



Photoelectric sensors
W260, Photoelectric proximity sensor,
Background suppression

WT260-P460



Model Name > **WT260-P460**
Part No. > **1011540**



At a glance

- Long sensing ranges
- Background suppression or energetic sensory types
- Mounting bracket included in delivery
- Selectable operation mode (light/dark)
- Optional time stages
- M12 connector or terminal chamber
- DC and universal AC/DC voltage versions

Your benefits

- Reliable object detection
- Reliable in difficult ambient light conditions
- Configuration controls are protected by a cover, ensuring less damage and a longer service life
- Simplified integration due to mounting compatibility since variants for DC or DC/AC voltage supply are available in the same design
- Teach button and adjustable time delay versions simplify integration of individual systems



Features

Sensor/detection principle:	Photoelectric proximity sensor, Background suppression
Dimensions (W x H x D):	25 mm x 77.8 mm x 63 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0 mm ... 380 mm ¹⁾
Sensing range::	0 mm ... 380 mm, 75 mm ... 160 mm ^{2) 3)}
Type of light:	Infrared light
Light source:	LED ⁴⁾
Light spot (distance):	17 mm (300 mm)
Adjustment of operating distance:	Potentiometer, 270°
Angle of dispersion:	1.5 °

¹⁾ Object with 90 % reflectance (referred to standard white DIN 5033) ²⁾ Sensing distance control set to MAX ³⁾ Sensing distance control set to MIN ⁴⁾ Average

service life 100,000 h at Ta = +25 °C

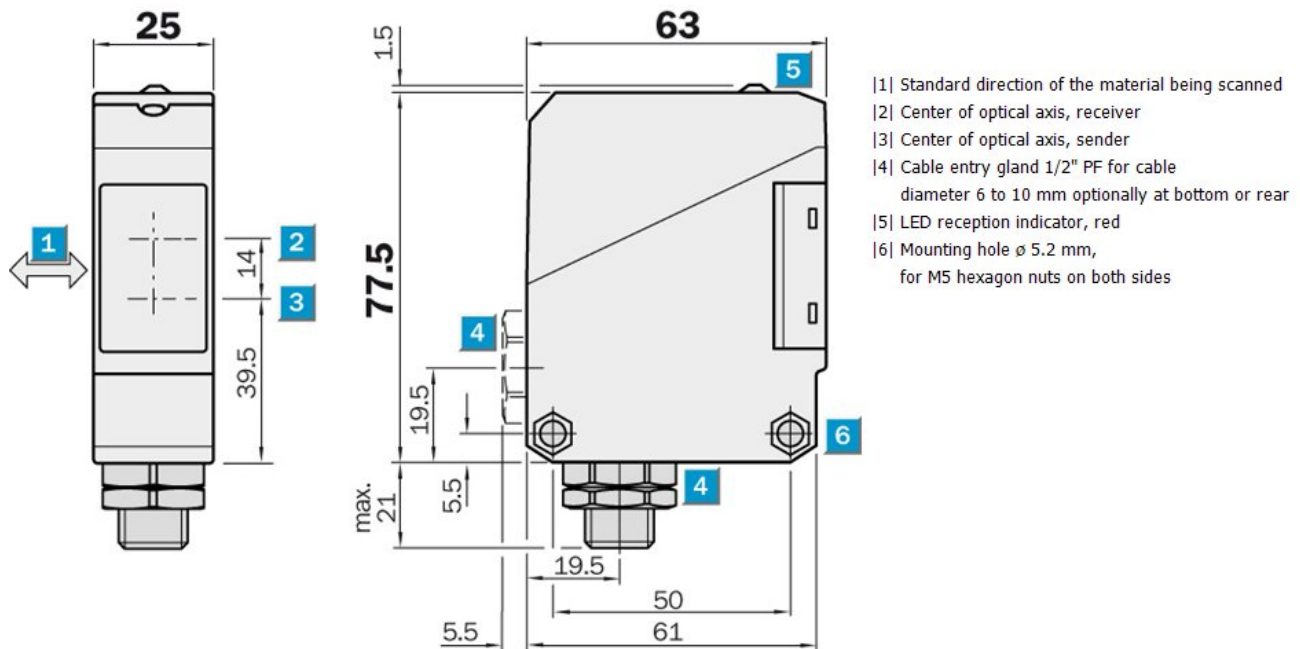
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	≤ 5 Vpp ²⁾

