

Common inductive proximity sensors series - Q40 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

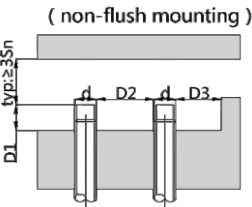
Inductive proximity switch is a low cost method for non-contact detection of metal objects, which is widely used in the following sectors, such as:

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

P/N table

Sensing distance	Sn: 20mm	Sn: 30mm	
2 Wire , NO	VL1C-NFQ40-20NO-LT	VL1C-NFQ40-30NO-LT	
2 Wire , NC	VL1C-NFQ40-20NC-LT	VL1C-NFQ40-30NC-LT	

Installation



Product parameters

Features: <ul style="list-style-type: none">• Diameter Q40• Sensing distance: P/N table• Body material: Nickel plated brass• Built-in electric protection• Output: See P/N table• Connection: Terminal connection up to 2.5mm²• Power supply: 24V DC, 2 wires		
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TECHNICAL INFORMATION

INDUCTIVE SPECIFICATION

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 Hysteresis	< 10%	

ELECTRICAL DATA

Operating Voltage	10~60V DC
Switching Frequency	300Hz
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	-25.....70 ℃
Ingress Protection	IP67

MECHANICAL DATA

Housing Material	PBT
Face Material	PBT

ELECTRICAL CONNECTION DATA

Connector	Terminal connection up to ; 2.5mm ²
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ACCESORIES

Cable	Two meter angled cable (P/N: V5PN-AM12402OF) (available)
Cable	Ten meter angled cable (P/N: V5PN-AM12410OF) (available)
Connector	M12, 4 PIN, Male type, IP67, Straight, Female, Screw connection (P/N: EAM12MC4001A) (available)

Input/Output circuit

