



Photoelectric sensors MH15, Photoelectric proximity sensor, energetic

MHT15-N3319



Model Name > [MHT15-N3319](#)
Part No. > [1026101](#)



Illustration may differ

At a glance

- Energetic variant with a long sensing distance
- Sensitivity control via 270° potentiometer
- Indicator LED with an active switching output and operating reserve
- Straight or right-angle housing designs available
- 100 mm or 350 mm sensing distances for straight housing; 90 mm or 250 mm (each with 90% remission) for right-angle housings
- Mounting accessories (M18 nuts and snap ring) are included
- IP 69K-tested housing offers a long service life that withstands harsh environments

Your benefits

- Reliably detects and positions parts without a reflector, saving installation time and costs
- Shortest M18 body on the market, saving installation space
- Flush mounting via snap ring reduces setup time and prevents obstructions to material flow on conveyor systems
- MHT15 is compatible with competitor sensors for easy replacement that saves installation time and costs
- IP 69K-tested housing offers a long service life that withstands harsh environments, reducing maintenance time and costs



Features

Sensor/detection principle:	Photoelectric proximity sensor, energetic
Housing design (light emission):	Cylindrical, angled
Housing length:	50.3 mm
Thread diameter (housing):	M18 x 1
Optical axis:	Radial
Sensing range max.:	5 mm ... 90 mm ¹⁾
Sensing range:	5 mm ... 75 mm
Type of light:	Infrared light
Light source:	LED ²⁾
Wave length:	950 nm
Angle of dispersion:	Ca. 5 °
Adjustment:	Potentiometer, 270°
Light spot size (distance):	Ø 25 mm (90 mm)

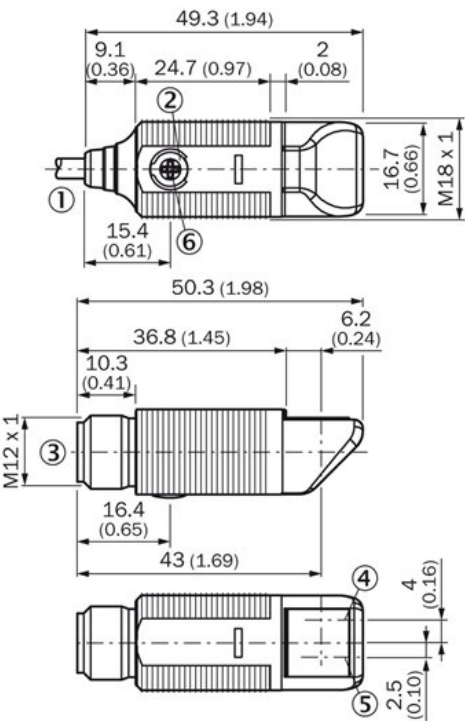
¹⁾ Object with 90 % reflectance (referred to standard white DIN 5033) ²⁾ Average service life of 100,000 h at T_A = +25 °C

Mechanics/electronics

Supply voltage:	10 V DC ... 30 ¹⁾
Ripple:	$\leq 5 V_{pp}$ ²⁾
Power consumption:	30 ³⁾
Output type:	NPN
Switching mode:	Light switching
Signal voltage NPN HIGH/LOW:	$U_v / < 2,9 V$
Output current I _{max.} :	100
Response time:	$\leq 1.25 ms$ ⁴⁾
Switching frequency:	400 ⁵⁾
Connection type:	Connector M12, 3-pin
Circuit protection:::	A, C, D ⁶⁾ ⁷⁾ ⁸⁾
Protection class:	III
Weight:	8 g
Polarisation filter:	-
Front screen heating:	-
Special device:	-
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

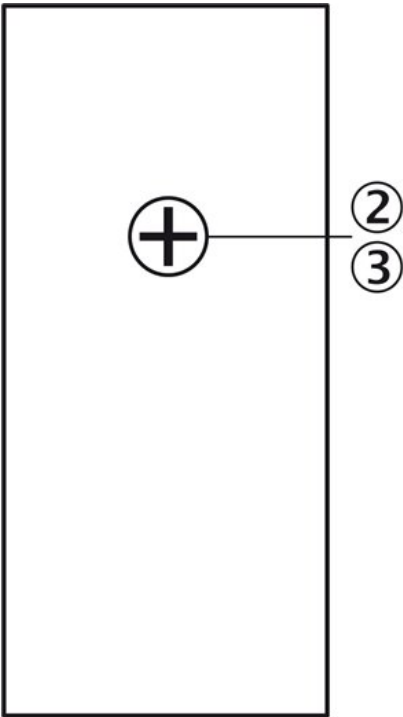
¹⁾ Limit values ²⁾ May not exceed or fall short of V_S tolerances ³⁾ Without load ⁴⁾ Signal transit time with resistive load ⁵⁾ With light/dark ratio 1:1 ⁶⁾ A = V_S
connections reverse-polarity protected ⁷⁾ C = interference suppression ⁸⁾ D = outputs overcurrent and short-circuit protected

