



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

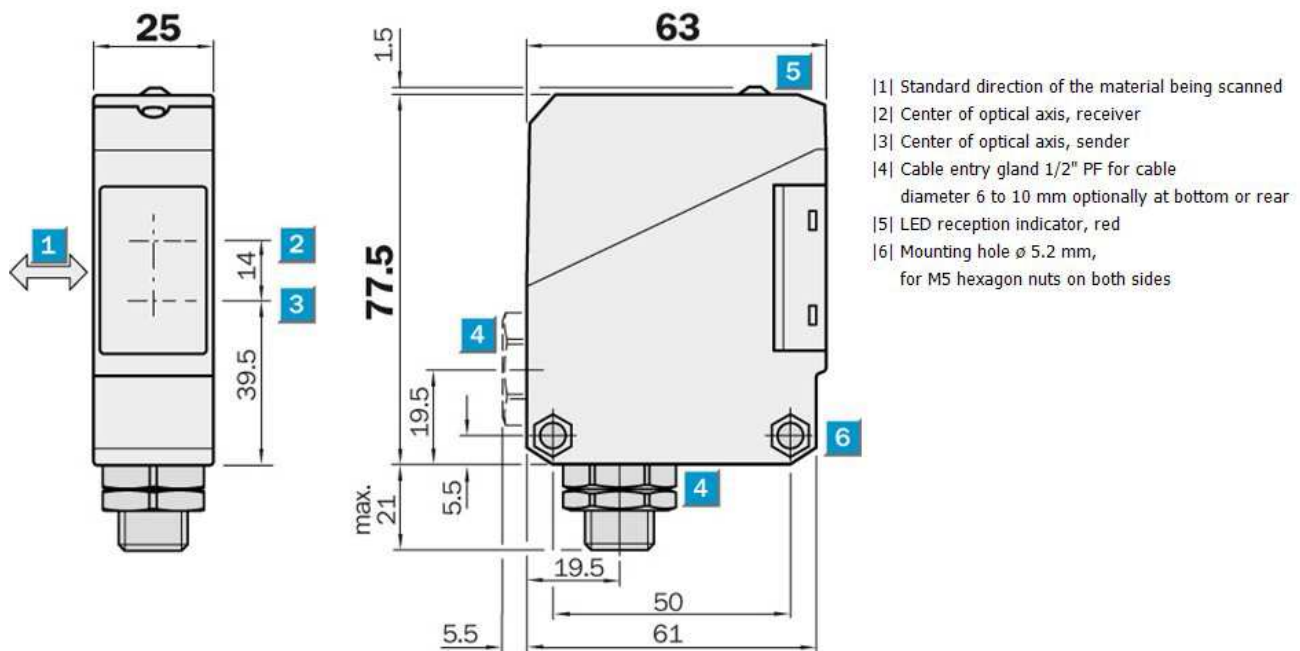
Mechanics/electronics

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

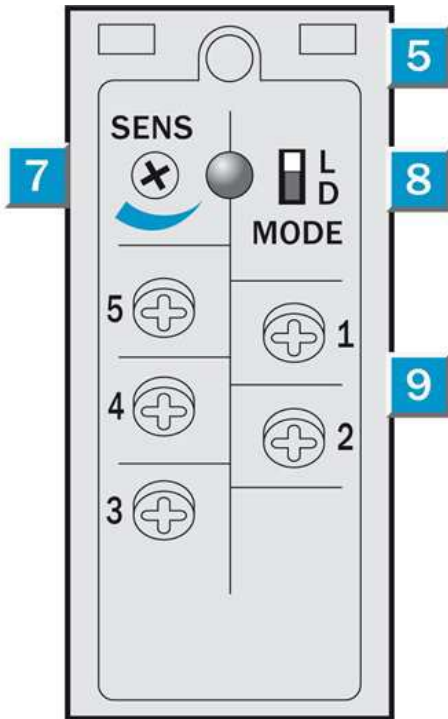
| | |
|------------------------------------|---|
| Current consumption: | ≤ 35 mA ³⁾ |
| Output type: | PNP, Light/dark-switching, selectable via light/dark selector, open collector |
| Output current I _{max.} : | 100 mA |
| Response time: | ≤ 2 ms ⁴⁾ |
| Switching frequency: | 250 Hz ⁵⁾ |
| Connection 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

