efector100

ifm electronic

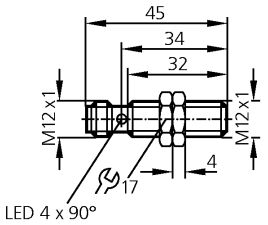
Inductive sensors
NAMUR EN 60947-5-6

NF501A

IFB2004BN/US/1G/1D
Inductive sensor
Metal thread M12 x 1
Plug and socket

ATEX approval
Group II, category 1G/2G
Group II, category 1D

Sensing range 4mm [f]
flush mountable



Electrical design Output	connection to certified intrinsically safe circuits with the max. values U = 15 V / I = 50 mA / P = 120 mW normally closed
Nominal voltage [V]	8.2 DC (1kΩ)
Supply voltage when used outside the hazardous area [V]	7.5...30 DC
Current rating when used outside the hazardous area [mA]	< 30
Current consumption [mA]	< 1 *)
Internal capacitance [nF]	< 210
Internal inductance [µH]	< 115
Real sensing range [mm]	4 ± 10 %
Operating distance [mm]	0...3.24
Switch-point drift [% of Sr]	-10...10
Hysteresis [% of Sr]	1...15
Switching frequency [Hz]	700
Correction factors	mild steel = 1 / stainless steel approx. 0.7 / brass approx. 0.5 / Al approx. 0.4 / Cu approx. 0.3
Operating temperature [°C]	-20...70
Protection	IP 67, III
Shock / vibration resistance	30g (11 ms) / 10-55 Hz (1 mm)
EMC	EN 60947-5-6
Approval	BVS 04 ATEX E 091 X IECEx BVS 06.0003
Marking of the unit	II 1G EEx ia IIC T6 Ta: -20...55 °C II 2G EEx ia IIC T6 Ta: -20...70 °C II 1D Ex iaD 20 T 90 °C Ta: -20...70 °C Ex ia IIC T6 zone 0 Ta: -20...70°C
Housing material	brass special coated; active face: PBT; connector: PA
Function display Switching status LED	yellow (4 x 90°)
Connection	M12 connector
Remarks	*) damped; (> 2.1 mA undamped)
Accessories (included)	2 lock nuts

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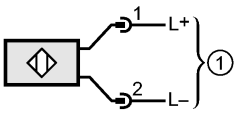
Wiring



1 = connection to NAMUR-amplifier

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