



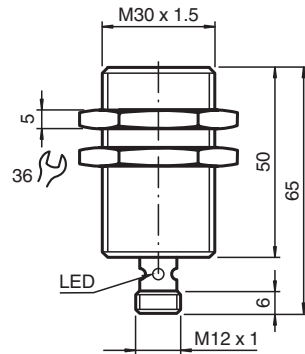
# Inductive sensor

## NBB10-30GM50-E2-C3-V1

- 10 mm flush
- Weld Immune
- Ceramic coated sensing face



### Dimensions



### Technical Data

#### General specifications

Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	$s_n$	10 mm
Installation		flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 8.1 mm
Reduction factor $r_{Al}$		0.3
Reduction factor $r_{Cu}$		0.2
Reduction factor $r_{304}$		0.6
Output type		3-wire

#### Nominal ratings

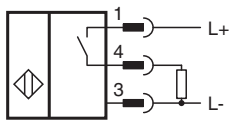
Operating voltage	$U_B$	10 ... 30 V DC
Switching frequency	$f$	0 ... 10 Hz
Hysteresis	$H$	typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 3$ V
Operating current	$I_L$	0 ... 200 mA
Off-state current	$I_r$	0 ... 0.5 mA typ. 0.1 $\mu$ A at 25 °C
No-load supply current	$I_0$	$\leq 15$ mA

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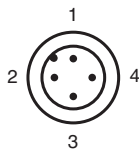
## Technical Data

Constant magnetic field	B	150 mT
Alternating magnetic field	B	150 mT
Operating voltage indicator		LED, green
Switching state indicator		LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1835 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 Load Type: General Purpose Circuitry: Class 2 Power Source Enclosure Type Rating: Type 1 Supply/Switching Voltage: 30 V DC Output Switching Current: 200 mA
CCC approval		CCC approval / marking not required for products rated ≤36 V
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
<b>Mechanical specifications</b>		
Connection type		Connector plug
Housing material		Brass, PTFE coated
Sensing face		Ceramic coated
Degree of protection		IP67
Connector		
Threading		M12 x 1
Number of pins		4
Dimensions		
Length		50 mm
Diameter		30 mm

## Connection



## Connection Assignment



## Connection Assignment

Wire colors in accordance with EN 60947-5-2

1		BN	(brown)
2		WH	(white)
3		BU	(blue)
4		BK	(black)