



Photoelectric sensors
MH15, Photoelectric proximity sensor, energetic

MHT15-N2349



Model Name > **MHT15-N2349**
Part No. > **1026116**



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: | 49.3 mm |
| Thread diameter (housing): | M18 x 1 |
| Optical axis: | radial |
| Sensing range max.: | 15 mm ... 250 mm ¹⁾ |
| Sensing range: | 15 mm ... 180 mm |
| Type of light: | Infrared light |
| Light source: | LED ²⁾ |
| Wave length: | 950 nm |
| Angle of dispersion: | Ca. 4.5 ° |
| Adjustment: | Potentiometer, 270 ° |
| Light spot size (distance): | Ø 40 mm (250 mm) |

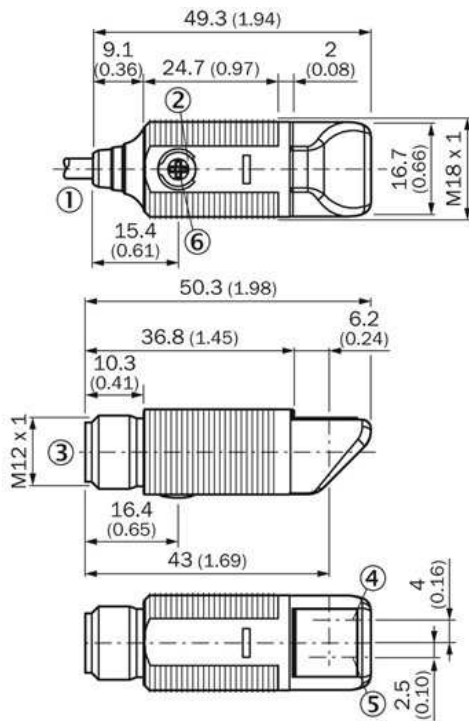
¹⁾ Object with 90 % reflectance (referred to standard white DIN 5033) ²⁾ Average service life of 100,000 h at T_A = +25 °C

Mechanics/electronics

| | |
|------------------------------------|--------------------------------------|
| Supply voltage: | 10 V DC ... 30 V ¹⁾ |
| Ripple: | $\leq 5 \text{ Vpp}$ ²⁾ |
| Power consumption: | $\leq 30 \text{ mA}$ ³⁾ |
| Output type: | NPN |
| Switching mode: | Light switching |
| Signal voltage NPN HIGH/LOW: | $U_v / < 2,9 \text{ V}$ |
| Output current I _{max.} : | $\leq 100 \text{ mA}$ |
| Response time: | $\leq 1.25 \text{ ms}$ ⁴⁾ |
| Switching frequency: | 400 Hz ⁵⁾ |
| Connection type: | Cable, 3-wire, 2 m ⁶⁾ |
| Cable material: | PVC |
| Conductor cross-section: | 0.14 mm ² |
| Cable diameter: | 3.7 mm |
| Circuit protection::: | A, C, D ^{7) 8) 9)} |
| Protection class: | III |
| Weight: | 91 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 |

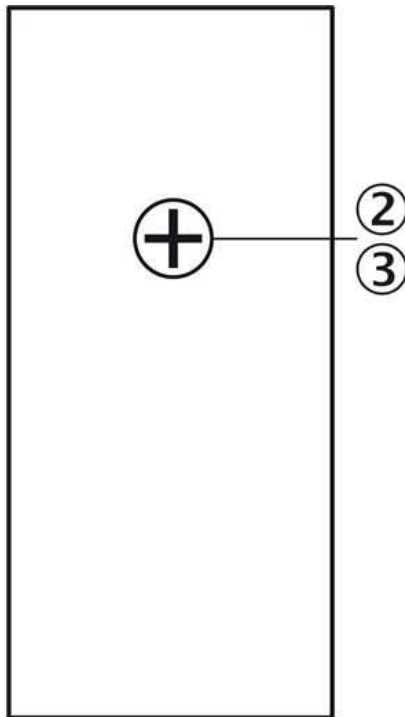
¹⁾ Limit values ²⁾ May not exceed or fall short of V_S tolerances ³⁾ Without load ⁴⁾ Signal transit time with resistive load ⁵⁾ With light/dark ratio 1:1 ⁶⁾ Do not bend below 0 °C ⁷⁾ A = V_S connections reverse-polarity protected ⁸⁾ C = interference suppression ⁹⁾ D = outputs overcurrent and short-circuit protected

