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Photoelectric sensors
MH15V, Photoelectric proximity sensor, Background suppression

MHTB15-N3267V

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Sensor Intelligence.

Photoelectric sensors
MH15V, Photoelectric proximity sensor, Background suppression

Model Name > MHTB15-N3267V
Part No. > 1047159

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)

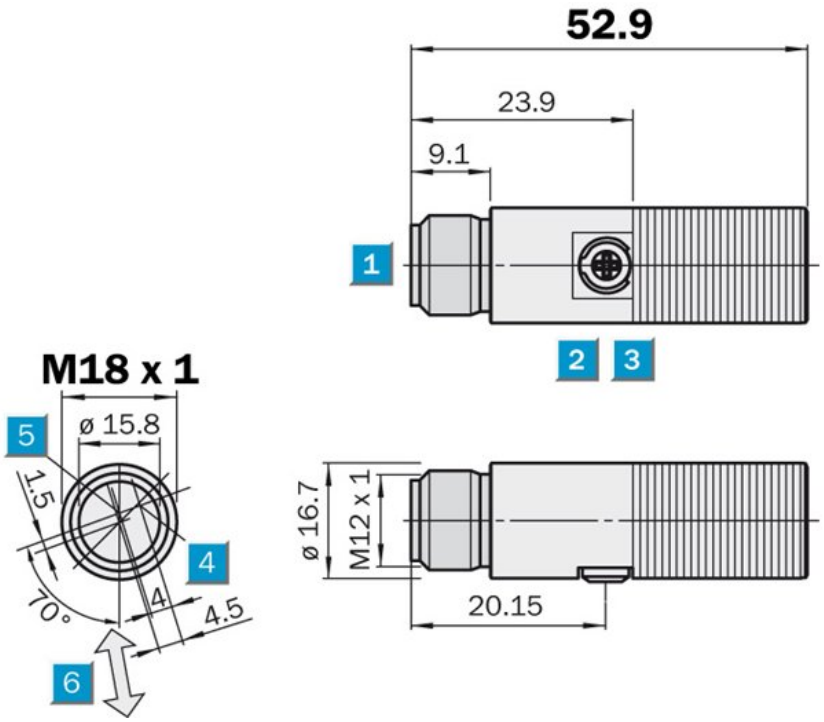
[1] Object with 90 % reflectance (referred to standard white DIN 5033) [2] Average service life of 100,000 h at T_A = +25 °C

Mechanics/electronics

Supply voltage:	10 V DC ... 30 [1]
Ripple:	≤ 5 Vpp [2]
Power consumption:	30 [3]
Output type:	NPN
Switching mode:	Dark-switching
Signal voltage NPN HIGH/LOW:	Uv / < 2,9 V
Output current Imax.:	100 [4]
Response time:	≤ 0.72 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
Front screen heating:	-
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

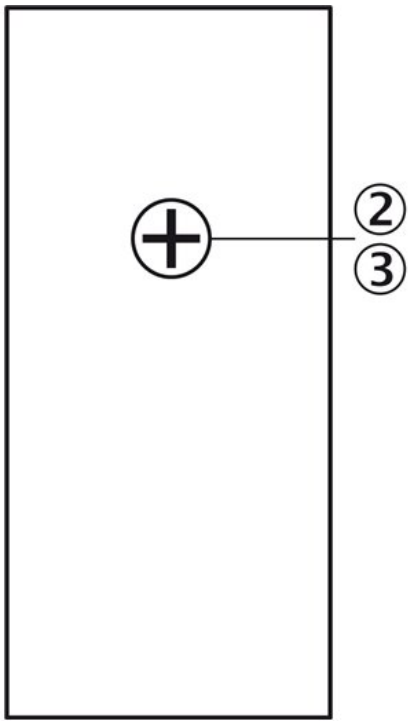
[1] Limit values [2] May not exceed or fall short of V_S tolerances [3] Without load [4] Reduced output current at ambient operating temperatures > 50 °C: IAmax = 50 mA [5] Signal transit time with resistive load [6] With light/dark ratio 1:1 [7] With gold plated contact pins [8] A = V_S connections 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



