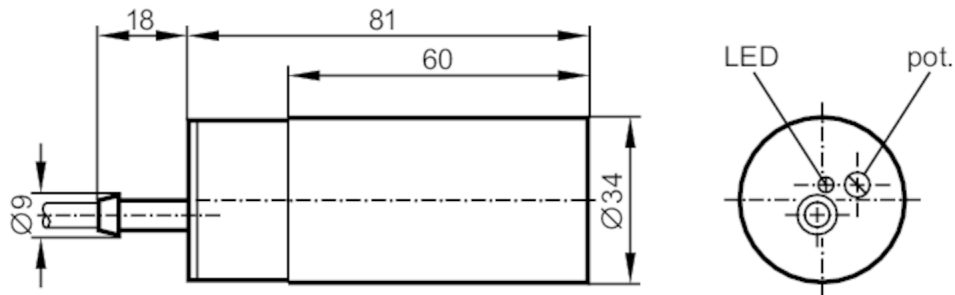




## Capacitive sensor

KB-2020-BBOA/NI



## Product characteristics

Output function	normally closed
Sensing range [mm]	3...20
Housing	tubular
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

## Monitoring range

Sensing range [mm]	3...20
Sensing range adjustable	yes
Factory setting sensing range [mm]	20
Real sensing range $S_r$ [mm]	$20 \pm 10 \%$
Operating distance [mm]	0...16.2



## Capacitive sensor

KB-2020-BBOA/NI

Accuracy / deviations		
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
Operating conditions		
Ambient temperature	[°C]	-25...70
Protection	IP 65	
Increased immunity	yes; (Increased immunity to conducted radio frequency interference)	
Tests / approvals		
EMC	EN 60947-5-2	
MTTF	[years]	488
Mechanical data		
Weight	[g]	258.5
Housing	tubular	
Mounting	non-flush mountable	
Dimensions	[mm]	Ø 34 / L = 81
Material	PBT	
Displays / operating elements		
Display	Switching status	1 x LED, yellow
Electrical connection		
Required protection	miniature fuse to IEC60127-2 sheet 1; ≤ 2 A; fast acting	
Accessories		
Items supplied	Mounting clamp: 1	
	screwdriver: 1	
	spring discs	
	head cap screw: 1	
Remarks		
Remarks	Recommendation: check the unit for reliable function after a short circuit.	
Pack quantity	1 pcs.	

# KB0029



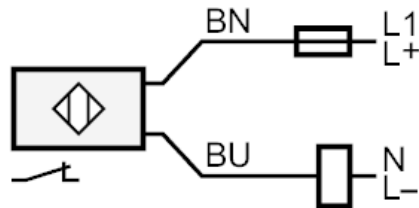
## Capacitive sensor

KB-2020-BBOA/NI

### 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 colors :

BN =

brown

BU =

blue