



MHL15-P3238

MH15

CYLINDRICAL PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
MHL15-P3238	1026135

Other models and accessories → www.sick.com/MH15

Illustration may differ



Detailed technical data

Features

Sensor/ detection principle	Photoelectric retro-reflective sensor
Housing design (light emission)	Cylindrical
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 ¹⁾
Type of light	Visible red light
Light source	LED ²⁾
Light spot size (distance)	Ø 60 mm (2.6 m)
Angle of dispersion	Approx. 1.5°
Wave length	650 nm
Adjustment	None

¹⁾ Reflector PL80A.

²⁾ Average service life: 100,000 h at T_J = +25 °C.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC ¹⁾
Ripple	≤ 5 V _{pp} ²⁾

¹⁾ Limit values.

²⁾ May not exceed or fall below U_v 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.

Power consumption	30 mA ³⁾
Switching output	PNP
Switching mode	Dark switching
Signal voltage PNP HIGH/LOW	U _v - (< 2,9 V) / ca. 0 V
Output current I_{max.}	≤ 100 mA
Response time	≤ 1.25 ms ⁴⁾
Switching frequency	400 Hz ⁵⁾
Connection type	Connector M12, 3-pin
Circuit protection	A ⁶⁾ C ⁷⁾ D ⁸⁾
Protection class	III
Weight	8 g
Polarisation filter	✓
Housing material	Plastic, ABS
Optics material	Plastic, PMMA
Enclosure rating	IP67 IP69K
Ambient operating temperature	-25 °C ... +55 °C
Ambient storage temperature	-25 °C ... +70 °C
UL File No.	NRKH.E189383 & NRKH7.E189383

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²⁾ May not exceed or fall below U_v 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.

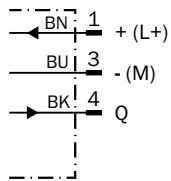
⁸⁾ D = outputs overcurrent and short-circuit protected.

Classifications

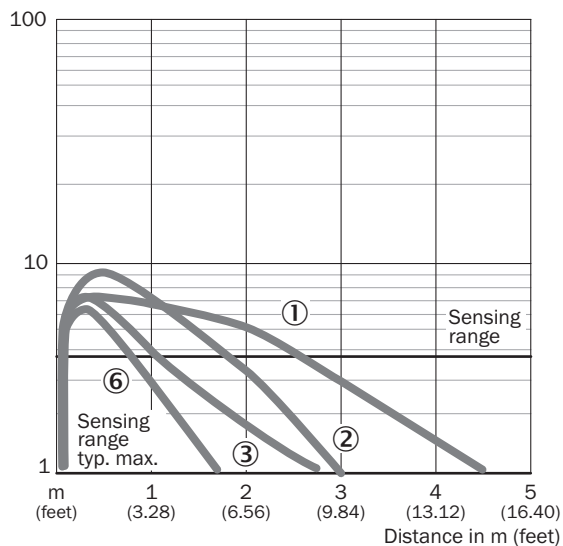
ECl@ss 5.0	27270902
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ECl@ss 7.0	27270902
ECl@ss 8.0	27270902
ECl@ss 8.1	27270902
ECl@ss 9.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
UNSPSC 16.0901	39121528

Connection diagram

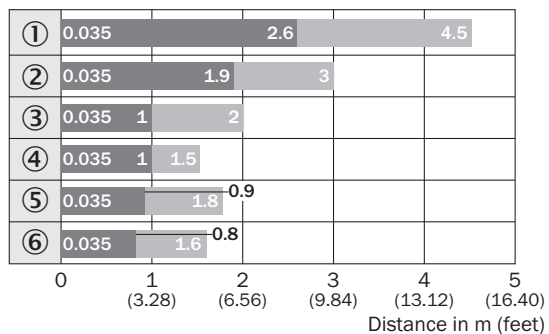
Cd-045



Characteristic curve



Sensing range diagram

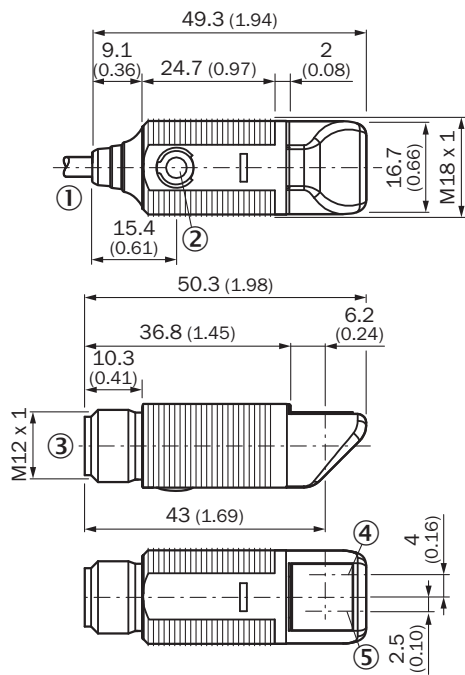


■ Sensing range ■ Sensing range typ. max.

Reflector type

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



Dimensional drawing (Dimensions in mm (inch))



- 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 > switching threshold 1
- ③ M12 male device connector, 3-pin

Recommended accessories

Other models and accessories → www.sick.com/MH15

	Brief description	Type	Part no.
Mounting brackets and plates			
	Universal mounting bracket for reflectors, steel, zinc coated	BEF-WN-REFX	2064574
Reflectors			
	Rectangular, screw connection, 47 mm x 47 mm, PMMA/ABS, Screw-on, 2 hole mounting	P250	5304812

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We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

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