



Photoelectric sensors  
MH15, Photoelectric retro-reflective sensor

MHL15-N2236



**Model Name** > [MHL15-N2236](#)  
**Part No.** > [1026122](#)



*Illustration may differ*

**At a glance**

- Long sensing distance up to 5.0 m with PL80A reflector
- Polarizing filter reliably detects shiny object surfaces
- Indicator LED shows active switching output and operating reserve
- Straight or right-angle housing designs available
- Mounting accessories (M18 nuts and snap ring) are included
- IP 69K-tested housing

**Your benefits**

- 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
- Polarizing filter prevents false readings on reflective objects, reducing downtime
- Highly visible red light provides simple installation and time-saving alignment to the reflector
- MHL15 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 retro-reflective sensor
Housing design (light emission):	Cylindrical, straight
Housing length:	35.8 mm
Thread diameter (housing):	M18 x 1
Optical axis:	axial
Sensing range max.:	0.035 m ... 5 m <sup>1)</sup>
Sensing range:	0.035 m ... 3.5 m <sup>2)</sup>
Type of light:	Visible red light
Light source:	LED <sup>3)</sup>
Wave length:	650 nm
Angle of dispersion:	Ca. 1.5 °
Light spot size (distance):	Ø 80 mm (3.5 m)

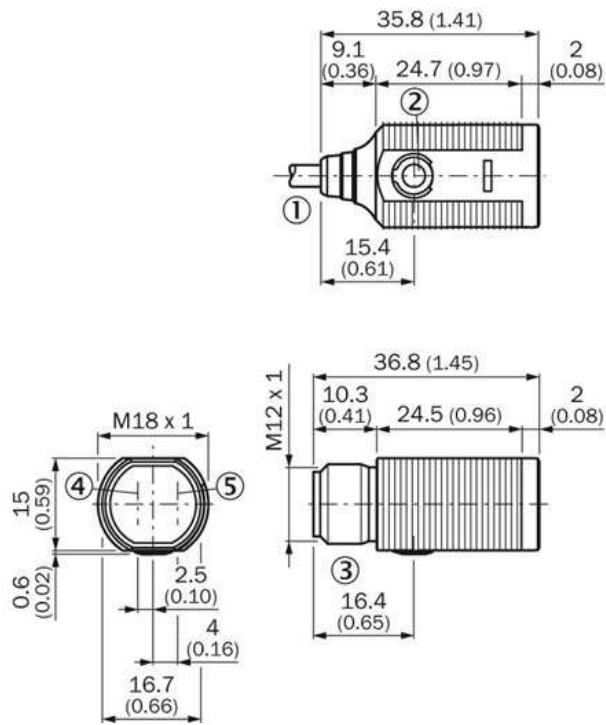
<sup>1) 2)</sup> PL80A <sup>3)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

**Mechanics/electronics**

Supply voltage:	10 V DC ... 30 <sup>1)</sup>
Ripple:	≤ 5 V <sub>pp</sub> <sup>2)</sup>
Power consumption:	30 <sup>3)</sup>
Output type:	NPN
Switching mode:	Dark switching
Signal voltage NPN HIGH/LOW:	U <sub>v</sub> / < 2,9 V
Output current I <sub>max</sub> :	100
Response time:	≤ 1.25 ms <sup>4)</sup>
Switching frequency:	400 <sup>5)</sup>
Connection type:	Cable, 3-wire, 2 m <sup>6)</sup>
Cable material:	PVC
Conductor cross-section:	0.14 mm <sup>2</sup>
Cable diameter:	3.7 mm
Circuit protection:::	A, C, D <sup>7) 8) 9)</sup>
Protection class:	III
Weight:	90 g
Polarisation filter:	✓
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

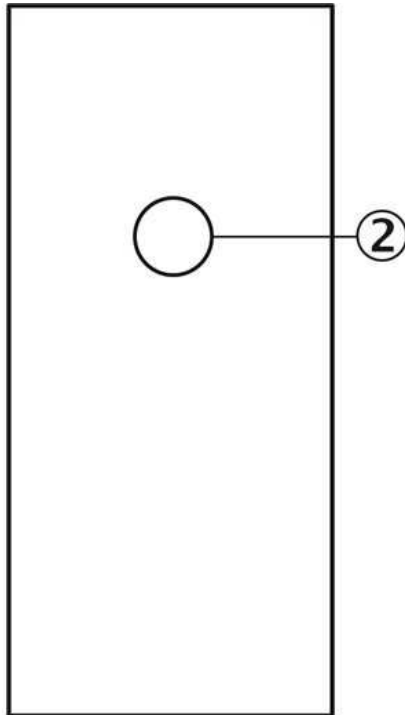
<sup>1)</sup> Limit values   <sup>2)</sup> May not exceed or fall short of V<sub>S</sub> tolerances   <sup>3)</sup> Without load   <sup>4)</sup> Signal transit time with resistive load   <sup>5)</sup> With light/dark ratio 1:1   <sup>6)</sup> Do not bend below 0 °C   <sup>7)</sup> A = V<sub>S</sub> connections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

