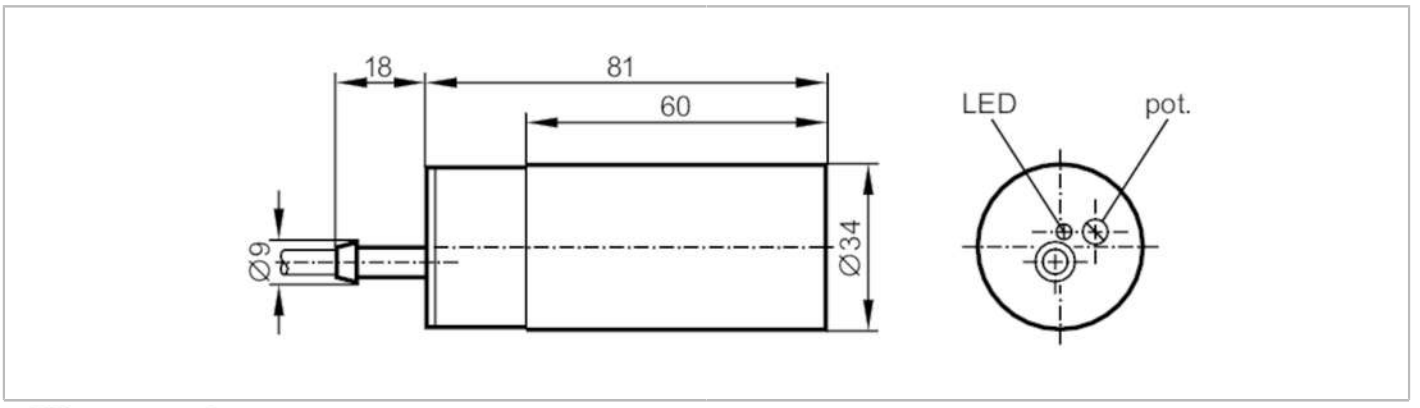
KB0029

Capacitive sensor

KB-2020-BBOA/NI



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
Sensing range adjustable		yes
Factory setting sensing range	[mm]	20
Real sensing range Sr	[mm]	20 ± 10 %
Operating distance	[mm]	0...16.2

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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		cylindrical	
Mounting		non-flush mountable	
Dimensions	[mm]	Ø 34 / L = 81	
Materials		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 clamps: 2	
		cylinder screws: 2	
		spring discs: 2	
Remarks			
Remarks		Recommendation: Check the safe functioning of the unit after a short circuit.	
Pack quantity		1 pcs.	

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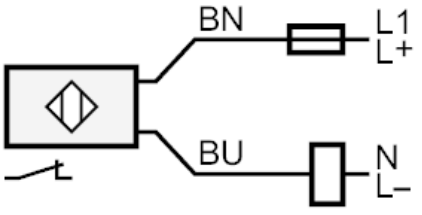
Electrical connection

Cable: 2 m, PVC; 2 x 0.5 mm²

Connection



Note miniature fuse to IEC60127-2 sheet 1 ≤ 2 A fast acting
Core colours :

BN =	brown
BU =	blue