



Photoelectric sensors
MH15, Photoelectric retro-reflective sensor,
Standard optics

MHL15-N3229S05

Model Name > [MHL15-N3229S05](#)
Part No. > [1041308](#)



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, Standard optics
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 ... 1.9 m ^{1) 2)}
Sensing range::	0.035 m ... 0.4 m, 0.035 m ... 1 m ^{3) 4)}
Type of light:	Visible red light
Light source:	LED ⁵⁾
Wave length:	650 nm
Angle of dispersion:	Ca. 1.5 °
Light spot size (distance):	Ø 25 mm (1 m)

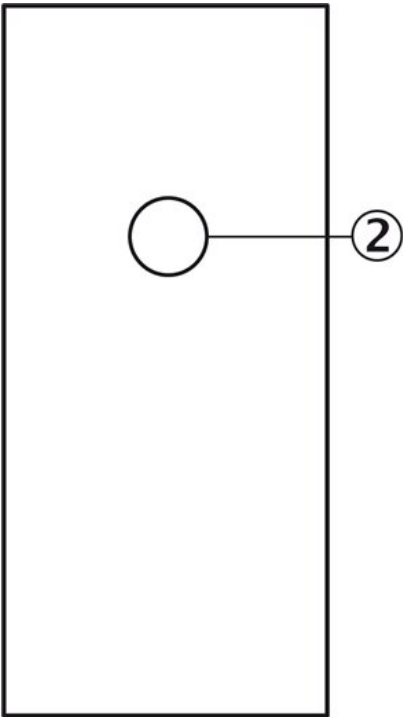
^{1) 3)} P250 ^{2) 4)} PL50A/PL40A ⁵⁾ Average service life of 100,000 h at T_A = +25 °C

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:	Dark-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⁾
Attenuation along light beam:	$\geq 16 \%$
Attenuation difference of object:	8 %
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
Special feature:	For transparent objects
Ambient operating temperature:	-25 °C ... 55 °C
Ambient storage temperature:	-25 °C ... 70 °C
UL File No.:	NRKH.E189383 & NRKH7.E189383

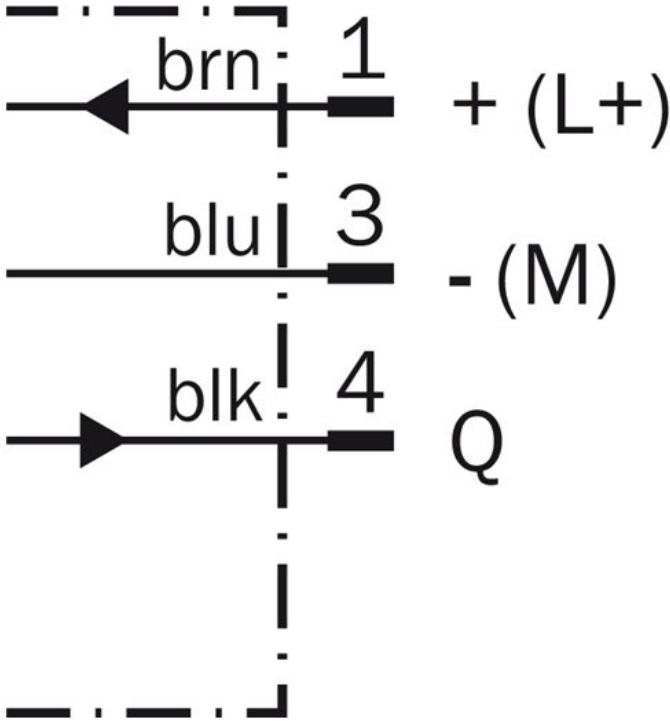
¹⁾ Limit values ²⁾ May not exceed or fall short of V_S tolerances ³⁾ Without load ⁴⁾ Signal transit time with resistive load ⁵⁾ With light/dark ratio 1:1 ⁶⁾ $A = V_S$
connections reverse-polarity protected ⁷⁾ C = interference suppression ⁸⁾ D = outputs overcurrent and short-circuit protected

Adjustments possible



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

Connection diagram



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