



## Capacitive sensor

KB-2020-ABOA/NI/6M

Article no longer available - archive entry

Alternative articles: KB0041

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



## Product characteristics

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

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|                                      |                                                                               |
|--------------------------------------|-------------------------------------------------------------------------------|
| 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]                           | 409                                                                           |
| 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, yellow                                              |
| <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                                                                |
|                                      | head cap screw: 1                                                             |
|                                      | spring discs                                                                  |
| <b>Remarks</b>                       |                                                                               |
| Remarks                              | Recommendation: Check the safe functioning of the unit after a short circuit. |
| Pack quantity                        | 1 pcs.                                                                        |



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### Electrical connection

Cable: 6 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