



Photoelectric sensors  
MH15, Photoelectric proximity sensor, energetic

MHT15-P3219



**Model Name** > **MHT15-P3219**  
**Part No.** > **1026103**



*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 <sup>1)</sup>
Sensing range:	5 mm ... 75 mm
Type of light:	Infrared light
Light source:	LED <sup>2)</sup>
Wave length:	950 nm
Angle of dispersion:	Ca. 5 °
Adjustment:	Potentiometer, 270 °
Light spot size (distance):	Ø 25 mm (90 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

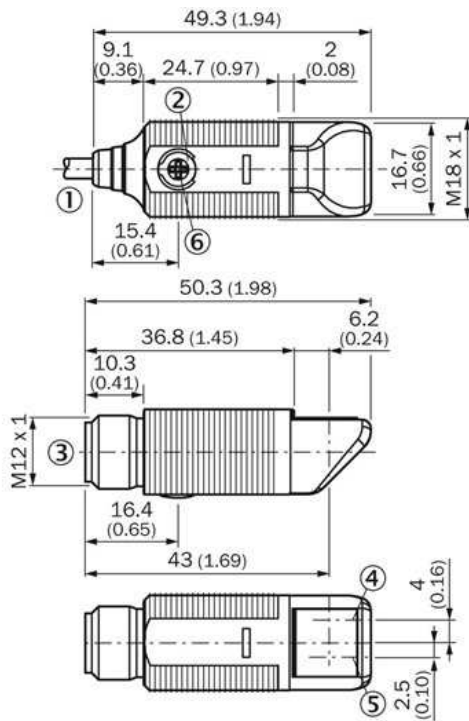
## Mechanics/electronics

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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:	Dark switching
Signal voltage PNP HIGH/LOW:	$U_v - (< 2,9 V) / \text{ca. } 0 V$
Output current $I_{max.}$ :	100
Response time:	$\leq 1.25 \text{ ms}$ <sup>4)</sup>
Switching frequency:	400 <sup>5)</sup>
Connection type:	Connector M12, 3-pin
Circuit protection:::	A, C, D <sup>6) 7) 8)</sup>
Protection class:	III
Weight:	8 g
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

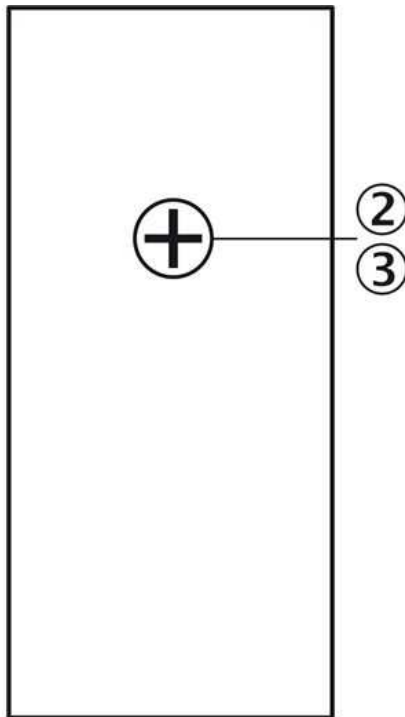
<sup>1)</sup> Limit values <sup>2)</sup> May not exceed or fall short of  $V_S$  tolerances <sup>3)</sup> Without load <sup>4)</sup> Signal transit time with resistive load <sup>5)</sup> With light/dark ratio 1:1 <sup>6)</sup> A =  $V_S$   
connections reverse-polarity protected <sup>7)</sup> C = interference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

