



Model Number

NBB1,5-5GM25-E2-V3

Features

- Basic series
- 1.5 mm flush

Accessories

BF 5

Mounting flange, 5 mm

V3-WM

Female connector, M8, 3-pin, field attachable

V3-GM

Female connector, M8, 3-pin, field attachable

V3-WM-2M-PUR

Cable socket, M8, 3-pin, PUR cable

Technical Data

General specifications

| | | | |
|------------------------------|-------|--------------------|----|
| Switching element function | | PNP | NO |
| Rated operating distance | s_n | 1.5 mm | |
| Installation | | flush | |
| Output polarity | | DC | |
| Assured operating distance | s_a | 0 ... 1.215 mm | |
| Actuating element | | 5 mm x 5 mm x 1 mm | |
| Reduction factor r_{Al} | | 0.41 | |
| Reduction factor r_{Cu} | | 0.38 | |
| Reduction factor r_{304} | | 0.85 | |
| Reduction factor r_{Brass} | | 0.54 | |

Nominal ratings

| | | | |
|-----------------------------|-------|--|--|
| Operating voltage | U_B | 10 ... 30 V | |
| Switching frequency | f | 0 ... 3000 Hz | |
| Hysteresis | H | 1 ... 15 % | |
| Reverse polarity protection | | reverse polarity protected | |
| Short-circuit protection | | pulsing | |
| Voltage drop | U_d | ≤ 3 V | |
| Operating current | I_L | 0 ... 200 mA | |
| Off-state current | I_r | 0 ... 0.1 mA typ. 0.1 μ A at 25 °C | |
| No-load supply current | I_0 | ≤ 10 mA | |
| Switching state indicator | | LED, yellow | |

Functional safety related parameters

| | |
|--------------------------|--------|
| MTTF _d | 1245 a |
| Mission Time (T_M) | 20 a |
| Diagnostic Coverage (DC) | 0 % |

Ambient conditions

| | |
|---------------------|--------------------------------|
| Ambient temperature | -25 ... 70 °C (-13 ... 158 °F) |
|---------------------|--------------------------------|

Mechanical specifications

| | |
|----------------------|-----------------------------------|
| Connection type | Connector M8 x 1 , 3-pin |
| Housing material | Stainless steel 1.4305 / AISI 303 |
| Sensing face | POM |
| Degree of protection | IP67 |

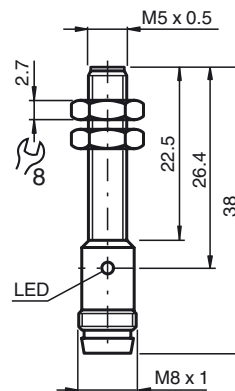
Compliance with standards and directives

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

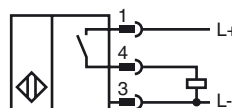
Approvals and certificates

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

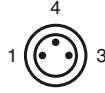
Dimensions



Electrical Connection



Pinout



Wire colors in accordance with EN 60947-5-2

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