

IE5312



Inductive sensor

IEK3002BBPKG/US-104



Product characteristics

Electrical design	PNP
Output function	normally open
Sensing range [mm]	2
Housing	threaded type
Dimensions [mm]	M8 x 1 / L = 60

Application

Special feature	Increased sensing range
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Electrical data

Operating voltage [V]	10...30 DC
Current consumption [mA]	< 10
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]	1000
Short-circuit protection	yes
Overload protection	yes

Detection zone

Sensing range [mm]	2
Real sensing range S_r [mm]	$2 \pm 10\%$
Operating distance [mm]	0...1.62
Increased sensing range	yes

Accuracy / deviations

Correction factor	steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.4 / copper: 0.3
Hysteresis [% of S_r]	1...20
Switch point drift [% of S_r]	-10...10

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Operating conditions

Ambient temperature	[°C]	-25...70
Protection		IP 67

Tests / approvals

EMC	EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated	3 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-6 HF conducted	3 V
	EN 55011	class B
MTTF	[years]	1379
Embedded software included		yes

Mechanical data

Weight	[g]	23.1
Housing		threaded type
Mounting		flush mountable
Dimensions	[mm]	M8 x 1 / L = 60
Thread designation		M8 x 1
Materials		brass white bronze coated; sensing face: LCP orange; LED window: PEI; lock nuts: brass white bronze coated
Tightening torque	[Nm]	A = 5 mm: 1,5 Nm; B: 2 Nm
Full-metal housing		no

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 - plug

Connector: 1 x M12; coding: A



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Connection



Diagrams and graphs

Installation

