



# WTF160T-E212

PRODUCT PORTFOLIO

**SICK**  
Sensor Intelligence.



Illustration may differ



## Ordering information

Type	Part no.
WTF160T-E212	6020411

Other models and accessories → [www.sick.com/](http://www.sick.com/)

## Detailed technical data

### Features

<b>Sensor/ detection principle</b>	Photoelectric proximity sensor
<b>Dimensions (W x H x D)</b>	11 mm x 38 mm x 23 mm
<b>Housing design (light emission)</b>	Rectangular
<b>Sensing range max.</b>	4 mm ... 120 mm <sup>1)</sup>
<b>Sensing range</b>	5 mm ... 100 mm <sup>1)</sup>
<b>Type of light</b>	Visible red light
<b>Light source</b>	LED
<b>Wave length</b>	650 nm

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033).

### Mechanics/electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC
<b>Ripple</b>	± 10 %
<b>Power consumption</b>	≤ 40 mA <sup>1)</sup>
<b>Switching output</b>	NPN
<b>Switching mode</b>	Light/dark switching
<b>Switching mode selector</b>	Selectable via light/dark rotary switch
<b>Response time</b>	≤ 0.5 ms <sup>2)</sup>
<b>Connection type</b>	Cable, 2 m <sup>3)</sup>
<b>Cable material</b>	PVC
<b>Conductor cross-section</b>	0.2 mm <sup>2</sup>
<b>Housing material</b>	Plastic, PBT
<b>Optics material</b>	Plastic, PMMA

<sup>1)</sup> Without load.

<sup>2)</sup> Signal transit time with resistive load.

<sup>3)</sup> 5 m available on request. Do not bend below 0 °C.

<b>Enclosure rating</b>	IP69K
<b>Ambient operating temperature</b>	-25 °C ... +55 °C
<b>Ambient storage temperature</b>	-40 °C ... +70 °C
<b>UL File No.</b>	NRNT2.E128350 & NRNT8.E128350

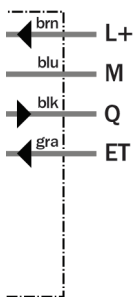
- 1) Without load.
- 2) Signal transit time with resistive load.
- 3) 5 m available on request. Do not bend below 0 °C.

### Adjustments possible

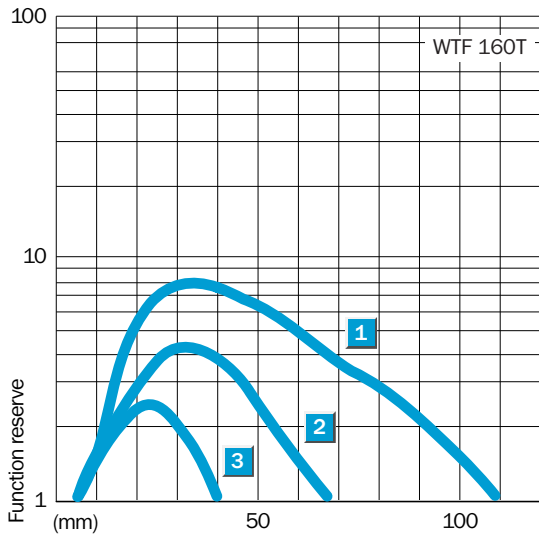


- ④ Teach-in button
- ⑤ Light/ dark rotary switch: L = light switching, D = dark switching
- ⑥ Orange LED indicator : switching output active
- ⑦ Green LED indicator: light reception with operating reserve >1.1

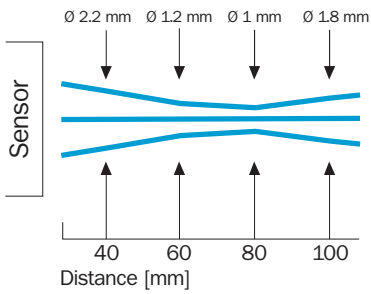
### Connection diagram



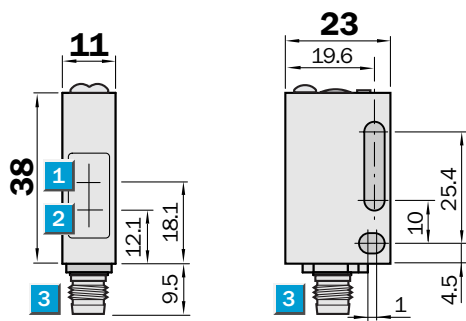
Characteristic curve



Light spot size



Dimensional drawing (Dimensions in mm (inch))



- ① Center of optical axis, receiver
- ② Center of optical axis, sender
- ③ Connector M8, 3/4-pin or connection cable

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)