



# WL160T-N212

PHOTOELECTRIC SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ

### Ordering information

Type	part no.
WL160T-N212	6020480

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

### Detailed technical data

#### Features

<b>Functional principle</b>	Photoelectric retro-reflective sensor
<b>Dimensions (W x H x D)</b>	11 mm x 23 mm x 38 mm
<b>Housing design (light emission)</b>	Rectangular
<b>Sensing range max.</b>	0.03 m ... 2.2 m <sup>1)</sup>
<b>Sensing range</b>	0.03 m ... 1.5 m <sup>1)</sup>
<b>Type of light</b>	Visible red light
<b>Light source</b>	LED
<b>Wave length</b>	665 nm

<sup>1)</sup> Reflector PL80A.

#### Mechanics/electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC
<b>Ripple</b>	± 10 %
<b>Current 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>	≤ 0.2 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
<b>Enclosure rating</b>	IP69K

<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.

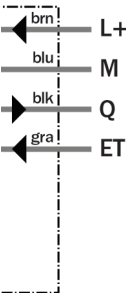
Ambient operating temperature	-25 °C ... +55 °C
Ambient temperature, storage	-40 °C ... +70 °C
UL File No.	NRNT2.E128350 & NRNT8.E128350

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

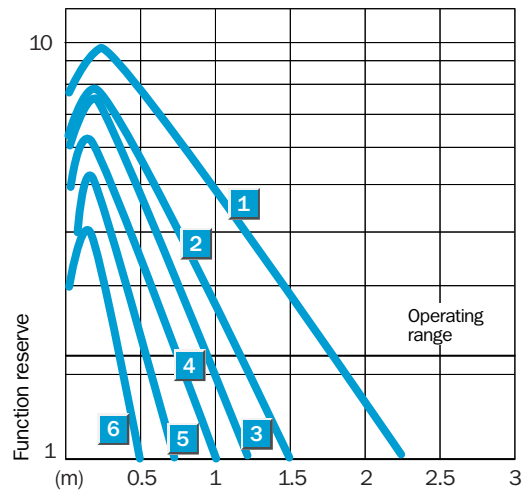
Classifications

ECLASS 5.0	27270902
ECLASS 5.1.4	27270902
ECLASS 6.0	27270902
ECLASS 6.2	27270902
ECLASS 7.0	27270902
ECLASS 8.0	27270902
ECLASS 8.1	27270902
ECLASS 9.0	27270902
ECLASS 10.0	27270902
ECLASS 11.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
ETIM 7.0	EC002717
UNSPSC 16.0901	39121528

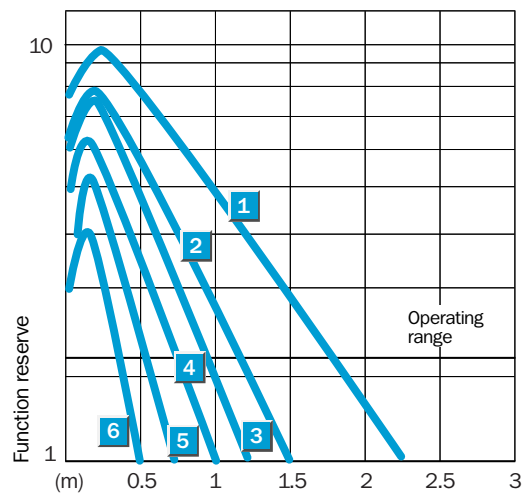
Connection diagram



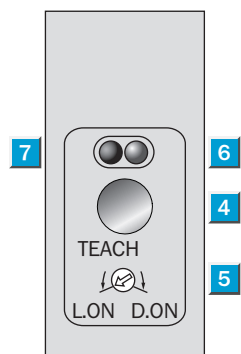
### Characteristic curve



### Light spot size



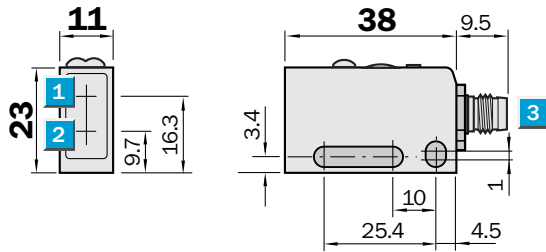
### Adjustments



- 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

### 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)