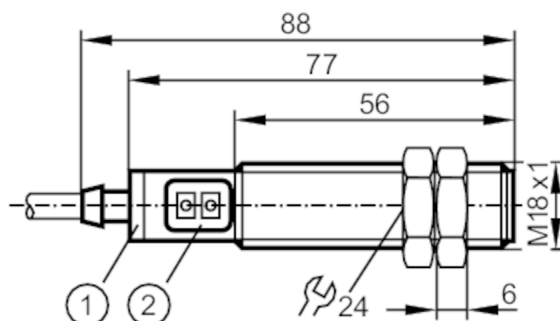




## Capacitive sensor

KG-3080NFAKGS2T



- 1 LED ring  
2 programming buttons



### Product characteristics

|                         |                                               |
|-------------------------|-----------------------------------------------|
| Electrical design       | PNP/NPN; (automatic load detection PNP/NPN)   |
| Output function         | normally open / normally closed; (selectable) |
| Sensing range [mm]      | 8                                             |
| Communication interface | IO-Link                                       |
| Housing                 | threaded type                                 |
| Dimensions [mm]         | M18 x 1 / L = 77                              |

### 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)   |
| 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] | 8 |
|--------------------|---|

### Accuracy / deviations

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

### Interfaces

|                         |                  |
|-------------------------|------------------|
| Communication interface | IO-Link          |
| Transmission type       | COM1 (4,8 kBaud) |

# KG5067



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KG-3080NFAKGS2T

| IO-Link revision             | 1.1                                                                                                           |                   |          |         |     |
|------------------------------|---------------------------------------------------------------------------------------------------------------|-------------------|----------|---------|-----|
| SDCI standard                | IEC 61131-9 CDV                                                                                               |                   |          |         |     |
| Profiles                     | Smart Sensor                                                                                                  |                   |          |         |     |
| SIO mode                     | yes                                                                                                           |                   |          |         |     |
| Min. process cycle time [ms] | 101                                                                                                           |                   |          |         |     |
| Supported DeviceIDs          | <table> <tr> <th>Type of operation</th><th>DeviceID</th></tr> <tr> <td>default</td><td>387</td></tr> </table> | Type of operation | DeviceID | default | 387 |
| Type of operation            | DeviceID                                                                                                      |                   |          |         |     |
| default                      | 387                                                                                                           |                   |          |         |     |

| Operating conditions     |              |
|--------------------------|--------------|
| Ambient temperature [°C] | -25...80     |
| 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]         | 560                       |                                                                                                  |

| Mechanical data    |                                                       |
|--------------------|-------------------------------------------------------|
| Weight [g]         | 96.5                                                  |
| Housing            | threaded type                                         |
| Mounting           | non-flush mountable                                   |
| Dimensions [mm]    | M18 x 1 / L = 77                                      |
| Thread designation | M18 x 1                                               |
| Materials          | housing: PP white; Sealing: TPE-U; pushbuttons: TPE-U |

| 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. |

# KG5067



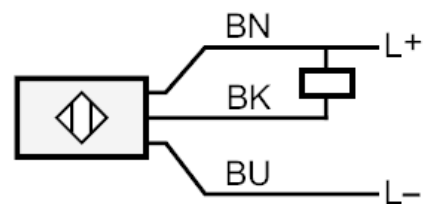
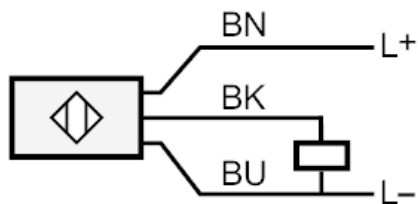
## Capacitive sensor

KG-3080NFAKGS2T

### Electrical connection

Cable: 2 m, PVC, Ø 4.9 mm; 3 x 0.34 mm<sup>2</sup>

### Connection



BK: OUT / IO-Link  
automatic load detection PNP/NPN  
when using a resistive load < 20 k $\Omega$   
Core colours :  
BK = black  
BN = brown  
BU = blue