



Photoelectric sensors W280, Photoelectric proximity sensor, energetic

WT280-P132



Model Name > [WT280-P132](#)
Part No. > [6028278](#)



Illustration may differ

At a glance

- Visible red light
- 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
- UL recognized

Your benefits

- Easy and fast commissioning due to a highly visible red light
- 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

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



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 ... 1,700 mm ¹⁾
Sensing range:	10 mm ... 1,200 mm
Type of light:	Visible red light
Light source:	LED ²⁾
Angle of dispersion:	1 °
Adjustment:	Adjustable via sensing range adjustment
Light spot size (distance):	1.3 mm

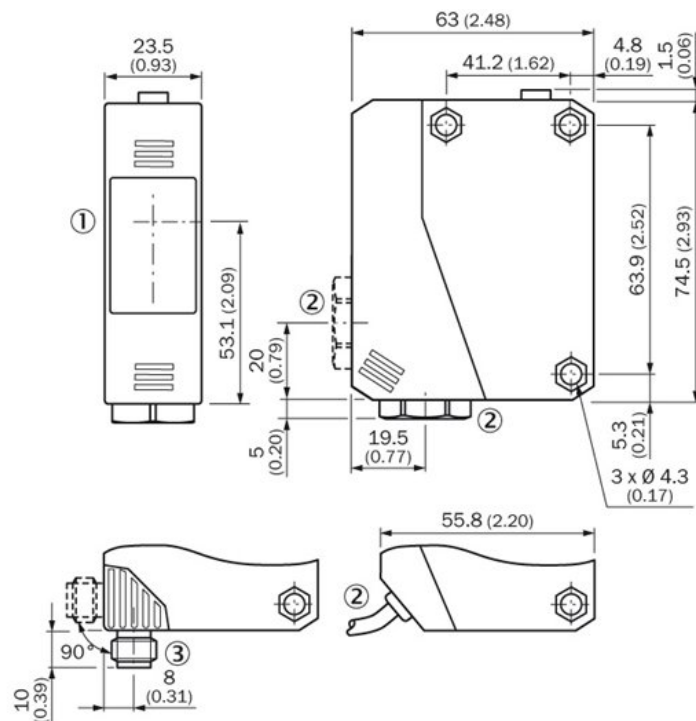
¹⁾ Object with 90 % reflectance (referred to standard white DIN 5033) ²⁾ Average service life of 100,000 h at T_A = +25 °C

Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	$\leq 5 \text{ Vpp}$ ²⁾
Power consumption:	$\leq 30 \text{ mA}$ ³⁾
Output type:	PNP, open collector
Switching mode:	Light/dark-switching
Switching mode selector:	Selectable via light/dark rotary switch
Output current I _{max.} :	100 mA
Response time:	$\leq 0.5 \text{ ms}$ ⁴⁾
Switching frequency:	1,000 Hz ⁵⁾
Connection type:	Cable, 3-wire, 2 m ⁶⁾
Conductor cross-section:	0.18 mm ²
Circuit protection::::	A, B, C, D ⁷⁾ ⁸⁾ ⁹⁾ ¹⁰⁾
Protection class:	II ¹¹⁾
Weight:	150 g
Housing material:	ABS, Plastic
Optics material:	PMMA
Enclosure rating:	IP 66
Items supplied:	Mounting bracket BEF-W280
Ambient operating temperature:	-25 °C ... 55 °C
Ambient storage temperature:	-40 °C ... 70 °C

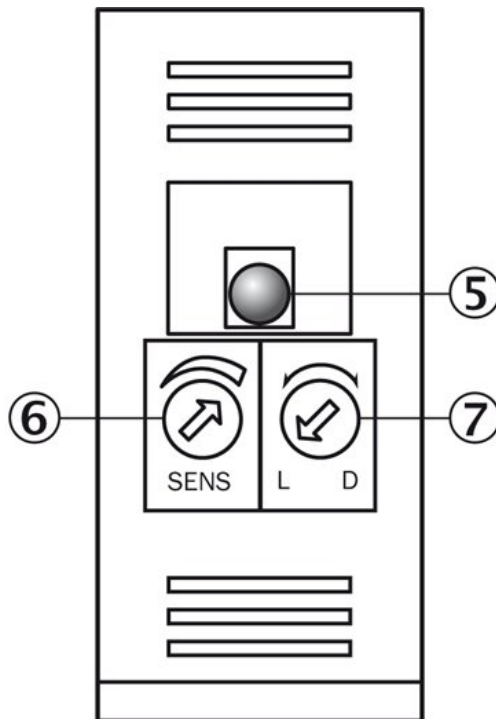
¹⁾ Limit values, operation in short-circuit protected network max. 8 A ²⁾ May not exceed or fall short of V_S tolerances ³⁾ Without load ⁴⁾ Signal transit time with resistive load ⁵⁾ With light/dark ratio 1:1 ⁶⁾ Do not bend below 0 °C ⁷⁾ A = V_S connections reverse-polarity protected ⁸⁾ B = inputs and output reverse-polarity protected ⁹⁾ C = interference suppression ¹⁰⁾ D = outputs overcurrent and short-circuit protected ¹¹⁾ To VDE 0106

