Inductive proximity sensor

V₅ Group

Common inductive proximity sensors series - M30 size DC 3 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

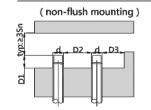
Inductive proximity switch is a low cost method for non-contact detection of metal objects, which is widely used in the following sectors, such as:

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

■ P/N table

Sensing distance	Sn: 15mm	Sn: 25mm	Sn: 40mm
NPN , NO	VL1C-NF30N-15NO-L2M	VL1C-NF30N-25NO-L2M	VL1C-NF30N-40NO-L2M
NPN , NC	VL1C-NF30N-15NC-L2M	VL1C-NF30N-25NC-L2M	VL1C-NF30N-40NC-L2M
PNP , NO	VL1C-NF30P-15NO-L2M	VL1C-NF30P-25NO-L2M	VL1C-NF30P-40NO-L2M
PNP , NC	VL1C-NF30P-15NC-L2M	VL1C-NF30P-25NC-L2M	VL1C-NF30P-40NC-L2M

■ Installation

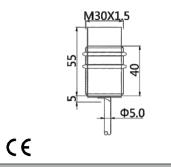


Sn D1 D2 D3 M3015 ≥22 ≥60 ≥30 M3025 ≥40 ≥60 ≥30 M3040 ≥40 ≥90 ≥30

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:
- PVC Cable 2m ; 3*0.18mm₂
- Power supply: 24V DC, 3 wires





Two meter angled cable (P/N: V5PN-AM12402OF) (available)

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

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TECHNICAL INFORMATION

	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%	

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	Switching Histeresis	< 10%
ELECTRICAL DATA		
	Operating Voltage	10~30V DC
	Switching Frequency	300Hz/300Hz/100Hz
	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
MECHANICAL DATA		
	Housing Material	Nickel plated brass
	Face Material	РВТ
ELECTRICAL CONNECTION DATA		
	Connector	PVC Cable 2m ; 3*0.35mm²
ACCESORIES		

■ Input/Output circuit

Cable Cable

