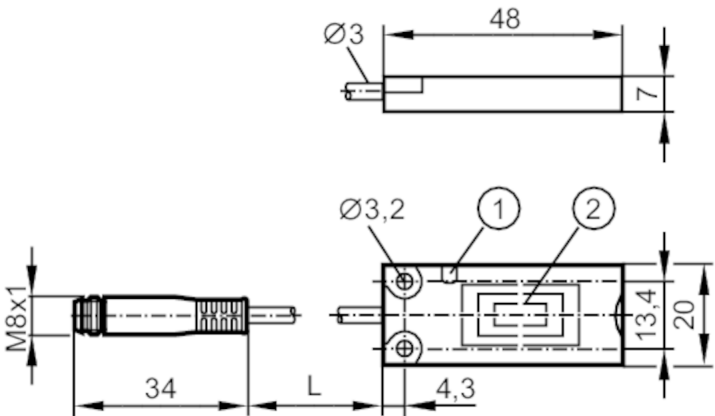


# KQ5102



## Capacitive sensor

KQ-3120NFPKG/0,04M/AS



- 1 LED
- 2 Sensing face



| Product characteristics                         |       |                                               |
|-------------------------------------------------|-------|-----------------------------------------------|
| Electrical design                               |       | PNP                                           |
| Output function                                 |       | normally open / normally closed; (selectable) |
| Sensing range                                   | [mm]  | 12                                            |
| Communication interface                         |       | IO-Link                                       |
| Housing                                         |       | rectangular                                   |
| Dimensions                                      | [mm]  | 20 x 7 x 48                                   |
| Electrical data                                 |       |                                               |
| Operating voltage                               | [V]   | 10...30 DC                                    |
| Current consumption                             | [mA]  | < 17                                          |
| Protection class                                |       | III                                           |
| Reverse polarity protection                     |       | yes                                           |
| Measuring principle                             |       | capacitive                                    |
| 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]  | 100                                           |
| Switching frequency DC                          | [Hz]  | 10                                            |
| Short-circuit protection                        |       | yes                                           |
| Overload protection                             |       | yes                                           |
| Detection zone                                  |       |                                               |
| Sensing range                                   | [mm]  | 12                                            |
| Real sensing range Sr                           | [mm]  | 12 ± 10 %                                     |
| Accuracy / deviations                           |       |                                               |
| Hysteresis                                      | [X01] | 1...15                                        |
| Switch point drift                              | [X01] | -20...20                                      |

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KQ-3120NFPKG/0,04M/AS

| Software / programming        |                              |                                                                                                  |
|-------------------------------|------------------------------|--------------------------------------------------------------------------------------------------|
| Parameter setting options     | only via IO-Link             |                                                                                                  |
| Interfaces                    |                              |                                                                                                  |
| Communication interface       | IO-Link                      |                                                                                                  |
| Transmission type             | COM1 (4,8 kBaud)             |                                                                                                  |
| IO-Link revision              | 1.1                          |                                                                                                  |
| SDCI standard                 | IEC 61131-9 CDV              |                                                                                                  |
| Profiles                      | Smart Sensor                 |                                                                                                  |
| SIO mode                      | yes                          |                                                                                                  |
| Supported DeviceIDs           | Type of operation            | DeviceID                                                                                         |
|                               | default                      | 371                                                                                              |
| Operating conditions          |                              |                                                                                                  |
| Ambient temperature           | [°C]                         | -25...80                                                                                         |
| Note on ambient temperature   | for UL application: ...50 °C |                                                                                                  |
| Protection                    | IP 65; IP 67; IP 69K         |                                                                                                  |
| Tests / approvals             |                              |                                                                                                  |
| EMC                           | EN 61000-4-2                 | 8 kV AD                                                                                          |
|                               | EN 61000-4-3                 | 10 V/m                                                                                           |
|                               | EN 61000-4-4                 | 2 kV                                                                                             |
|                               | EN 61000-4-6                 | 3 V                                                                                              |
|                               | EN 55011                     | class B                                                                                          |
| Vibration resistance          | EN 60068-2-6 Fc              | (10...55 Hz) / 1 mm amplitude, oscillation period 5 min., 30 min. per axis at resonance or 55 Hz |
| Shock resistance              | EN 60068-2-27 Ea             | 30 g 6 shocks / 11 ms half-sine (x, y, z)                                                        |
| MTTF                          | [ANN]                        | 771                                                                                              |
| UL approval                   | Ta                           | -25...50 °C                                                                                      |
|                               | Enclosure type               | Type 1                                                                                           |
|                               | подача напруги               | Class 2                                                                                          |
| Mechanical data               |                              |                                                                                                  |
| Weight                        | [g]                          | 17.9                                                                                             |
| Housing                       | rectangular                  |                                                                                                  |
| Mounting                      | non-flush mountable          |                                                                                                  |
| Dimensions                    | [mm]                         | 20 x 7 x 48                                                                                      |
| Materials                     | PBT; TPE-U; stainless steel  |                                                                                                  |
| Displays / operating elements |                              |                                                                                                  |
| Display                       | switching status             | 1 x LED, yellow                                                                                  |
| Remarks                       |                              |                                                                                                  |
| Pack quantity                 | 1 pcs.                       |                                                                                                  |

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### Electrical connection - plug

Cable: 0.04 m, PUR, Ø 2.9 mm

Connector: 1 x M8; coding: A



### Connection



4: OUT / IO-Link