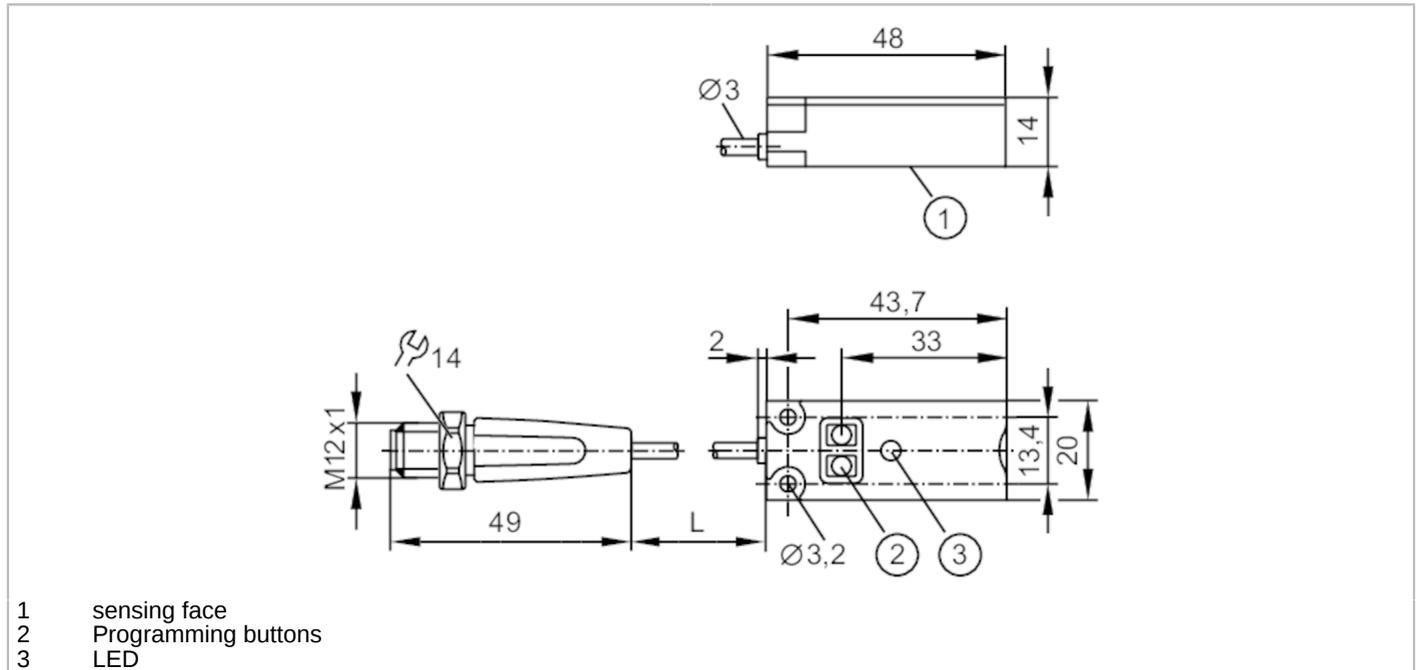


KQ6016



Capacitive sensor

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



Product characteristics	
Electrical design	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	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

KQ6016



Capacitive sensor

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

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 - SSP 0	Generic Profiled Sensor
	Function	Multiple switching signal
	Function	Process data variable
	Function	Teach channel
SIO mode		yes
Min. process cycle time	[ms]	100.8
Supported DeviceIDs	Type of operation default	DeviceID 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, vibration duration 5 min., 30 min. per axis with resonance or 55 Hz
MTTF	[years]	634
UL approval	Ta	-25...50 °C
	Enclosure type	Type 1
	voltage supply	Limited Voltage/Current
Mechanical data		
Weight	[g]	57.5
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

KQ6016



Capacitive sensor

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

Teach function	yes
Electronic lock	yes

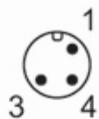
Remarks

Pack quantity	1 pcs.
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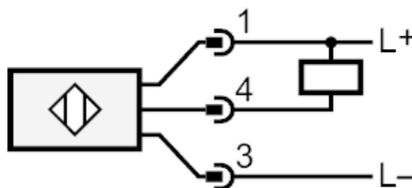
Electrical connection - plug

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

Connector: 1 x M12; coding: A



Connection



4: OUT / IO-Link