Dimensional drawing



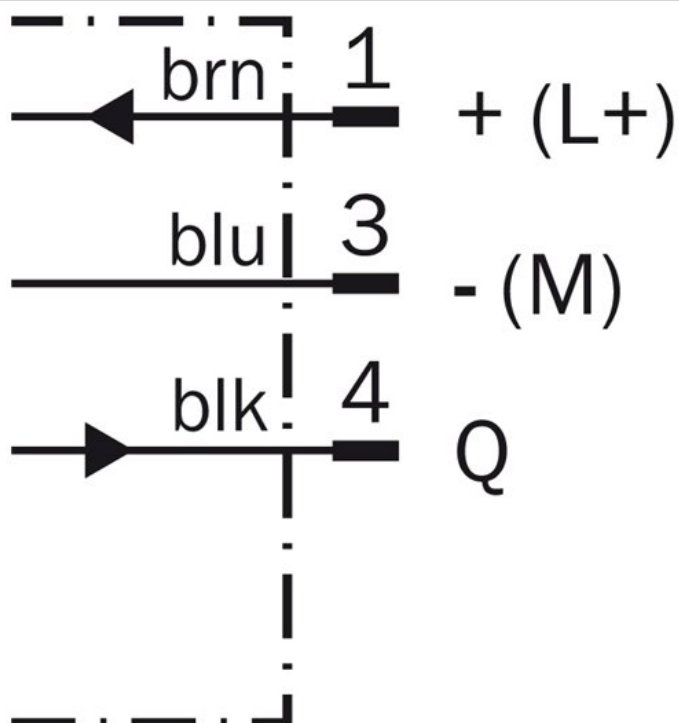
- |1| Connection cable 2 m
- |2| Sensitivity adjustment 270°
- |3| Yellow LED indicator:- lights continuously:light reception> reserve factor 1
.3- blinks: light reception < reserve factor 1.3 but > swit

Adjustments possible

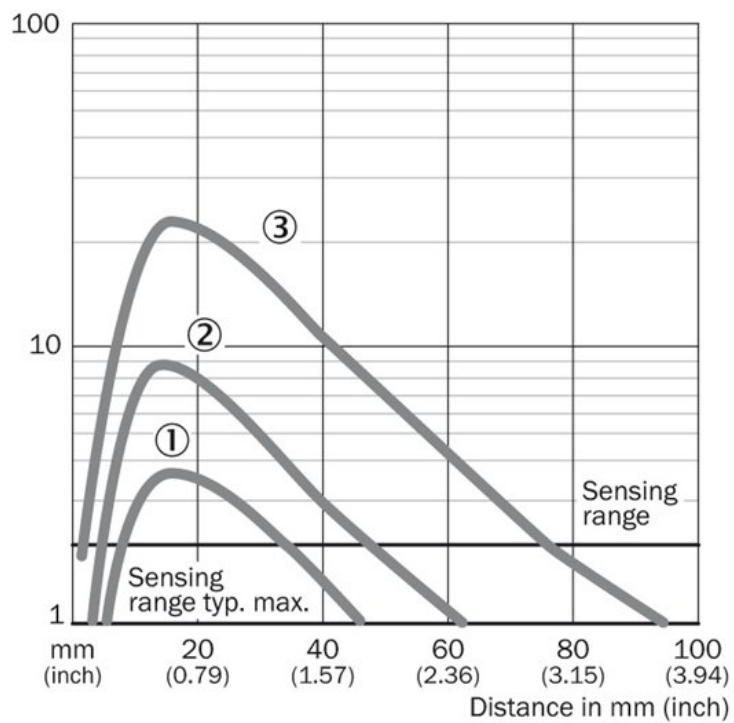


- |2| Sensitivity adjustment 270°
- |3| Yellow LED indicator,-lights continuously: Light reception> reserve factor 1,3-blinks: Light recepti on >reserve factor 1,3but light reception>switching thres

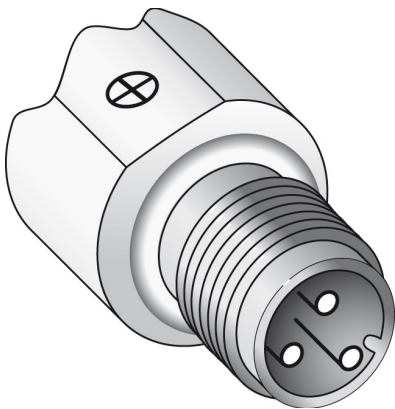
Connection diagram



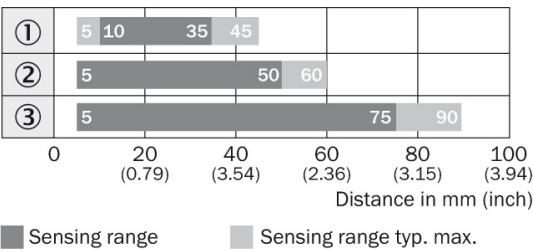
Characteristic curve



Connection type



Sensing range diagram



- 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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