



Photoelectric sensors
W280-2, Through-beam photoelectric sensor

WSE280-2H4331



Model Name > [WSE280-2H4331](#)
Part No. > [6044747](#)



Illustration may differ

At a glance

- Highly visible red light spot thanks to the BrightLight LED
- Large sensing range and high operating reserve
- 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 (1.4301) is included in delivery
- AC/DC devices (-2Hxxxx) are compliant with EN 61000-6-3 (electromagnetic interference for "residential, commercial and light-industrial environments")

Your benefits

- Less contamination due to high operating reserves, reducing downtime
- DC and AC/DC devices available in the same housing allow electrical flexibility
- Light/dark switching provides application flexibility and reduces the number of devices needed
- 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



Features

Sensor/detection principle:	Through-beam photoelectric sensor
Dimensions (W x H x D):	23.5 mm x 74.5 mm x 63 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0 m ... 60 m
Sensing range:	0 m ... 50 m
Type of light:	Visible red light
Light source:	LED ¹⁾
Adjustment:	Potentiometer
Light spot size (distance):	Ø 0.6 m (20 m)

¹⁾ Average service life: 100,000 h at T_U = +25 °C

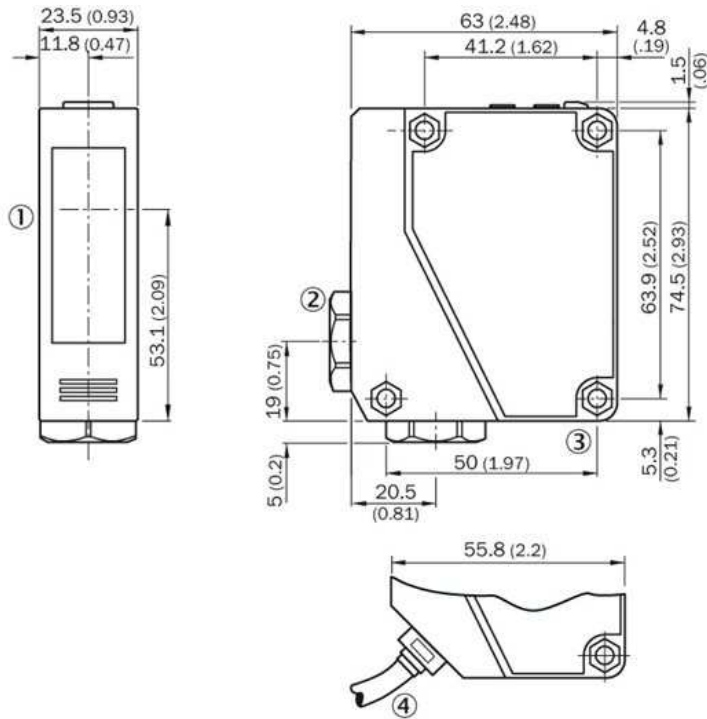
Mechanics/electronics

Supply voltage::	24 V AC ... 240 V AC, 24 V DC ... 240 V DC ^{1) 2)}
Power consumption, sender:	≤ 3.5 VA
Power consumption, receiver:	≤ 3.5 VA
Output type:	Relay, electrically isolated ³⁾
Output function:	Change-over contacts

Switching mode:	Light switching ⁴⁾
Switching current (switching voltage):	3 A (240 V AC), 3 A (30 V DC)
Response time:	≤ 15 ms
Switching frequency:	33 Hz ⁵⁾
Electrical connection:	Cable gland
Circuit protection::	A, C ⁶⁾⁷⁾
Protection class:	II ⁸⁾
Overvoltage category:	2
Weight:	300 g
Interference emission:	EN 61000-6-3 (only -2Hxxxx) ⁹⁾
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 ¹⁰⁾
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

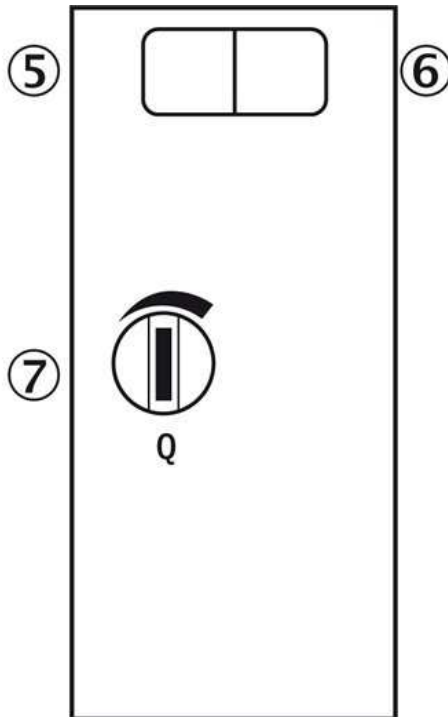
1) 2) ±10 % 3) 4) Provide suitable spark suppression for inductive or capacitive loads ⁵⁾ With light/dark ratio 1:1 ⁶⁾ A = V_S connections reverse-polarity protected ⁷⁾ C
= interference suppression ⁸⁾ Rated voltage: 250 V AC/DC ⁹⁾ In the case of a DC supply (relating to EN 61000-6-3) the length of cable between the supply source and
the sensor must be < 30 m ¹⁰⁾ 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



