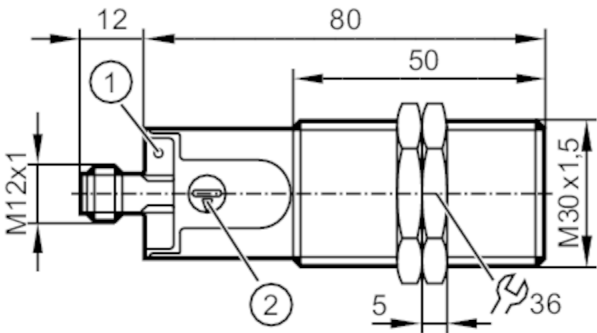




Capacitive sensor

KI-3250NANKG/SL/1P/US/IO



- 1 LED yellow switching status
- 2 potentiometer Sensing range



Product characteristics

|                         |                    |
|-------------------------|--------------------|
| Electrical design       | NPN                |
| Output function         | normally open      |
| 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                                    | NPN           |
| Output function                                      | normally open |
| 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 |
|----------------------|--------|



## Capacitive sensor

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|                               |                                                                                                                                                                 |                                                                                   |  |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--|
| Switch point drift            | [% of Sr]                                                                                                                                                       | -15...15                                                                          |  |
| Interfaces                    |                                                                                                                                                                 |                                                                                   |  |
| 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 |                                                                                   |  |
| Operating conditions          |                                                                                                                                                                 |                                                                                   |  |
| Ambient temperature           | [°C]                                                                                                                                                            | -25...80                                                                          |  |
| Protection                    | IP 65; IP 67; IP 69K                                                                                                                                            |                                                                                   |  |
| Tests / approvals             |                                                                                                                                                                 |                                                                                   |  |
| 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.                                                                                                                                                 | D001                                                                              |  |
|                               | File number UL                                                                                                                                                  | E174191                                                                           |  |
| Mechanical data               |                                                                                                                                                                 |                                                                                   |  |
| Weight                        | [g]                                                                                                                                                             | 52                                                                                |  |
| 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                                                                                                                                                    |                                                                                   |  |
| Tightening torque             | [Nm]                                                                                                                                                            | 8                                                                                 |  |
| Displays / operating elements |                                                                                                                                                                 |                                                                                   |  |
| Display                       | switching status                                                                                                                                                | 1 x LED, yellow                                                                   |  |
| Accessories                   |                                                                                                                                                                 |                                                                                   |  |
| Items supplied                | lock nuts: 2                                                                                                                                                    |                                                                                   |  |
| Remarks                       |                                                                                                                                                                 |                                                                                   |  |
| Pack quantity                 | 1 pcs.                                                                                                                                                          |                                                                                   |  |

# KI5306



## Capacitive sensor

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### Electrical connection - plug

Connector: 1 x M12; coding: A



### Connection



4: OUT / IO-Link