



Model Number

NCN4-12GM40-Z0-3G-3D

Features

- 4 mm non-flush
- ATEX-approval for zone 2 and zone 22

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}		0.42
Reduction factor r_{Cu}		0.4
Reduction factor r_{304}		0.75
Output type		2-wire

Nominal ratings

Operating voltage	U_B	5 ... 60 V DC
Switching frequency	f	0 ... 800 Hz
Hysteresis	H	1 ... 10 typ. 5 %
Reverse polarity protection		reverse polarity tolerant
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 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 _d		2020 a
Mission Time (T _M)		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 ²
Housing material		Stainless steel 1.4305 / AISI 303
Sensing face		PBT
Degree of protection		IP67
Cable		

Cable diameter		3 mm ± 0.2 mm
Bending radius		> 10 x cable diameter

General information

Use in the hazardous area		see instruction manuals
Category		3G; 3D

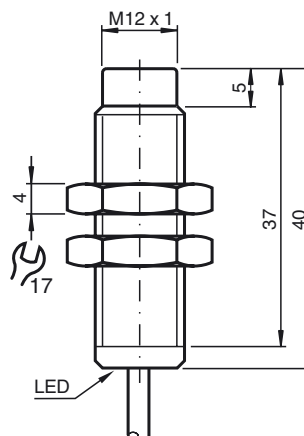
Compliance with standards and directives

Standard conformity		
Standards		EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012

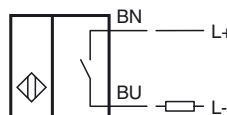
Approvals and certificates

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

Dimensions



Electrical Connection



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Equipment protection level Gc (nA)

Certificate	PF 15CERT3754 X
CE marking	CE

ATEX marking	⊕ II 3G Ex nA IIC T6 Gc The Ex-related marking can also be printed on the enclosed label.
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Standards	EN 60079-0:2012+A11:2013, EN 60079-15:2010 Ignition protection category "n" Use is restricted to the following stated conditions
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Special conditions

Maximum operating current I_L	The maximum permissible load current must be restricted to the values given in the following list. High load currents and load short-circuits are not permitted.
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Maximum operating voltage U_{Bmax}	The maximum permissible operating voltage U_{Bmax} is restricted to the values in the following list. Tolerances are not permissible.
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Maximum permissible ambient temperature T_{Umax}	dependant of the load current I_L and the max. operating voltage U_{Bmax} Information can be taken from the following list.
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at $U_{Bmax}=60\text{ V}$, $I_L=100\text{ mA}$	38 °C (100.4 °F)
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at $U_{Bmax}=60\text{ V}$, $I_L=50\text{ mA}$	52 °C (125.6 °F)
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at $U_{Bmax}=60\text{ V}$, $I_L=25\text{ mA}$	61 °C (141.8 °F)
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Equipment protection level Dc (tc)

CE marking	CE
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ATEX marking	⊕ II 3D Ex tc IIIC T80°C Dc The Ex-related marking can also be printed on the enclosed label.
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Standards	EN 60079-0:2012+A11:2013, EN 60079-31:2014 Protection by enclosure "tc" Some of the information in this instruction manual is more specific than the information provided in the datasheet.
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General	The corresponding datasheets, declarations of conformity, EC-type examination certificates, certifications, and control drawings, where applicable (see datasheets), form an integral part of this document. These documents can be found at www.pepperl-fuchs.com . The maximum surface temperature of the device was determined without a layer of dust on the apparatus. Some of the information in this instruction manual is more specific than the information provided in the datasheet.
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Special conditions

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