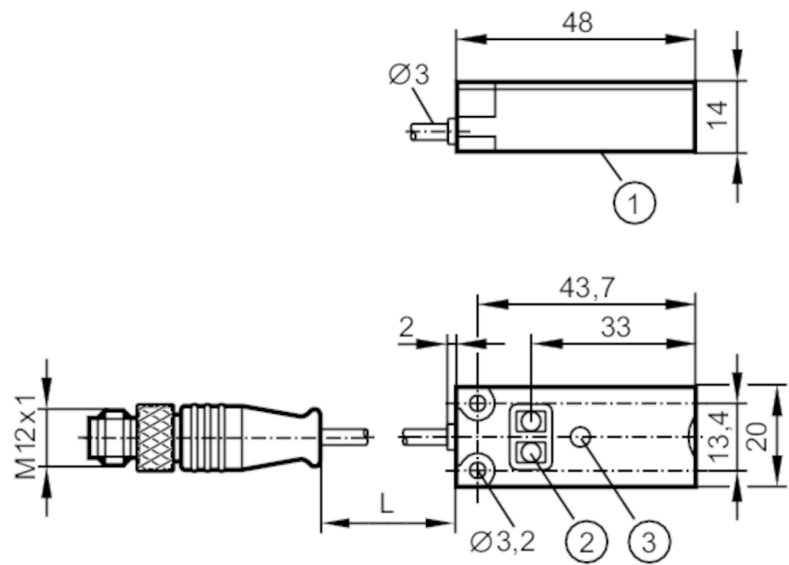


KQ6016



Capacitive sensor

KQ-3120NFNKG/2T/2M/US



- 1 Sensing face
- 2 programming buttons
- 3 LED



Product characteristics

Electrical design	NPN
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
Measuring principle	capacitive

Outputs

Electrical design	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

KQ6016



Capacitive sensor

KQ-3120NFNKG/2T/2M/US

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	
Profiles		Smart Sensor	
SIO mode		yes	
Min. process cycle time	[ms]	100.8	
Supported DeviceIDs	Type of operation	DeviceID	
	Default	371	
Operating conditions			
Ambient temperature	[°C]	-25...80	
Note on ambient temperature		for UL application: ...50 °C	
Protection		IP 65; IP 67; IP 69K	
Tests / approvals			
EMC	EN 61000-4-2 ESD	30 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]	634	
UL approval	Ta	-25...50 °C	
	Enclosure type	Type 1	
	power supply	Limited Voltage/Current	
Mechanical data			
Weight	[g]	57.5	
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	

KQ6016



Capacitive sensor

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Remarks

Pack quantity

1 pcs.

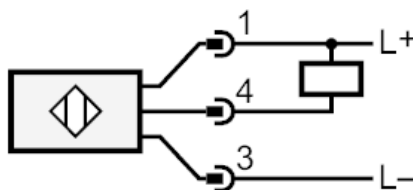
Electrical connection - plug

Cable: 2 m, PVC, Ø 2.9 mm; 3 x 0.14 mm²

Connector: 1 x M12; coding: A



Connection



4: OUT / IO-Link