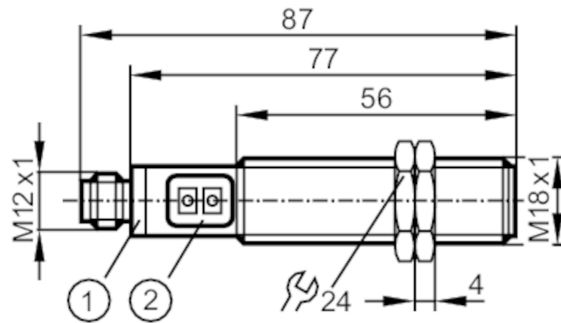


# KG5065



## 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 / 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        |

### Outputs

|  |  |
|--|--|
| Electrical design                                    | PNP/NPN; (Automatic load detection PNP/NPN; when using a resistive load < 20 kΩ) |
| Output function                                      | normally open / 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  |

### Monitoring range

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

### Accuracy / deviations

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

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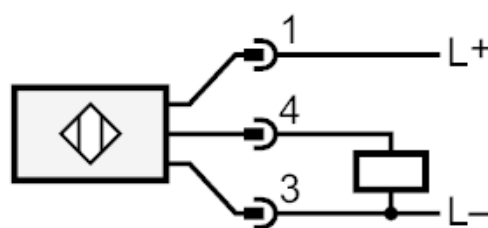
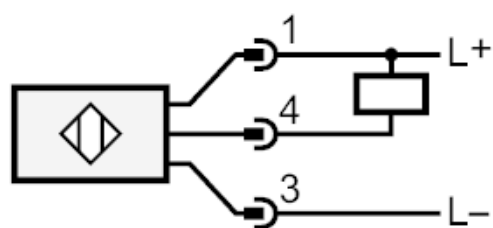
| Interfaces                    |   |  |
|-------------------------------|---|--|
| Communication interface       | IO-Link                                       |  |
| Transmission type             | COM1 (4,8 kBaud)                              |  |
| IO-Link revision              | 1.1   |  |
| SDCI standard                 | IEC 61131-9 CDV                               |  |
| IO-Link device ID             | 387d / 000183h                                |  |
| Profiles                      | Smart Sensor                                  |  |
| SIO mode                      | yes   |  |
| Min. process cycle time [ms]  | 101   |  |
| 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, 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]                  | 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                                       |  |
| Material                      | housing: PBT; plug: PC; Pushbuttons: TPE-U    |  |
| Displays / operating elements |   |  |
| Display                       | Switching status                              | 1 x LED, yellow  |
| Teach function                | yes   |  |
| Electronic lock               | yes   |  |
| Accessories                   |   |  |
| Accessories (supplied)        | lock nuts: 2                                  |  |
| Remarks                       |   |  |
| Pack quantity                 | 1 pcs.  |  |
| Electrical connection - plug  |   |  |
| Connector: 1 x M12            |   |  |

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- 4: OUT / IO-Link  
Automatic load detection PNP/NPN  
when using a resistive load <math>< 20 \text{ k}\Omega</math>