

ONLINE DATA SHEET
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Photoelectric sensors
W280-2, Through-beam photoelectric sensor

WSE280-2P1131



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Model Name > WSE280-2P1131
Part No. > 6044743



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

CE

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:	10 V DC ... 30 V DC [1)]
Residual ripple:	≤ 5 Vpp [2)]
Power consumption, sender:	≤ 20 mA
Power consumption, receiver:	≤ 20 mA [3)]
Output type:	PNP, open collector

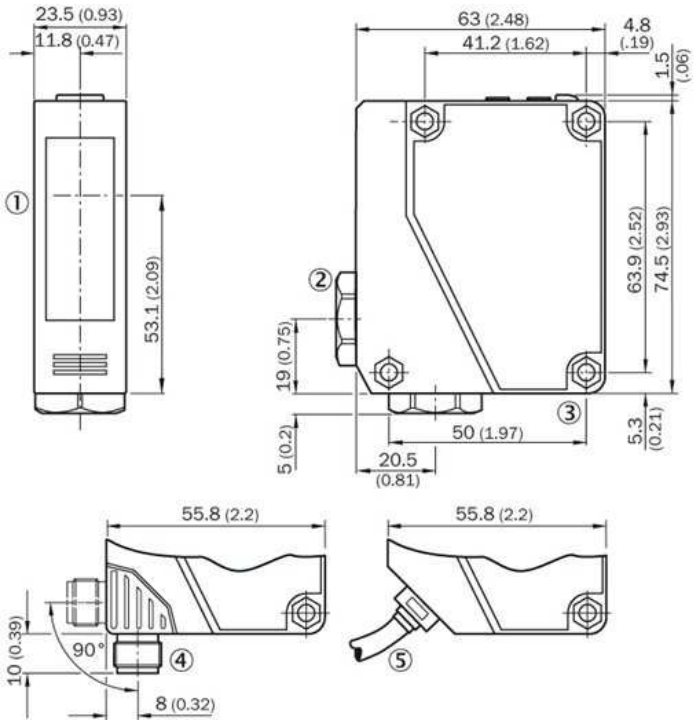
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Switching mode:	Light/dark switching
Switching mode selector:	Selectable via light/dark rotary switch
Output current Imax.:	100 mA
Response time:	≤ 0.5 ms [4]
Switching frequency:	1,000 Hz [5]
Electrical connection:	Cable, 3-wire, 2 m [6]
Conductor cross-section:	0.18 mm²
Circuit protection::::	A, B, C, D [7] [8] [9] [10]
Protection class:	III
Weight:	300 g
Special device:	-
Optics material:	PMMA
Enclosure rating:	IP 66 IP 67
Items supplied:	Mounting bracket BEF-W280
EMC:	EN 60947-5-2 [11]
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] Limit values when operated in short-circuit protected network: max. 8 A [2] May not exceed or fall below U_V tolerances [3] Without load [4] Signal transit time with resistive load [5] With light/dark ratio 1:1 [6] Do not bend below 0 °C [7] A = V_S connections reverse-polarity protected [8] B = inputs and output reverse-polarity protected [9] C = interference suppression [10] D = outputs overcurrent and short-circuit protected [11] 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.

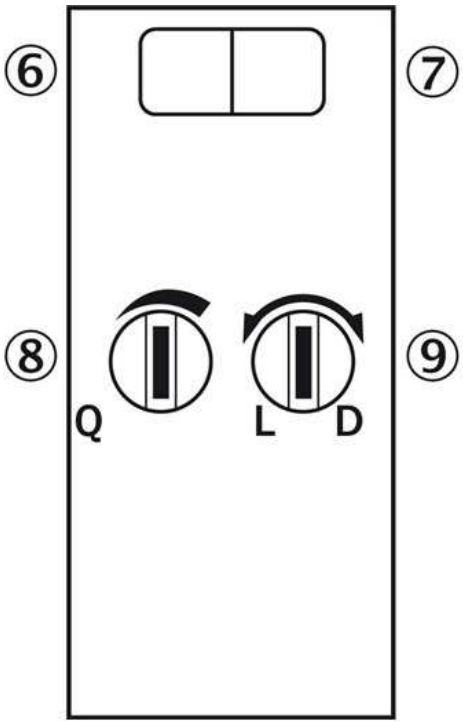
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Dimensional drawing



