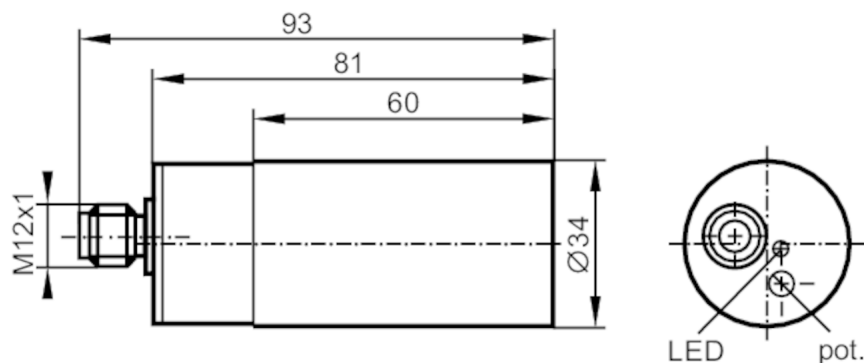


## Capacitive sensor

KB-3020-BPKG/NI/US-100-DPS



## Product characteristics

|                    |               |
|--------------------|---------------|
| Electrical design  | PNP           |
| Output function    | normally open |
| Sensing range [mm] | 20            |
| Housing            | cylindrical   |
| Dimensions [mm]    | Ø 34 / L = 93 |

## Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...36 DC |
| Current consumption [mA]    | 13; (24 V) |
| Protection class            | II         |
| Reverse polarity protection | yes        |

## Outputs

|                                                      |               |
|------------------------------------------------------|---------------|
| Electrical design                                    | PNP           |
| Output function                                      | normally open |
| Max. voltage drop switching output DC [V]            | 2.5           |
| Permanent current rating of switching output DC [mA] | 250           |
| Switching frequency DC [Hz]                          | 40            |
| Short-circuit proof                                  | yes           |
| Overload protection                                  | yes           |

## Detection zone

|                                    |                |
|------------------------------------|----------------|
| Sensing range [mm]                 | 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       |

## Accuracy / deviations

|                          |                                                  |
|--------------------------|--------------------------------------------------|
| Correction factor        | glass: 0.4 / water: 1 / ceramics: 0.2 / PVC: 0.2 |
| Hysteresis [% of $S_r$ ] | 1...15                                           |



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|                    |           |          |
|--------------------|-----------|----------|
| 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] | 778          |

Mechanical data

|            |      |                     |
|------------|------|---------------------|
| Weight     | [g]  | 169.5               |
| Housing    |      | cylindrical         |
| Mounting   |      | non-flush mountable |
| Dimensions | [mm] | Ø 34 / L = 93       |
| Materials  |      | PBT                 |

Displays / operating elements

|         |                  |                 |
|---------|------------------|-----------------|
| Display | switching status | 1 x LED, yellow |
|---------|------------------|-----------------|

Accessories

|                |  |                    |
|----------------|--|--------------------|
| Items supplied |  | Mounting clamps: 2 |
|                |  | cylinder screws: 2 |
|                |  | spring discs: 2    |

Remarks

|               |  |        |
|---------------|--|--------|
| Pack quantity |  | 1 pcs. |
|---------------|--|--------|

Electrical connection - plug

Connector: 1 x M12; coding: A



Connection

