



Photoelectric sensors
MH15V, Photoelectric proximity sensor,
Background suppression

MHTB15-P3367V



Model Name > [MHTB15-P3367V](#)
Part No. > [1046537](#)



Illustration may differ

At a glance

- Long sensing distance as 300 mm
- Stainless steel housing (316L/1.4404) with IP 69K, IP 67 enclosure rating
- Resistant to cleaning agents according to ECOLAB and JohnsonDiversey
- Superior background suppression technology based on OES3 ASIC technology, with second LED emitter
- PinPoint LED with short, highly visible light spot
- Indicator LED shows active switching output and operating reserve
- Simple adjustment via potentiometer

Your benefits

- Field-tested, compact, stainless steel IP 69K design of the MH15V reduces downtime and replacement costs
- Photoelectric proximity sensor with best-in-class background suppression reduces product loss and increases throughput
- Shortest M18 housing on the market enables installation in tight spaces, which reduces manufacturing costs
- Light spot visibility and light spot geometry via PinPoint LED technology simplify alignment
- Reliable object detection, even in difficult environments reduces miscount and increases machine throughput
- 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:	52.9 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⁾
Wave length:	650 nm
Adjustment:	Potentiometer, 270 °
Light spot size (distance):	Ø 7 mm (100 mm)

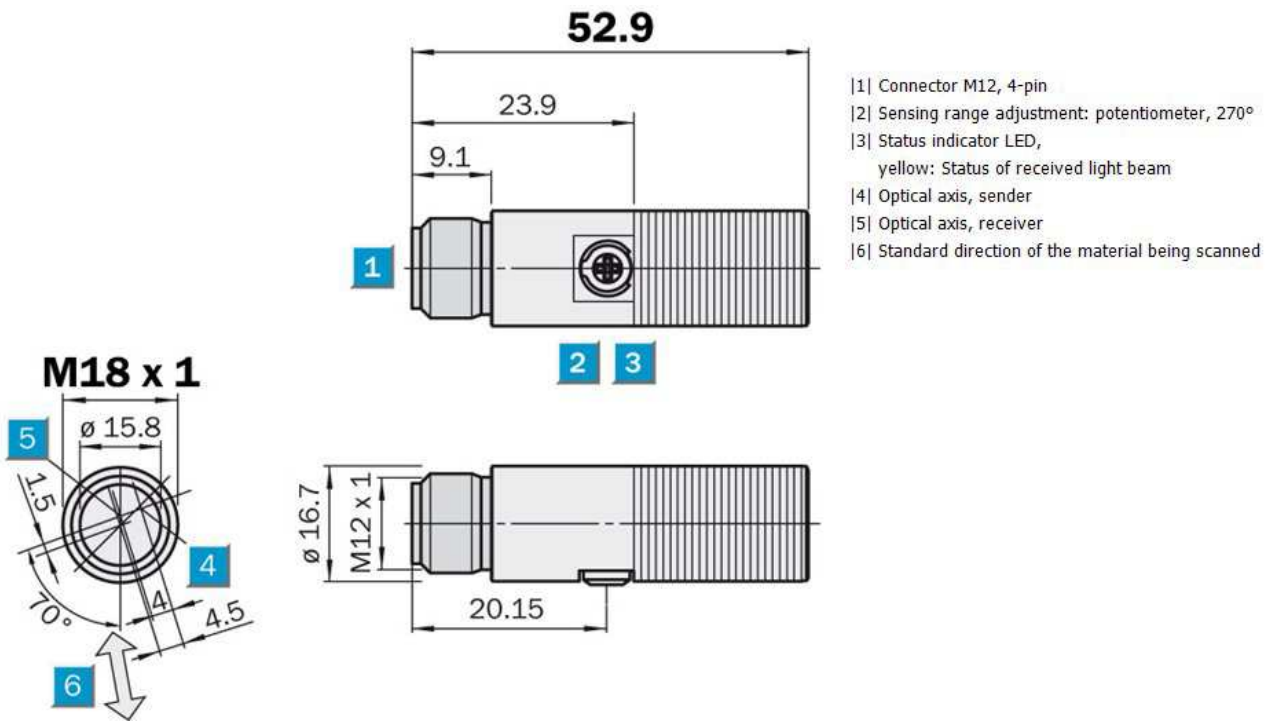
1) Object with 90 % reflectance (referred to standard white DIN 5033) 2) Average service life of 100,000 h at $T_A = +25\text{ °C}$

