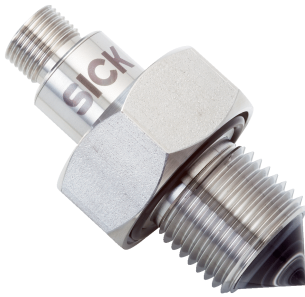


# MHF15-21NG1TSM

MHF15

LEVEL SENSORS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
MHF15-21NG1TSM	1052274

Other models and accessories → [www.sick.com/MHF15](http://www.sick.com/MHF15)



### Detailed technical data

#### Features

<b>Medium</b>	Fluids
<b>Measurement</b>	Switch
<b>Light source</b>	LED
<b>Type of light</b>	Visible red light
<b>Wave length</b>	650 nm
<b>Process pressure</b>	-0.5 bar ... 16 bar
<b>Process temperature</b>	-25 °C ... +55 °C
<b>UL approval</b>	✓
<b>RoHS certificate</b>	✓

#### Performance

<b>Response time</b>	2 ms
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#### Electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC <sup>1)</sup>
<b>Residual ripple</b>	≤ 5 V <sub>pp</sub> <sup>2)</sup>
<b>Power consumption</b>	≤ 30 mA at 24 V DC without output load
<b>Protection class</b>	III
<b>Connection type</b>	M12 round connector x 1, 4-pin
<b>Output signal</b>	1 x NPN <sup>3)</sup> 1 x NPN
<b>Switching mode</b>	NO
<b>Signal voltage HIGH</b>	V <sub>s</sub> - 2.9 V
<b>Signal voltage LOW</b>	≤ 2,9 V
<b>Output current</b>	≤ 100 mA <sup>3)</sup> ≤ 100 mA
<b>Switching frequency</b>	250 Hz <sup>4)</sup>

<sup>1)</sup> U<sub>v</sub> connections, reverse polarity protected.

<sup>2)</sup> May not exceed or fall below U<sub>v</sub> tolerances.

<sup>3)</sup> Output overcurrent and short-circuit protected.

<sup>4)</sup> With light/dark ratio 1:1.

<b>Enclosure rating</b>	IP67: EN 60529, IP69K: ISO 20653
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- 1)  $U_V$  connections, reverse polarity protected.
- 2) May not exceed or fall below  $U_V$  tolerances.
- 3) Output overcurrent and short-circuit protected.
- 4) With light/dark ratio 1:1.

Mechanics

<b>Wetted parts</b>	Stainless steel 316L, polysulfon, FPM
<b>Process connection</b>	G 1/2
<b>Housing material</b>	Stainless steel 1.4404

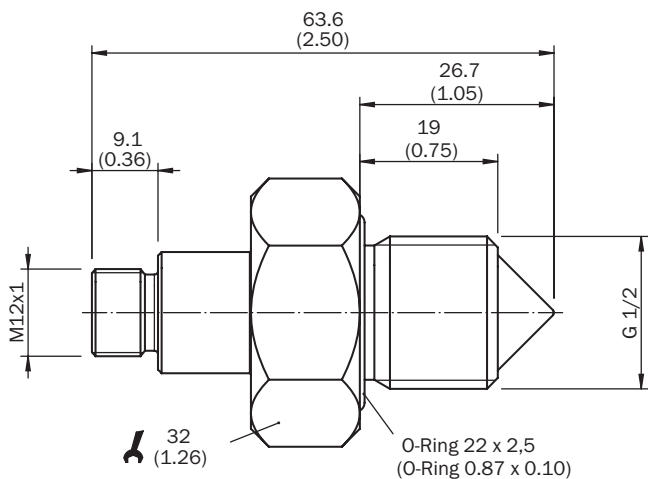
Ambient data

<b>Ambient operating temperature</b>	-25 °C ... +55 °C
<b>Ambient storage temperature</b>	-25 °C ... +70 °C

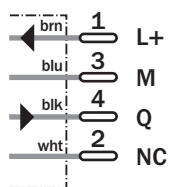
Classifications

<b>ECl@ss 5.0</b>	27200506
<b>ECl@ss 5.1.4</b>	27200506
<b>ECl@ss 6.0</b>	27200506
<b>ECl@ss 6.2</b>	27200506
<b>ECl@ss 7.0</b>	27200506
<b>ECl@ss 8.0</b>	27200506
<b>ECl@ss 8.1</b>	27200506
<b>ECl@ss 9.0</b>	27200506
<b>ETIM 5.0</b>	EC002654
<b>ETIM 6.0</b>	EC002654
<b>UNSPSC 16.0901</b>	41111950

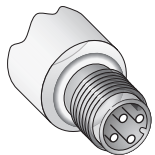
Dimensional drawing (Dimensions in mm (inch))



### Connection diagram



### Connection type



### Recommended accessories

Other models and accessories → [www.sick.com/MHF15](http://www.sick.com/MHF15)

	Brief description	Type	Part no.
<b>Flanges</b>			
	Welded flange G 1/2, Stainless steel V4A (1.4404, 316L)	BEF-FL-316G12-LMH1	4065669
<b>Plug connectors and cables</b>			
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m	YF2A14-020UB3XLEAX	2095607
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YF2A14-020VB3XLEAX	2096234
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YF2A14-050UB3XLEAX	2095608
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF2A14-050VB3XLEAX	2096235
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 10 m	YF2A14-100UB3XLEAX	2095609
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 10 m	YF2A14-100VB3XLEAX	2096236
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m	YG2A14-020UB3XLEAX	2095766

	Brief description	Type	Part no.
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YG2A14-020VB3XLEAX	2095895
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YG2A14-050UB3XLEAX	2095767
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YG2A14-050VB3XLEAX	2095897
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 10 m	YG2A14-100UB3XLEAX	2095768
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 10 m	YG2A14-100VB3XLEAX	2095898
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 15 m	YG2A14-150VB3XLEAX	2096213
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 20 m	YG2A14-200VB3XLEAX	2096214

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

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.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)