



Photoelectric sensors  
MH15V, Photoelectric retro-reflective sensor,  
Standard optics

MHL15-P3336V



**Model Name** > [MHL15-P3336V](#)  
**Part No.** > [1043815](#)



*Illustration may differ*

**At a glance**

- Long sensing distance up to 5.0 m with PL80A reflector
- Polarizing filter for reliable detection of shiny object surfaces
- Stainless steel housing (316L/1.4404)
- Resistant to cleaning agents according to ECOLAB and JohnsonDiversey
- IP 69K, IP 67 enclosure rating
- Shortest M18 housing on the market
- Accessories, including stainless steel flush mount and chemical resistance IP69K reflectors, are available

**Your benefits**

- Field-tested, compact, stainless steel IP 69K design of the MH15V reduces downtime and replacement costs
- Long sensing range up to 3.5 m in combination with a reflector (PL80A) makes the MHL15V suitable for a broad range of applications
- 3 mm flat, chemically resistant material of the sensor lens offers a long service life, reducing maintenance time and costs
- Reliable object detection, even in difficult environments reduces miscount and increases machine throughput
- Short M18 housing with flush mounting fits in tight areas, which saves machine space
- ECOLAB and JohnsonDiversey certified MH15V are suitable for hygienic environments, reducing maintenance costs
- Innovative stainless steel mounting accessories provide fast and low-cost installation



**Features**

Sensor/detection principle:	Photoelectric retro-reflective sensor, Standard optics
Housing design (light emission):	Cylindrical, straight
Housing length:	52.9 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 <sup>3)</sup>
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)