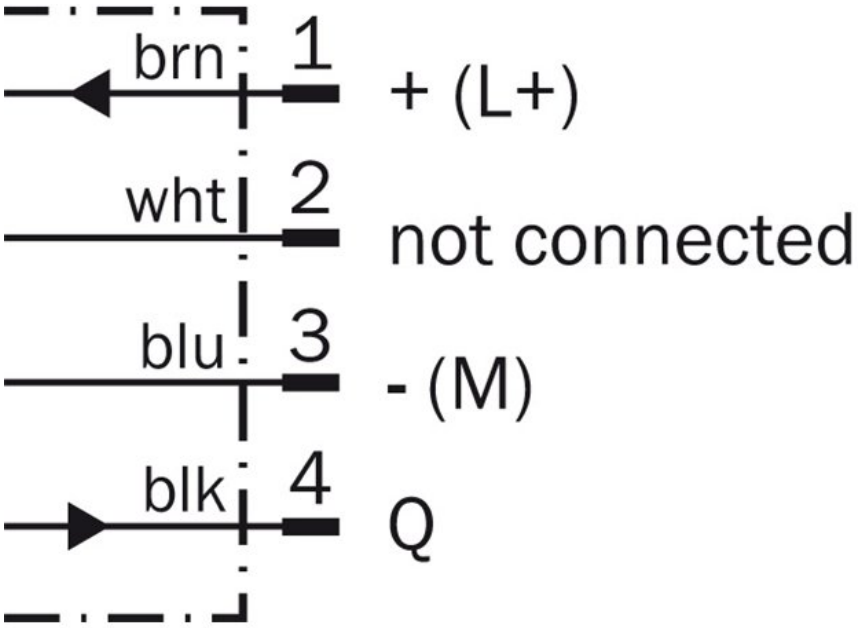
|1| Connector M12, 4-pin
|2| Sensing range adjustment: potentiometer, 270°
|3| Status indicator LED,
yellow: Status of received light beam
|4| Optical axis, sender
|5| Optical axis, receiver
|6| Standard direction of the material being scanned

Adjustments possible

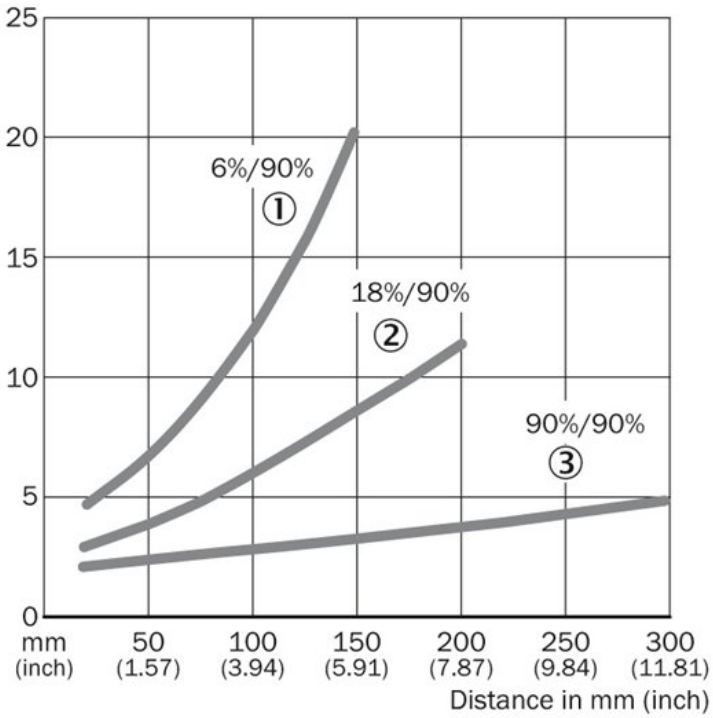


|2| Sensitivity adjustment 270°
|3| Yellow LED indicator,-lights continously: Light reception> reserve factor 1,3-blinks: Light recepti on >reserve factor 1,3but light reception>switching thres

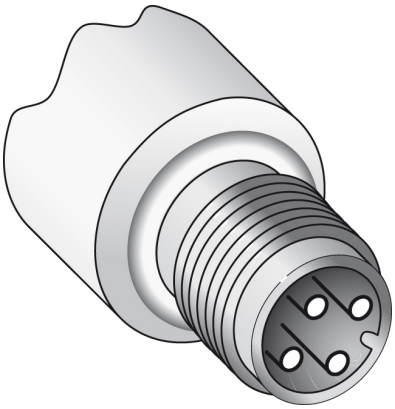
Connection diagram



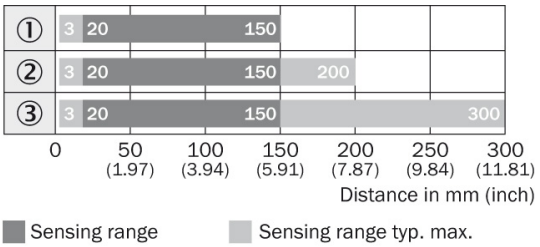
Characteristic curve



Connection type



Sensing range diagram



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

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