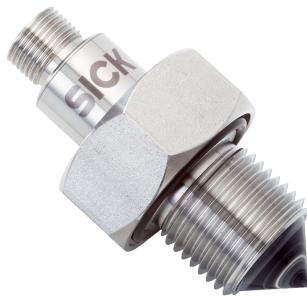


MHF15-21NG1NSM

MHF15

LEVEL SENSORS

SICK
Sensor Intelligence.



Ordering information

| Type | Part no. |
|----------------|----------|
| MHF15-21NG1NSM | 1052272 |

Other models and accessories → www.sick.com/MHF15



Detailed technical data

Features

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

Performance

| | |
|----------------------|------|
| Response time | 2 ms |
|----------------------|------|

Electronics

| | |
|------------------------------|--|
| Supply voltage | 10 V DC ... 30 V DC ¹⁾ |
| Residual ripple | ≤ 5 V _{pp} ²⁾ |
| Power consumption | ≤ 30 mA at 24 V DC without output load |
| Protection class | III |
| Electrical connection | M12 round connector x 1, 4-pin |
| Output signal | 1 x NPN ³⁾ |
| Switching mode | Normally closed |
| Signal voltage HIGH | V _s - 2.9 V |
| Signal voltage LOW | ≤ 2,9 V |
| Output current | ≤ 100 mA ³⁾ ≤ 100 mA |

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.

| | |
|----------------------------|-----------------------------------|
| Switching frequency | 250 Hz ⁴⁾ |
| Enclosure rating | IP 67: EN 60529, IP 69K: EN 40050 |

- 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

| | |
|---------------------------|---------------------------------------|
| Wetted parts | Stainless steel 316L, polysulfon, FPM |
| Process connection | G 1/2 |
| Housing material | Stainless steel 1.4404 |

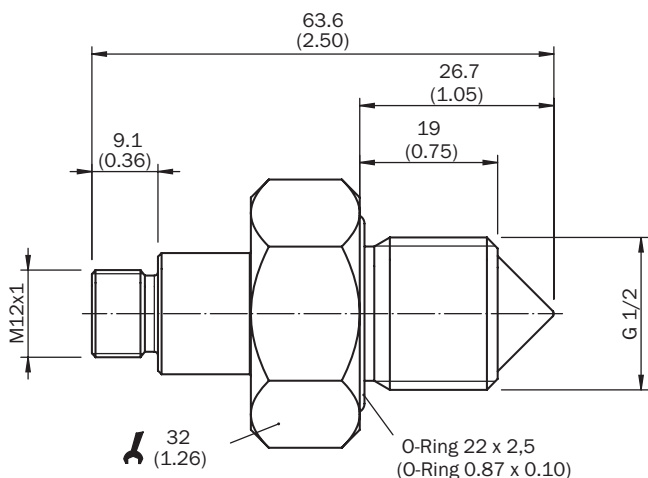
Ambient data

| | |
|--------------------------------------|-------------------|
| Ambient operating temperature | -25 °C ... +55 °C |
| Ambient storage temperature | -25 °C ... +70 °C |

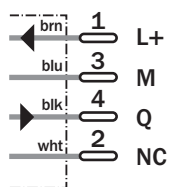
Classifications

| | |
|-----------------------|----------|
| ECl@ss 5.0 | 27200506 |
| ECl@ss 5.1.4 | 27200506 |
| ECl@ss 6.0 | 27200506 |
| ECl@ss 6.2 | 27200506 |
| ECl@ss 7.0 | 27200506 |
| ECl@ss 8.0 | 27200506 |
| ECl@ss 8.1 | 27200506 |
| ECl@ss 9.0 | 27200506 |
| ETIM 5.0 | EC002654 |
| ETIM 6.0 | EC002654 |
| UNSPSC 16.0901 | 41111950 |

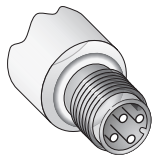
Dimensional drawing (Dimensions in mm (inch))



Connection diagram









Connection type



Recommended accessories

Other models and accessories → www.sick.com/MHF15

| | Brief description | Type | Part no. |
|-----------------------------------|---|--------------------|----------|
| Flanges | | | |
| | Welded flange G 1/2, Stainless steel V4A (1.4404, 316L) | BEF-FL-316G12-LMH1 | 4065669 |
| Plug connectors and cables | | | |
| | Head A: female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m | DOL-1204-G02M | 6009382 |
| | Head A: female connector, M12, 4-pin, straight Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 2 m | DOL-1204-G02MC | 6025900 |
| | Head A: female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 5 m | DOL-1204-G05M | 6009866 |
| | Head A: female connector, M12, 4-pin, straight Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 5 m | DOL-1204-G05MC | 6025901 |
| | Head A: female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 10 m | DOL-1204-G10M | 6010543 |
| | Head A: female connector, M12, 4-pin, straight Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 10 m | DOL-1204-G10MC | 6025902 |
| | Head A: female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 2 m | DOL-1204-W02M | 6009383 |

| | Brief description | Type | Part no. |
|---|---|----------------|----------|
|  | Head A: female connector, M12, 4-pin, angled Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 2 m | DOL-1204-W02MC | 6025903 |
|  | Head A: female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 5 m | DOL-1204-W05M | 6009867 |
|  | Head A: female connector, M12, 4-pin, angled Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 5 m | DOL-1204-W05MC | 6025904 |
|  | Head A: female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 10 m | DOL-1204-W10M | 6010541 |
|  | Head A: female connector, M12, 4-pin, angled Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 10 m | DOL-1204-W10MC | 6025905 |
|  | Head A: female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 15 m | DOL-1204-W15M | 6036474 |
| | Head A: female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 20 m | DOL-1204-W20M | 6033559 |

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.”

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Contacts and other locations – www.sick.com