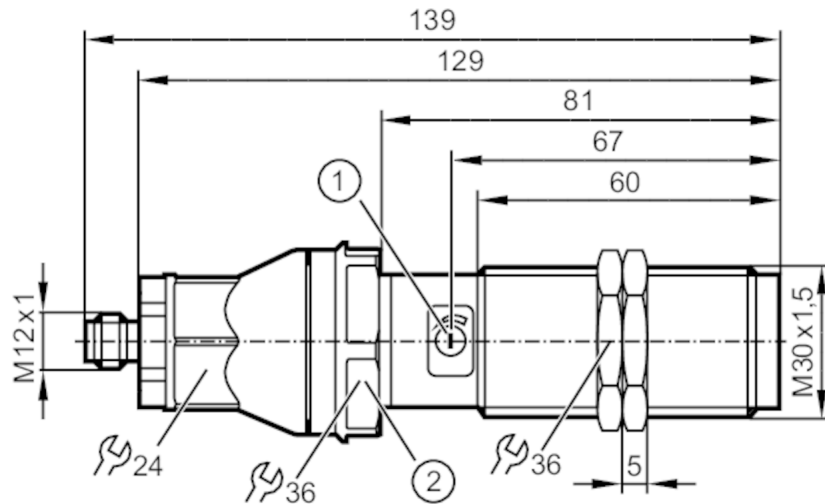


# KI532A



## Capacitive sensor

KIE4150NCPKG/US/IO/3D



- 1 potentiometer  
2 Tightening torque 10 Nm



IO-Link



### Product characteristics

|                         |                     |
|-------------------------|---------------------|
| Electrical design       | PNP                 |
| Output function         | complementary       |
| Sensing range [mm]      | 3...26              |
| Communication interface | IO-Link             |
| Housing                 | Threaded type       |
| Dimensions [mm]         | M30 x 1.5 / L = 150 |

### Electrical data

|                               |            |
|-------------------------------|------------|
| Operating voltage [V]         | 10...30 DC |
| Rated insulation voltage [V]  | 60         |
| Current consumption [mA]      | < 22       |
| Protection class              | III        |
| Reverse polarity protection   | yes        |
| Max. power-on delay time [ms] | 300        |
| Measuring principle           | capacitive |

### Outputs

|                                                      |               |
|------------------------------------------------------|---------------|
| Electrical design                                    | PNP           |
| Output function                                      | complementary |
| Max. voltage drop switching output DC [V]            | 2.5           |
| Max. leakage current [mA]                            | 0.1           |
| Permanent current rating of switching output DC [mA] | 200           |
| Short-time current rating of switching output [mA]   | 200           |
| Switching frequency DC [Hz]                          | 10            |
| Short-circuit protection                             | yes           |

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## Capacitive sensor

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|                                  |                                                                                                                 |                                                                                                |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Type of short-circuit protection | yes (non-latching)                                                                                              |                                                                                                |
| Overload protection              | yes                                                                                                             |                                                                                                |
| Monitoring range                 |                                                                                                                 |                                                                                                |
| Sensing range [mm]               | 3...26                                                                                                          |                                                                                                |
| Sensing range adjustable         | yes                                                                                                             |                                                                                                |
| Real sensing range Sr [mm]       | 15 ± 10 %                                                                                                       |                                                                                                |
| Accuracy / deviations            |                                                                                                                 |                                                                                                |
| Hysteresis [% of Sr]             | 1...15                                                                                                          |                                                                                                |
| Switch-point drift [% of Sr]     | -20...20                                                                                                        |                                                                                                |
| 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 class       | A                                                                                                               |                                                                                                |
| Min. process cycle time [ms]     | 20                                                                                                              |                                                                                                |
| IO-Link functions (acyclical)    | application specific tag; operating hours counter; PNP / NPN (parametrierbar); Switch point setting; Hysteresis |                                                                                                |
| Operating conditions             |                                                                                                                 |                                                                                                |
| Ambient temperature [°C]         | -20...60                                                                                                        |                                                                                                |
| Protection                       | IP 65; IP 67                                                                                                    |                                                                                                |
| Tests / approvals                |                                                                                                                 |                                                                                                |
| ATEX marking                     |  II 3D Ex tc IIIC T90°C Dc X |                                                                                                |
| EMC                              | EN 61000-4-2 ESD                                                                                                | kV / 8 kV AD                                                                                   |
|                                  | EN 61000-4-3 HF radiated                                                                                        | 3 V/m (80...2000 MHz)                                                                          |
|                                  | EN 61000-4-4 Burst                                                                                              | 2 kV                                                                                           |
|                                  | EN 61000-4-6 HF conducted                                                                                       | 3 V 0,15...80 MHz                                                                              |
|                                  | EN 55011                                                                                                        | class B                                                                                        |
|                                  | IEC 60255-5                                                                                                     | 1 kV line to line, Ri: 500 Ohm                                                                 |
| Vibration resistance             | EN 60068-2-6 Fc                                                                                                 | 10...55 Hz 1 mm amplitude, vibration duration 5 min., 30 min. per axis with resonance or 55 Hz |
| Shock resistance                 | EN 60068-2-27 Ea                                                                                                | 30 g 6 shocks / 11 ms half-sine (x, y, z)                                                      |
| MTTF [years]                     | 623                                                                                                             |                                                                                                |
| Mechanical data                  |                                                                                                                 |                                                                                                |
| Weight [g]                       | 149.2                                                                                                           |                                                                                                |
| Housing                          | Threaded type                                                                                                   |                                                                                                |
| Mounting                         | non-flush mountable                                                                                             |                                                                                                |
| Dimensions [mm]                  | M30 x 1.5 / L = 150                                                                                             |                                                                                                |
| Thread designation               | M30 x 1.5                                                                                                       |                                                                                                |
| Material                         | housing: PA; potentiometer: LCP; PBT                                                                            |                                                                                                |

KI532A



Capacitive sensor

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Displays / operating elements

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

Accessories

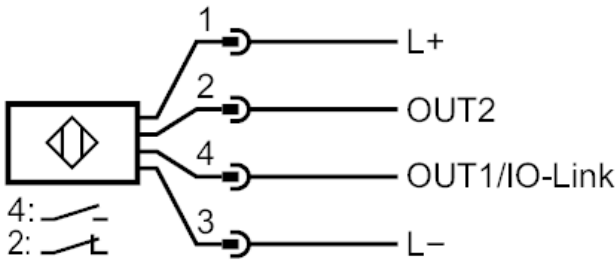
|                |              |
|----------------|--------------|
| Items supplied | lock nuts: 2 |
|----------------|--------------|

Remarks

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

Electrical connection

Connection



Connector: 1 x M12; Moulded body: aluminum