



## Level sensors Optical level switch, MHF15

MHF15-21NG1HSM



**Model Name** > [MHF15-21NG1HSM](#)  
**Part No.** > [1052273](#)



#### At a glance

- Robust level monitoring in liquid without additional requirements
- Small, compact design; no medium calibration required
- Process temperature up to 55 °C, process pressure up to 16 bar
- IP 67 and IP 69K enclosure rating
- Process connection G ½
- Highly medium resistant due to stainless steel housing 1.4404, polysulfone apex
- Output available as PNP or NPN transistor
- FDA-compliant, UL

#### Your benefits

- Small, compact sensor ideal for difficult installation conditions with limited space
- Quick commissioning without medium calibration saves time and money
- No moving mechanical parts reduce maintenance and eliminate the need to recalibrate -- even after long periods of use.



#### Features

|                      |                     |
|----------------------|---------------------|
| Medium:              | Fluids              |
| Measurement:         | Switch              |
| Light source:        | LED                 |
| Type of light:       | Red light           |
| Wave length:         | 650 nm              |
| Process pressure:    | -0.5 bar ... 16 bar |
| Process temperature: | -25 °C ... 55 °C    |
| UL approval:         | ✓                   |

#### Performance

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

#### Mechanical data

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

#### Electrical data

|                   |                                   |
|-------------------|-----------------------------------|
| Enclosure rating: | IP 67: EN 60529, IP 69K: EN 40050 |
| Supply voltage:   | 10 V DC ... 30 V DC <sup>1)</sup> |

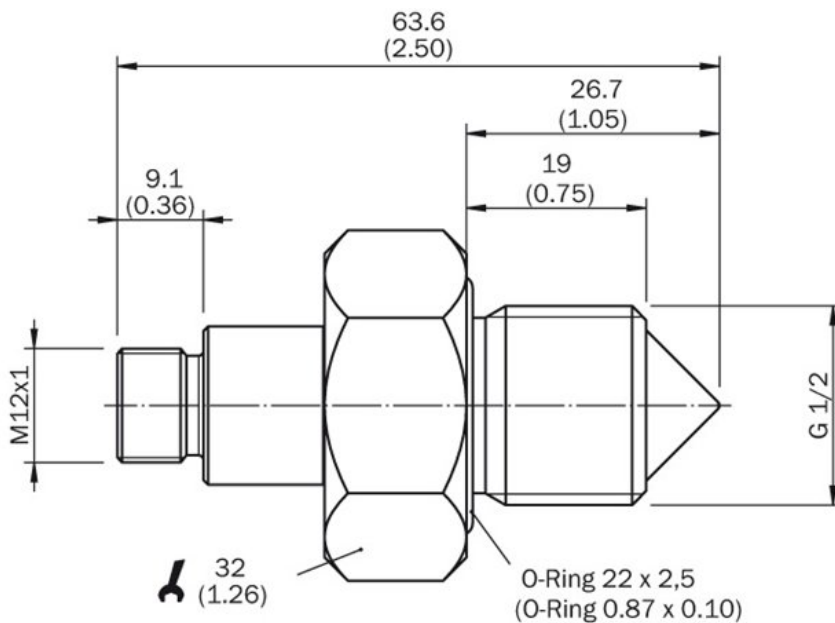
|                      |                                                  |
|----------------------|--------------------------------------------------|
| Ripple:              | $\leq 5 \text{ Vpp}$ <sup>2)</sup>               |
| Power consumption:   | $\leq 30 \text{ mA}$ at 24 V without output load |
| Protection class:    | III                                              |
| Output signal:       | 1x PNP <sup>3)</sup>                             |
| Switching mode:      | Normally open                                    |
| Output current:      | $\leq 100 \text{ mA}$ <sup>4)</sup>              |
| Signal voltage HIGH: | $V_s - 2.9 \text{ V}$                            |
| Signal voltage LOW:  | Approx. 0 V                                      |
| Switching frequency: | 250 Hz <sup>5)</sup>                             |
| Connection type:     | M12x1, 4-pin                                     |

1)  $V_S$  connections reverse-polarity protected 2) May not exceed or fall short of  $V_S$  tolerances 3) 4) Output overcurrent and short-circuit protected 5) With light/dark ratio 1:1

## Ambient data

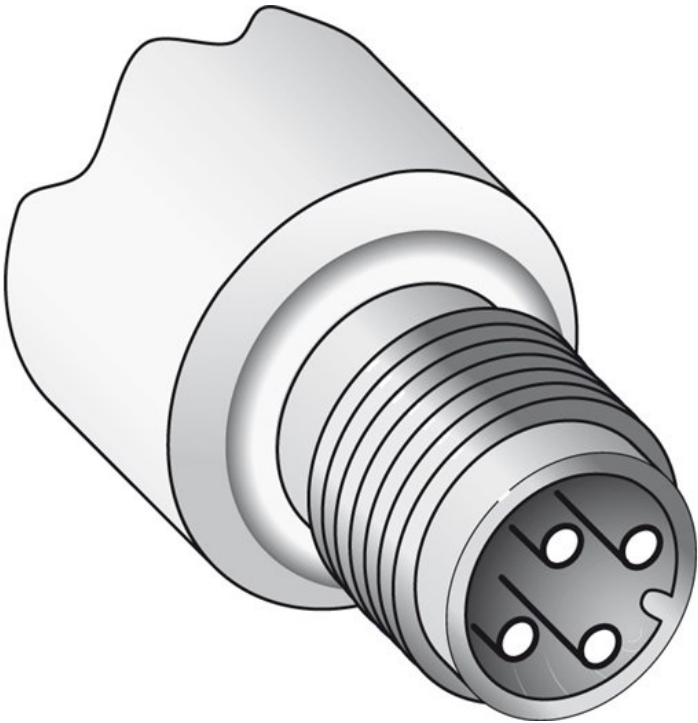
|                                |                  |
|--------------------------------|------------------|
| Ambient operating temperature: | -25 °C ... 55 °C |
| Ambient storage temperature:   | -25 °C ... 70 °C |

## Dimensional drawing

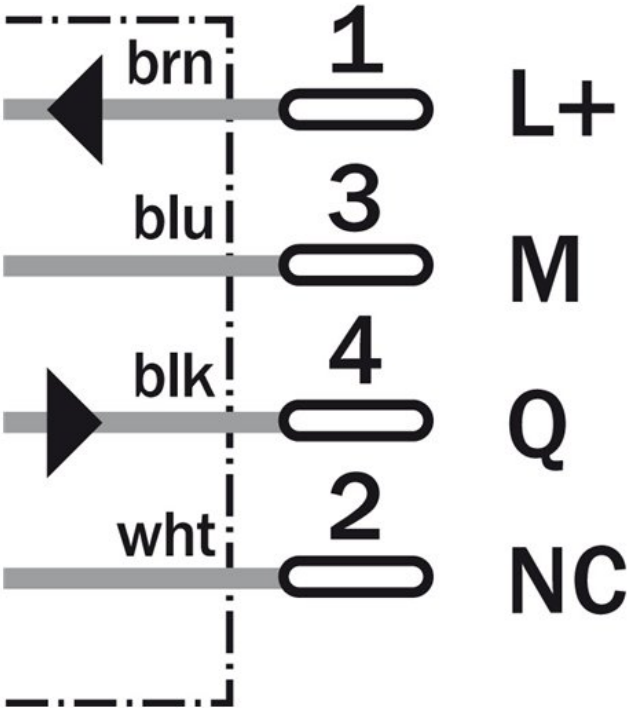


Dimensions in mm (inch)

Connection type



Connection diagram



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