Inductive proximity sensor

**V**<sub>5</sub> Group

# Common inductive proximity sensors series - M30 size DC 2 wire

## 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.

# Application

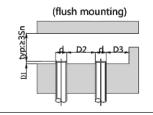
Inductive proximity switch is a low cost method for non-contact detection of metal objects, which is widely used in the following sectors, such as:

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

#### ■ P/N table

Sensing distance	Sn: 10mm	Sn: 16mm	
2 Wire , NO	VL1B-F30-10NO-LM12	VL1B-F30-16NO-LM12	
2 Wire , NC	VL1B-F30-10NC-LM12	VL1B-F30-16NC-LM12	

#### Installation



Sn D1 D2 D3 M1808 ≥2.5 ≥18 ≥18

Tightening torque of the fastening

M12 Connector, 4 pin



# Product parameters

- Features: Diameter M30
- Sensing distance: P/N table
- Body material: Nickel plated brass
- Built-in electric protection
- Output: See P/N table
- Connection:
- M12 Connector , 4 pins , Male type • Power supply: 24V DC, 2 wires
- $\epsilon$

M30X1.5



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Nickel plated brass

**TECHNICAL INFORMATION** 

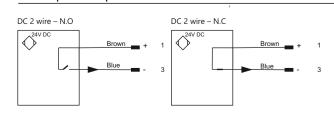
INDUCTIVE SPECIFICATION				
		Sensing Distance	See P/N table	
		Correction Factor	Nav-ferrous metal Fe360 Aluminum Brass Copper Stainless Steel Cast Iron Nickel	Factor 1 0.35 ~ 0.45 0.35 ~ 0.5 0.35 ~ 0.45 0.35 ~ 0.45 0.35 ~ 0.45 0.93 ~ 1.05 0.65 ~ 0.75
		Mounting	Flush type installation	
		Switching Histeresis	< 10%	
ELECTRICAL DATA				
		Operating Voltage	10~60V DC	

ELECTRICAL DATA			
	Operating Voltage	10~60V DC	
	Switching Frequency	500Hz	
	Voltage Drop	≤ 2.0 V	
	Leakage Current	< 0.01mA	
	Load Current	200 mA	
	No Load Current	≤ 10 mA (24V DC)	
	Hysteresis	< 15% (Sr)	
	Repeatability	< 1.0% (Sr)	
	Temperature Drift	< 1.0% (Sr)	
	Short Circuit Protection	Yes	
	Overload Protection	Yes	
	Polarity Reversal Protection	Yes	
ENVIRONMENT DATA			
	Ambient Temperature	-2570 ℃	
	Ingress Protection	IP67	

	Face Material	PBT		
ELECTRICAL CONNECTION DATA				
	Connector	M12 Connector , 4 pins , Male type		
ACCESORIES				
	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

MECHANICAL DATA



Housing Material