Dimensional drawing



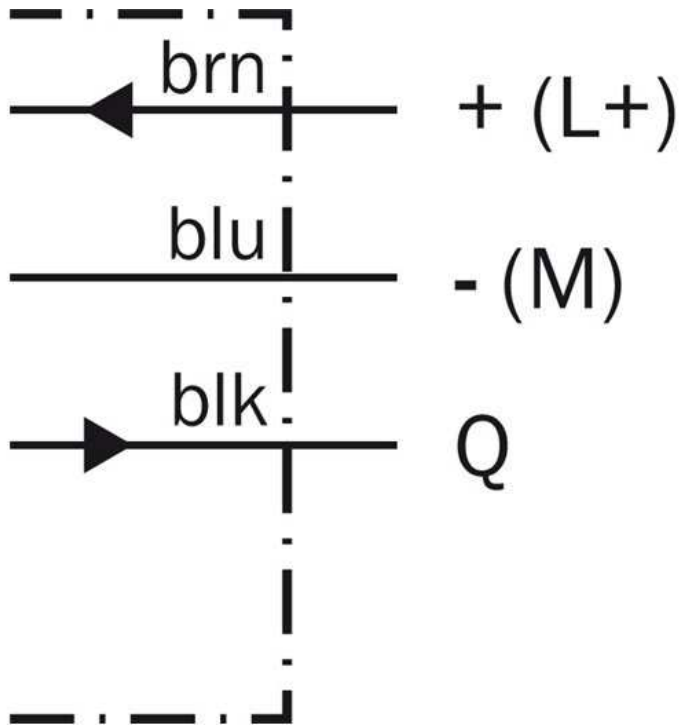
- |1| Connection cable 2 m
- |2| Sensitivity adjustment 270°
- |3| Yellow LED indicator:- lights continuously:light reception> reserve factor 1
.3- blinks: light reception < reserve factor 1.3 but > swit

Adjustments possible

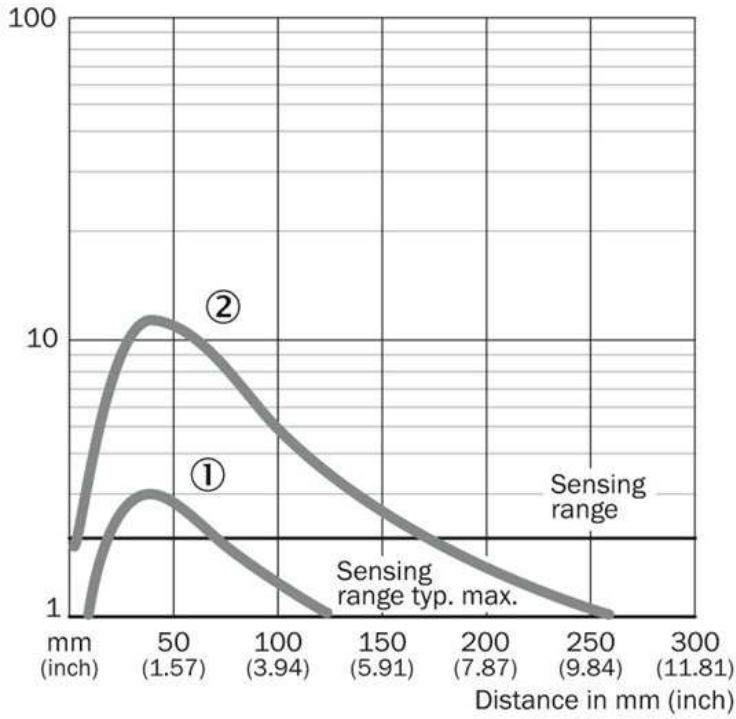


- |2| Sensitivity adjustment 270°
- |3| Yellow LED indicator,-lights continuously: Light reception> reserve factor 1,3-blinks: Light reception > reserve factor 1,3but light reception>switching thres

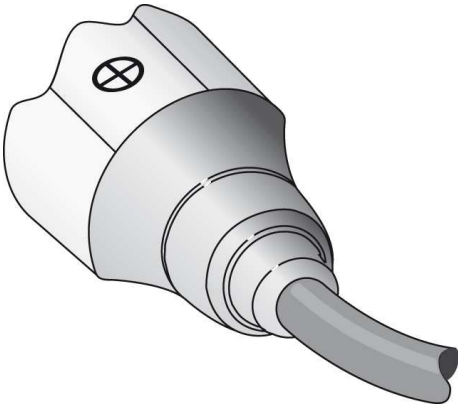
Connection diagram



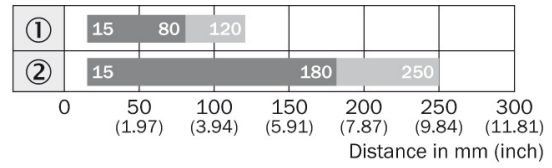
Characteristic curve



Connection type



Sensing range diagram



■ Sensing range ■ Sensing range typ. max.

- ① Sensing range on gray, 18 % remission
- ② Sensing range on white, 90 % remission

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