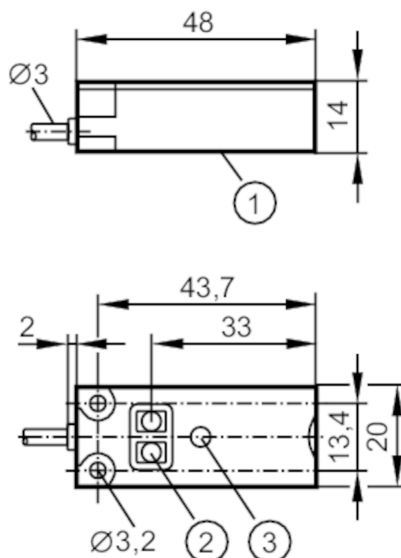


KQ6001

Capacitive sensor

KQ-3120NFAKG/2T



- 1 Sensing face
- 2 programming buttons
- 3 LED



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

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]	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 %

KQ6001



Capacitive sensor

KQ-3120NFAKG/2T

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
	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, oscillation period 5 min., 30 min. per axis at resonance or 55 Hz
MTTF	[years]	623
Mechanical data		
Weight	[g]	91.8
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.	

KQ6001



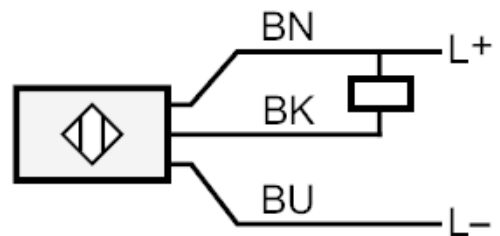
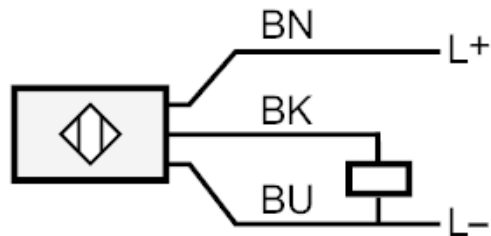
Capacitive sensor

KQ-3120NFAKG/2T

Electrical connection

Cable: 2 m, PVC; 3 x 0.14 mm²

Connection



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