Dimensional drawing



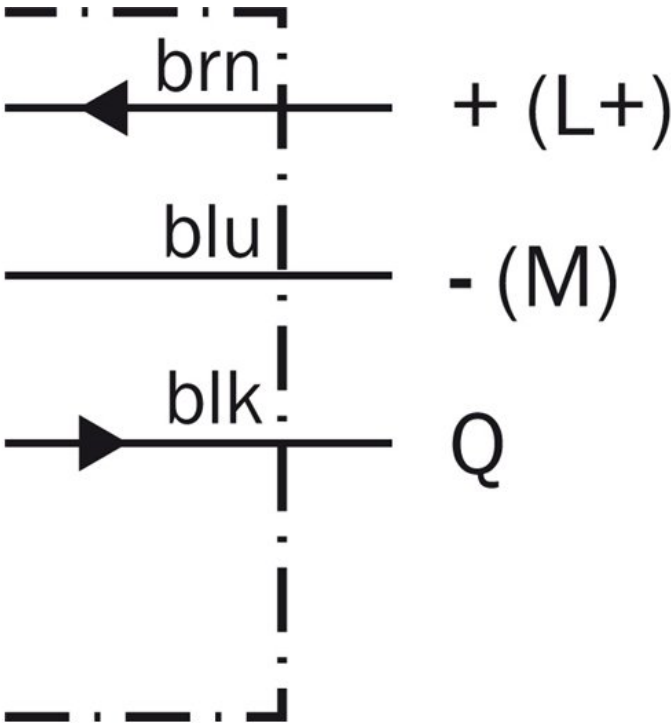
- |1| Optical axis, sender and receiver
- |2| Cable entry gland 1/2" PF for cable diameter 6 to 10 mm or 3-core cable Ø 3.8 mm
- |3| Connector M12, 4-pin , rotatable by 90°

Adjustments possible

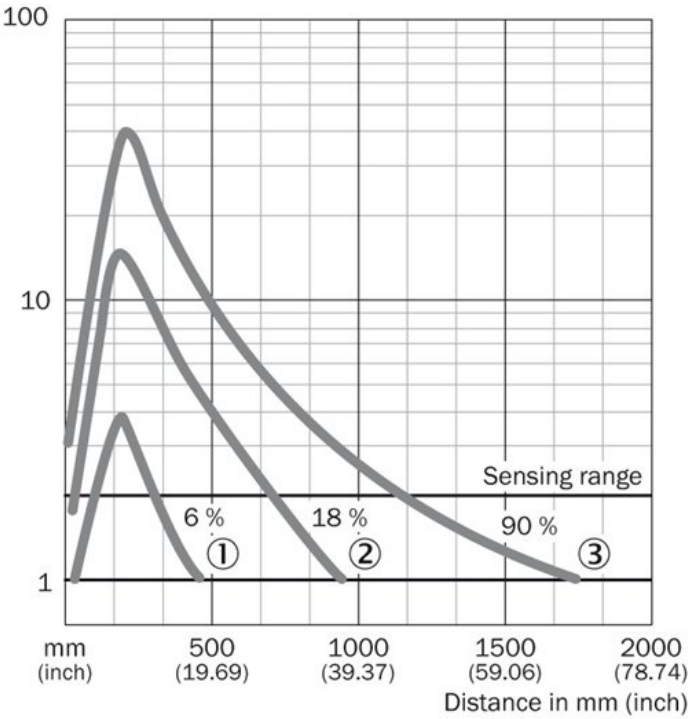


- |5| Receive indicator
- |6| Sensing range adjustment
- |7| Light/ dark rotary switch L = light switching, D = dark switching

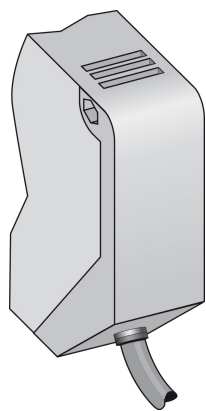
Connection diagram



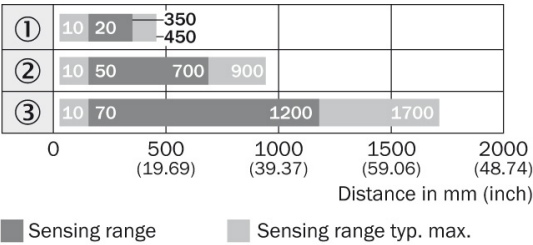
Characteristic curve



Connection type



Sensing range diagram



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

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