**Dimensional drawing**



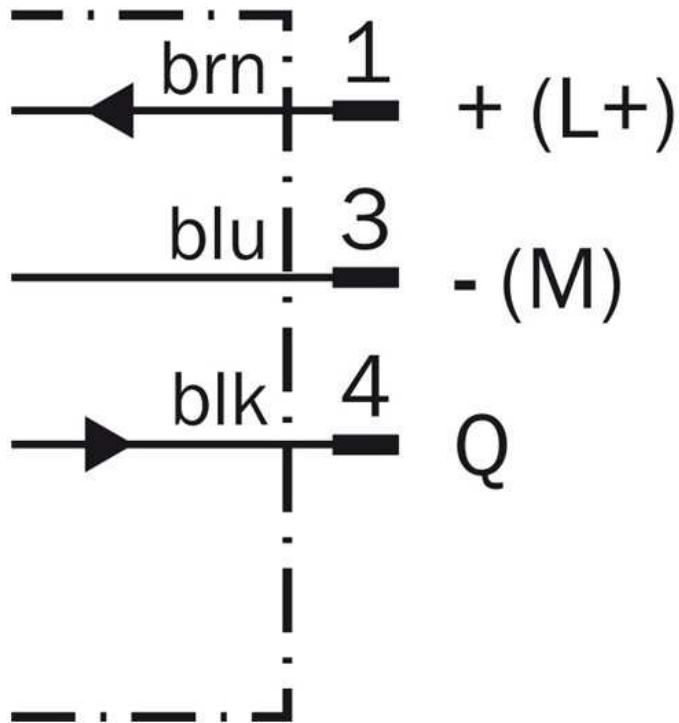
- |1| Connection cable 2 m
- |2| Sensitivity adjustment 270°
- |3| Yellow LED indicator:- lights continuously:light reception> reserve factor 1  
.3- blinks: light reception < reserve factor 1.3 but > swit

**Adjustments possible**

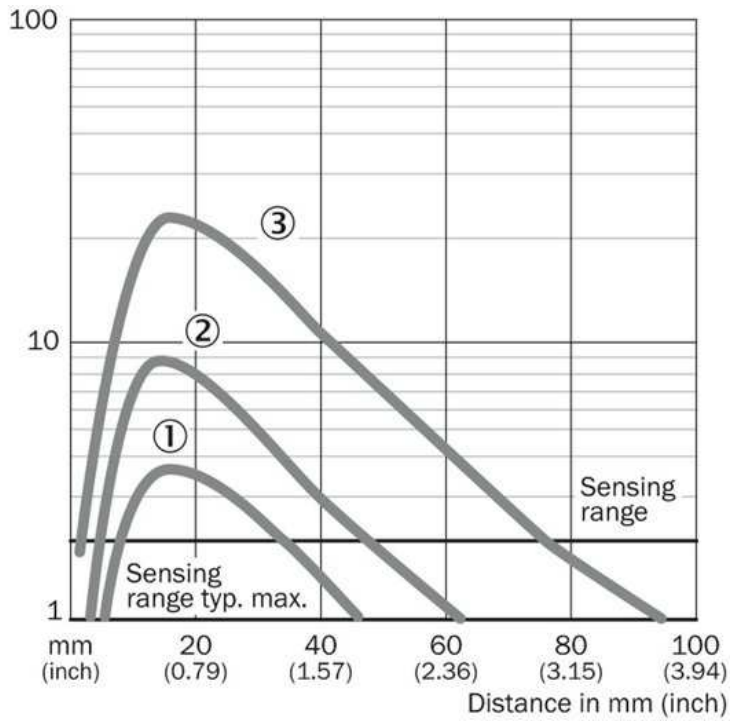


- |2| Sensitivity adjustment 270°
- |3| Yellow LED indicator,-lights continuously: Light reception> reserve factor 1,3-blinks: Light reception > reserve factor 1,3but light reception>switching thres

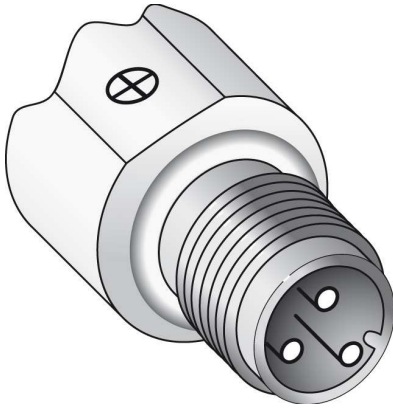
Connection diagram



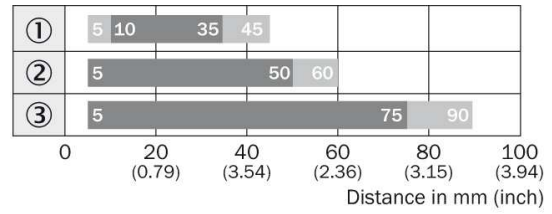
Characteristic curve



## 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

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