## Common inductive proximity sensors series - M18 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

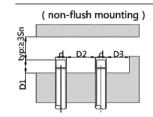
Inductive proximity switch is a low cost method for non-contact detection of metal objects, which is widely used in the following sectors, such as:

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

#### ■ P/N table

Sensing distance	Sn: 16mm	
2 Wire , NO	VL1B-NF18-16NO-SM12	
2 Wire , NC	VL1B-NF18-16NC-SM12	

#### ■ Installation



Sn D1 D2 D3 M1816 ≥25 ≥36 ≥18

Tightening torque of the fastening

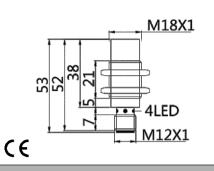
M12 Connector, 4 pin



#### Product parameters

#### Features:

- Diameter M18
- Sensing distance: P/N table
- Body material: Nickel plated brass
- Built-in electric protection
- Output: See P/N table
- Connection:
- Power supply: 24V DC, 2 wires
- M12 Connector , 4 pins , Male type





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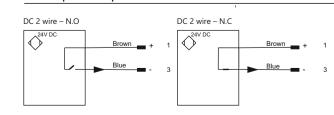
Ten meter angled cable (P/N: V5PN-AM12410OF) (available) M12, 4 PIN, Male type, IP67, Straight, Female, Screw connection (P/N: EAM12MC4001A) (available)

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

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	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	Non Flush type installation			
	Switching Histeresis	< 10%			
ELECTRICAL DATA					
	Operating Voltage	10~60V DC			
	Switching Frequency	300Hz			
	Voltage Drop	≤ 2.0 V	≤ 2.0 V		
	Leakage Current	< 0.01mA			
	Load Current	200 mA	200 mA		
	No Load Current	≤ 10 mA (24V DC)	≤ 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			
NVIRONMENT DATA					
	Ambient Temperature	-2570 ℃			
	Ingress Protection	IP67			
MECHANICAL DATA					
	Housing Material	Nickel plated brass			
	Face Material	PBT			
ELECTRICAL CONNECTION DATA					
	Connector	M12 Connector , 4 pins , Ma	le type		
ACCESORIES					
	Cable	Two meter angled cable (P/N	: V5PN-AM12402OF) (availal		

#### ■ Input/Output circuit



Cable