# MHT15-P3217V

MH15V

**CYLINDRICAL PHOTOELECTRIC SENSORS**

**SICK**
Sensor Intelligence.

# MHT15-P3217V | MH15V

## CYLINDRICAL PHOTOELECTRIC SENSORS

## Ordering information

| Type | Part no. |
|------|----------|
| MHT15-P3217V | 1043805 |

Other models and accessories ➔ www.sick.com/MH15V

Illustration may differ

## Detailed technical data

### Features

| | |
|---|---|
| Sensor/ detection principle | Photoelectric proximity sensor, Energetic |
| Housing design (light emission) | Cylindrical |
| Housing length | 52.9 mm |
| Thread diameter (housing) | M18 x 1 |
| Optical axis | Axial |
| Sensing range max. | 10 mm ... 100 mm [1] |
| Sensing range | 10 mm ... 90 mm |
| Type of light | Infrared light |
| Light source | LED [2] |
| Light spot size (distance) | Ø 20 mm (100 mm) |
| Angle of dispersion | Approx. 4.5° |
| Wave length | 950 nm |
| Adjustment | Potentiometer, 270° (Sensing range) |
| Special applications | Hygienic and washdown zones |

[1] Object with 90 % reflectance (referred to 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] |
| **Power consumption** | 30 mA [3] |
| **Switching output** | PNP |
| **Switching mode** | Dark switching |
| **Signal voltage PNP HIGH/LOW** | Uv - (< 2,9 V) / ca. 0 V |
| **Output current I$_{max.}$** | ≤ 100 mA |
| **Response time** | ≤ 1.25 ms [4] |
| **Switching frequency** | 400 Hz [5] |
| **Connection type** | Male connector M12, 4-pin |
| **Circuit protection** | A [6] <br> C [7] <br> D [8] |
| **Protection class** | III |
| **Weight** | 50 g |
| **Housing material** | Stainless steel, Stainless steel V4A (1.4404, 316L) |
| **Optics material** | Plastic, PMMA |
| **Enclosure rating** | IP67 <br> IP68 <br> IP69K |
| **Ambient operating temperature** | –25 °C ... +55 °C [9] |
| **Ambient storage temperature** | –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] Signal transit time with resistive load.

[5] With light/dark ratio 1:1.

[6] A = $V_S$ connections reverse-polarity protected.

[7] C = interference suppression.

[8] D = outputs overcurrent and short-circuit protected.

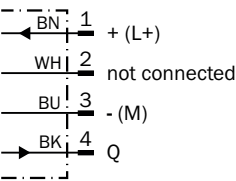[9] Use at higher ambient temperatures reduce the sender LED lifetime .

## Classifications

| | |
|---|---|
| **ECl@ss 5.0** | 27270904 |
| **ECl@ss 5.1.4** | 27270904 |
| **ECl@ss 6.0** | 27270904 |
| **ECl@ss 6.2** | 27270904 |
| **ECl@ss 7.0** | 27270904 |
| **ECl@ss 8.0** | 27270904 |
| **ECl@ss 8.1** | 27270904 |
| **ECl@ss 9.0** | 27270904 |
| **ETIM 5.0** | EC002719 |
| **ETIM 6.0** | EC002719 |

| UNSPSC 16.0901 | 39121528 |
|---|---|

## Connection diagram

Cd-066

| | | |
|---|---|---|
| BN | 1 | + (L+) |
| WH | 2 | not connected |
| BU | 3 | - (M) |
| BK | 4 | Q |

## Characteristic curve

MHT15V, 100 mm

① Sensing range on black, 6% remission
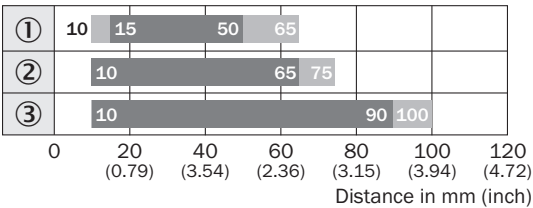② Sensing range on gray, 18 % remission
③ Sensing range on white, 90% remission
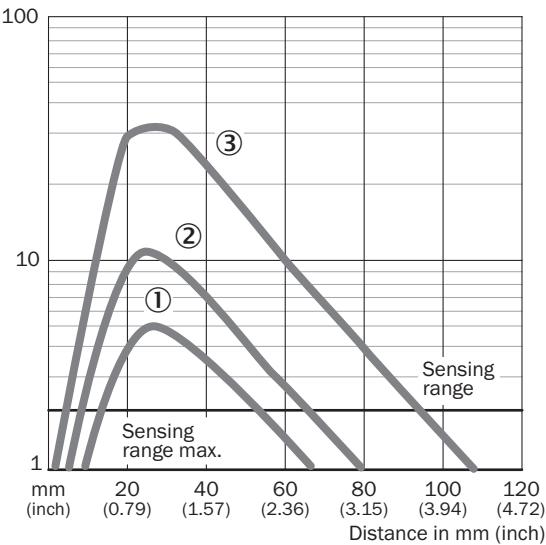
## Sensing range diagram

MHT15V, 100 mm
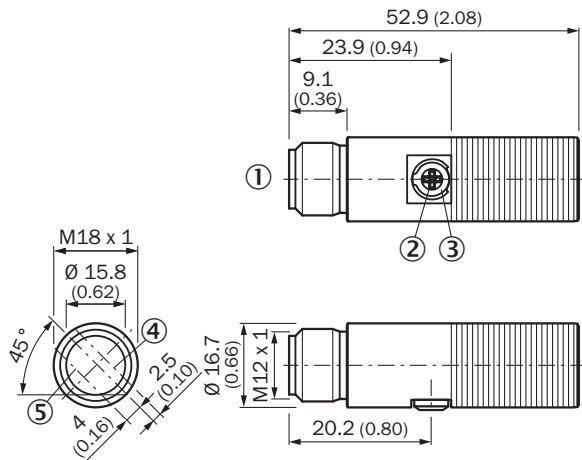
■ Sensing range    ■ Sensing range max.

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))

MHT15V



① M12 male device connector, 4-pin
② Sensitivity control 270°
③ Yellow LED indicator,-lights continuously: Light reception> reserve factor 1.3-blinks: Light reception, reserve factor > 1.0 ... < 1.3
④ Optical axis, sender
⑤ Optical axis, receiver

## Recommended accessories

Other models and accessories ➜ www.sick.com/MH15V

| | Brief description | Type | Part no. |
|---|---|---|---|
| Plug connectors and cables | | | |
| | Head A: female connector, M12, 4-pin, straight<br>Head B: Flying leads<br>Cable: PVC, unshielded, 5 m<br>This product is generally resistant to chemical cleaning agents (see ECOLAB). Please do not use cleaning agents of any other Kind., Not resistant against lactic acid & hydrogen peroxide (H2O2) | DOL-1204-G05MNI | 6052615 |

## 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**

SICK AG  |  Waldkirch  |  Germany  |  www.sick.com

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