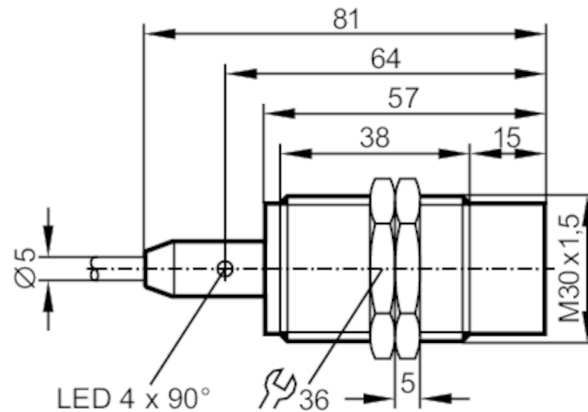




## Inductive sensor

IIK3022-BPKG/M/60V/6M/ZH



## Product characteristics

Electrical design		PNP
Output function		normally open
Sensing range	[mm]	22
Housing		Threaded type
Dimensions	[mm]	M30 x 1.5 / L = 81

## Application

System		Increased sensing range
Application		Use in mobile and harsh applications

## Electrical data

Operating voltage	[V]	10...60 DC
Current consumption	[mA]	< 10
Protection class		II
Reverse polarity protection		yes

## Outputs

Electrical design		PNP
Output function		normally open
Max. voltage drop switching output DC	[V]	2.5
Permanent current rating of switching output DC	[mA]	200
Switching frequency DC	[Hz]	100
Short-circuit protection		yes
Type of short-circuit protection		yes (non-latching)
Overload protection		yes

## Monitoring range

Sensing range	[mm]	22
Real sensing range $S_r$	[mm]	$22 \pm 10 \%$
Operating distance	[mm]	0...17.82

# IIM211



## Inductive sensor

IIK3022-BPKG/M/60V/6M/ZH

Increased sensing range		yes
<b>Accuracy / deviations</b>		
Correction factor		steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminum: 0.45 / copper: 0.35
Hysteresis	[% of Sr]	1...20
Switch-point drift	[% of Sr]	-10...10
<b>Operating conditions</b>		
Ambient temperature	[°C]	-40...85
Protection		IP 67; IP 69K
<b>Tests / approvals</b>		
EMC	Automotive area	
	Noise emission and noise interference: ECE R10	E1 type approval
	noise immunity according to DIN ISO 11452-2	100 V/m
	conducted interference in 24 V networks to ISO 7637-2: 2004 (pulse 1 to 4) and ISO16750-2: 2012 (load dump)	
	pulse	1 2a 2b 3a 3b 4 Load dump
	Severity level	III III III III III III Test A
	Failure criterion	C A C A A C C
	EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated	10 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-5 Surge	0,5 kV mains line to line
	EN 61000-4-6 HF conducted	10 V
	EN 55011	class B
	Vibration resistance	EN 60068-2-6 Fc
		50 sweep cycles per frequency; 1 octave per minute in 3 axes
Shock resistance	EN 60068-2-27 Ea	100 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes / -40...85 °C
Continuous shock resistance	EN 60068-2-27	40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes / -20...50 °C
Fast temperature changes	EN 60068-2-14 Na	TA = -40 °C; TB = 85 °C; t1 = 30 min; t2 = < 10 s; 50 cycles
Salt spray test	EN 60068-2-52 Kb	severity level 5 (4 test cycles)
MTTF	[years]	900
UL approval	Ta	0...40 °C
	Enclosure type	Type 1
	voltage supply	Class 2
	File number UL	E174191
<b>Mechanical data</b>		
Weight	[g]	369
Housing		Threaded type
Mounting		non-flush mountable
Dimensions	[mm]	M30 x 1.5 / L = 81
Thread designation		M30 x 1.5

# IIM211



## Inductive sensor

IHK3022-BPKG/M/60V/6M/ZH

Material	threaded sleeve: stainless steel; sensing face: LCP natural; LED window: PEI; lock nuts: brass
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### Displays / operating elements

Display	Switching status	4 x 90° LED, yellow
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### Accessories

Items supplied	lock nuts: 2
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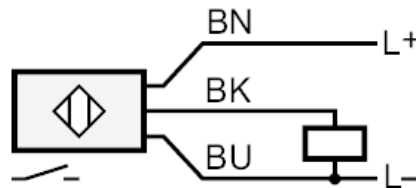
### Remarks

Pack quantity	1 pcs.
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### Electrical connection

Cable: 6 m, PUR; burning behaviour to ECE R118 rev. 2; 3 x 0.5 mm<sup>2</sup>

### Connection



	Core colors :
BK =	black
BN =	brown
BU =	blue