



MHTB15-P3367

MH15

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

| Type | part no. |
|--------------|----------|
| MHTB15-P3367 | 1046535 |

Other models and accessories → www.sick.com/MH15

Detailed technical data

Features

| | |
|--|--|
| Functional principle | Photoelectric proximity sensor |
| Functional principle detail | Background suppression |
| Dimensions (W x H x D) | 18 mm x 18 mm x 36.8 mm |
| Housing design (light emission) | Cylindrical |
| Housing length | 36.8 mm |
| Thread diameter (housing) | M18 x 1 |
| Optical axis | Axial |
| Sensing range max. | 3 mm ... 300 mm ¹⁾ |
| Sensing range | 3 mm ... 300 mm |
| Type of light | Visible red light |
| Light source | PinPoint LED ²⁾ |
| Light spot size (distance) | Ø 7 mm (100 mm) |
| Wave length | 650 nm |
| Adjustment | Potentiometer, 270° (Sensing range) Potentiometer, 270° |

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

²⁾ Average service life: 100,000 h at T_U = +25 °C.

Mechanics/electronics

| | |
|-----------------------|-----------------------------------|
| Supply voltage | 10 V DC ... 30 V DC ¹⁾ |
| Ripple | < 5 V _{pp} ²⁾ |

¹⁾ Limit values.

²⁾ May not exceed or fall below U_V tolerances.

³⁾ Without load.

⁴⁾ Reduced output current at ambient operating temperatures > 50 °C: I_{Amax} = 50 mA.

⁵⁾ Signal transit time with resistive load.

⁶⁾ With light/dark ratio 1:1.

⁷⁾ A = V_S connections reverse-polarity protected.

⁸⁾ C = interference suppression.

⁹⁾ D = outputs overcurrent and short-circuit protected.

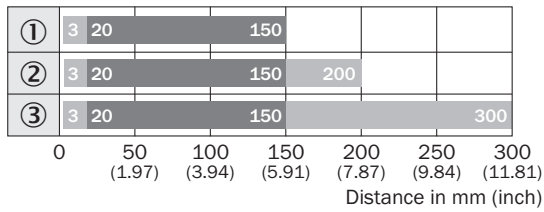
| | |
|--|---|
| Current consumption | 30 mA ³⁾ |
| Switching output | PNP |
| Switching mode | Light switching |
| Signal voltage PNP HIGH/LOW | U _v - (< 2,9 V) / ca. 0 V |
| Output current I_{max.} | ≤ 100 mA ⁴⁾ |
| Response time | ≤ 0.72 ms ⁵⁾ |
| Switching frequency | 700 Hz ⁶⁾ |
| Connection type | Connector M12, 3-pin |
| Circuit protection | A ⁷⁾ C ⁸⁾ D ⁹⁾ |
| Protection class | III |
| Weight | 7 g |
| Housing material | Plastic, ABS |
| Optics material | Plastic, PMMA |
| Enclosure rating | IP67 IP69K |
| Ambient operating temperature | -25 °C ... +55 °C |
| Ambient temperature, storage | -25 °C ... +70 °C |
| UL File No. | NRKH.E189383 & NRKH7.E189383 |

- 1) Limit values.
 2) May not exceed or fall below U_v tolerances.
 3) Without load.
 4) Reduced output current at ambient operating temperatures > 50 °C: I_{Amax} = 50 mA.
 5) Signal transit time with resistive load.
 6) With light/dark ratio 1:1.
 7) A = V_S connections reverse-polarity protected.
 8) C = interference suppression.
 9) D = outputs overcurrent and short-circuit protected.

Classifications

| | |
|---------------------|----------|
| ECLASS 5.0 | 27270904 |
| ECLASS 5.1.4 | 27270904 |
| ECLASS 6.0 | 27270904 |
| ECLASS 6.2 | 27270904 |
| ECLASS 7.0 | 27270904 |
| ECLASS 8.0 | 27270904 |
| ECLASS 8.1 | 27270904 |
| ECLASS 9.0 | 27270904 |
| ECLASS 10.0 | 27270904 |
| ECLASS 11.0 | 27270904 |
| ECLASS 12.0 | 27270903 |
| ETIM 5.0 | EC002719 |
| ETIM 6.0 | EC002719 |

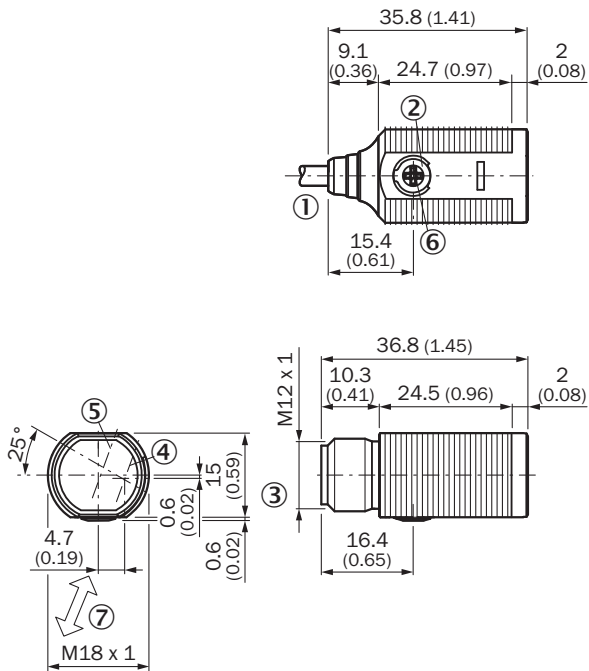
Sensing range diagram



■ Sensing range ■ Sensing range max.

- ① sensing range on black, 6% remission
- ② Sensing range on gray, 18 % remission
- ③ sensing range on white, 90% remission

Dimensional drawing




Dimensions in mm (inch)

- ① Connection cable 2 m
- ② LED indicator yellow: Status of received light beam
- ③ M12 male device connector, 3-pin
- ④ optical axis, sender
- ⑤ optical axis, receiver
- ⑥ Sensing range adjustment: potentiometer, 270°
- ⑦ Standard direction of the material being detected

Recommended accessories

Other models and accessories → www.sick.com/MH15

| | Brief description | Type | part no. |
|---|---|------------|----------|
| Mounting systems | | | |
|  | <ul style="list-style-type: none">• Description: Mounting bracket for M18 sensors• Material: Steel• Details: Steel, zinc coated• Items supplied: Without mounting hardware• Suitable for: GR18, V180-2, V18, W15, Z1, Z2 | BEF-WN-M18 | 5308446 |

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:

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