



**Model Number**  
NBN4-12GM40-Z0

- Features**
- 4 mm non-flush
  - 2-wire DC

**Accessories**  
BF 12  
Mounting flange, 12 mm

**Technical Data**

**General specifications**

Switching function	Normally open (NO)
Output type	Two-wire
Rated operating distance	$s_n$ 4 mm
Installation	non-flush
Output polarity	DC
Assured operating distance	$s_a$ 0 ... 3.24 mm
Actual operating distance	$s_r$ 3.6 ... 4.4 mm typ.
Reduction factor $r_{Al}$	0.37
Reduction factor $r_{Cu}$	0.36
Reduction factor $r_{304}$	0.74

**Nominal ratings**

Operating voltage	$U_B$ 5 ... 60 V
Switching frequency	$f$ 0 ... 700 Hz
Hysteresis	$H$ 1 ... 10 typ. 5 %
Reverse polarity protection	reverse polarity tolerant
Short-circuit protection	pulsing
Voltage drop	$U_d$ $\leq$ 5 V
Operating current	$I_L$ 2 ... 100 mA
Lowest operating current	$I_m$ 2 mA
Off-state current	$I_r$ 0 ... 0.5 mA typ.
Switching state indicator	all direction LED, yellow

**Functional safety related parameters**

MTTF <sub>d</sub>	2020 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %

**Ambient conditions**

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
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**Mechanical specifications**

Connection type	cable PVC , 2 m
Core cross-section	0.14 mm <sup>2</sup>
Housing material	brass, nickel-plated
Sensing face	PBT
Degree of protection	IP67

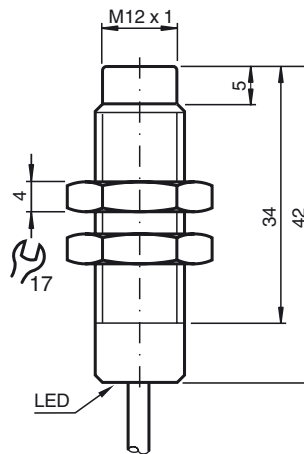
**Compliance with standards and directives**

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

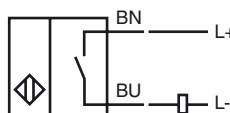
**Approvals and certificates**

UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose
CCC approval	Certified by China Compulsory Certification (CCC)

**Dimensions**



**Electrical Connection**



Release date: 2016-11-18 14:38 Date of issue: 2016-11-18 088194\_eng.xml