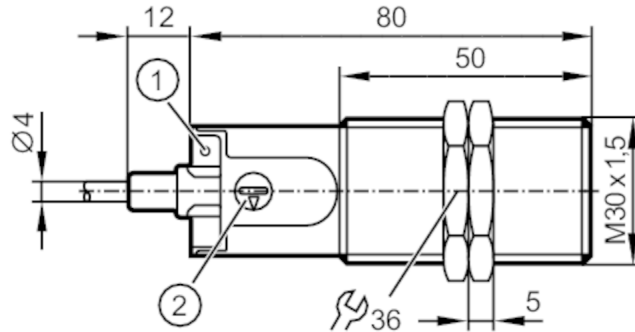


# KI5301



## Capacitive sensor

KI-3250NAPKG/SL/1P/IO



- 1 LED yellow switching status
- 2 potentiometer Sensing range



### Product characteristics

|                         |                    |
|-------------------------|--------------------|
| Electrical design       | PNP                |
| Output function         | normally closed    |
| Sensing range [mm]      | 0.5...40           |
| Communication interface | IO-Link            |
| Housing                 | threaded type      |
| Dimensions [mm]         | M30 x 1.5 / L = 92 |

### Application

|                         |           |
|-------------------------|-----------|
| Medium temperature [°C] | -25...110 |
|-------------------------|-----------|

### Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...30 DC |
| Current consumption [mA]    | < 22       |
| Protection class            | III        |
| Reverse polarity protection | yes        |

### Outputs

|  |                 |
|--|-----------------|
| Electrical design                                    | PNP             |
| Output function                                      | normally closed |
| Max. voltage drop switching output DC [V]            | 2.5             |
| Permanent current rating of switching output DC [mA] | 200             |
| Switching frequency DC [Hz]                          | 30              |
| Short-circuit proof                                  | yes             |
| Overload protection                                  | yes             |

### Detection zone

|                                    |           |
|------------------------------------|-----------|
| Sensing range [mm]                 | 0.5...40  |
| Sensing range adjustable           | yes       |
| Factory setting sensing range [mm] | 25        |
| Real sensing range Sr [mm]         | 25 ± 10 % |

### Accuracy / deviations

|                      |        |
|----------------------|--------|
| Hysteresis [% of Sr] | 1...15 |
|----------------------|--------|

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|                                      |                  |   |
|--------------------------------------|------------------|---|
| Switch point drift                   | [% of Sr]        | -15...15  |
| <b>Interfaces</b>                    |                  |   |
| Communication interface              |                  | IO-Link   |
| Transmission type                    |                  | COM2 (38,4 kBaud)   |
| IO-Link revision                     |                  | 1.1   |
| SDCI standard                        |                  | IEC 61131-9   |
| Profiles                             |                  | Smart Sensor: Process Data Variable; Device Identification  |
| SIO mode                             |                  | yes   |
| Required master port type            |                  | A   |
| Min. process cycle time              | [ms]             | 20  |
| IO-Link functions (acyclical)        |                  | application specific tag; operating hours counter; normally open / normally closed (configurable); PNP / NPN (parametrierbar); switch point setting; Hysteresis |
| <b>Operating conditions</b>          |                  |   |
| Ambient temperature                  | [°C]             | -25...80  |
| Protection                           |                  | IP 65; IP 67; IP 69K  |
| <b>Tests / approvals</b>             |                  |   |
| EMC                                  | EN 61000-4-2     | 30 kV AD / 4 kV CD  |
|                                      | EN 61000-4-3     | 10 V/m  |
|                                      | EN 61000-4-4     | 2 kV  |
|                                      | EN 61000-4-6     | 10 V  |
|                                      | EN 55011         | class B   |
| Vibration resistance                 | DIN EN 60947-5-2 | 1 mm amplitude, oscillation period 5 min., 30 min. per axis at resonance or 55 Hz   |
| Shock resistance                     | DIN EN 60947-5-2 | 30 g 6 shocks / 11 ms half-sine (x, y, z)   |
| MTTF                                 | [years]          | 896.74  |
| UL approval                          | Ta               | -25...60 °C   |
|                                      | Enclosure type   | Type 1  |
|                                      | power supply     | Limited Voltage/Current   |
|                                      | UL Approval no.  | D002  |
|                                      | File number UL   | E174191   |
| <b>Mechanical data</b>               |                  |   |
| Weight                               | [g]              | 101   |
| Housing                              |                  | threaded type   |
| Mounting                             |                  | non-flush mountable   |
| Dimensions                           | [mm]             | M30 x 1.5 / L = 92  |
| Thread designation                   |                  | M30 x 1.5   |
| Materials                            |                  | PBT; PC; POM  |
| <b>Displays / operating elements</b> |                  |   |
| Display                              | switching status | 1 x LED, yellow   |
| <b>Accessories</b>                   |                  |   |
| Items supplied                       |                  | lock nuts: 2  |
| <b>Remarks</b>                       |                  |   |
| Pack quantity                        |                  | 1 pcs.  |

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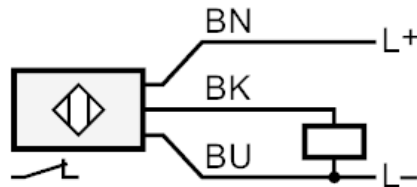
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### Electrical connection

Cable: 2 m, PUR, Ø 4 mm; 3 x 0.34 mm<sup>2</sup>

### Connection



BK:           OUT / IO-Link  
              Core colours :  
BN =         brown  
BU =         blue  
BK =         black