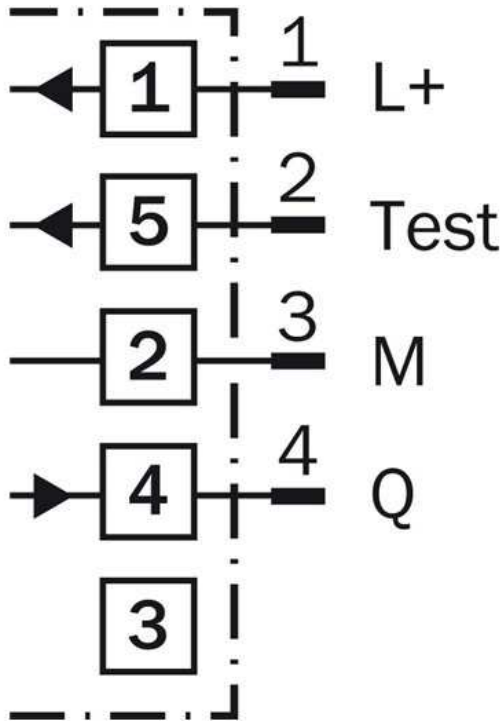


Adjustments possible

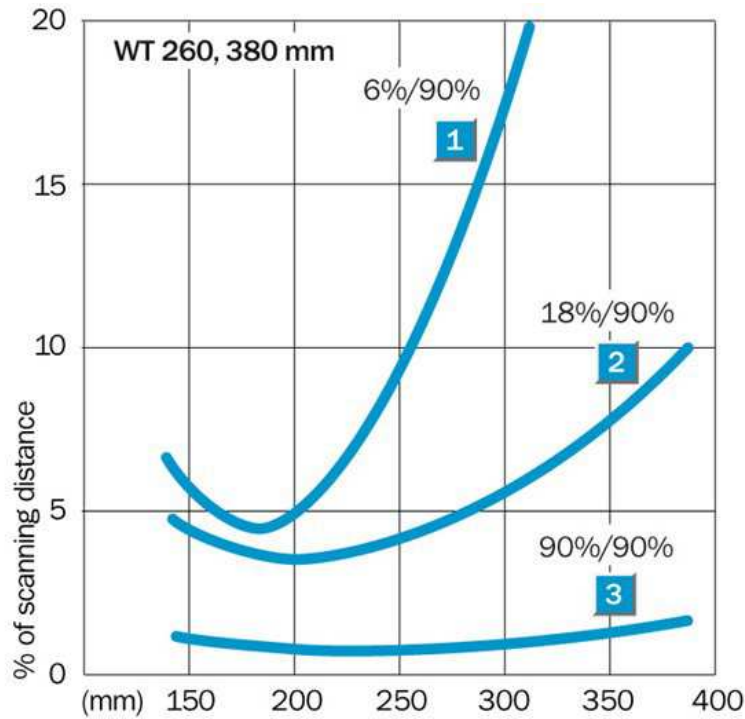


- |5| LED signal strength indicator, red
- |7| Sensing distance adjustment
- |8| Light/ dark rotary switch L= light switching, D= dark switching
- |9| Terminals

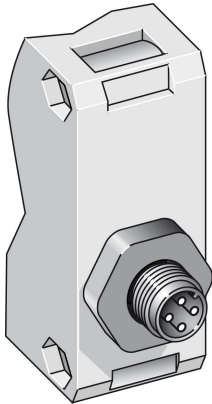
Connection diagram



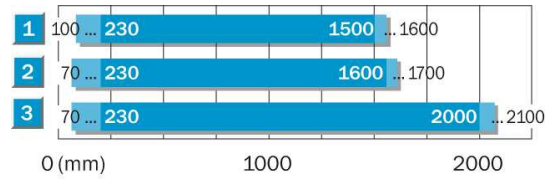
Characteristic curve



Connection type



Sensing range diagram



■ Operating distance ■ Typ. max. scanning distance
 Dependent on setting of scanning distance

| | |
|----------|---|
| 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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