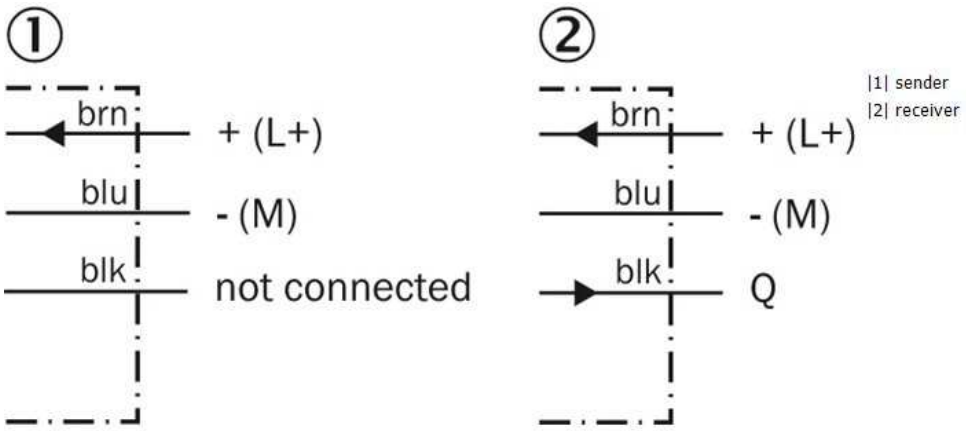
|1| Center of optical axis, sender and receiver
|2| Cable entry gland 3/8" for cable diameter 6 to 8 mm
|3| Mounting hole, Ø 4.3 mm
|4| Connector M12, 4-pin, 90°
rotatable, can be locked with slider
|5| Cable, 2 m, 3-wire, Ø 3,8 mm

Adjustments possible

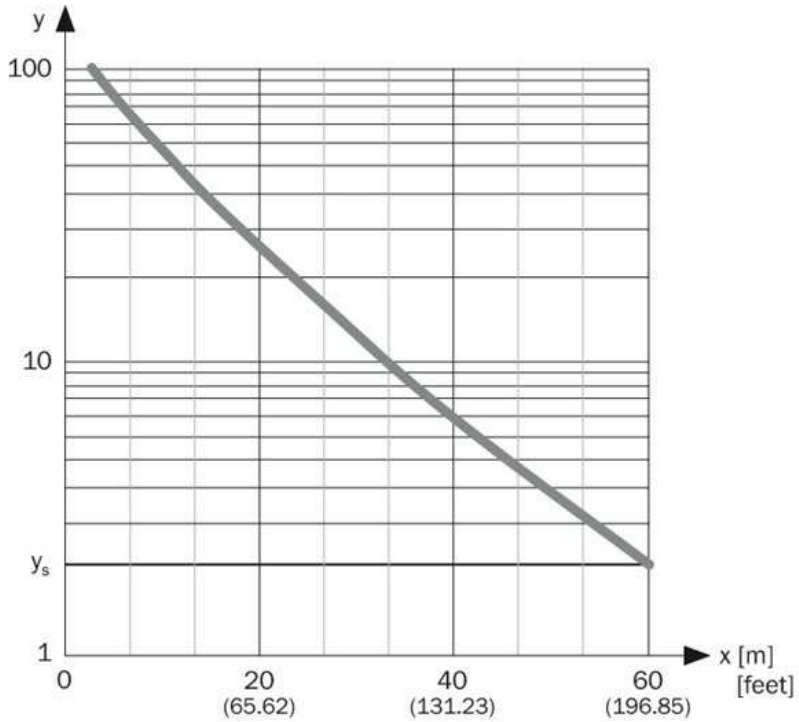


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Connection diagram

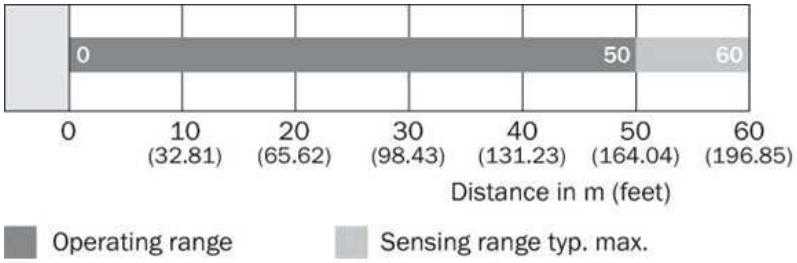


Characteristic curve



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Sensing range diagram



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