1) 2) PL80A 3) Average service life of 100,000 h at  $T_A = +25\text{ °C}$

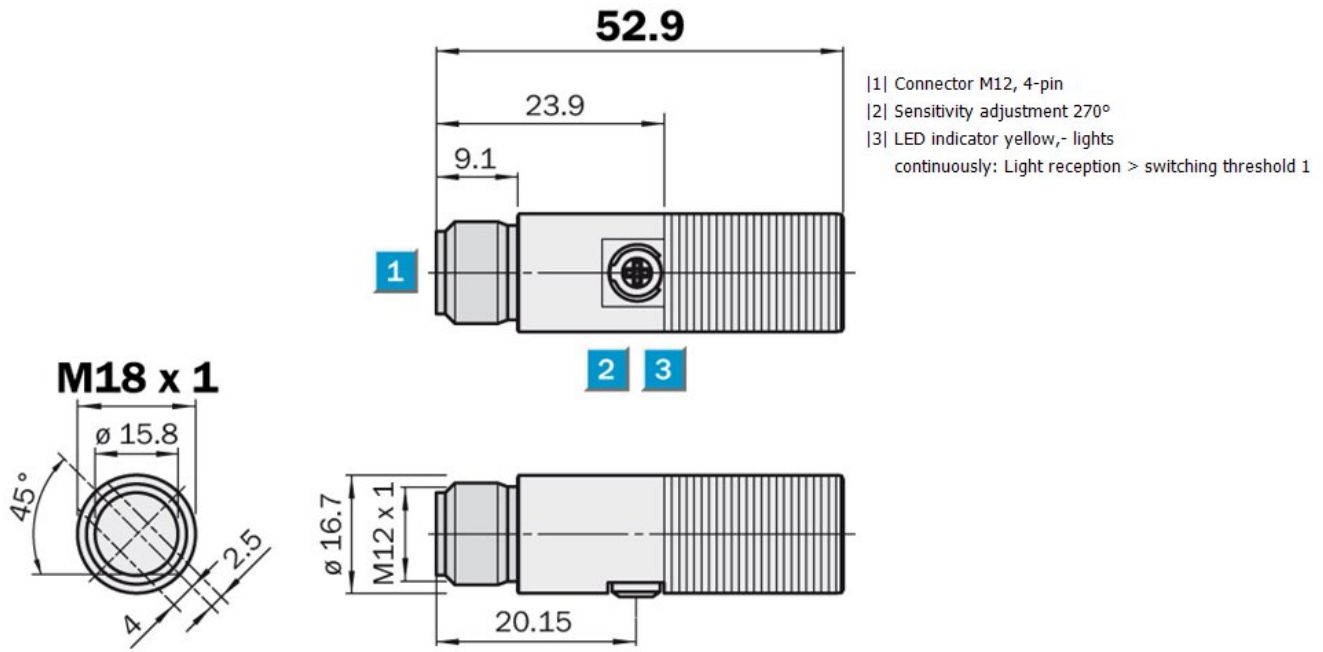
## Mechanics/electronics

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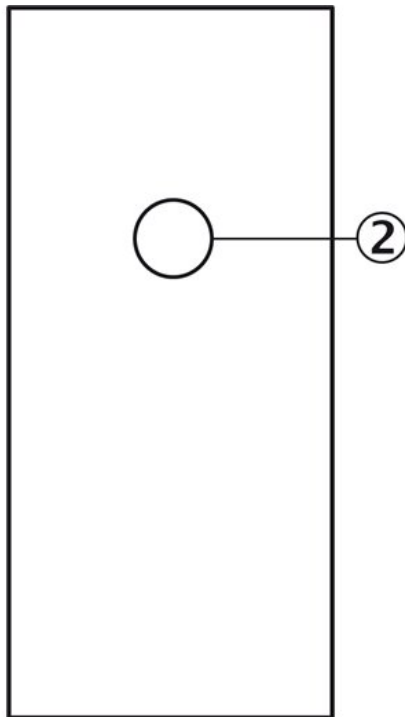
Supply voltage:	10 V DC... 30 <sup>1)</sup>
Ripple:	$\leq 5\text{ Vpp}$ <sup>2)</sup>
Power consumption:	30 <sup>3)</sup>
Output type:	PNP
Switching mode:	Light switching
Signal voltage PNP HIGH/LOW:	$U_v - (< 2,9\text{ V})/\text{ca. } 0\text{ V}$
Output current $I_{\text{max.}}$ :	100
Response time:	$\leq 1.25\text{ ms}$ <sup>4)</sup>
Switching frequency:	400 <sup>5)</sup>
Connection type:	Connector M12, 4-pin <sup>6)</sup>
Circuit protection:::	A, C, D <sup>7) 8) 9)</sup>
Protection class:	III
Weight:	50 g
Polarisation filter:	✓
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 <sup>10) 11)</sup>
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) With gold plated contact pins 7)  $A = V_S$  connections reverse-polarity protected 8) C = interference suppression 9) D = outputs overcurrent and short-circuit protected 10) Use at higher ambient temperatures reduce the sender LED lifetime 11) +100 °C for 15 minutes

