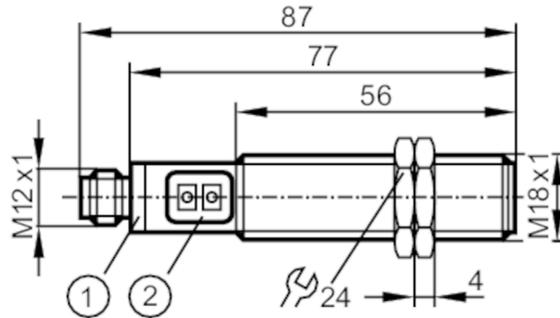


# KG5065



## Capacitive sensor

KG-3120NFAKGP2T/US



- 1 LED ring
- 2 programming buttons



### Product characteristics

|                         |  |
|-------------------------|--|
| Electrical design       | PNP/NPN; (automatic load detection PNP/NPN; when using a resistive load < 20 kΩ) |
| Output function         | normally open / normally closed; (selectable)                                    |
| Sensing range [mm]      | 12   |
| Communication interface | IO-Link  |
| Housing                 | threaded type  |
| Dimensions [mm]         | M18 x 1 / L = 87   |

### Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...36 DC |
| Current consumption [mA]    | < 20       |
| Protection class            | II         |
| Reverse polarity protection | yes        |
| Measuring principle         | capacitive |

### Outputs

|  |  |
|--|--|
| Electrical design                                    | PNP/NPN; (automatic load detection PNP/NPN; when using a resistive load < 20 kΩ) |
| 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]                          | 10   |
| Short-circuit proof                                  | yes  |
| Overload protection                                  | yes  |

### Detection zone

|                    |    |
|--------------------|----|
| Sensing range [mm] | 12 |
|--------------------|----|

### Accuracy / deviations

|                              |          |
|------------------------------|----------|
| Hysteresis [% of Sr]         | 1...15   |
| Switch point drift [% of Sr] | -20...20 |

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| 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 - SSP 0     | Generic Profiled Sensor   |
|                              | Function                 | Multiple switching signal |
|                              | Function                 | Process data variable     |
|                              | Function                 | Teach channel             |
| SIO mode                     | yes                      |                           |
| Min. process cycle time [ms] | 100.8                    |                           |
| Supported DeviceIDs          | <b>Type of operation</b> | <b>DeviceID</b>           |
|                              | default                  | 387                       |

| Operating conditions        |   |  |
|-----------------------------|---|--|
| Ambient temperature [°C]    | -25...80                                      |  |
| Note on ambient temperature | temperature of the sensing face: -25...110 °C |  |
| Protection                  | IP 65; IP 67                                  |  |

| Tests / approvals    |                           |  |
|----------------------|---------------------------|--|
| EMC                  | EN 61000-4-2 ESD          | 8 kV AD  |
|                      | EN 61000-4-3 HF radiated  | 10 V/m   |
|                      | EN 61000-4-4 Burst        | 2 kV   |
|                      | EN 61000-4-6 HF conducted | 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 [years]         | 566                       |  |

| Mechanical data    |  |  |
|--------------------|--|--|
| Weight [g]         | 31.5   |  |
| Housing            | threaded type                                    |  |
| Mounting           | non-flush mountable                              |  |
| Dimensions [mm]    | M18 x 1 / L = 87                                 |  |
| Thread designation | M18 x 1  |  |
| Materials          | housing: PBT; pushbuttons: TPE-U; LED window: PC |  |

| Displays / operating elements |                  |                 |
|-------------------------------|------------------|-----------------|
| Display                       | switching status | 1 x LED, yellow |
| Teach function                | yes              |                 |
| Electronic lock               | yes              |                 |

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

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

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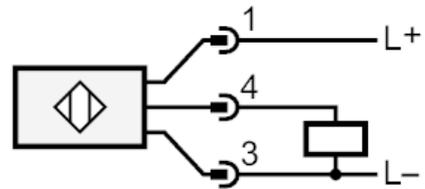
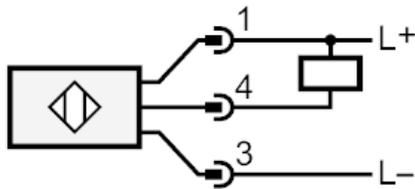


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### Electrical connection - plug

Connector: 1 x M12; coding: A



- 4: OUT / IO-Link  
automatic load detection PNP/NPN  
when using a resistive load < 20 k $\Omega$