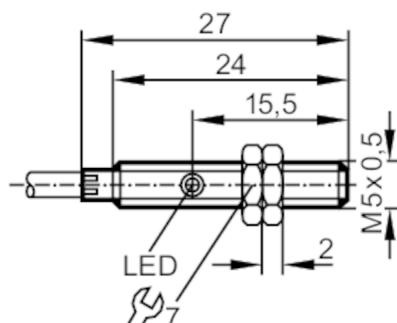




Inductive sensor

IYB31,5-BPKG/ZH



Product characteristics

Electrical design	PNP
Output function	normally open
Sensing range [mm]	1.5
Housing	threaded type
Dimensions [mm]	M5 x 0.5 / L = 27

Electrical data

Operating voltage [V]	10...30 DC
Current consumption [mA]	10; (24 V)
Reverse polarity protection	yes

Outputs

Electrical design	PNP
Output function	normally open
Max. voltage drop switching output DC [V]	3
Permanent current rating of switching output DC [mA]	100
Switching frequency DC [Hz]	1800
Short-circuit protection	yes
Type of short-circuit protection	pulsed
Overload protection	yes

Detection zone

Sensing range [mm]	1.5
Real sensing range S_r [mm]	$1.5 \pm 10\%$
Operating distance [mm]	0...1.2

Accuracy / deviations

Correction factor	steel: 1 / stainless steel: 0.7 / brass: 0.4 / aluminium: 0.3 / copper: 0.2
Hysteresis [% of S_r]	< 15
Switch point drift [% of S_r]	-10...10

Operating conditions

Ambient temperature [°C]	-25...70
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IY5049



Inductive sensor

IYB31,5-BPKG/ZH

Protection	IP 67
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Tests / approvals

EMC	EN 60947-5-2	
	EN 55011	class B
MTTF [years]	835	
UL approval	Ta	0...40 °C
	power supply	Class 2
	File number UL	E174191

Mechanical data

Weight [g]	50.5
Housing	threaded type
Mounting	non-flush mountable
Dimensions [mm]	M5 x 0.5 / L = 27
Thread designation	M5 x 0.5
Materials	housing: stainless steel; sensing face: POM

Displays / operating elements

Display	switching status	1 x LED, yellow
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Accessories

Items supplied	lock nuts: 2
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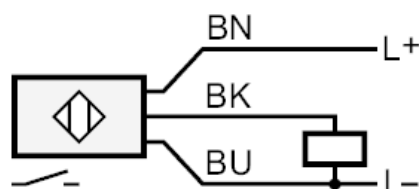
Remarks

Pack quantity	1 pcs.
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Electrical connection

Cable: 2 m, PUR; 3 x 0.14 mm²

Connection



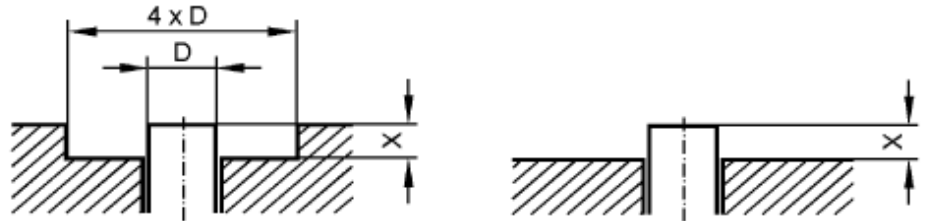
Core colours :
 BK = black
 BN = brown
 BU = blue

Inductive sensor

IYB31,5-BPKG/ZH

Diagrams and graphs

Installation



If S_r varies by $< 10\%$ the following free space must be maintained ferromagnetic materials $X > 1.5\text{ mm}$ other metals $X > 3.0\text{ mm}$