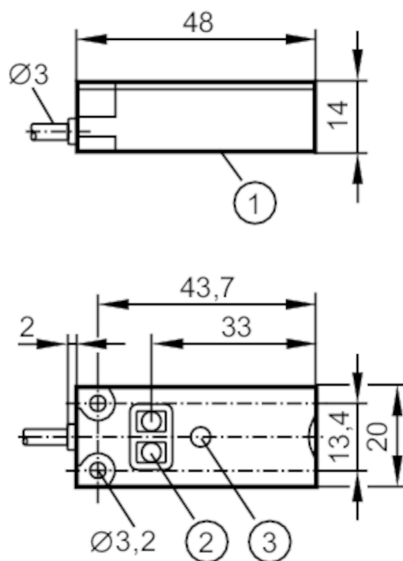


# KQ6002



## Capacitive sensor

KQ-3120NFPKG/2T



- 1 Sensing face
- 2 programming buttons
- 3 LED



### Product characteristics

Electrical design	PNP
Output function	normally open / normally 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

# KQ6002



## Capacitive sensor

KQ-3120NFPKG/2T

Outputs		
Electrical design		PNP
Output function		normally open / normally 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
Type of short-circuit protection		pulsed
Overload protection		yes
Detection zone		
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
IO-Link device ID		371d / 000173h
Profiles		Smart Sensor
SIO mode		yes
Min. process cycle time	[ms]	100.8
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
Shock resistance	EN 55011	class B
	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, oscillation period 5 min., 30 min. per axis at resonance or 55 Hz
MTTF	[years]	725

# KQ6002



## Capacitive sensor

KQ-3120NFPKG/2T

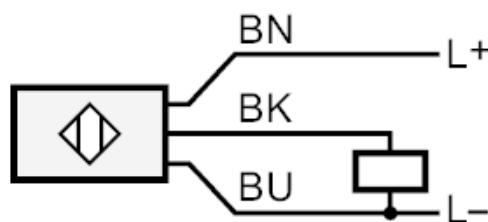
Mechanical data		
Weight	[g]	46.2
Housing		rectangular
Mounting		non-flush mountable
Dimensions	[mm]	20 x 14 x 48
Materials		housing: PBT glass fibre reinforced; pushbuttons: TPE-U; cover: PC glass fibre reinforced

Displays / operating elements		
Display	switching status	1 x LED, yellow
Teach function		yes
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  
Core colours :  
BK = black  
BN = brown  
BU = blue