**Dimensional drawing**



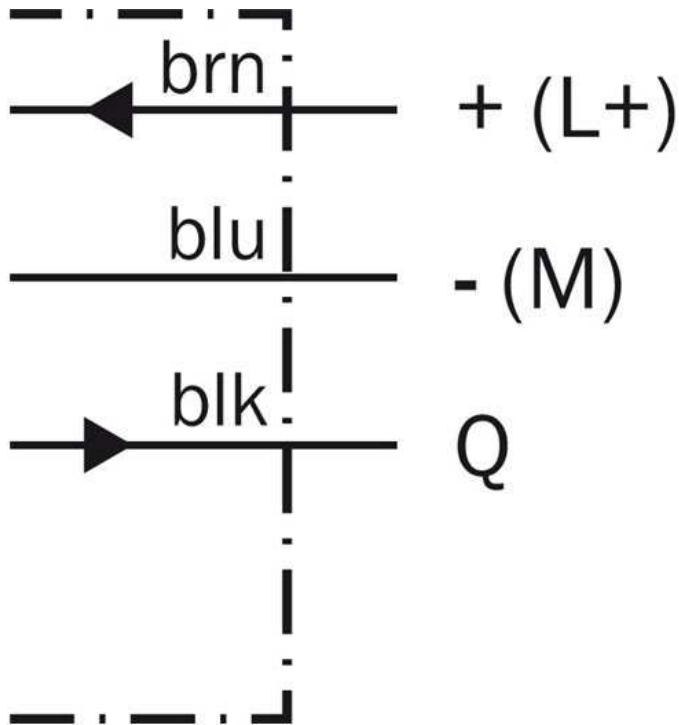
- |1| Connection cable 2 m
- |2| Status indicator LED,  
yellow: Status of received light beam
- |3| Sensing range adjustment: potentiometer, 270°

**Adjustments possible**

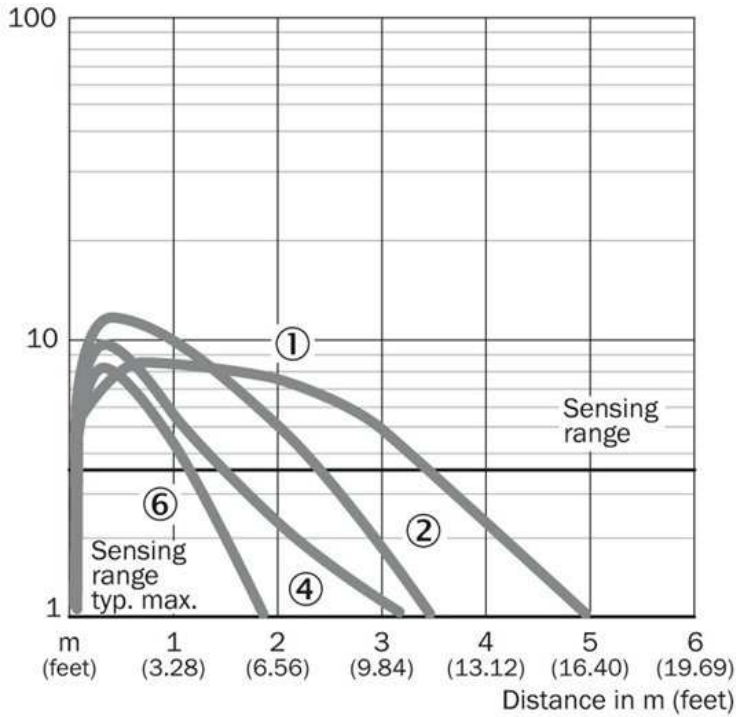


- |2| Yellow LED indicator,-lights continuously: Light reception> reserve factor 1,5-blinks: Light reception >reserve factor 1,5but light reception>switching three

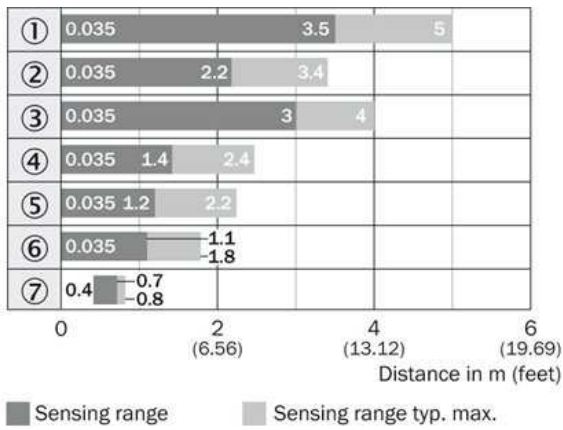
Connection diagram



Characteristic curve



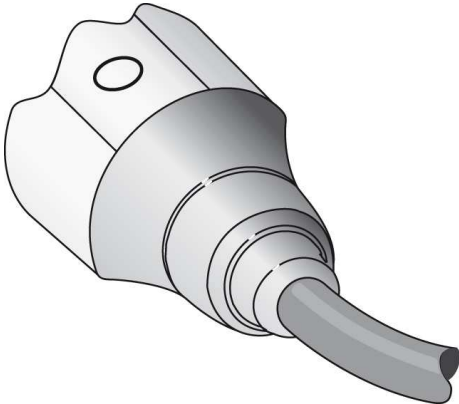
## Sensing range diagram



### Reflector type

- ① PL80A
- ② P250
- ③ C110A
- ④ PL50A/PL40A
- ⑤ PL30A/PL31A
- ⑥ PL20A
- ⑦ Reflective tape  
Diamond Grade

## Connection type



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