



Photoelectric sensors  
MH15, Photoelectric proximity sensor,  
Background suppression

MHTB15-P3367



**Model Name** > [MHTB15-P3367](#)  
**Part No.** > [1046535](#)



*Illustration may differ*

**At a glance**

- Long sensing distance up to 300 mm
- Shortest M18 sensor housing on the market
- Superior background suppression technology based on OES3 ASIC technology, with second LED emitter
- Indicator LED shows active switching output and operating reserve
- Simple adjustment via potentiometer
- Mounting accessories are included

**Your benefits**

- Photoelectric proximity sensor with best-in-class background suppression, reducing product loss and increasing throughput
- Shortest M18 housing on the market enables installation in tight spaces and reduces manufacturing costs
- Light spot visibility and light spot geometry via PinPoint LED technology simplifies alignment
- Reliable object detection, even in difficult environments reduces miscount and increases machine throughput
- Compatible with many competitor models, making it easy to install and commission
- Flush mounting reduces setup time and prevents obstructions to material flow on conveyor sections



**Features**

Sensor/detection principle:	Photoelectric proximity sensor, Background suppression
Housing design (light emission):	Cylindrical, straight
Housing length:	36.8 mm
Thread diameter (housing):	M18 x 1
Optical axis:	Axial
Sensing range max.:	3 mm ... 300 mm <sup>1)</sup>
Sensing range:	3 mm ... 300 mm
Type of light:	Visible red light
Light source:	PinPoint LED <sup>2)</sup>
Wave length:	650 nm
Adjustment:	Potentiometer, 270°
Light spot size (distance):	Ø 7 mm (100 mm)

<sup>1)</sup> Object with 90 % reflectance (referred to standard white DIN 5033) <sup>2)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

## Mechanics/electronics

---

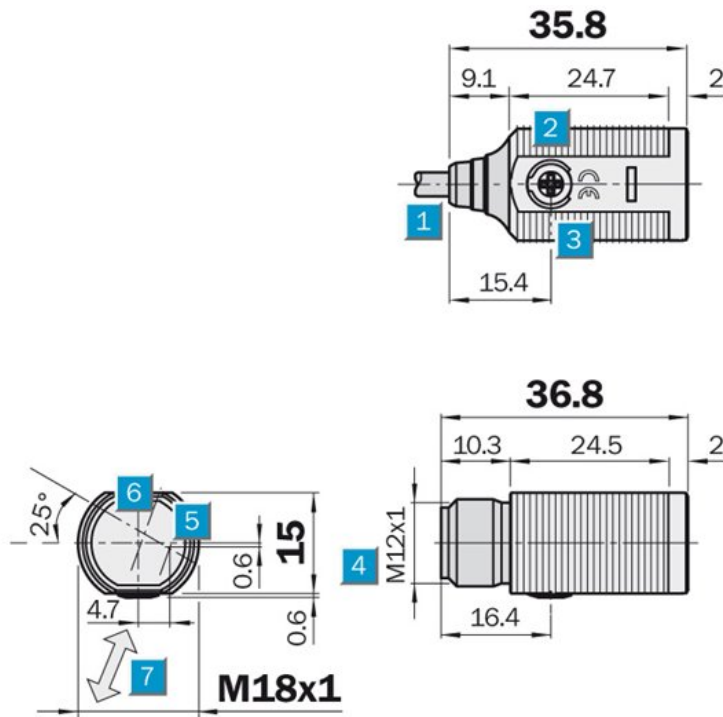
Supply voltage:	10 V DC ... 30 <sup>1)</sup>
Ripple:	$\leq 5 V_{pp}$ <sup>2)</sup>
Power consumption:	30 <sup>3)</sup>
Output type:	PNP
Switching mode:	Light switching
Signal voltage PNP HIGH/LOW:	$U_v - (< 2,9 V) / \text{ca. } 0 V$
Output current I <sub>max</sub> ·:	100 <sup>4)</sup>
Response time:	$\leq 0.72 \text{ ms}$ <sup>5)</sup>
Switching frequency:	700 <sup>6)</sup>
Connection type:	Connector M12, 3-pin
Circuit protection:::	A, C, D <sup>7) 8) 9)</sup>
Protection class:	III
Weight:	7 g
Polarisation filter:	-
Front screen heating:	-
Housing material:	ABS, Plastic
Optics material:	PMMA
Enclosure rating:	IP 67 IP 69K
Ambient operating temperature:	-25 ... 55 °C
Ambient storage temperature:	-25 ... 70 °C
UL File No.:	NRKH.E189383 & NRKH7.E189383

1) Limit values 2) May not exceed or fall short of  $V_S$  tolerances 3) Without load 4) Reduced output current at ambient operating temperatures > 50 °C: I<sub>Amax</sub> = 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

