



Photoelectric sensors
W280, Through-beam photoelectric sensor

WS/WE280-S135



Model Name > [WS/WE280-S135](#)
Part No. > [6029454](#)



Illustration may differ

At a glance

- Visible red light
- 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 are compliant with EN61000-6-3 (electromagnetic interference for "residential, commercial and light-industrial environments")
- UL recognized

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

Note: This part is discontinued. Please see the replacement product under "Replacement Products" link. "



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 ... 45 m
Sensing range:	0 m ... 40 m
Type of light:	Visible red light
Light source:	LED ¹⁾
Sensitivity adjustment:	Sensitivity adjustment
Angle of dispersion:	1.4 °
Light spot size (distance):	40 m

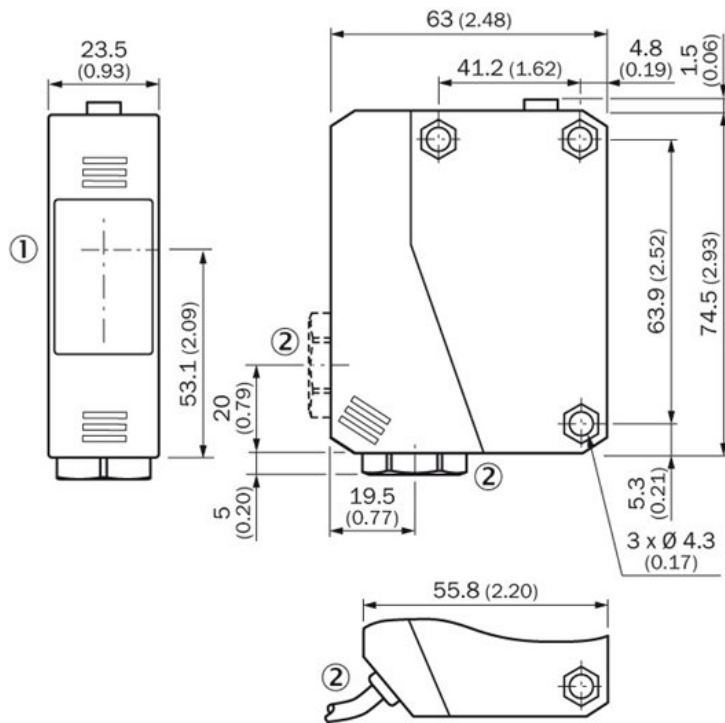
¹⁾ Average service life of 100,000 h at T_A = +25 °C

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 ³⁾
Output function:	Change-over contacts
Switching mode:	Light switching ⁴⁾
Output characteristic:	Electrically isolated
Switching current (switching voltage):	3 A (240 V AC), 3 A (30 V DC)
Response time:	≤ 20 ms
Switching frequency:	25 Hz ⁵⁾
Angle of reception:	6 °
Connection type:	Cable, 5-wire, 5 m ⁶⁾
Conductor cross-section:	0.76 mm ²
Circuit protection::	A, C ^{7) 8)}
Protection class:	II ⁹⁾
Weight:	300 g
Housing material:	ABS, Plastic
Optics material:	PMMA
Enclosure rating:	IP 66
Items supplied:	Mounting bracket BEF-W280
Usage category:	AC-15, DC-13, According to EN 60947-1
Ambient operating temperature:	-25 °C ... 55 °C
Ambient storage temperature:	-40 °C ... 70 °C

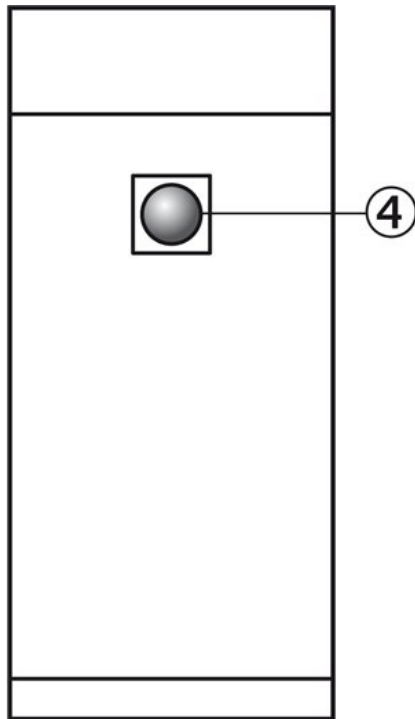
1) 2) ±10 % 3) 4) Provide suitable spark suppression for inductive or capacitive loads 5) With light/dark ratio 1:1 6) Do not bend below 0 °C 7) A = V_S connections
reverse-polarity protected 8) C = interference suppression 9) Rated voltage 250 V AC/DC