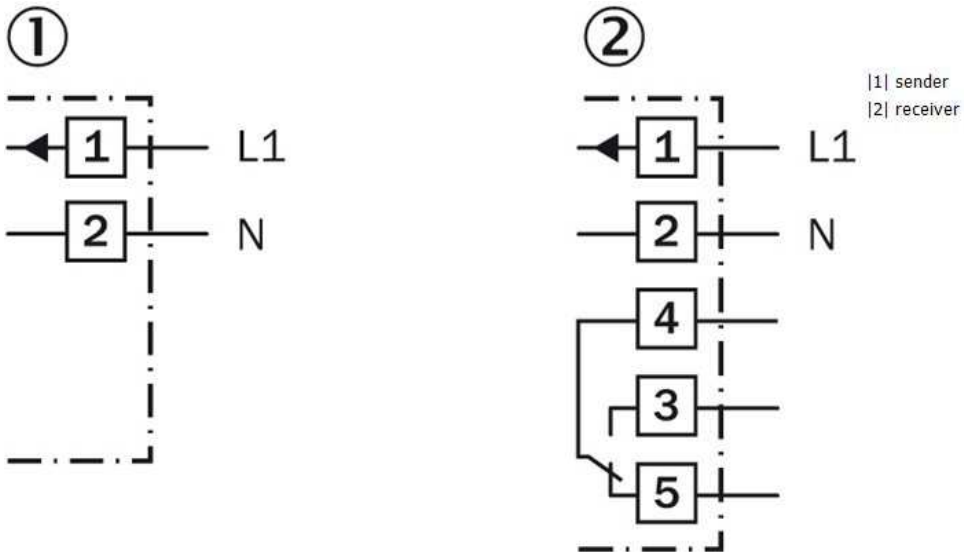
- |1| Center of optical axis, sender and receiver
- |2| Cable entry gland 3/8" for cable diameter 6 to 8 mm
- |3| Mounting hole, Ø 4.3 mm
- |4| Cable, 2 m, 5-wire, Ø 6.3 mm

Adjustments possible

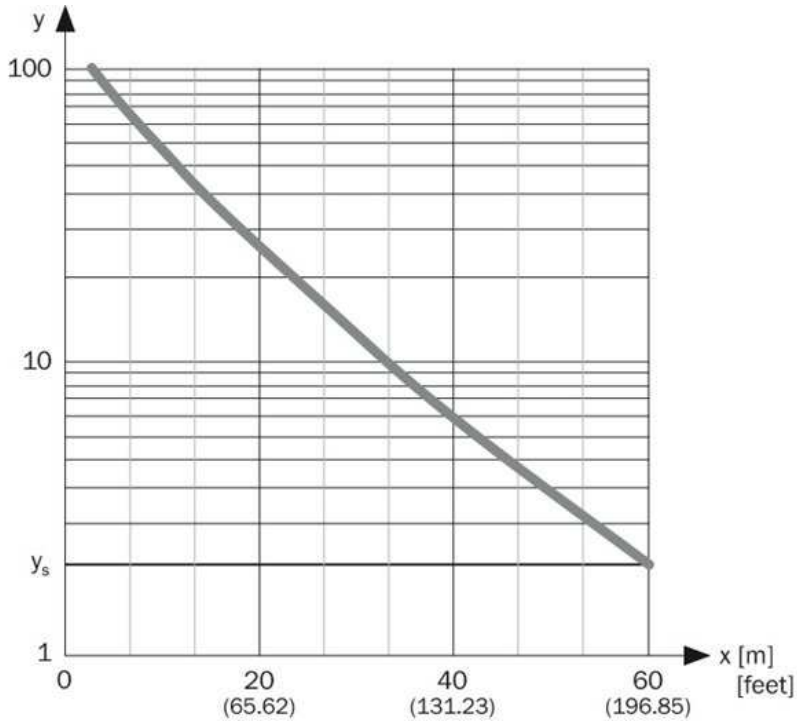


- |5| LED indicator green: Stability indicator
- |6| Status indicator LED, yellow: Status of received light beam (only receiver WE)
- |7| Sensitivity adjustment: Potentiometer (only receiver WE)

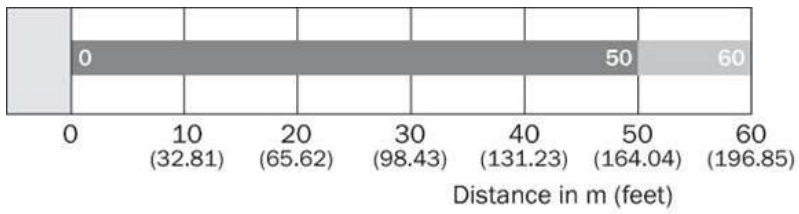
Connection diagram



Characteristic curve



Sensing range diagram



■ Operating range ■ Sensing range typ. max.

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