## Dimensional drawing

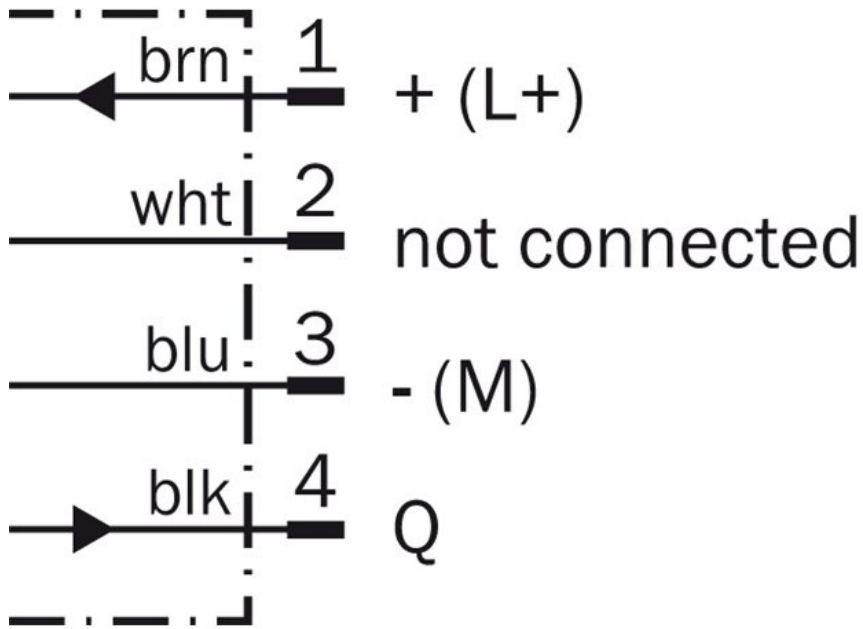


## Adjustments possible

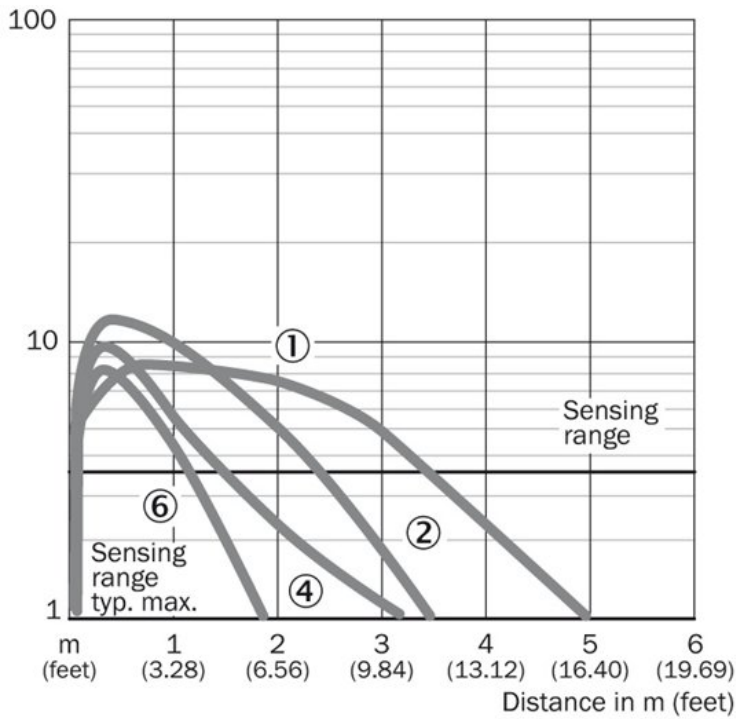


[2] Yellow LED indicator,-lights continuously: Light reception> reserve factor 1,5-blinks: Light reception >reserve factor 1,5but light reception>switching thres

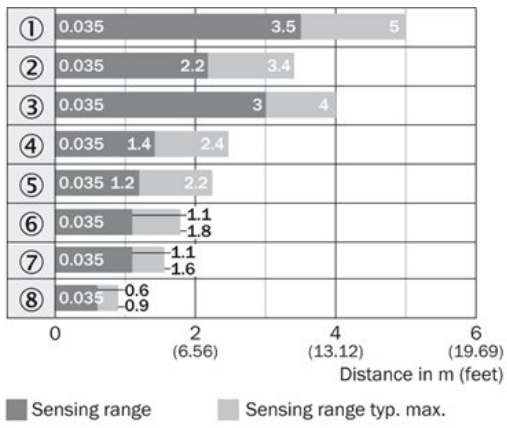
Connection diagram



Characteristic curve



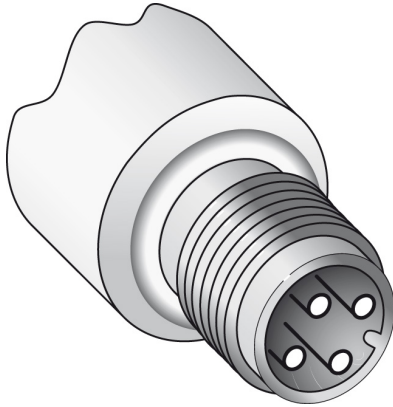
## Sensing range diagram



### Reflector type

- ① PL80A
- ② P250
- ③ C110
- ④ PL50A/PL40A
- ⑤ PL30A/PL31A
- ⑥ PL20A
- ⑦ P250CHEM
- ⑧ PL20CHEM

## Connection type



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