Mechanics/electronics

Supply voltage:	10 V DC ... 30 V ¹⁾
Ripple:	$\leq 5\text{ Vpp}$ ²⁾
Power consumption:	$\leq 30\text{ mA}$ ³⁾
Output type:	PNP
Switching mode:	Light switching
Signal voltage PNP HIGH/LOW:	$U_v - (< 2,9\text{ V}) / \text{ca. } 0\text{ V}$
Output current I _{max.} :	$\leq 100\text{ mA}$ ⁴⁾
Response time:	$\leq 0.72\text{ ms}$ ⁵⁾
Switching frequency:	700 Hz ⁶⁾
Connection type:	Connector M12, 4-pin ⁷⁾
Circuit protection:::	A, C, D ^{8) 9) 10)}
Protection class:	III
Weight:	50 g
Housing material:	Stainless steel, Stainless steel V4A (1.4404, 316L)
Optics material:	PMMA
Enclosure rating:	IP 67 IP 68 IP 69K
Ambient operating temperature::	$-25\text{ °C} \dots 55\text{ °C}$ ^{11) 12)}
Ambient storage temperature:	$-25\text{ °C} \dots 70\text{ °C}$
UL File No.:	NRKH.E189383 & NRKH7.E189383

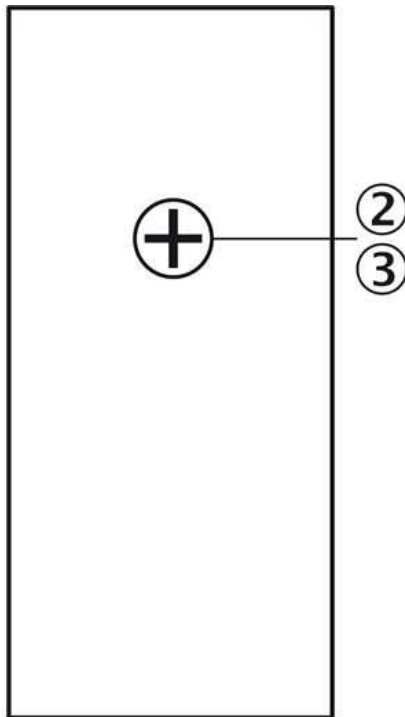
1) Limit values 2) May not exceed or fall short of V_S tolerances 3) Without load 4) Reduced output current at ambient operating temperatures $> 50\text{ °C}$: $I_{Amax} = 50\text{ mA}$
5) Signal transit time with resistive load 6) With light/dark ratio 1:1 7) With gold plated contact pins 8) $A = V_S$ connections reverse-polarity protected 9) C = interference suppression 10) D = outputs overcurrent and short-circuit protected 11) Use at higher ambient temperatures reduce the sender LED lifetime 12) $+100\text{ °C}$ for 15 minutes

