



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



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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		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: 2	
		cylinder screws: 2	
		spring discs: 2	
Remarks			
Remarks		Recommendation: check the unit for reliable function 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 $\leq$ 2 A fast acting

Core colors :

BN =

brown

BU =

blue