



Photoelectric sensors
MH15V, Photoelectric proximity sensor,
Background suppression

MHTB15-N3367V



Model Name > [MHTB15-N3367V](#)
Part No. > [1046536](#)



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)

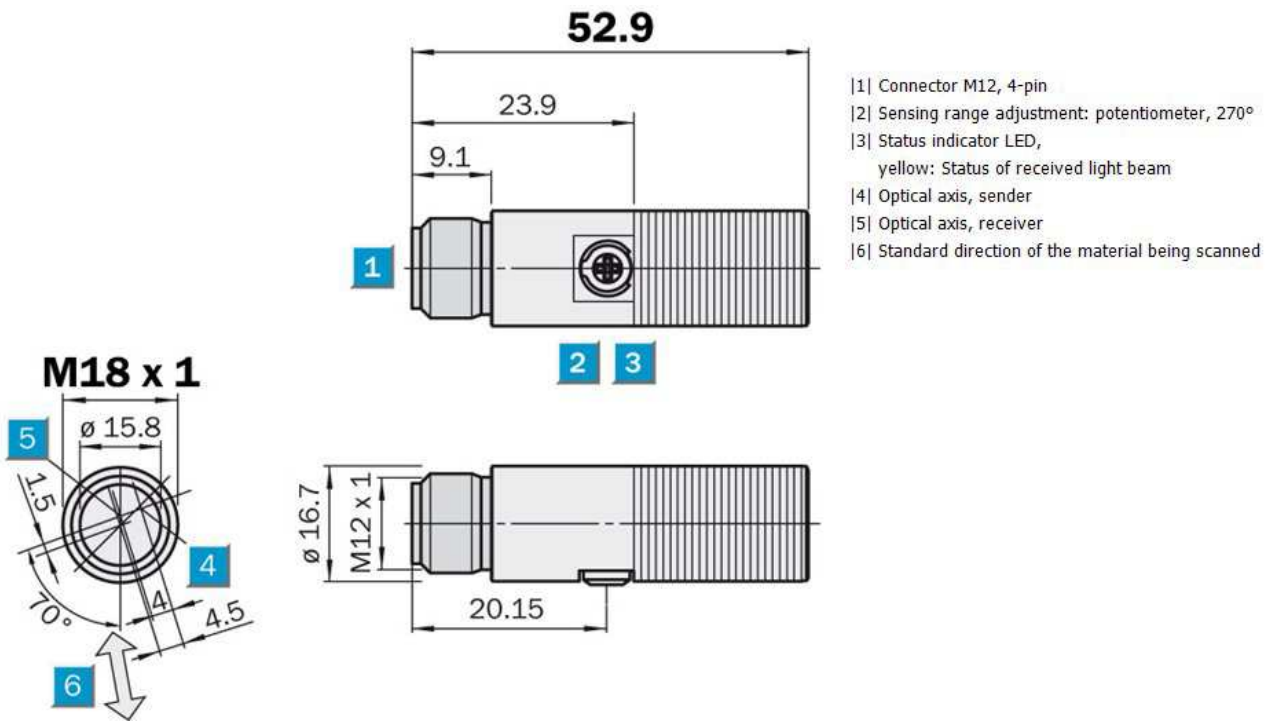
1) Object with 90 % reflectance (referred to standard white DIN 5033) 2) Average service life of 100,000 h at $T_A = +25\text{ °C}$

Mechanics/electronics

Supply voltage:	10 V DC... 30 ¹⁾
Ripple:	$\leq 5\text{ V}_{pp}$ ²⁾
Power consumption:	30 ³⁾
Output type:	NPN
Switching mode:	Light switching
Signal voltage NPN HIGH/LOW:	$U_V / < 2,9\text{ V}$
Output current I _{max} ::	100 ⁴⁾
Response time:	$\leq 0.72\text{ ms}$ ⁵⁾
Switching frequency:	700 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 ... 55 °C ^{11) 12)}
Ambient storage temperature:	-25 ... 70 °C
UL File No.:	NRKH.E189383 & NRKH7.E189383

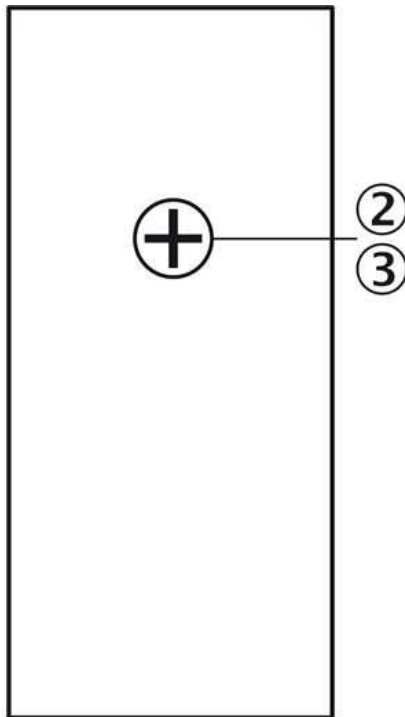
1) Limit values 2) May not exceed or fall short of V_S tolerances 3) Without load 4) Reduced output current at ambient operating temperatures $> 50\text{ °C}$: $I_{Amax} = 50\text{ mA}$
5) Signal transit time with resistive load 6) With light/dark ratio 1:1 7) With gold plated contact pins 8) $A = V_S$ 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 °C for 15 minutes

