



Model Number

NBN40-U1-A2-V1

Features

- Sensor head bidirectional and rotatable
- 40 mm non-flush
- 4-wire DC
- 4 LEDs indicator for 360° visibility

Accessories

MH 04-2681F

Mounting aid for VariKont, +U1+ and +U9*

MHW 01

Modular mounting bracket

V1-G

Female connector, M12, 4-pin, field attachable

V1-W

Female connector, M12, 4-pin, field attachable

V1-G-2M-PUR

Female cordset, M12, 4-pin, PUR cable

V1-W-2M-PUR

Female cordset, M12, 4-pin, PUR cable

Technical Data

General specifications

| | | | |
|------------------------------|-------|---------------|-------|
| Switching element function | | PNP | NO/NC |
| Rated operating distance | s_n | 40 mm | |
| Installation | | non-flush | |
| Output polarity | | DC | |
| Assured operating distance | s_a | 0 ... 32.4 mm | |
| Reduction factor r_{Al} | | 0.31 | |
| Reduction factor r_{Cu} | | 0.3 | |
| Reduction factor r_{304} | | 0.74 | |
| Reduction factor r_{Brass} | | 0.39 | |

Nominal ratings

| | | |
|--------------------------------|-------|----------------------------|
| Operating voltage | U_B | 10 ... 30 V DC |
| Switching frequency | f | 0 ... 180 Hz |
| Hysteresis | H | typ. 5 % |
| Reverse polarity protection | | reverse polarity protected |
| Short-circuit protection | | pulsing |
| Voltage drop | U_d | ≤ 2 V |
| Operating current | I_L | 0 ... 200 mA |
| Off-state current | I_r | 0 ... 0.5 mA |
| No-load supply current | I_0 | ≤ 20 mA |
| Time delay before availability | t_v | 80 ms |
| Operating voltage indicator | | LED, green |
| Switching state indicator | | LED, yellow |

Functional safety related parameters

| | |
|--------------------------------|--------|
| MTTF _d | 1230 a |
| Mission Time (T _M) | 20 a |
| Diagnostic Coverage (DC) | 0 % |

Ambient conditions

| | |
|---------------------|--------------------------------|
| Ambient temperature | -25 ... 85 °C (-13 ... 185 °F) |
|---------------------|--------------------------------|

Mechanical specifications

| | |
|----------------------|-------------------------------------|
| Connection type | Connector M12 x 1, 4-pin |
| Housing material | PA/metal with epoxy powder coating |
| Sensing face | PA |
| Housing base | plastic |
| Degree of protection | IP68 / IP69K |
| Mass | 225 g |
| Note | Tightening torque: 1.8 Nm (housing) |

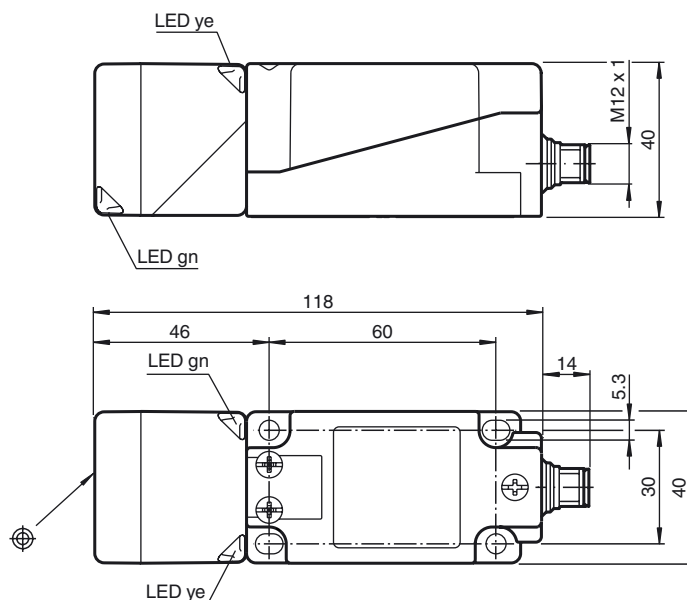
Compliance with standards and directives

| | |
|---------------------|---|
| Standard conformity | |
| Standards | EN 60947-5-2:2007 IEC 60947-5-2:2007 |

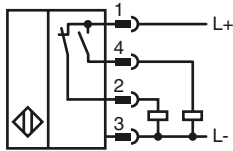
Approvals and certificates

| | |
|--------------|--|
| UL approval | cULus Listed, General Purpose |
| CCC approval | CCC approval / marking not required for products rated ≤ 36 V |

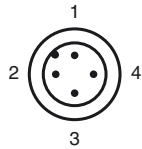
Dimensions



Electrical Connection



Pinout



Wire colors in accordance with EN 60947-5-2

| | | | |
|---|--|----|---------|
| 1 | | BN | (brown) |
| 2 | | WH | (white) |
| 3 | | BU | (blue) |
| 4 | | BK | (black) |