

Common inductive proximity sensors series - Q28 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.

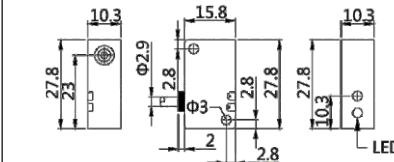
Housing material

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.

- Product parameters

Features:

- Diameter Q28
- Sensing distance: P/N table
- Body material: Nickel plated brass
- Built-in electric protection
- Output: See P/N table
- Connection:
PVC Cable 2 m ; 3*0.18mm²
- Power supply: 24V DC, 3 wires



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 Histeresis	< 10%		

ELECTRICAL DATA

	Operating Voltage	10~30V DC
	Switching Frequency	2000Hz/1000Hz
	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 °C
	Ingress Protection	IP67

MECHANICAL DATA

	Housing Material	PBT
	Face Material	PBT

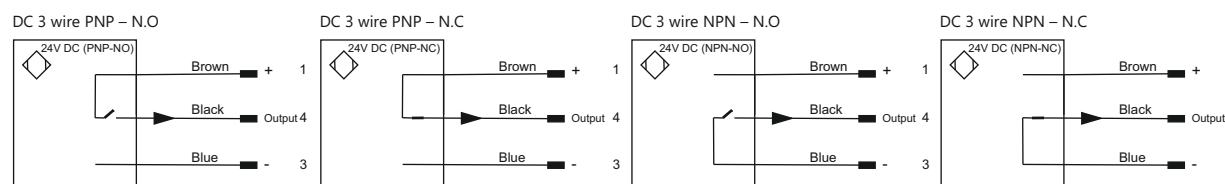
ELECTRICAL CONNECTION DATA

	Connector	90° side PVC cable 2m ; 3*0.18mm ²
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ACCESSORIES

	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



- 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: 4mm	Sn: 6mm	
NPN , NO	VL1C-NFQ28N-04NO-T2M	VL1C-NFQ28N-06NO-T2M	
NPN , NC	VL1C-NFQ28N-04NC-T2M	VL1C-NFQ28N-06NC-T2M	
PNP , NO	VL1C-NFQ28P-04NO-T2M	VL1C-NFQ28P-06NO-T2M	
PNP , NC	VL1C-NFQ28P-04NC-T2M	VL1C-NFQ28P-06NC-T2M	

■ Installation

(non-flush mounting)

