



WT160-F182

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | Part no. |
|------------|----------|
| WT160-F182 | 6022817 |

Other models and accessories → www.sick.com/

Detailed technical data

Features

| | |
|--|---------------------------------|
| Functional principle | Photoelectric proximity sensor |
| Functional principle detail | Energetic |
| Dimensions (W x H x D) | 11 mm x 38 mm x 23 mm |
| Housing design (light emission) | Rectangular |
| Sensing range max. | 0 mm ... 1,000 mm ¹⁾ |
| Sensing range | 0 mm ... 800 mm ¹⁾ |
| Type of light | Visible red light |
| Light source | LED |
| Wave length | 680 nm |

¹⁾ Object with 90% remission (based on standard white, DIN 5033).

Mechanics/electronics

| | |
|--------------------------------|---|
| Supply voltage | 10 V DC ... 30 V DC |
| Ripple | ± 10 % |
| Current consumption | 25 mA ¹⁾ |
| Switching output | PNP |
| Switching mode | Light/dark switching |
| Switching mode selector | Selectable via light/dark rotary switch |
| Response time | ≤ 0.5 ms ²⁾ |
| Connection type | Cable, 2 m ³⁾ |
| Cable material | PVC |
| Conductor cross section | 0.2 mm ² |
| Housing material | Plastic, PBT |

¹⁾ Without load.

²⁾ Signal transit time with resistive load.

³⁾ Do not bend below 0 °C.

| | |
|--------------------------------------|-------------------------------|
| Optics material | Plastic, PMMA |
| Enclosure rating | IP67 |
| Ambient operating temperature | -25 °C ... +55 °C |
| Ambient temperature, storage | -40 °C ... +70 °C |
| UL File No. | NRNT2.E128350 & NRNT8.E128350 |

1) Without load.

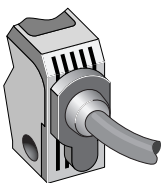
2) Signal transit time with resistive load.

3) Do not bend below 0 °C.

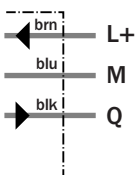
Classifications

| | |
|-----------------------|----------|
| eCl@ss 5.0 | 27270903 |
| eCl@ss 5.1.4 | 27270903 |
| eCl@ss 6.0 | 27270903 |
| eCl@ss 6.2 | 27270903 |
| eCl@ss 7.0 | 27270903 |
| eCl@ss 8.0 | 27270903 |
| eCl@ss 8.1 | 27270903 |
| eCl@ss 9.0 | 27270903 |
| eCl@ss 10.0 | 27270904 |
| eCl@ss 11.0 | 27270904 |
| ETIM 5.0 | EC001821 |
| ETIM 6.0 | EC001821 |
| ETIM 7.0 | EC002719 |
| UNSPSC 16.0901 | 39121528 |

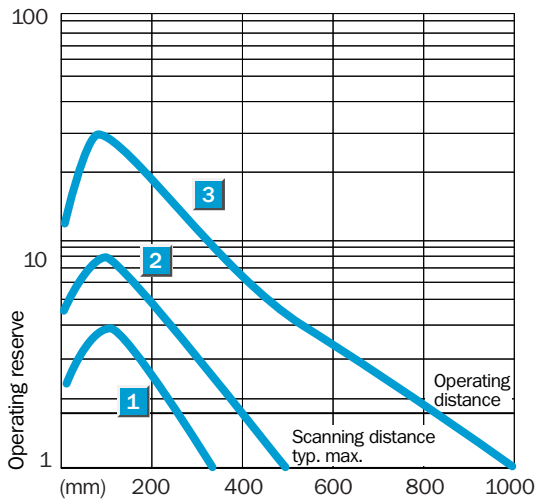
Connection type



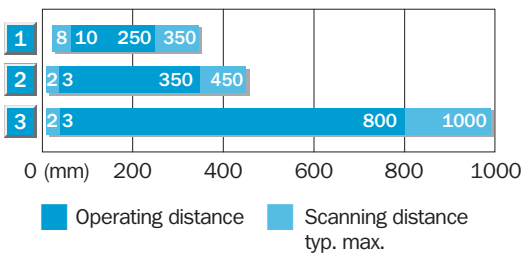
Connection diagram



Characteristic curve

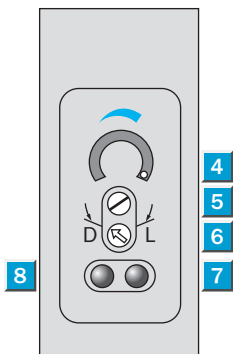


Sensing range diagram



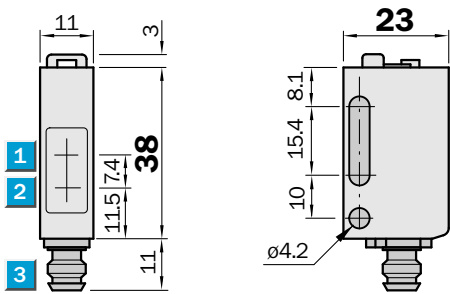
| | |
|---|---|
| 1 | Scanning range on black, 6 % remission |
| 2 | Scanning range on grey, 18 % remission |
| 3 | Scanning range on white, 90 % remission |

Adjustments



- ④ Scaling 270°
- ⑤ Sensitivity control
- ⑥ Light/ dark rotary switch: L = light switching, D = dark switching
- ⑦ Orange LED indicator : switching output active
- ⑧ Green LED indicator: light reception with operating reserve >1.1 and <0.9

Dimensional drawing (Dimensions in mm (inch))



- ① Center of optical axis, receiver
- ② Center of optical axis, sender
- ③ Connection

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