

Inductive sensor

IEA3001-BPKG/V2A/US-104-DPS



Product characteristics

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

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]	2000
Short-circuit protection	yes
Overload protection	yes

Detection zone

Sensing range [mm]	1
Real sensing range S_r [mm]	$1 \pm 10\%$
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 S_r]	1...20
Switch point drift [% of S_r]	-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]	1393

Mechanical data		
Weight	[g]	23.8
Housing		threaded type
Mounting		flush mountable
Dimensions	[mm]	M8 x 1 / L = 60
Thread designation		M8 x 1
Materials		stainless steel (1.4404 / 316L); sensing face: LCP black; LED window: PEI; lock nuts: stainless steel (1.4404 / 316L)
Tightening torque	[Nm]	A = 5 mm: 2 Nm; B: 5 Nm
Full-metal housing		no

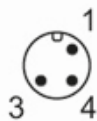
Displays / operating elements		
Display	switching status	4 x 90° LED, yellow

Accessories		
Items supplied		lock nuts: 2

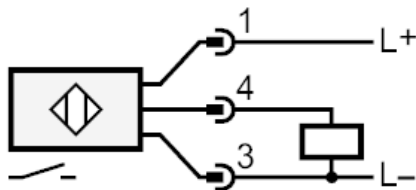
Remarks		
Pack quantity		1 pcs.

Electrical connection - plug

Connector: 1 x M12; coding: A



Connection



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Diagrams and graphs

Installation

