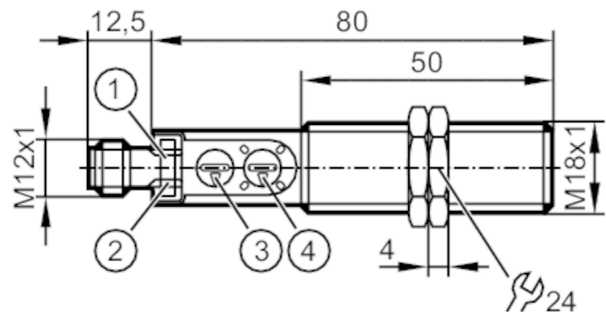


# KG6000



## Capacitive sensor

KG-3150NFPKG/PL/2P/US/IO



- 1 LED yellow switching status
- 2 LED green signal
- 3 potentiometer Sensing range
- 4 potentiometer Switching function



| Product characteristics                         |      |                                               |
|-------------------------------------------------|------|-----------------------------------------------|
| Electrical design                               |      | PNP                                           |
| Output function                                 |      | normally open / normally closed; (selectable) |
| Sensing range                                   | [mm] | 0.5...30                                      |
| Communication interface                         |      | IO-Link                                       |
| Housing                                         |      | threaded type                                 |
| Dimensions                                      | [mm] | M18 x 1 / L = 92.5                            |
| Application                                     |      |                                               |
| Special feature                                 |      | Optical setting aid                           |
| 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 open / normally closed; (selectable) |
| 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 protection                        |      | yes                                           |
| Overload protection                             |      | yes                                           |
| Detection zone                                  |      |                                               |
| Sensing range                                   | [mm] | 0.5...30                                      |
| Sensing range adjustable                        |      | yes                                           |
| Factory setting sensing range                   | [mm] | 15                                            |
| Real sensing range Sr                           | [mm] | 15 ± 10 %                                     |

# KG6000



## Capacitive sensor

KG-3150NFPKG/PL/2P/US/IO

| Accuracy / deviations         |                                                                                                                                                                 |                                                                                   |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Hysteresis                    | [% of Sr]                                                                                                                                                       | 1...15                                                                            |
| Switch point drift            | [% of Sr]                                                                                                                                                       | -10...10                                                                          |
| Interfaces                    |                                                                                                                                                                 |                                                                                   |
| Communication interface       | IO-Link                                                                                                                                                         |                                                                                   |
| Transmission type             | COM2 (38,4 kBaud)                                                                                                                                               |                                                                                   |
| IO-Link revision              | 1.1                                                                                                                                                             |                                                                                   |
| SDCI standard                 | IEC 61131-9                                                                                                                                                     |                                                                                   |
| Profiles                      | Smart Sensor - SSP 0                                                                                                                                            | Generic Profiled Sensor                                                           |
|                               | Function                                                                                                                                                        | Device identification                                                             |
|                               | Function                                                                                                                                                        | Multiple switching signal                                                         |
|                               | Function                                                                                                                                                        | Process data variable                                                             |
|                               | Function                                                                                                                                                        | Device diagnosis                                                                  |
| 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 |                                                                                   |
| Supported DeviceIDs           | Type of operation                                                                                                                                               | DeviceID                                                                          |
|                               | default                                                                                                                                                         | 798                                                                               |
| Operating conditions          |                                                                                                                                                                 |                                                                                   |
| Ambient temperature           | [°C]                                                                                                                                                            | -25...80                                                                          |
| Protection                    | IP 65; IP 67; IP 69K                                                                                                                                            |                                                                                   |
| Tests / approvals             |                                                                                                                                                                 |                                                                                   |
| EMC                           | EN 61000-4-2                                                                                                                                                    | 8 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]                                                                                                                                                         | 1059                                                                              |
| UL approval                   | Ta                                                                                                                                                              | -25...60 °C                                                                       |
|                               | Enclosure type                                                                                                                                                  | Type 1                                                                            |
|                               | power supply                                                                                                                                                    | Limited Voltage/Current                                                           |
|                               | UL approval no.                                                                                                                                                 | D003                                                                              |
|                               | File number UL                                                                                                                                                  | E174191                                                                           |
| Mechanical data               |                                                                                                                                                                 |                                                                                   |
| Weight                        | [g]                                                                                                                                                             | 26.7                                                                              |
| Housing                       | threaded type                                                                                                                                                   |                                                                                   |
| Mounting                      | non-flush mountable                                                                                                                                             |                                                                                   |
| Dimensions                    | [mm]                                                                                                                                                            | M18 x 1 / L = 92.5                                                                |
| Thread designation            | M18 x 1                                                                                                                                                         |                                                                                   |
| Materials                     | PBT; PC; POM                                                                                                                                                    |                                                                                   |

# KG6000



## Capacitive sensor

KG-3150NFPKG/PL/2P/US/IO

### Displays / operating elements

|                     |                  |                 |
|---------------------|------------------|-----------------|
| Display             | switching status | 1 x LED, yellow |
|                     | operation        | 1 x LED, green  |
|                     | setting aid      | 8 x LED, green  |
| Optical setting aid | yes              |                 |

### Accessories

|                |              |
|----------------|--------------|
| Items supplied | lock nuts: 2 |
|----------------|--------------|

### Remarks

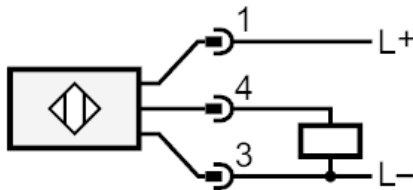
|               |        |
|---------------|--------|
| Pack quantity | 1 pcs. |
|---------------|--------|

### Electrical connection - plug

Connector: 1 x M12; coding: A



### Connection



4: OUT / IO-Link