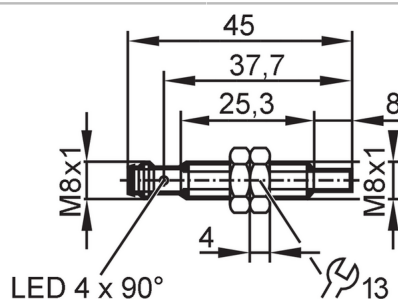


Inductive full-metal sensor

IEB3005-BPKG/AM/PI/AS



Product characteristics

Electrical design	PNP
Output function	normally open
Sensing range [mm]	5
Housing	Threaded type
Dimensions [mm]	M8 x 1 / L = 45

Application

Special feature	Increased sensing range; Full-metal housing
Application	Use in hygienic areas / regular cleaning processes
Pressure rating	50 bar
Note on pressure rating	5 MPa sensing face

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]	500
Short-circuit protection	yes
Overload protection	yes

Monitoring range

Sensing range [mm]	5
Real sensing range S_r [mm]	5; ($\pm 10\%$)
Operating distance [mm]	0...4.05
Increased sensing range	yes

Accuracy / deviations

Correction factor	steel: 1 / stainless steel: 1 / brass: 0.8 / aluminum: 0.7 / copper: 0.6
Hysteresis [% of S_r]	3...15



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Switch-point drift	[%]	-10...10
Operating conditions		
Ambient temperature	[°C]	0...100
Protection	IP 65; IP 66; IP 67; IP 68; IP 69K; (with ifm socket duly screwed on)	
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 60068-2-27	40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes
Fast temperature changes	EN 60068-2-14 Nc	TA = 0°C; TB = 100°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]	1261
Embedded software included	yes	
UL approval	Ta	0...80 °C
	Enclosure type	Type 1
	voltage supply	Limited Voltage/Current
	UL approval number	A022
	File number UL	E174191
Mechanical data		
Weight	[g]	15.2
Housing	Threaded type	
Mounting	non-flush mountable	
Dimensions	[mm]	M8 x 1 / L = 45
Thread designation	M8 x 1	
Material	stainless steel (1.4404 / 316L); sensing face: stainless steel (1.4404 / 316L); LED window: PPSU; lock nuts: stainless steel (1.4404 / 316L)	
Tightening torque	[Nm]	5
Full-metal housing	yes	
Displays / operating elements		
Display	Switching status	4 x LED, yellow
Accessories		
Items supplied	lock nuts: 2	
Remarks		
Pack quantity	1 pcs.	



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Electrical connection - plug

Connector: 1 x M8; coding: A; Contacts: 3



Connection

