



Photoelectric sensors MH15, Photoelectric retro-reflective sensor

MHL15-P3238S03



Model Name > [MHL15-P3238S03](#)
Part No. > [1040544](#)



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, angled
Housing length:	50.3 mm
Thread diameter (housing):	M18 x 1
Optical axis:	radial
Sensing range max.:	0.035 m ... 4.5 m ¹⁾
Sensing range:	0.035 m ... 2.6 m ²⁾
Type of light:	Visible red light
Light source:	LED ³⁾
Angle of dispersion:	Ca. 1.5 °
Light spot size (distance):	Ø 60 mm (2.6 m)

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

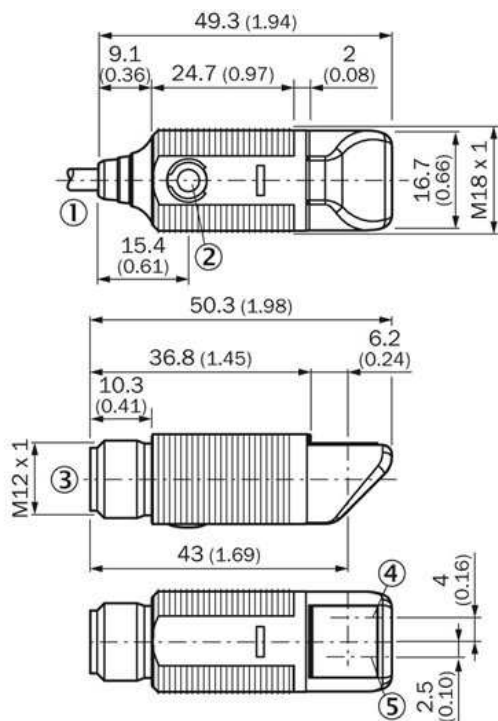
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V ¹⁾
Ripple:	≤ 5 Vpp ²⁾

Power consumption:	$\leq 30 \text{ mA}$ ³⁾
Output type:	PNP
Switching mode:	Dark switching
Output current I _{max.} :	$\leq 100 \text{ mA}$
Response time:	$\leq 1.25 \text{ ms}$ ⁴⁾
Switching frequency:	$\pm 400 \text{ Hz}$ 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 °C ... +55 °C
Ambient storage temperature:	-25 °C ... +70 °C
UL File No.:	NRKH.E189383 & NRKH7.E189383
Signal voltage PNP HIGH/LOW:	U _v - (< 2,9 V)/ca. 0 V

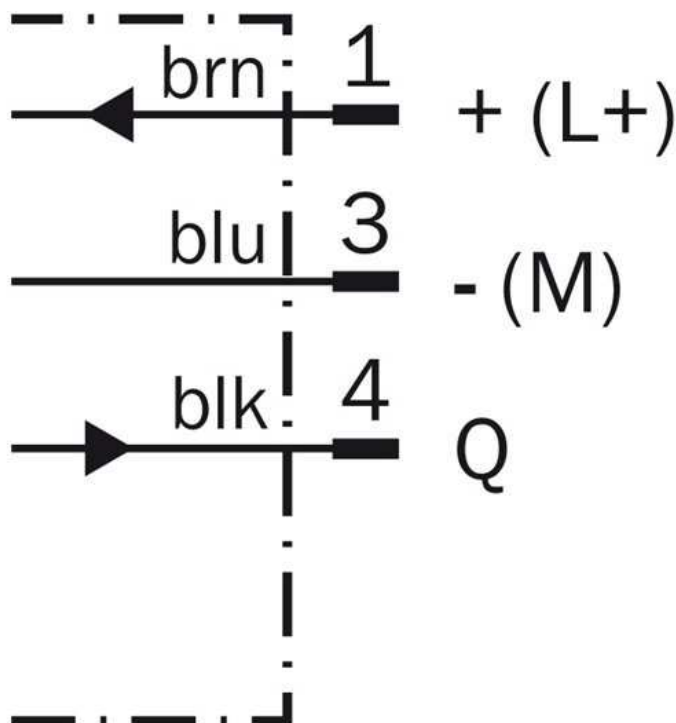
¹⁾ Limit values ²⁾ May not exceed or fall short of V_S tolerances ³⁾ Without load ⁴⁾ Signal transit time with resistive load ⁵⁾ With light/dark ratio 1:1 ⁶⁾ A = V_S
 connections reverse-polarity protected ⁷⁾ C = interference suppression ⁸⁾ D = outputs overcurrent and short-circuit protected

Dimensional drawing

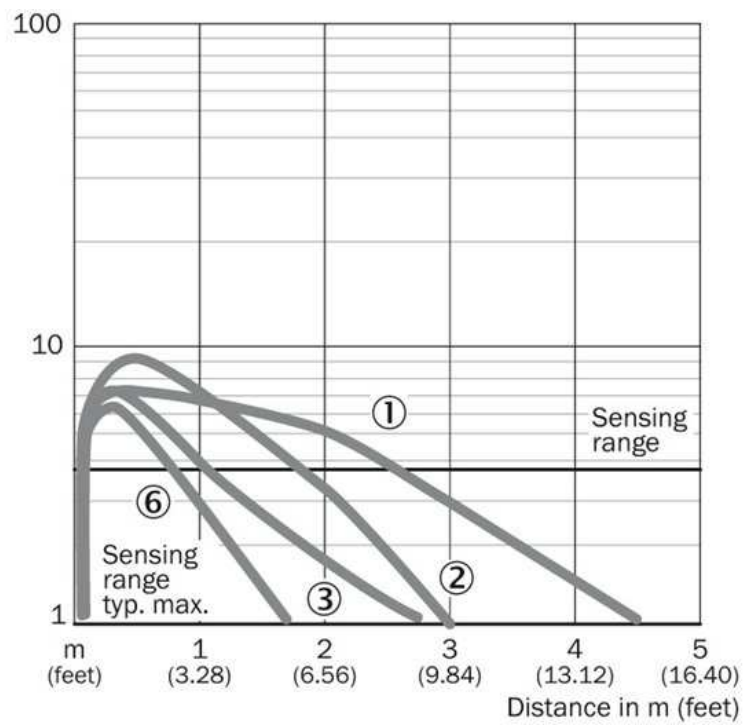


- [1] Connection cable 2 m
- [2] Yellow LED indicator:- lights
continuously: light reception > reserve factor 1
.5- blinks: light reception < reserve factor 1.5 but > swit

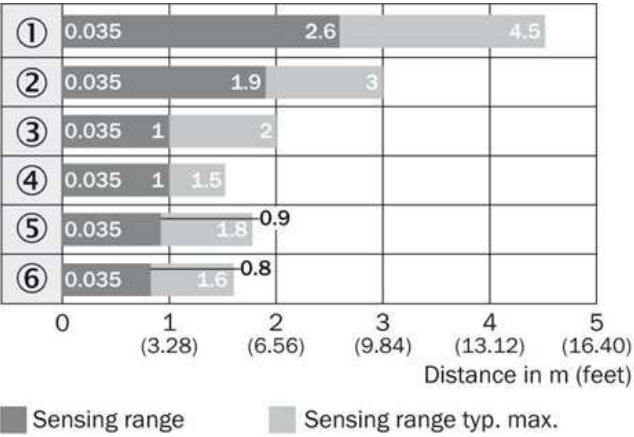
Connection diagram



Characteristic curve



Sensing range diagram



Reflector type

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

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