

IE5090



Inductive sensor

IEB3001-BPKG/US-100-DPS



Product characteristics

Electrical design	PNP
Output function	normally open
Sensing range [mm]	1
Housing	threaded type
Dimensions [mm]	M8 x 1 / L = 50

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]	750
Short-circuit protection	yes
Overload protection	yes

Detection zone

Sensing range [mm]	1
Real sensing range Sr [mm]	1 ± 10 %
Operating distance [mm]	0...0.81
Increased sensing range	no

Accuracy / deviations

Correction factor	steel: 1 / stainless steel: 0.7 / brass: 0.3 / aluminium: 0.3 / copper: 0.1
Hysteresis [% of Sr]	1...20
Switch point drift [% of Sr]	-10...10

Operating conditions

Ambient temperature [°C]	-25...80
Protection	IP 67

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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]	1376
UL approval	Ta	-25...70 °C
	Enclosure type	Type 1
	power supply	Limited Voltage/Current
	UL Approval no.	A028
	File number UL	E174191

Mechanical data

Weight	[g]	20.7
Housing		threaded type
Mounting		flush mountable
Dimensions	[mm]	M8 x 1 / L = 50
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	1 x 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

