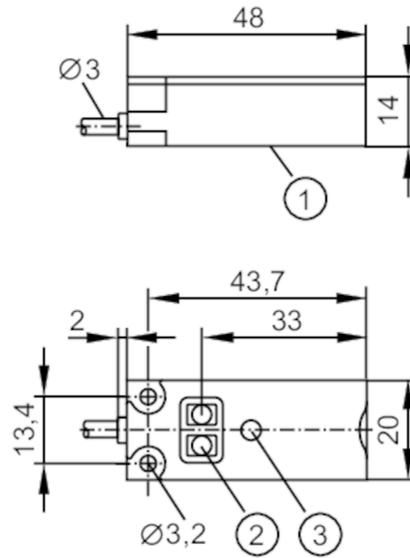


KQ6006



Capacitive sensor

KQ-3120NFKNG/2T



- 1 sensing face
- 2 Programming buttons
- 3 LED



Product characteristics

| | |
|-------------------------|--------------------------------------|
| Electrical design | NPN |
| Output function | normally open / closed; (selectable) |
| Sensing range [mm] | 12 |
| Communication interface | IO-Link |
| Housing | rectangular |
| Dimensions [mm] | 20 x 14 x 48 |

Application

| | |
|--------------|--|
| Installation | detection through non-metallic container wall or on bypass pipes |
| Media | dry bulk material; liquids |

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 | NPN |
| Output function | normally open / 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 |

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Capacitive sensor

KQ-3120NFKG/2T

| | |
|---------------------|-----|
| Overload protection | yes |
|---------------------|-----|

Monitoring range

| | |
|----------------------------|-----------|
| Sensing range [mm] | 12 |
| Real sensing range Sr [mm] | 12 ± 10 % |

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) | |
| 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 | Type of operation | DeviceID |
| | default | 371 |

Operating conditions

| | |
|--------------------------|----------------------|
| Ambient temperature [°C] | -25...80 |
| Protection | IP 65; IP 67; IP 69K |

Tests / approvals

| | | |
|----------------------|--|-------------------------|
| EMC | EN 61000-4-2 | 4 kV CD / 8 kV AD |
| | EN 61000-4-3 | 3 V/m |
| | EN 61000-4-4 | 2 kV |
| | EN 61000-4-6 | 3 ms |
| | EN 55011 | class B |
| Vibration resistance | (10...55 Hz) / 1 mm amplitude, vibration duration 5 min., 30 min. per axis with resonance or 55 Hz | |
| Shock resistance | 30 g 6 shocks / 11 ms half-sine (x, y, z) | |
| MTTF [years] | 623 | |
| UL approval | Ta | -25...80 °C |
| | Enclosure type | Type 1 |
| | voltage supply | Limited Voltage/Current |

Mechanical data

| | |
|-----------------|---|
| Weight [g] | 46.5 |
| Housing | rectangular |
| Mounting | non-flush mountable |
| Dimensions [mm] | 20 x 14 x 48 |
| Material | housing: PBT reinforced glass-fiber; Pushbuttons: TPE-U; cover: PC reinforced glass-fiber |

Displays / operating elements

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

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| | |
|-----------------|-----|
| Teach function | yes |
| Electronic lock | yes |

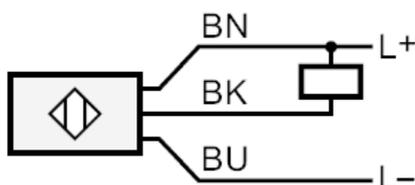
Remarks

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

Electrical connection

Cable: 2 m, PVC; 3 x 0.14 mm²

Connection



BK: OUT / IO-Link
Core colors :
BK = black
BN = brown
BU = blue