Inductive proximity sensor

# Compact inductive proximity sensors series - Q8 size DC 3 wire

### Highlights

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

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

Also an optical switching indicator is always built-in.

#### Benefits

- High quality sensors series
- Space-saving installation and significant flexibility in machine design thanks
- High positioning accuracy and precise switching behavior for reliable detection of fast handling and assembly processes
- Bright sensors led indicators for easy power and detection recognition
- High switching frequency
- Water proof stainless steel body design for high humidity stability IP67 degree protection



#### Application

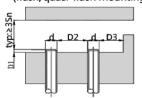
Inductive proximity switch is a low cost method for non-contact detection of metal objects, which is widely used in the following sectors, such as:

- 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-Q08N-02NO-LCM8	VL1C-Q08N-03NO-LCM8	
NPN , NC	VL1C-Q08N-02NC-LCM8	VL1C-Q08N-03NC-LCM8	
PNP , NO	VL1C-Q08P-02NO-LCM8	VL1C-Q08P-03NO-LCM8	
PNP , NC	VL1C-Q08P-02NC-LCM8	VL1C-Q08P-03NC-LCM8	

#### ■ Installation

## (flush/quasi-flush mounting)



#### M8, 3 pin male connector



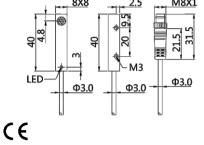
## Product parameters

## Features:

- Diameter O8
- Sensing distance: P/N table
- · Body material: Stainless steel
- Built-in electric protection
- Output: See P/N table Connection:

INDUCTIVE SPECIFICATION

- PVC Cable 35mm; 3\*0.18mm<sub>2</sub>
- 3 pin, M8 male molded connector
- Power supply: 24V DC, 3 wires





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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	Flush type installation	
Switching Histeresis	< 10%	

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ELECTRICAL DATA			
	Operating Voltage	10~30V DC	
	Switching Frequency	2000Hz / 1000Hz	
	Voltage Drop	≤ 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)	
	Temperature Drift	< 1.0% (Sr)	
	Short Circuit Protection	Yes	
	Overload Protection	Yes	
	Polarity Reversal Protection	Yes	
NVIRONMENT DATA			
	Ambient Temperature	-25 70 °C	

	Ambient Temperature	-2570 ℃
	Ingress Protection	IP67
MECHANICAL DATA		
	Housing Material	Nickel plated brass body
	Face Material	POM
ELECTRICAL CONNECTION DATA		
	Connection	Short PVC cable/30mm; 3*0.18mm <sup>2</sup> , M8, 3 pins connector
ACCESORIES		
	Cable	Two meter angled cable (P/N: V5PN-AM8302OF) (available)
	Cable	Ten meter angled cable (P/N: V5PN-AM8310OF) (available)
	Connector	M8, 3 PIN, Female type, IP67, Straight, Wires with screw connection (P/N: EAM8FC3001A) (available)

### ■ Input/Output circuit

