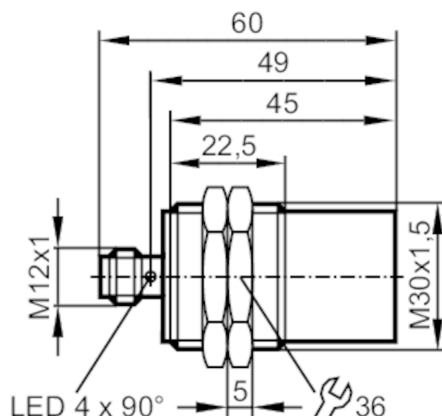


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Inductive sensor

IHK3022-BPKG/K1/V4A/US-104




Application		
Magnetic-field immune		yes
Max. magnetic field immunity [mT]		300
Electrical data		
Operating voltage [V]		10...30 DC
Current consumption [mA]		< 20
Protection class		III
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]		100
Switching frequency DC [Hz]		2000
Short-circuit protection		yes
Overload protection		yes
Detection zone		
Sensing range [mm]		22
Real sensing range S_r [mm]		$22 \pm 10 \%$
Operating distance [mm]		0...17.82
Increased sensing range		yes
Accuracy / deviations		
Correction factor		steel: 1 / stainless steel: 1 / brass: 1 / aluminium: 1 / copper: 1
Hysteresis [% of S_r]		3...15
Switch point drift [% of S_r]		-10...10
Correction factor $K = 1$		yes

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Inductive sensor

IIK3022-BPKG/K1/V4A/US-104

Operating conditions		
Ambient temperature	[°C]	-40...85
Protection		IP 65; IP 66; IP 67; IP 68; IP 69K
Tests / approvals		
EMC	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 61000-4-6 HF conducted	10 V
	EN 55011	class B
Vibration resistance	EN 60068-2-6 Fc	20 g (10...3000 Hz) / 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
Continuous shock resistance	EN 60068-2-29 Eb	40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes
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]	475
UL approval	Ta	-25...70 °C
	Enclosure type	Type 1
	voltage supply	Limited Voltage/Current
	UL Approval no.	A005
	File number UL	E174191
Mechanical data		
Weight	[g]	79
Housing		threaded type
Mounting		non-flush mountable
Dimensions	[mm]	M30 x 1.5 / L = 60
Thread designation		M30 x 1.5
Materials		stainless steel (1.4404 / 316L); sensing face: LCP white; LED window: PEI; lock nuts: stainless steel (1.4404 / 316L)
Displays / operating elements		
Display	switching status	4 x LED, yellow
Accessories		
Accessories (supplied)		lock nuts: 2
Remarks		
Pack quantity		1 pcs.
Electrical connection - plug		
Connector: 1 x M12; Contacts: gold-plated		
		

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Inductive sensor

IIK3022-BPKG/K1/V4A/US-104

Connection



Diagrams and graphs

Installation

