

# Inductive sensor

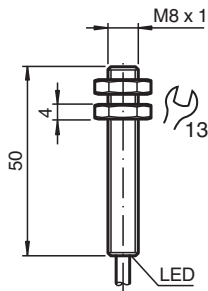
## NBB2-8GM50-A2-5M



- 2 mm flush
- Increased operating distance
- Extended temperature range  
-40 ... +85 °C



### Dimensions



### Technical Data

#### General specifications

Switching function	complementary	
Output type	PNP	
Rated operating distance	$s_n$	2 mm
Installation	flush	
Output polarity	DC	
Assured operating distance	$s_a$	0 ... 1.62 mm
Actuating element	mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 8 mm x 8 mm x 1 mm	
Reduction factor $r_{Al}$	0.4	
Reduction factor $r_{Cu}$	0.3	
Reduction factor $r_{304}$	0.75	
Reduction factor $r_{Brass}$	0.5	
Output type	4-wire	

#### Nominal ratings

Operating voltage	$U_B$	5 ... 30 V
Switching frequency	$f$	0 ... 6000 Hz
Hysteresis	$H$	typ. 5%
Reverse polarity protection	reverse polarity protected	
Short-circuit protection	pulsing	
Voltage drop	$U_d$	$\leq 1.5$ V
Operating current	$I_L$	0 ... 100 mA
Off-state current	$I_r$	0 ... 0.2 mA

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## Technical Data

No-load supply current	$I_0$	$\leq 10 \text{ mA}$
Time delay before availability	$t_v$	$\leq 100 \text{ ms}$
Switching state indicator		LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		960 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Compliance with standards and directives</b>		
Standard conformity		
Standards		EN IEC 60947-5-2
<b>Approvals and certificates</b>		
UL approval		cULus Listed, General Purpose, Class 2 Power Source
CCC approval		CCC approval / marking not required for products rated $\leq 36 \text{ V}$
<b>Ambient conditions</b>		
Ambient temperature		-40 ... 85 °C (-40 ... 185 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
<b>Mechanical specifications</b>		
Connection type		cable
Housing material		brass, nickel-plated
Sensing face		LCP
Degree of protection		IP65 / IP66 / IP67
<b>Cable</b>		
Wire end ferrules		yes
Cable diameter		3.3 mm $\pm$ 0.1 mm
Bending radius		> 10 x cable diameter
Material		PVC
Color		black
Number of cores		4
Core cross section		0.14 mm <sup>2</sup>
Length	L	5 m
<b>Dimensions</b>		
Length		50 mm
Diameter		8 mm
<b>General information</b>		
Scope of delivery		2 hex nuts included

## Connection

