



Photoelectric sensors
W100, Photoelectric proximity sensor, energetic

WT100-P4439



Model Name > [WT100-P4439](#)
Part No. > [6028615](#)



At a glance

- Standard miniature housing with M3 threaded mounting holes
- Optics with standard red LED or bright light LED
- Available as a background blanking sensor or as an energetic proximity sensor
- Light/dark switching and sensitivity adjustment via rotary switch possible (depending on type)
- Wide variety of accessories available (depending on type)

Your benefits

- Highly visible light spot allows for quick and easy alignment
- M3 threaded mounting holes provide easy installation



Features

Sensor/detection principle:	Photoelectric proximity sensor, energetic
Dimensions (W x H x D):	11 mm x 31 mm x 20 mm
Housing design (light emission):	Rectangular, Slim
Sensing range max.:	0 mm ... 900 mm ¹⁾
Sensing range:	0 mm ... 700 mm
Type of light:	Visible red light
Light source:	LED ²⁾
Wave length:	680 nm
Light spot diameter (distance):	Ø 55 mm (400 mm)
Sensitivity adjustment:	Potentiometer, 270°
Focus adjustable:	-

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

Mechanics/electronics

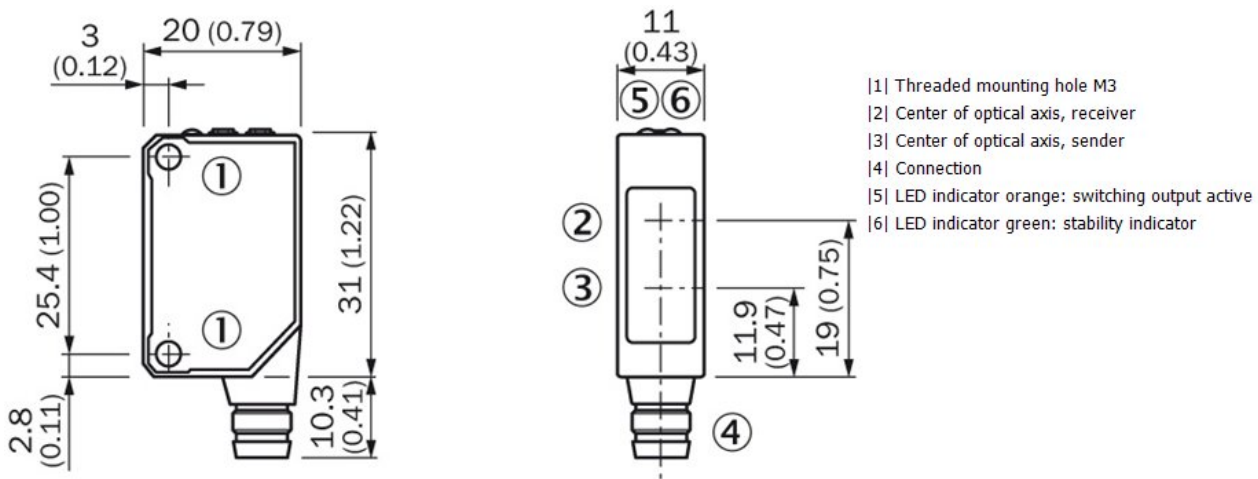
Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	± 10 % ²⁾

Power consumption:	$\leq 30 \text{ mA}$ ³⁾
Switching output:	PNP, Light/dark-switching, manually selectable, open collector
Signal voltage PNP HIGH/LOW:	UV - 1,8 V/ca. 0 V
Output current I _{max.} :	100
Response time:	$\leq 0.5 \text{ ms}$ ⁴⁾
Switching frequency:	1,000 ⁵⁾
Angle of dispersion:	Ca. 6.8 °
Connection type:	Connector M8, 4-pin
Circuit protection:::	A, B, D ^{6) 7) 8)}
Weight:	9 g
Polarisation filter:	-
Housing material:	ABS/PC/POM
Optics material:	PMMA
Enclosure rating:	IP 65
Items supplied:	Stainless steel mounting bracket (1.4301/304) BEF-W100-A
Ambient operating temperature:	-25 °C ... 55 °C
Ambient storage temperature:	-40 °C ... 70 °C

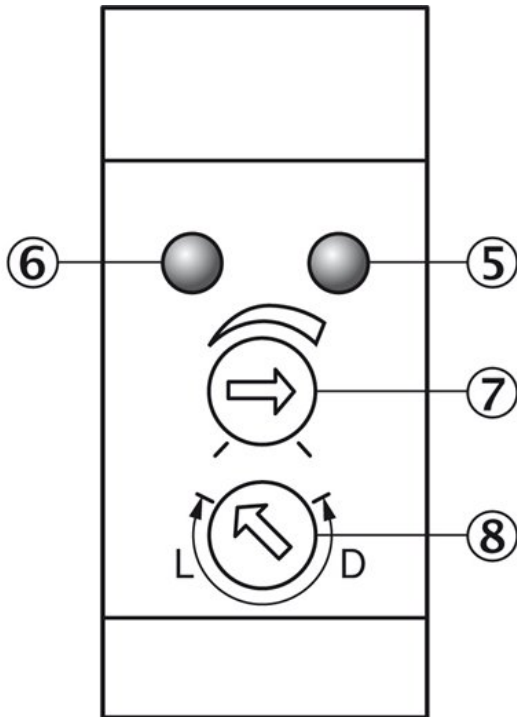
¹⁾ Limit values, operation in short-circuit protected network max. 8 A ²⁾ May not exceed or fall short of V_S ³⁾ Without load ⁴⁾ Signal transit time with resistive load ⁵⁾

