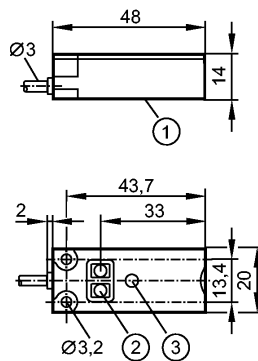


**KQ6001**

KQ-3120NFAKG/2T

Capacitive sensors



- 1: sensing face
- 2: Programming buttons
- 3: LED

Made in Germany



**Product characteristics**

Capacitive sensor
Rectangular, plastics
Cable
Automatic detection PNP/NPN *)
communication interface: IO-Link
Teach function
Electronic lock
Sensing range 12 mm; [nf] non-flush mountable

**Application**

Application	Position sensor and detection of dry bulk materials and liquids through non-metallic tank walls or on bypass pipes
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**Electrical data**

Electrical design	Automatic load detection PNP/NPN
Operating voltage [V]	10...30 DC
Current consumption [mA]	< 17
Protection class	III
Reverse polarity protection	yes

**Outputs**

Output function	normally open / closed programmable
Voltage drop [V]	< 2.5
Current rating [mA]	100
Short-circuit protection	pulsed
Overload protection	yes
Switching frequency [Hz]	10

**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**

## KQ6001

KQ-3120NFAKG/2T

Capacitive sensors

IO-Link Device

Transfer type	COM1 (4.8 kBaud)
IO-Link revision	1.1
SDCI standard	IEC 61131-9 CDV
IO-Link Device ID	371d / 000173h
Profiles	Smart Sensor
SIO mode	yes
Process data analogue	-
Min. process cycle time [ms]	100.8

### Environment

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 (80...2000 MHz) EN 61000-4-4 Burst: 2 kV EN 61000-4-6 HF conducted: 3 V (0.15...80 MHz) EN 55011: class B
Shock resistance	EN 60068-2-27: 30 g / 6 shocks / 11 ms half-sine (x,y,z)
Vibration resistance	EN 60068-2-6: (10...55 Hz) / 1 mm Amplitude, Schwingdauer 5 min., 30 min. je Achse bei Resonanz oder 55 Hz
MTTF [Years]	623

### Mechanical data

Mounting	non-flush mountable
Housing materials	housing: PBT (glass fiber reinforced); buttons: TPE-U; cover: PC (glass fiber reinforced)
Weight [kg]	0.092

### Displays / operating elements

Output status indication LED	yellow
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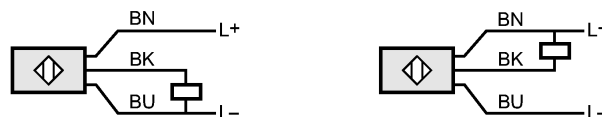
### Electrical connection

Connection	PVC cable / 2 m; 3 x 0.14 mm <sup>2</sup>
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### Wiring

Core colours

BK black  
BN brown  
BU blue



BK: OUT / IO-Link

### Remarks

Remarks	*) load resistance < 20 kΩ
Pack quantity [piece]	1