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

### **V**5 (

## Compact inductive proximity sensors series - Q8 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.

### Benefits

- High quality sensors series
- Space-saving installation and significant flexibility in machine design thanks to the compact size
- 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-LM8	VL1C-Q08N-03NO-LM8
NPN , NC	VL1C-Q08N-02NC-LM8	VL1C-Q08N-03NC-LM8
PNP , NO	VL1C-Q08P-02NO-LM8	VL1C-Q08P-03NO-LM8
PNP , NC	VL1C-Q08P-02NC-LM8	VL1C-Q08P-03NC-LM8

### Installation

### (flush/quasi-flush mounting)

M8, 3 pin male connector



### Product parameters

# Features: Diameter Q8 Sensing distance: P/N table Body material: Stainless steel Built-in electric protection Output: See P/N table Connection: 3 pin, M8 Connector Power supply: 24V DC, 3 wires

TECHNICAL INFORMATION  INDUCTIVE SPECIFICATION			
	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	Flush type installation	
	Switching Histeresis	< 10%	
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	
ENVIRONMENT DATA			
	Ambient Temperature	-2570 ℃	
	Ingress Protection	IP67	
MECHANICAL DATA			
	Housing Material	Nickel plated brass body	
	Face Material	POM	
ELECTRICAL CONNECTION DATA			
	Connection	M8 Connector , 3 pins , Male type	
ACCESORIES			
	Cable	Two meter angled cable (P/N: V5PN-AM8302OF) (a	vailable)
	Cable	Ten meter angled cable (P/N: V5PN-AM8310OF) (a	vailable)
	Connector	M8, 3 PIN, Female type, IP67, Straight, Wires with connection (P/N: EAM8FC3001A) (available)	screw

### ■ Input/Output circuit

