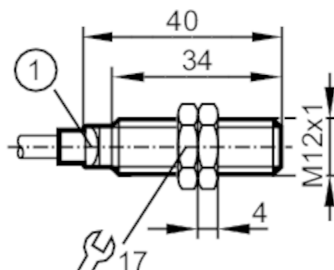


# IFT261



## Inductive full-metal sensor

IFB3004BBPKG/AM/2M/MPPE



1 LED yellow



### Product characteristics

Electrical design	PNP
Output function	normally open
Sensing range [mm]	4
Housing	threaded type
Dimensions [mm]	M12 x 1 / L = 40

### Application

Special feature	Halogen-free; Drag chain suitability; Increased sensing range; Full-metal housing
Application	constant cleaning with aggressive cleaning agents; regular cleaning processes
Pressure rating [bar]	50
Note on pressure rating	sensing face

### 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]	100
Short-circuit protection	yes
Overload protection	yes

### Detection zone

Sensing range [mm]	4
Real sensing range $S_r$ [mm]	$4 \pm 10\%$
Operating distance [mm]	0...3.24
Increased sensing range	yes

### Accuracy / deviations

Correction factor	steel: 1 / stainless steel: 0.7 / brass: 0.6 / aluminium: 0.5 / copper: 0.2
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Hysteresis	[% of Sr]	3...15
Switch point drift	[% of Sr]	-10...10

### Operating conditions

Ambient temperature	[°C]	0...100
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
Impact resistance		1 J
Vibration resistance	EN 60068-2-6 Fc	20 g (10...3000 Hz) / 50 sweep cycles, 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 change	EN 60068-2-14 Na	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]	1258
Embedded software included		yes
UL approval	Ta	0...75 °C
	Enclosure type	Type 1
	power supply	Limited Voltage/Current
	UL Approval no.	A027
File number UL		E174191

### Mechanical data

Weight	[g]	85.1
Housing		threaded type
Mounting		flush mountable
Dimensions	[mm]	M12 x 1 / L = 40
Thread designation		M12 x 1
Materials		stainless steel (1.4404 / 316L); sensing face: stainless steel (1.4404 / 316L); LED window: PEI; lock nuts: stainless steel (1.4404 / 316L)
Tightening torque	[Nm]	15
Drag chain suitability		yes
Drag chain suitability	bending radius for flexible use	min. 10 x cable diameter
	bending cycles	> 5 Mio.
Full-metal housing		yes

### Displays / operating elements

Display	switching status	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

Cable: 2 m, MPPE, Halogen-free, Ø 4.5 mm; 3 x 0.34 mm<sup>2</sup>

### Connection



	Core colours
BK	black
BN	brown
BU	blue