

Inductive sensor

NBB30-L2K-E2-V1

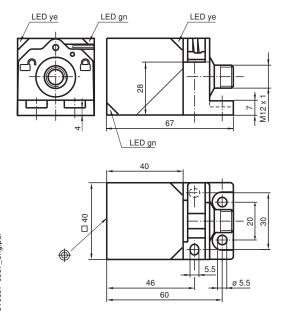
- 30 mm flush
- Active Shielding Technology
- 3-wire DC
- Sensor head bidirectional and rotatable
- Quick mounting bracket
- 4 LEDs indicator for 360° visibility



Function

Inductive sensors with active shielding technology detect in addition to the damping element also the installation environment. As a result, they keep the operating distance constantly high, regardless of the installation situation and the installation material.

Dimensions

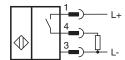


Technical Data

General specifications		
Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	Sn	30 mm
Installation		flush
Output polarity		DC
Assured operating distance	sa	0 24.3 mm
Actual operating distance	s _r	27 33 mm typ.
Reduction factor r _{Al}		0.4
Reduction factor r _{Cu}		0.37
Installation Output polarity Assured operating distance Actual operating distance Reduction factor r _{Al}	Sa	flush DC 0 24.3 mm 27 33 mm typ. 0.4

Reduction factor r _{Spot} 0.76 Reduction factor r _{Bnoss} 0.46 Output type 3-wire Nominal ratings	Technical Data		
Reduction factor figeass 0.46 Output type 3 -wire Nominal ratings Uall 10 30 V DC Switching frequency f 0 60 Hz Hysteresis H Vyp. 2 % Reverse polarity protection reverse polarity protected Short-circuit protection upulsing Voltage drop Uall 5 ± 2 V Operating current l, 0 200 mA Off-state current l, 0 20 mA Time delay before availability l, 0 80 ms Operating voltage indicator LED, green Switching state indicator LED, green Witching state indicator LED, green W	Reduction factor room		0.76
Output type 3-wire Nominal ratings I 030 V DC Switching frequency f 060 Hz Hysteresis H typ. 2 % Reverse polarity protection pulsing Voltage drop U _d ≤ 2 V Operating current I _L 0 200 mA Off-state current I _L 0 0.5 mA No-load supply current I _L 0 0.5 mA Tirre delay before availability I _L 80 ms Operating voltage indicator I _L 80 ms Functional safety related parameters I _L 10 ms MTTF _d 899 a 3 Mission Time (T _M) 20 a 20 a Diagnostic Coverage (DC) % 60 ms Compliance with standards and directives I _N 60947-5-2/2017 10 ms Standard conformity I _N 60947-5-2/2012			
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Functional safety related parameters MTTF _d 899 a Mission Time (T _M) 20 a Diagnostic Coverage (DC) 0 % Compliance with standards and directives Standard conformity Standards 81		t _v	80 ms
Functional safety related parameters MTTF _d 899 a Mission Time (T _M) 20 a Diagnostic Coverage (DC) 0 % Compliance with standards and directives Standard conformity Standards 81	Operating voltage indicator		LED, green
MTTFd 899 a Mission Time (TM) 20 a Diagnostic Coverage (DC) 0 % Compliance with standards and directives Standard conformity EN 60947-5-2:2007 EN 60947-5-2:2007 EN 60947-5-2:2007 IEC 60947-5-2:2007 I			-
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Compliance with standards and directives Standard conformity EN 60947-5-2:2007	Mission Time (T _M)		20 a
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Ambient temperature -25 70 °C (-13 158 °F) Storage temperature -40 85 °C (-40 185 °F) Mechanical specifications Connection type Connector plug M12 x 1 , 4-pin Housing material PA Sensing face PA Degree of protection IP68 / IP69	CCC approval		CCC approval / marking not required for products rated ≤36 V
Storage temperature -40 85 °C (-40 185 °F) Mechanical specifications Connection type Connector plug M12 x 1 , 4-pin Housing material PA Sensing face PA Degree of protection IP68 / IP69	Ambient conditions		
Mechanical specifications Connection type Connector plug M12 x 1 , 4-pin Housing material PA Sensing face PA Degree of protection IP68 / IP69	Ambient temperature		-25 70 °C (-13 158 °F)
Connection type Connector plug M12 x 1 , 4-pin Housing material PA Sensing face PA Degree of protection IP68 / IP69	Storage temperature		-40 85 °C (-40 185 °F)
Housing material PA Sensing face PA Degree of protection IP68 / IP69	Mechanical specifications		
Sensing face PA Degree of protection IP68 / IP69	Connection type		Connector plug M12 x 1 , 4-pin
Degree of protection IP68 / IP69	Housing material		PA
	Sensing face		PA
Mass 130 g	Degree of protection		IP68 / IP69
	Mass		130 g

Connection



Connection Assignment



Wire colors in accordance with EN 60947-5-2

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

Acces	Accessories					
	V1-W-2M-PUR	Female cordset, M12, 4-pin, PUR cable				
	V1-G-2M-PUR	Female cordset, M12, 4-pin, PUR cable				
***	MHW 01	Modular mounting bracket				
	MH 02-L	Mounting aid				