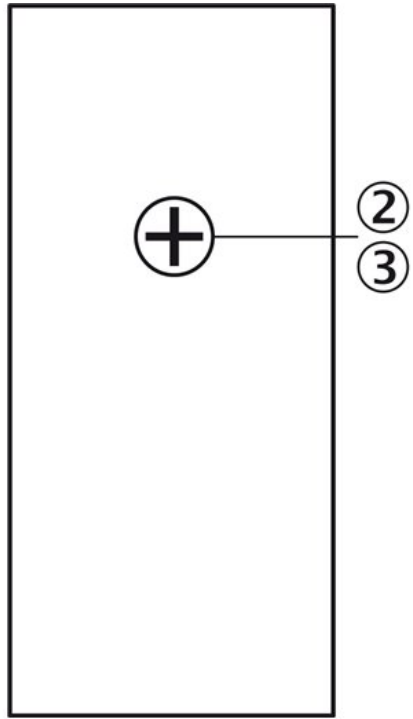
overcurrent and short-circuit protected

**Dimensional drawing**



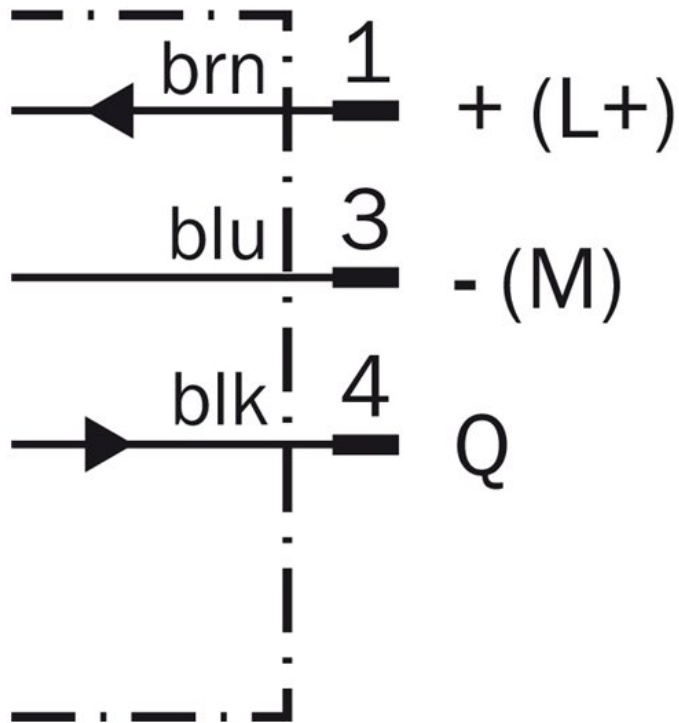
- |1| Connection cable 2 m
- |2| Status indicator LED,  
yellow: Status of received light beam
- |3| Sensing range adjustment: potentiometer, 270°
- |5| Optical axis sender
- |6| Standard direction of the material being scanned

**Adjustments possible**

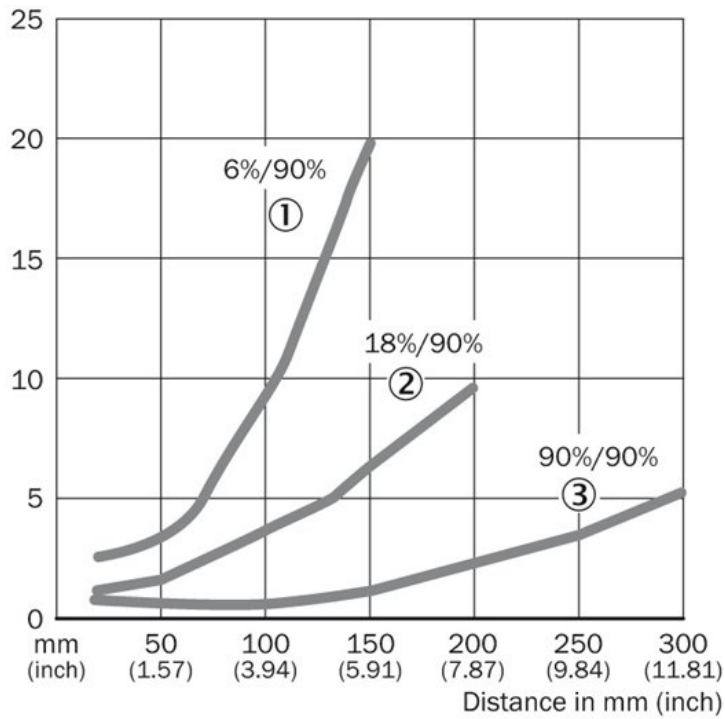


- |2| Sensitivity adjustment 270°
- |3| Yellow LED indicator,-lights continuously: Light  
reception> reserve factor 1,3-blinks: Light recepti  
on >reserve factor 1,3but light reception>switching thres

