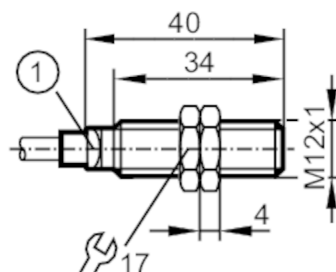




Inductive full-metal sensor

IFB3004BBPKG/AM/SC/2M/PUR



1 LED 2-colour yellow/green



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; Magnetic-field immune
Application	Use in welding applications
Pressure rating [bar]	50
Pressure rating [MPa]	5
Note on pressure rating	sensing face
Magnetic-field immune	yes

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]	2
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



Inductive full-metal sensor

IFB3004BBPKG/AM/SC/2M/PUR

Increased sensing range		yes	
Accuracy / deviations			
Correction factor		steel: 1 / stainless steel: 0.7 / brass: 0.6 / aluminium: 0.5 / copper: 0.2	
Hysteresis [% of Sr]		3...15	
Switch point drift [% of Sr]		-10...10	
Operating conditions			
Ambient temperature [°C]		-40...85	
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 = -40 °C; TB = 85 °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]		1188	
Embedded software included		yes	
UL approval	Ta		-25...75 °C
	Enclosure type		Type 1
	power supply		Limited Voltage/Current
	UL Approval no.		A019
	File number UL		E174191
Mechanical data			
Weight [g]		86	
Housing		threaded type	
Mounting		flush mountable	
Dimensions [mm]		M12 x 1 / L = 40	
Thread designation		M12 x 1	
Materials		stainless steel (316L/1.4404) anti-spatter; sensing face: stainless steel (316L/1.4404) anti-spatter; LED window: PEI; lock nuts: brass anti-spatter	
Tightening torque [Nm]		6	
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
	operation		LED, green

IFR212



Inductive full-metal sensor

IFB3004BBPKG/AM/SC/2M/PUR

Accessories

Items supplied

lock nuts: 2

Remarks

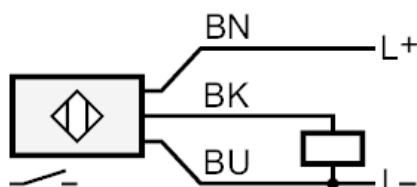
Pack quantity

1 pcs.

Electrical connection

Cable: 2 m, PUR, Halogen-free, Ø 4.9 mm; not irradiated (can be recycled); 3 x 0.34 mm² / resistant to welding sparks

Connection



	Core colours
BK	black
BN	brown
BU	blue