Dimensional drawing



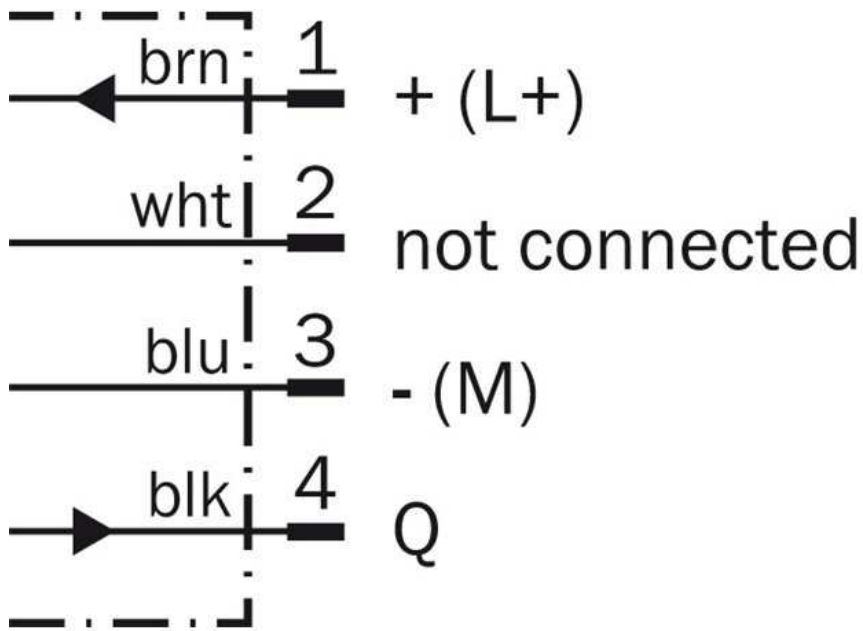
- |1| Connector M12, 4-pin
- |2| Sensing range adjustment: potentiometer, 270°
- |3| Status indicator LED, yellow: Status of received light beam
- |4| Optical axis, sender
- |5| Optical axis, receiver
- |6| Standard direction of the material being scanned

Adjustments possible

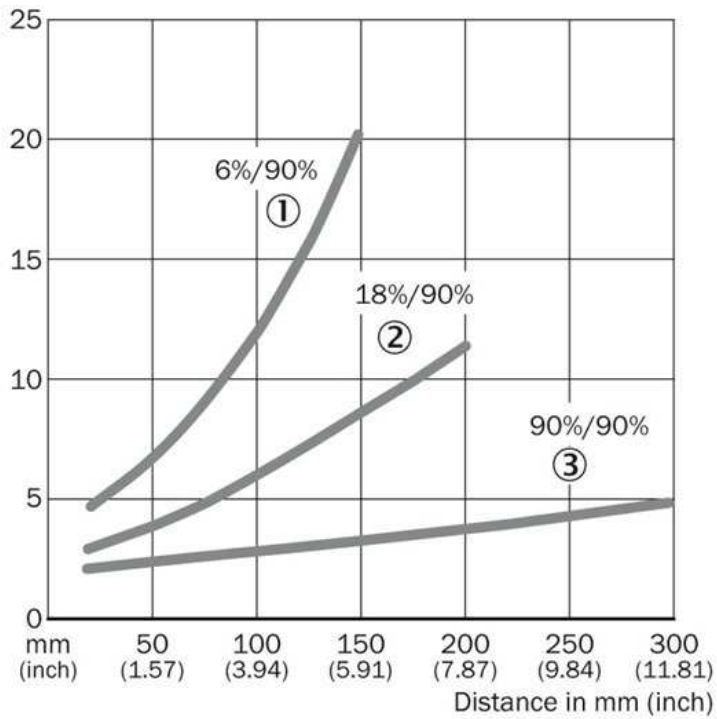


- |2| Sensitivity adjustment 270°
- |3| Yellow LED indicator,-lights continuously: Light reception> reserve factor 1,3-blinks: Light reception >reserve factor 1,3but light reception>switching threshold

Connection diagram



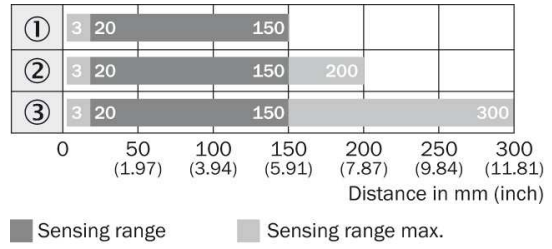
Characteristic curve



Connection type



Sensing range diagram



Australia

Phone +61 3 9457 0600
1800 33 48 02 – 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 marketing@sick.com.br

Canada

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

Česká 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 info@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 +972-4-6881000
E-Mail info@sick-sensors.com

Italia

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

Japan

Phone +81 (0)3 5309 2112
E-Mail support@sick.jp

Magyarország

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

Nederland

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

Norge

Phone +47 67 81 50 00
E-Mail sick@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 sales.gsg@sick.com

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 88 65 878
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