



Photoelectric sensors  
W280-2, Photoelectric proximity sensor,  
energetic

WTE280-2H4331



**Model Name** > [WTE280-2H4331](#)  
**Part No.** > [6044730](#)



*Illustration may differ*

**At a glance**

- Highly visible red light spot thanks to the BrightLight LED
- Potentiometer for adjusting sensing range
- Light/dark switching (DC devices only)
- Rotatable connector, cable connection or terminal chamber
- Versions for 10 - 30 V DC or 24 - 240 V DC/AC voltage supply
- Stainless steel mounting bracket included in delivery

**Your benefits**

- Simple and fast commissioning with the highly visible light spot of the BrightLight LED
- Simple operation via potentiometer
- Light/dark switching provides application flexibility
- All necessary mounting and operating accessories are included in delivery, enabling quick and easy setup: since mounting bracket (stainless steel 1.4301) is included in delivery scope
- DC devices and AC/DC devices available in the same housing, allowing electrical flexibility



**Features**

Sensor/detection principle:	Photoelectric proximity sensor, energetic
Dimensions (W x H x D):	23.5 mm x 74.5 mm x 63 mm
Housing design (light emission):	Rectangular
Sensing range max.:	10 mm ... 2,000 mm <sup>1)</sup>
Sensing range:	10 mm ... 1,500 mm
Type of light:	Visible red light
Light source:	LED <sup>2)</sup>
Adjustment:	Potentiometer
Light spot size (distance):	Ø 45 mm (1,500 mm)

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033) <sup>2)</sup> Average service life: 100,000 h at T<sub>U</sub> = +25 °C

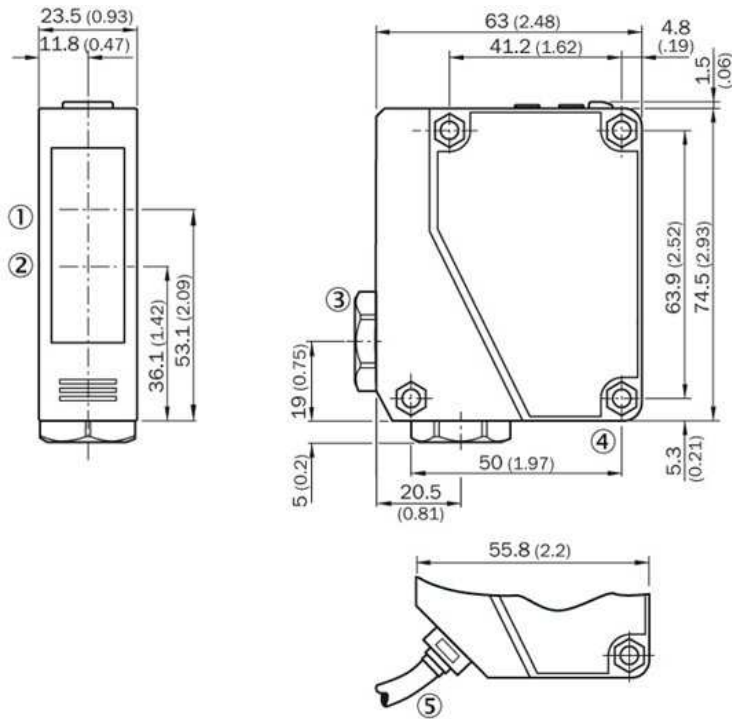
**Mechanics/electronics**

Supply voltage::	24 V AC ... 240 V AC, 24 V DC ... 240 V DC <sup>1) 2)</sup>
Power consumption:	≤ 5 VA
Output type:	Relay, electrically isolated <sup>3)</sup>
Output function:	Change-over contacts
Switching mode:	Light switching <sup>4)</sup>

Switching current (switching voltage):	3 A (240 V AC), 3 A (30 V DC)
Response time:	≤ 15 ms
Switching frequency:	33 Hz <sup>5)</sup>
Electrical connection:	Cable gland
Circuit protection:	A, C <sup>6)7)</sup>
Protection class:	II <sup>8)</sup>
Overvoltage category:	2
Weight:	150 g
Interference emission:	EN 61000-6-3 (only -2Hxxxx) <sup>9)</sup>
Special device:	-
Optics material:	PMMA
Enclosure rating:	IP 66 IP 67
Items supplied:	Mounting bracket BEF-W280
Usage category:	AC-15, DC-13, According to EN 60947-1
EMC:	EN 60947-5-2 <sup>10)</sup>
Ambient temperature operation:	-25 °C ... +55 °C
Ambient storage temperature:	-40 °C ... +70 °C
UL File No.:	NRKH2.E300503 & NRKH8.E300503
Housing material:	ABS, Plastic

