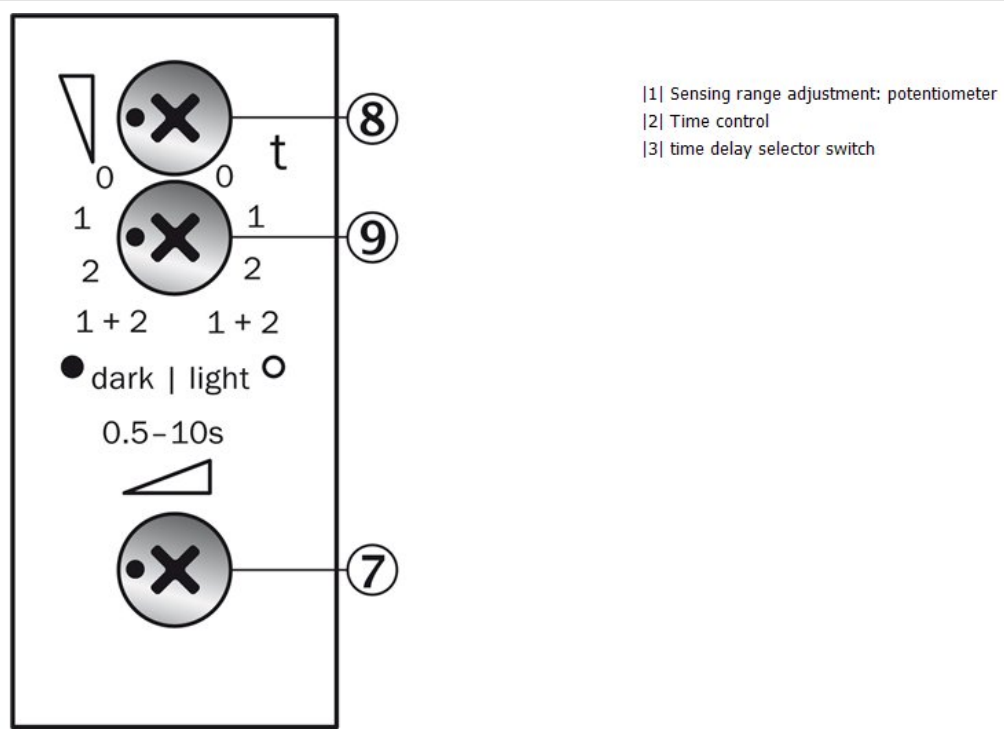
Depending on the application, additional isolation might have to be applied in the user's circuit. ⁴⁾ With light/dark ratio 1:1 ⁵⁾ A = V_S connections reverse-polarity

protected ⁶⁾ C = interference suppression ⁷⁾ Reference voltage 250 V AC ⁸⁾ UL: 0 °C ... +60 °C

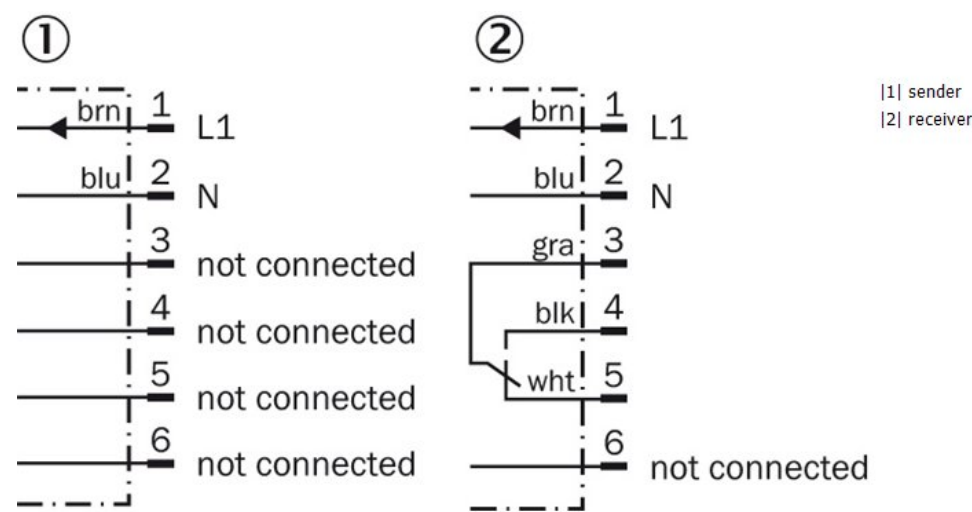
Dimensional drawing



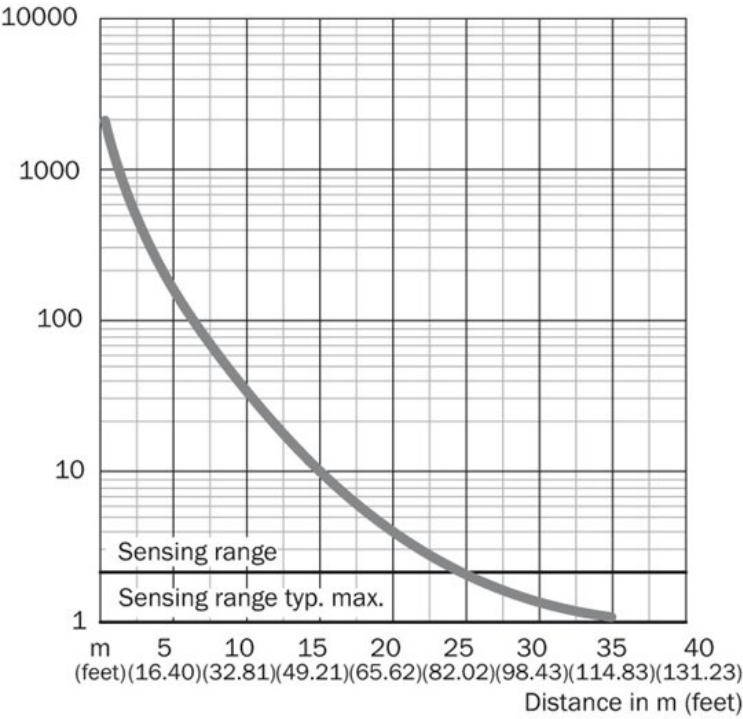
Adjustments possible



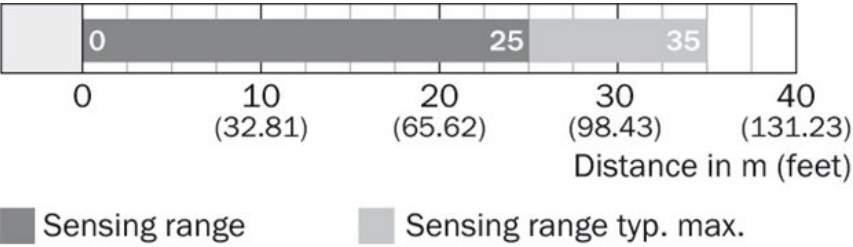
Connection diagram



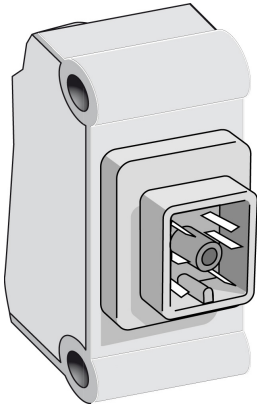
Characteristic curve



Sensing range diagram



Connection type



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