With light/dark ratio 1:1 ⁶⁾ A = V_S connections reverse-polarity protected ⁷⁾ B = inputs and output reverse-polarity protected ⁸⁾ D = outputs overcurrent and short-circuit protected

Dimensional drawing

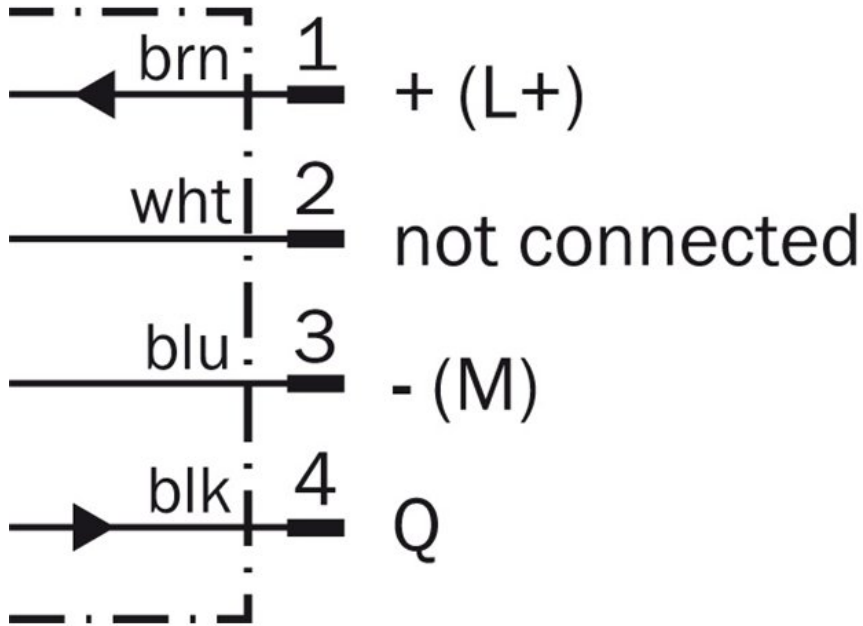


Adjustments possible

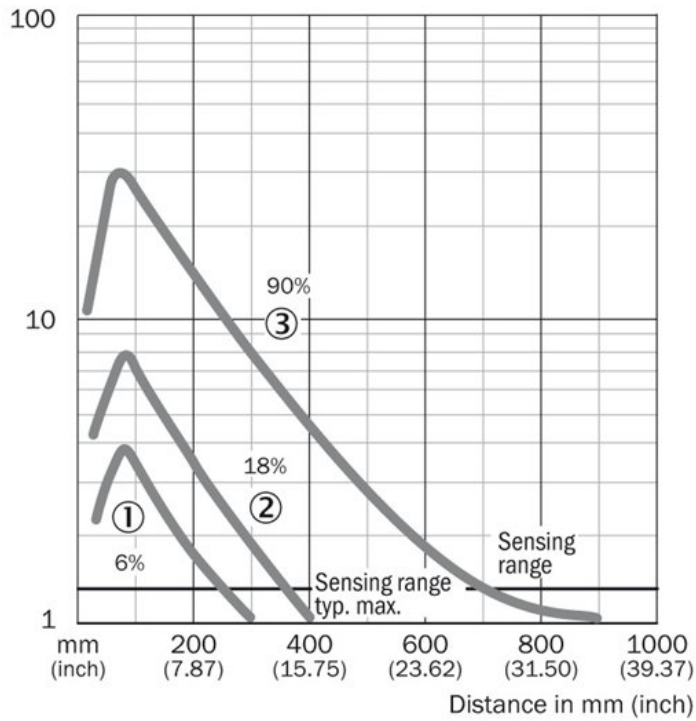


- |5| LED indicator orange: switching output active
- |6| LED indicator green- power on
- |7| Sensing distance adjustment (270°)
- |8| Light/ dark rotary switch L=
light switching, D= dark switching

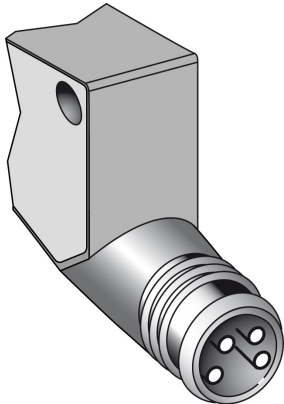
Connection diagram



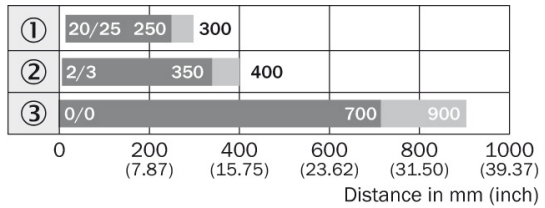
Characteristic curve



Connection type



Sensing range diagram



■ Sensing range ■ Sensing range typ. max.

- 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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