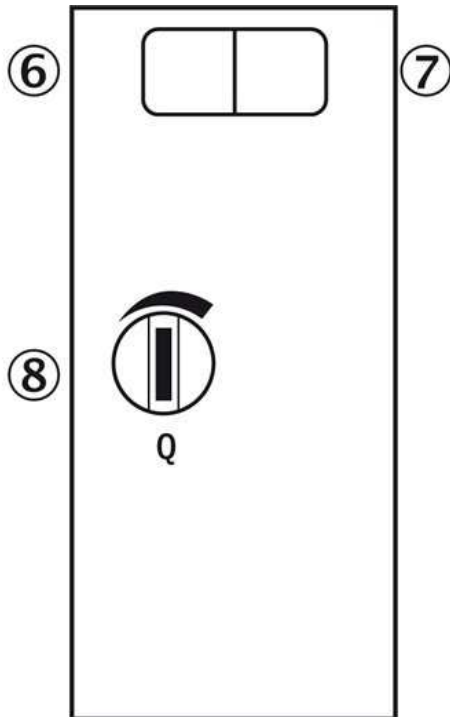
1) 2) ±10 % 3) 4) Provide suitable spark suppression for inductive or capacitive loads<sup>5)</sup> With light/dark ratio 1:1<sup>6)</sup> A = V<sub>S</sub> connections reverse-polarity protected<sup>7)</sup> C  
= interference suppression<sup>8)</sup> Rated voltage: 250 V AC/DC<sup>9)</sup> In the case of a DC supply (relating to EN 61000-6-3) the length of cable between the supply source and the sensor must be < 30 m<sup>10)</sup> The AC/DC devices meet the interference suppression requirements for industrial use (interference suppression class A). When used in residential areas it can cause interference.

## Dimensional drawing



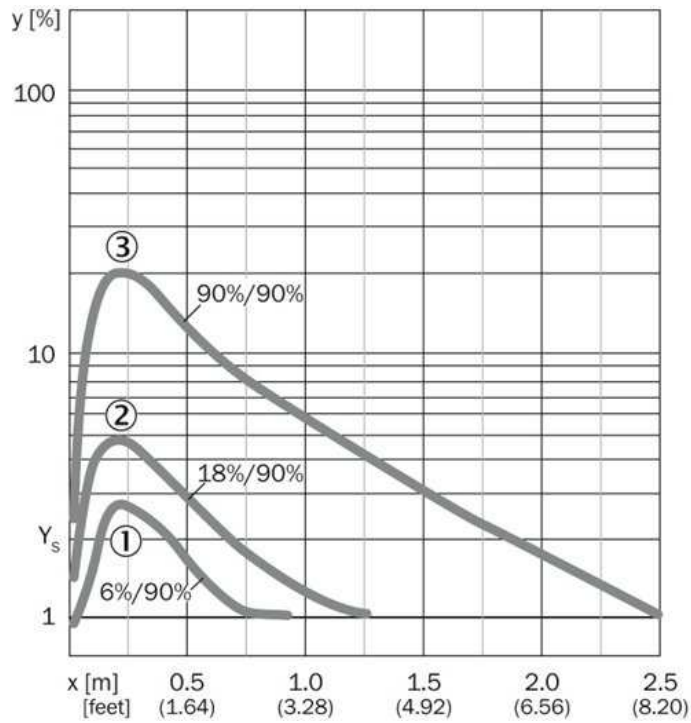
- |1| Center of optical axis, receiver
- |2| Center of optical axis, sender
- |3| Cable entry gland 3/8" for cable diameter 6 to 8 mm
- |4| Mounting hole, Ø 4.3 mm
- |5| Cable, 2 m, 5-wire, Ø 6.3 mm

## Adjustments possible



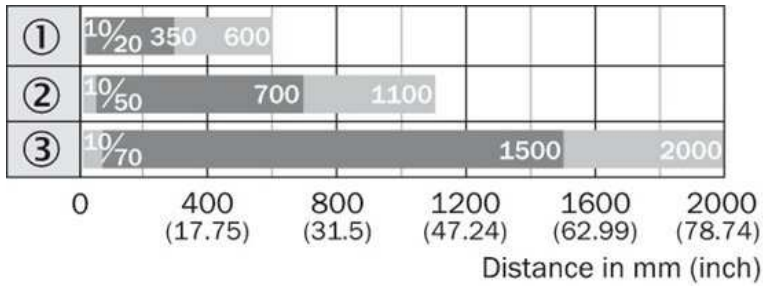
- |6| LED indicator green: Stability indicator
- |7| Status indicator LED,  
yellow: Status of received light beam
- |8| Sensing range adjustment: potentiometer

### Characteristic curve



- |1| Sensing range on black, 6 % remission
- |2| Sensing range on gray, 18 % remission
- |3| Sensing range on white, 90 % remission

### Sensing range diagram



- |1| Sensing range on black, 6 % remission
- |2| Sensing range on gray, 18 % remission
- |3| Sensing range on white, 90 % remission

Sensing range     
  Sensing range max.

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