



**Model Number**

**NBB8-18GM50-E2-M-150MM-3DT04**

**Features**

- 8 mm flush
- Extended temperature range -40 ... +85 °C
- E1-Type approval
- Increased noise immunity 100 V/m
- With increased sealing, protection class IP68 / IP69K
- Highly shock and vibration resistant

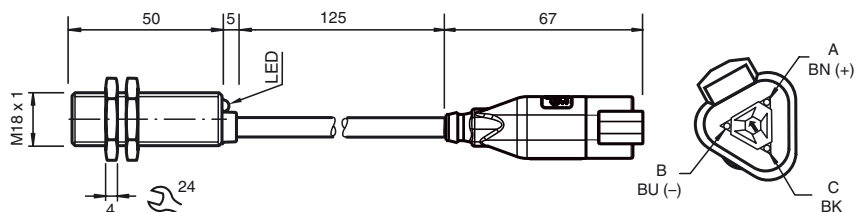
**Accessories**

- BF 18**  
Mounting flange, 18 mm
- EXG-18**  
Quick mounting bracket with dead stop

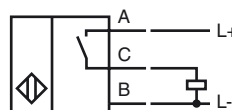
**Technical Data**

General specifications		
Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	$s_n$	8 mm
Installation		flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 6.48 mm
Reduction factor $r_{Al}$		0.4
Reduction factor $r_{Cu}$		0.3
Reduction factor $r_{304}$		0.7
Reduction factor $r_{Brass}$		0.45
Output type		3-wire
Nominal ratings		
Operating voltage	$U_B$	5 ... 60 V
Switching frequency	$f$	0 ... 1500 Hz
Hysteresis	$H$	typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Inductive overvoltage protection		yes
Surge suppression		yes
Voltage drop	$U_d$	$\leq 2$ V
Rated insulation voltage	$U_{BIS}$	60 V
Operating current	$I_L$	0 ... 200 mA
Off-state current	$I_r$	0 ... 0.5 mA typ. 0.1 $\mu$ A at 25 °C
No-load supply current	$I_0$	$\leq 7$ mA
Time delay before availability	$t_v$	$\leq 220$ ms
Switching state indicator		LED, yellow
Functional safety related parameters		
MTTF <sub>d</sub>		1085.5 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
Ambient conditions		
Ambient temperature		-40 ... 85 °C (-40 ... 185 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		Cable connector Deutsch DT04 , 3-pin with PUR cable 125 mm
Core cross-section		3 x 0.75 mm <sup>2</sup>
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP68 / IP69K
Connector		
Connection assembly		Deutsch connector DT04-3P-CE02 Deutsch wedge W3P Deutsch contact 1060-16-0622
Cable		
Length	$L$	$L = 125$ mm
Note		molded Connector
Compliance with standards and directives		
Standard conformity		
Standards		EN 60947-5-2:2007 IEC 60947-5-2:2007
Approvals and certificates		
E1 Type approval		10R-04

**Dimensions**



**Electrical Connection**



Release date: 2019-10-28 15:00 Date of issue: 2019-10-28 915779\_eng.xml

Wire colors

A	BN
B	BU
C	BK

**Installation Hint**

Interference immunity in accordance with  
 DIN ISO 11452-2: 100 V/m  
 Frequency band 20 MHz up to 2 GHz

Mains-borne interference in accordance with ISO  
 7637-2: Pulse

	1	2a	2b	3a	3b	4	5
Severity level	III	III	III	III	III	III	III
Failure criterion	C	A	C	A	A	A	B

EN 61000-4-2:	CD: 8 kV / AD: 15 kV
Severity level	IV IV
EN 61000-4-3:	30 V/m (80...2500 MHz)
Severity level	IV
EN 61000-4-4:	2 kV
Severity level	III
EN 61000-4-6:	10 V (0.01...80 MHz)
Severity level	III
EN 55011:	Class A