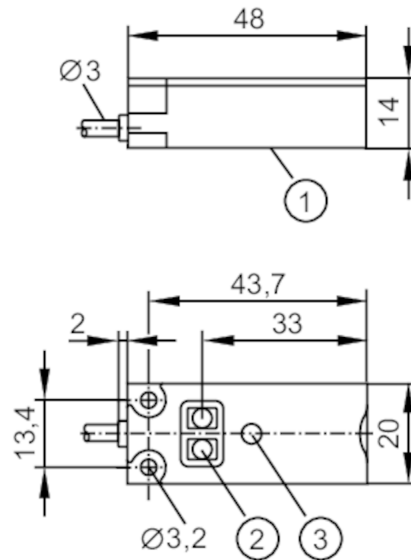


# KQ6001



## Capacitive sensor

KQ-3120NFAKG/2T



- 1 sensing face
- 2 Programming buttons
- 3 LED



### Product characteristics

Electrical design	PNP/NPN; (Automatic load detection PNP/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	PNP/NPN; (Automatic load detection PNP/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

# KQ6001



## Capacitive sensor

KQ-3120NFAKG/2T

Type of short-circuit protection	yes (non-latching)
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				
SIO mode	yes				
Min. process cycle time [ms]	100.8				
Supported DeviceIDs	<table><thead><tr><th>Type of operation</th><th>DeviceID</th></tr></thead><tbody><tr><td>default</td><td>371</td></tr></tbody></table>	Type of operation	DeviceID	default	371
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 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
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, vibration duration 5 min., 30 min. per axis with resonance or 55 Hz
MTTF [years]		623
UL approval	Ta	-25...80 °C
	Enclosure type	Type 1
	voltage supply	Limited Voltage/Current

### Mechanical data

Weight [g]	46.6
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
Teach function		yes

# KQ6001



## Capacitive sensor

KQ-3120NFAKG/2T

Electronic lock  yes

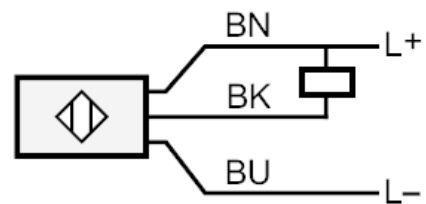
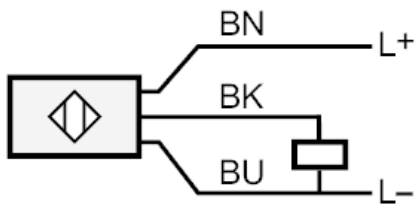
### Remarks

Pack quantity  1 pcs.

### Electrical connection

Cable: 2 m, PVC; 3 x 0.14 mm<sup>2</sup>

### Connection



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