Dimensional drawing



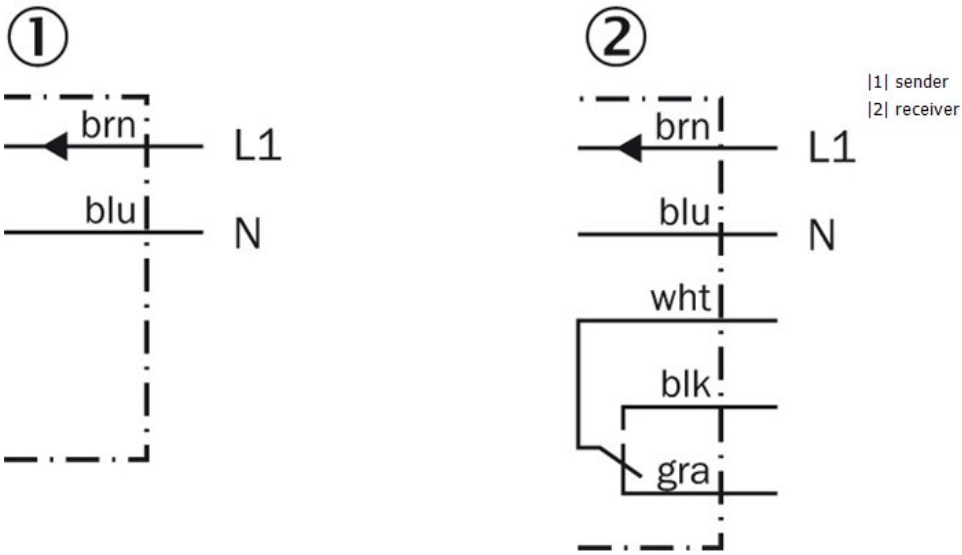
- [1] Optical axis, sender and receiver
- [2] Cable entry gland 1/2" PF for cable diameter 6 to 10 mm or 5-core cable Ø 6.3 mm

Adjustments possible

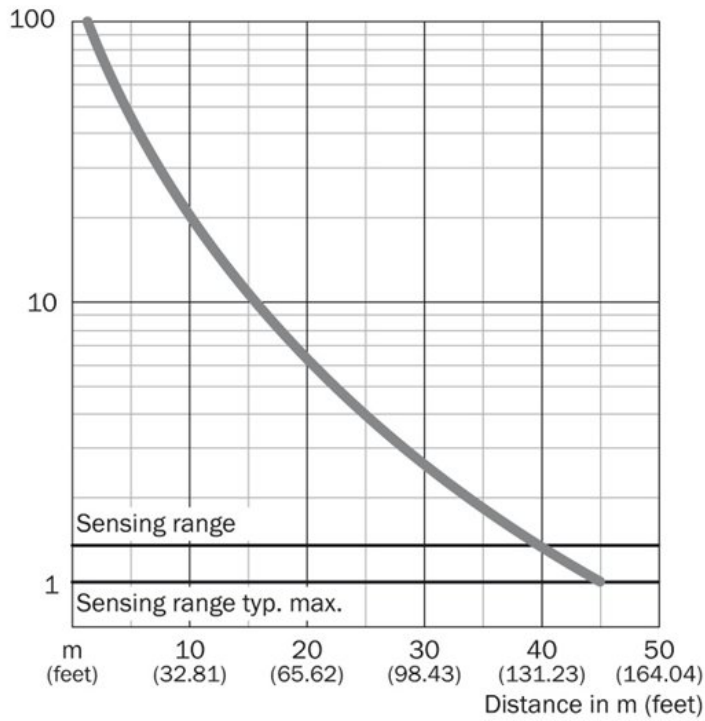


- [4] Receive indicator

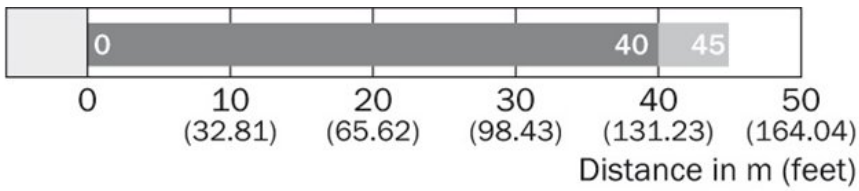
Connection diagram



Characteristic curve

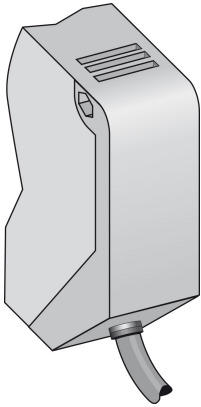


Sensing range diagram



■ Sensing range ■ Sensing range typ. max.

Connection type



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