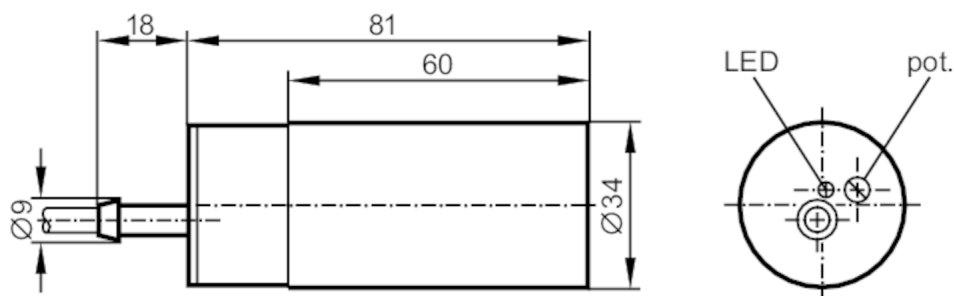




## Capacitive sensor

KB-2020-ABOA/NI



## Electrical data

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

## Outputs

|                                                 |      |                                                 |
|-------------------------------------------------|------|-------------------------------------------------|
| Output function                                 |      | normally open                                   |
| 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  |

## 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                                         |

# KB0025



## Capacitive sensor

KB-2020-ABOA/NI

| 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]     | 249.6                                                                         |
| Housing                       |         | cylindrical                                                                   |
| Mounting                      |         | non-flush mountable                                                           |
| Dimensions                    | [mm]    | Ø 34 / L = 81                                                                 |
| Materials                     |         | PBT                                                                           |
| Displays / operating elements |         |                                                                               |
| Display                       |         | switching status<br>1 x LED, yellow                                           |
| Electrical connection         |         |                                                                               |
| Required protection           |         | miniature fuse to IEC60127-2 sheet 1; ≤ 2 A; fast acting                      |
| Accessories                   |         |                                                                               |
| Accessories (supplied)        |         | Mounting clamps: 1                                                            |
|                               |         | screwdriver: 1                                                                |
|                               |         | head cap screw: 1                                                             |
|                               |         | spring discs                                                                  |
| Remarks                       |         |                                                                               |
| Remarks                       |         | Recommendation: Check the safe functioning of the unit after a short circuit. |
| Pack quantity                 |         | 1 pcs.                                                                        |

# KB0025



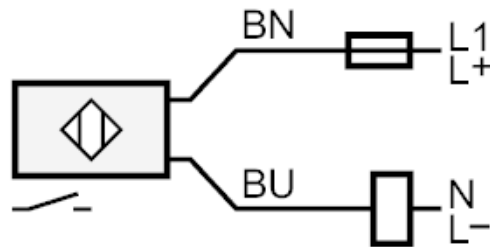
## Capacitive sensor

KB-2020-ABOA/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 colours :

BN = brown

BU = blue