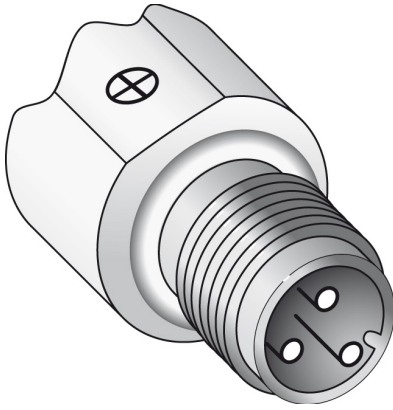
Connection diagram



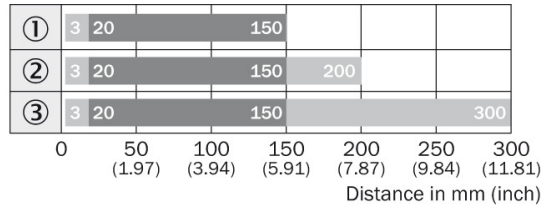
Characteristic curve



## Connection type



## Sensing range diagram



■ Sensing range      ■ Sensing range typ. max.

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

**Australia**

Phone +61 3 9457 0600  
1800 334 802 – tollfree  
E-Mail sales@sick.com.au

**Belgium/Luxembourg**

Phone +32 (0)2 466 55 66  
E-Mail info@sick.be

**Brasil**

Phone +55 11 3215-4900  
E-Mail sac@sick.com.br

**Canada**

Phone +1 905 771 14 44  
E-Mail information@sick.com

**Ceská Republika**

Phone +420 2 57 91 18 50  
E-Mail sick@sick.cz

**China**

Phone +86 4000 121 000  
E-Mail info.china@sick.net.cn  
Phone +852-2153 6300  
E-Mail ghk@sick.com.hk

**Danmark**

Phone +45 45 82 64 00  
E-Mail sick@sick.dk

**Deutschland**

Phone +49 211 5301-301  
E-Mail kundenservice@sick.de

**España**

Phone +34 93 480 31 00  
E-Mail info@sick.es

**France**

Phone +33 1 64 62 35 00  
E-Mail info@sick.fr

**Great Britain**

Phone +44 (0)1727 831121  
E-Mail info@sick.co.uk

**India**

Phone +91-22-4033 8333  
E-Mail info@sick-india.com

**Israel**

Phone +972-4-6801000  
E-Mail info@sick-sensors.com

**Italia**

Phone +39 02 27 43 41  
E-Mail info@sick.it

**Japan**

Phone +81 (0)3 3358 1341  
E-Mail support@sick.jp

**Magyarország**

Phone +36 1 371 2680  
E-Mail office@sick.hu

**Nederlands**

Phone +31 (0)30 229 25 44  
E-Mail info@sick.nl

**Norge**

Phone +47 67 81 50 00  
E-Mail austefjord@sick.no

**Österreich**

Phone +43 (0)22 36 62 28 8-0  
E-Mail office@sick.at

**Polska**

Phone +48 22 837 40 50  
E-Mail info@sick.pl

**România**

Phone +40 356 171 120  
E-Mail office@sick.ro

**Russia**

Phone +7-495-775-05-30  
E-Mail info@sick.ru

**Schweiz**

Phone +41 41 619 29 39  
E-Mail contact@sick.ch

**Singapore**

Phone +65 6744 3732  
E-Mail admin@sicksgp.com.sg

**Slovenija**

Phone +386 (0)1-47 69 990  
E-Mail office@sick.si

**South Africa**

Phone +27 11 472 3733  
E-Mail info@sickautomation.co.za

**South Korea**

Phone +82 2 786 6321/4  
E-Mail info@sickkorea.net

**Suomi**

Phone +358-9-25 15 800  
E-Mail sick@sick.fi

**Sverige**

Phone +46 10 110 10 00  
E-Mail info@sick.se

**Taiwan**

Phone +886-2-2375-6288  
E-Mail sales@sick.com.tw

**Türkiye**

Phone +90 (216) 528 50 00  
E-Mail info@sick.com.tr

**United Arab Emirates**

Phone +971 (0) 4 8865 878  
E-Mail info@sick.ae

**USA/México**

Phone +1(952) 941-6780  
1 800-325-7425 – tollfree  
E-Mail info@sickusa.com

More representatives and agencies  
at [www.sick.com](http://www.sick.com)