Inductive proximity sensor

Miniature inductive proximity sensors series - M8 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.

Special miniature sensors

Many engineers are often faced with a particular requirements to fit inductive sensors into tight spaces. The inductive sensors of the Miniature Series are fully integrated without external amplifier and our models were equipped with reverse polarity protection and short-circuit protected switching outputs. Also an optical switching indicator is always built-in.

Ø3 mm, Sn up to 1 mm M4 x 0.5, Sn up to 1 mm Ø4 mm, Sn up to 1.5 mm M5 x 0.5, Sn up to 1.5 mm Q5 x 5 mm, Sn up to 1.5 mm M8 x 1, 18 mm short, Sn up to 4 mm M12 x 1, 22 mm short, Sn up to 8 mm

Application

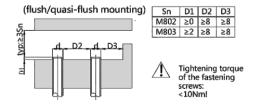
Inductive proximity switch is a low cost method for non-contact detection of metal objects, which is widely used in the following sectors, such as:

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

■ P/N table

Sensing distance	Sn: 2mm	Sn: 3mm	
NPN , NO	VL1C-F08N-02NO-M2M	VL1C-F08N-03NO-M2M	
NPN , NC	VL1C-F08N-02NC-M2M	VL1C-F08N-03NC-M2M	
PNP , NO	VL1C-F08P-02NO-M2M	VL1C-F08P-03NO-M2M	
PNP , NC	VL1C-F08P-02NC-M2M	VL1C-F08P-03NC-M2M	

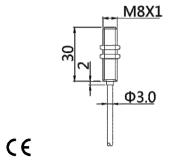
■ Installation



Product parameters

Features:

- Diameter M8
- Sensing distance: P/N table
- Body material: Stainless steel
- Built-in electric protection
- Output: See P/N table
- Connection:
- PVC Cable 2m ; 3*0.15mm₂
- Power supply: 24V DC, 3 wires





TECHNICAL INFORMATION	N			
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	10~30V DC	10~30V DC	
	Switching Frequency	2000Hz / 1000Hz	2000Hz / 1000Hz	
	Voltage Drop	≤ 2.0 V	≤ 2.0 V	
	Leakage Current	< 0.01mA		
	Load Current	100 mA		
	No Load Current	≤ 10 mA (24V DC)		
	Hysteresis	< 15% (Sr)		
	Repeatability	< 1.0% (Sr)	< 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	Stainless steel body	Stainless steel body	
	Face Material	РОМ		
ELECTRICAL CONNECTION DATA				
	Connection	PVC cable/2m ; 3*0.18mm²	PVC cable/2m ; 3*0.18mm²	
ACCESORIES				
	Cable	Two meter angled cable (P/N:	Two meter angled cable (P/N: V5PN-AM8302OF) (available)	
	Cable	Ten meter angled cable (P/N:	Ten meter angled cable (P/N: V5PN-AM8310OF) (available)	
	Connector		M8, 3 PIN, Male type, IP67, Straight, Wires with screw connection (P/N: EAM8MC3001A) (available)	

■ Input/Output circuit

