



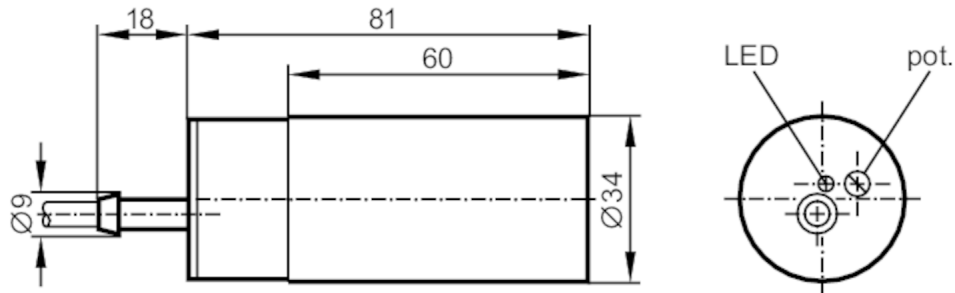
## Capacitive sensor

KB-2020-BBOA/NI

phase-out article

Alternative articles: KB0029

When selecting an alternative article and accessories please note that technical data may differ!



## Product characteristics

Output function		normally closed
Sensing range	[mm]	3...20
Housing		cylindrical
Dimensions	[mm]	Ø 34 / L = 81

## Electrical data

Operating voltage	[V]	20...250 AC/DC
Protection class		II
Reverse polarity protection		no

## Outputs

Output function		normally closed
Max. voltage drop switching output DC	[V]	8
Max. voltage drop switching output AC	[V]	10
Minimum load current	[mA]	5
Max. leakage current	[mA]	2.5 (250 V AC) / 1.7 (110 V AC) / 1.5 (24 V DC)
Permanent current rating of switching output AC	[mA]	200; (for UL application: 250 / 100 DC)
Permanent current rating of switching output DC	[mA]	200; (for UL application: 250 AC / 100 DC)
Short-time current rating of switching output	[mA]	1500; (20 ms / 0,5 Hz)
Switching frequency AC	[Hz]	25
Switching frequency DC	[Hz]	40
Short-circuit proof		no
Overload protection		no

## Detection zone

Sensing range	[mm]	3...20
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## Capacitive sensor

KB-2020-BBOA/NI

Sensing range adjustable	yes
Factory setting sensing range [mm]	20
Real sensing range Sr [mm]	20 ± 10 %
Operating distance [mm]	0...16.2
<b>Accuracy / deviations</b>	
Correction factor	glass: 0.4 / water: 1 / ceramics: 0.2 / PVC: 0.2
Hysteresis [% of Sr]	1...15
Switch point drift [% of Sr]	-15...15
<b>Operating conditions</b>	
Ambient temperature [°C]	-25...70
Protection	IP 65
Increased immunity	yes; (increased immunity to conducted radio frequency interference)
<b>Tests / approvals</b>	
EMC	EN 60947-5-2
MTTF [years]	488
<b>Mechanical data</b>	
Weight [g]	250.4
Housing	cylindrical
Mounting	non-flush mountable
Dimensions [mm]	Ø 34 / L = 81
Materials	PBT
<b>Displays / operating elements</b>	
Display	switching status 1 x LED, red
<b>Electrical connection</b>	
Required protection	miniature fuse to IEC60127-2 sheet 1; ≤ 2 A; fast acting
<b>Accessories</b>	
Items supplied	Mounting clamps: 1
	screwdriver: 1
	spring discs
	head cap screw: 1
<b>Remarks</b>	
Remarks	Note
	miniature fuse to IEC60127-2 sheet 1
Pack quantity	1 pcs.

# KB0040



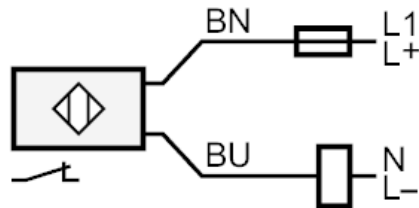
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### Electrical connection

Cable: 2 m, PVC; 2 x 0.5 mm<sup>2</sup>

### Connection



Note miniature fuse to IEC60127-2 sheet 1  $\leq 2$  A fast acting  
Core colours :

BN =

brown

BU =

blue