Dimensional drawing



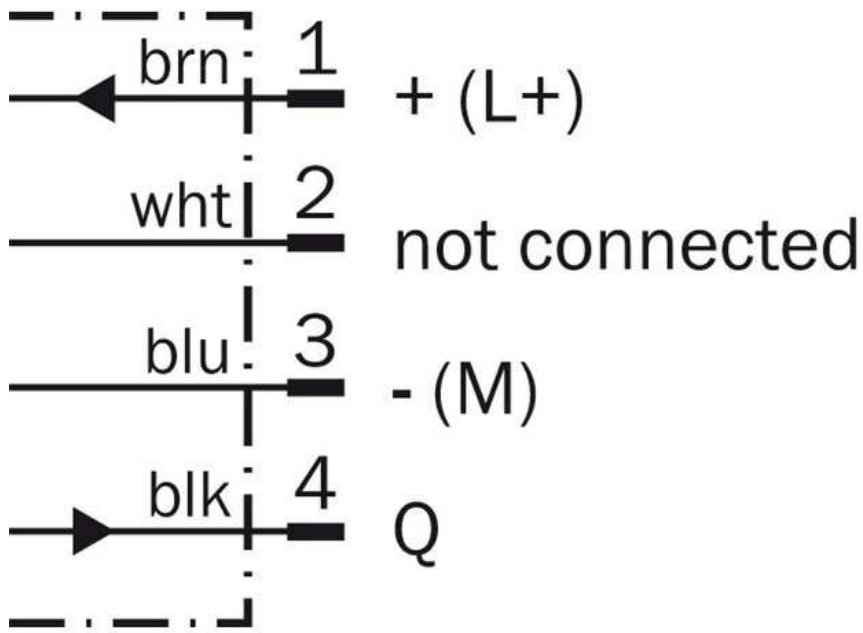
- |1| Connector M12, 4-pin
- |2| Sensing range adjustment: potentiometer, 270°
- |3| Status indicator LED, yellow: Status of received light beam
- |4| Optical axis, sender
- |5| Optical axis, receiver
- |6| Standard direction of the material being scanned

Adjustments possible

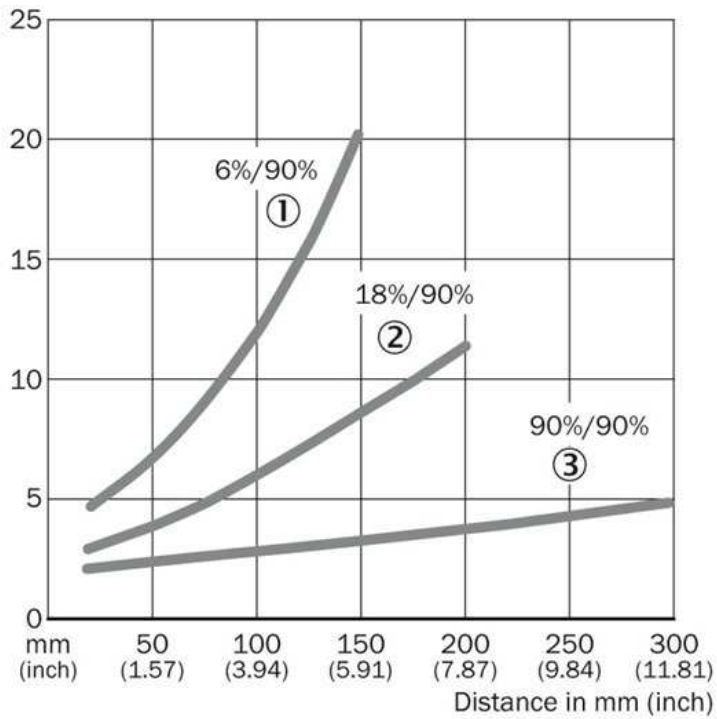


- |2| Sensitivity adjustment 270°
- |3| Yellow LED indicator,-lights continuously: Light reception> reserve factor 1,3-blinks: Light reception >reserve factor 1,3but light reception>switching threshold

Connection diagram



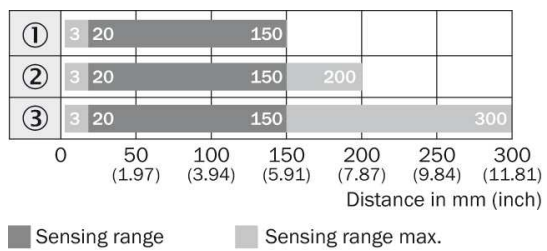
Characteristic curve



Connection type



Sensing range diagram



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