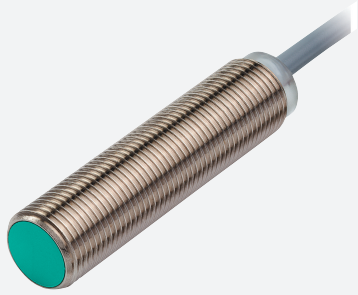
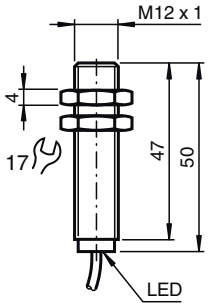
Inductive sensor

NBB4-12GM50-E2-3G-3D



- Increased operating distance
- 4 mm flush
- ATEX-approval for zone 2 and zone 22

Dimensions



Technical Data

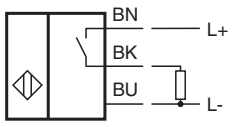
General specifications		
Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	s_n	4 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 ... 3.24 mm
Reduction factor r_{Al}		0.45
Reduction factor r_{Cu}		0.35
Reduction factor r_{304}		0.7
Output type		3-wire
Nominal ratings		
Operating voltage	U_B	10 ... 30 V DC
Switching frequency	f	0 ... 1000 Hz
Hysteresis	H	typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 3 V
Operating current	I_L	0 ... 150 mA
Off-state current	I_r	0 ... 0.5 mA typ. 0.1 µA at 25 °C
Off-state current T_U =40 °C, switching element off		≤

Release date: 2020-04-30 Date of issue: 2020-04-30 Filename: 212060_eng.pdf

Technical Data

No-load supply current	I_0	≤ 15 mA
Time delay before availability	t_v	≤ 5 ms
Switching state indicator		LED, yellow
Functional safety related parameters		
$MTTF_d$		1820 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
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		CCC approval / marking not required for products rated ≤36 V
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Mechanical specifications		
Connection type		cable PVC , 2 m
Cable version		PBT
Core cross-section		0.14 mm^2
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP67
Cable		
Cable diameter		3.5 mm ± 0.2 mm
Bending radius		> 10 x cable diameter
Equipment protection level Dc (tc)		
Special conditions		
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.
General information		
Use in the hazardous area		see instruction manuals

Connection



Accessories

	**BF 12**	Mounting flange, 12 mm
	**EXG-12**	Quick mounting bracket with dead stop

Release date: 2020-04-30 Date of issue: 2020-04-30 Filename: 212060_eng.pdf