

Common inductive
proximity sensors
series - M18 size
AC 2 wire, AC/DC
2 wire, Switching
output



- Highlights

Inductive sensor

When the metal conductive objects close to the magnetic field and reach the induction area, high-frequency alternating magnetic field generated by a LC oscillation circuit, which is composed of a coil wound on a ferrite, through the eddy current effect generated by internal of metal objects to achieve non-contact detection.

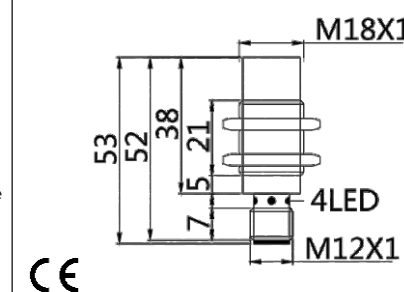
Standards

All inductive proximity sensors conform to IEC 60947-5-2.

Housing material

The housing material of sensor including nickel plated copper, also stainless steel and plastic with resistance of compression and temperature rapid change. Most of square sensor is plastic housing. These materials can also be used to produce square sensors with adjustable sensing surface or compact (small square) sensors. Such sensors can be used in the occasions of limited installation space or required large detection range.

- Product parameters



TECHNICAL INFORMATION

INDUCTIVE SPECIFICATION

	Sensing Distance	See P/N table	
	Correction Factor	Nav-ferrous metal	Factor
		Fe360	1
		Aluminum	0.35 ~ 0.45
		Brass	0.35 ~ 0.5
		Copper	0.35 ~ 0.45
Stainless Steel		0.35 ~ 0.45	
Cast Iron		0.93 ~ 1.05	
	Nickel	0.65 ~ 0.75	
Mounting	Non Flush type installation		
Switching Histeresis	< 10%		

ELECTRICAL DATA

	Operating Voltage	20~250V AC ; 20~250V AC/DC
	Switching Frequency	25Hz / 25Hz AC ; 40Hz DC
	Voltage Drop	≤ 8V AC/ 10V AC; 8V DC
	Leakage Current	≤ 1.8mA / ≤ 2.5mA
	Load Current	Max.load:400 mA ; Min.load:5mA /
		Max.load:200 mA ; Min.load:5mA /
	Hysteresis	< 15% (Sr)
	Repeatability	< 1.0% (Sr)
	Temperature Drift	< 10% (Sr)
	Short Circuit Protection	Yes
	Overload Protection	Yes
	Polarity Reversal Protection	Yes

ENVIRONMENT DATA

	Ambient Temperature	-25.....70 °C
	Ingress Protection	IP67

MECHANICAL DATA

	Housing Material	Nickel plated brass
	Face Material	PBT

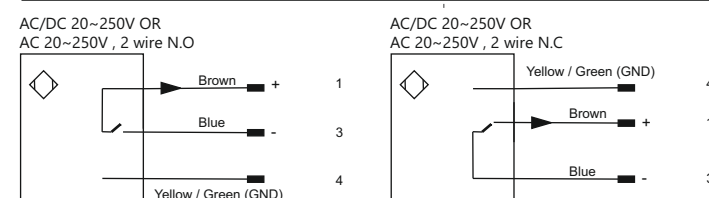
ELECTRICAL CONNECTION DATA

	Connector	M12 Connector , 4 pins , Male type
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ACCESSORIES

	Cable	Two meter angled cable (P/N: V5PN-AM12402OF) (available)
	Cable	Ten meter angled cable (P/N: V5PN-AM12410OF) (available)
	Connector	M12, 4 PIN, Male type, IP67, Straight, Female, Screw connection (P/N: EAM12MC4001A) (available)

- Input/Output circuit



- Application

Inductive proximity switch is a low cost method for non-contact detection of metal objects, which is widely used in the following sectors, such as:

- Automotive Industry
- Metallurgical sector
- Machine tool sector
- Robot industry
- Conveyor system
- Paper and printing industry
- Mechanical Engineering

- P/N table

Sensing distance	Sn: 8mm		
2 Wire , AC, NO	VL1A-NF18-08NO-ACSM12		
2 Wire , AC, NC	VL1A-NF18-08NC-ACSM12		
2 Wire , AC/DC, NO	VL1A-NF18-08NO-AC/DCSM12		
2 Wire , AC/DC, NC	VL1A-NF18-08NC-AC/DCSM12		

■ Installation