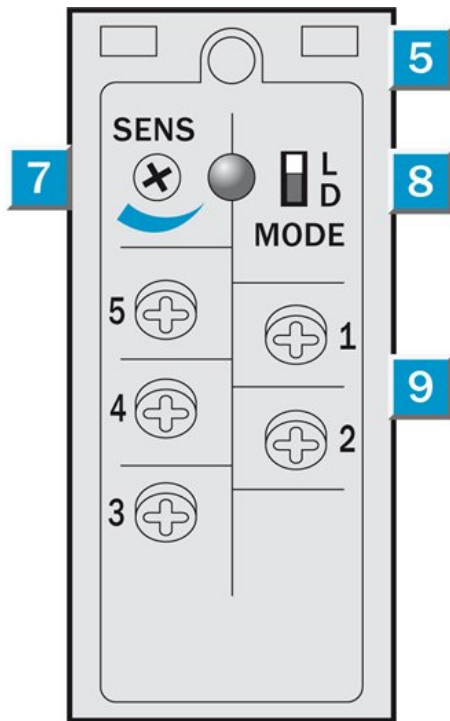
Power consumption:	$\leq 35 \text{ mA}$ ³⁾
Output type:	PNP, Light/dark-switching, selectable via light/dark selector, open collector
Output current I _{max.} :	100 mA
Response time:	$\leq 2 \text{ ms}$ ⁴⁾
Switching frequency:	250 Hz ⁵⁾
Connection type:	Connector M12, 4-pin
Circuit protection:::	A, B, C, D ⁶⁾ ⁷⁾ ⁸⁾ ⁹⁾
Protection class:	II ¹⁰⁾
Weight:	120 g
Alarm output:	100 mA, permanently ¹¹⁾
Housing material:	ABS
Optics material:	PC
Enclosure rating:	IP 66
Items supplied:	Mounting bracket BEF-W260
Test input sender off:	TE to VS
Ambient operating temperature:	-25 °C ... 55 °C
Ambient storage temperature:	-40 °C ... 70 °C
UL File-No.:	UL No. NRNT2.E128350 & cUL No. NRNT8.E128350

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⁾ C = interference suppression ⁹⁾ D =
 outputs overcurrent and short-circuit protected ¹⁰⁾ Reference voltage 50 V DC ¹¹⁾ Operating reserve < 50 %

Dimensional drawing

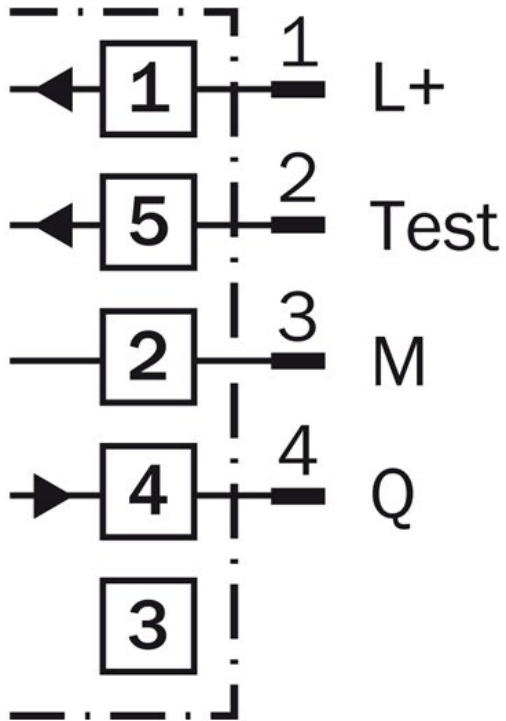


Adjustments possible

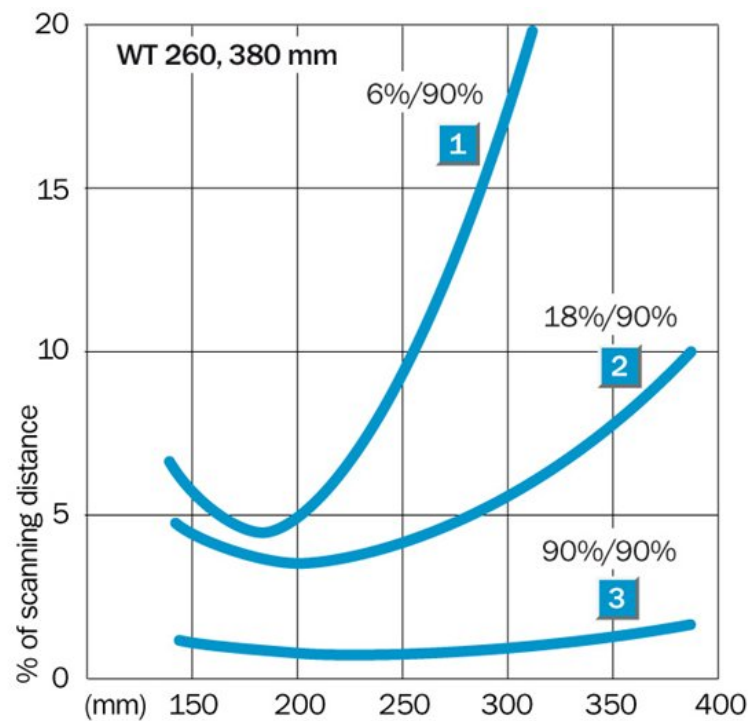


- |5| LED signal strength indicator, red
- |7| Sensing distance adjustment
- |8| Light/ dark rotary switch L=
light switching, D= dark switching
- |9| Terminals

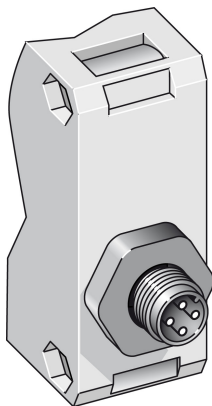
Connection diagram



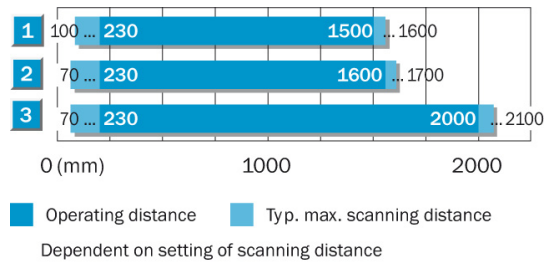
Characteristic curve



Connection type



Sensing range diagram



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

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