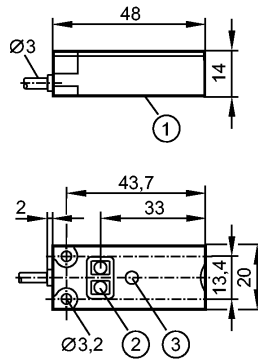


KQ6001

KQ-3120NFAKG/2T

Capacitive sensors



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



Product characteristics

Capacitive sensor
Rectangular, plastics
Cable
Teach function
Electronic lock
Automatic load detection PNP/NPN
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	DC 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	yes (non-latching)
Overload protection	yes
Switching frequency [Hz]	10

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

IO-Link Device

KQ6001

KQ-3120NFAKG/2T

Capacitive sensors

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
	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

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

Electrical connection	
Connection	PVC cable / 2 m; 3 x 0.14 mm ²

Wiring

Core colors

BK black
BN brown
BU blue



BK: OUT / IO-Link
Automatic load detection PNP/NPN
when using a resistive load < 20 kΩ

Remarks	
Pack quantity [piece]	1