

# Inductive proximity sensors series - Ø6.5 mm NAMUR 2 wire, DC Switching output



## ■ 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

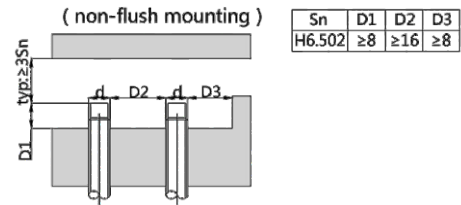
Inductive proximity switch is a low cost method for non-contact detection of metal objects, which is widely used in the following sectors, such as:

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

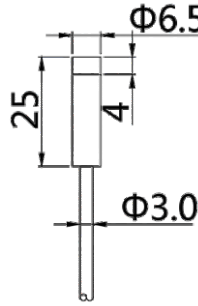

## ■ P/N table

Sensing distance	Sn: 2mm		
2 Wire, DC, NAMUR	VL1N-NF6.5-2NO-DC2M		

## ■ Installation



## ■ Product parameters

<b>Features:</b> <ul style="list-style-type: none"><li>• Diameter Ø6.5 mm</li><li>• Sensing distance: P/N table</li><li>• Body material: Stainless steel</li><li>• Built-in electric protection</li><li>• Output: See P/N table</li><li>• Connection: PVC cable/2m ; 2*0.25mm<sup>2</sup></li><li>• Power supply: 6~12V DC</li></ul>		
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TECHNICAL INFORMATION																		
INDUCTIVE SPECIFICATION																		
	Sensing Distance	See P/N table																
	Correction Factor	<table><tr><th>Nav-ferrous metal</th><th>Factor</th></tr><tr><td>Fe360</td><td>1</td></tr><tr><td>Aluminum</td><td>0.35 ~ 0.45</td></tr><tr><td>Brass</td><td>0.35 ~ 0.5</td></tr><tr><td>Copper</td><td>0.35 ~ 0.45</td></tr><tr><td>Stainless Steel</td><td>0.35 ~ 0.45</td></tr><tr><td>Cast Iron</td><td>0.93 ~ 1.05</td></tr><tr><td>Nickel</td><td>0.65 ~ 0.75</td></tr></table>	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
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Mounting	Non Flush type installation																	
Switching Histeresis	< 10%																	

ELECTRICAL DATA		
	Operating Voltage	6~12V DC
	Switching Frequency	2000Hz
	Voltage Drop	≤ 6V DC
	Leakage Current	> 2.2mA (OFF) / < 1.1mA (ON)
	Load Current	Max.load:400 mA ; Min.load:5mA /
		Max.load:200 mA ; Min.load:5mA /
	Hysteresis	< 15% (Sr)
	Repeatability	< 2.0% (Sr)
	Temperature Drift	< 10% (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	Stainless steel
	Face Material	PBT

ELECTRICAL CONNECTION DATA		
	Connector	PVC cable/2m ; 2*0.25mm <sup>2</sup>

ACCESORIES		
	Cable	Two meter straight cable (P/N: V5PN-SM8302OF) (available)
	Cable	Ten meter straight cable (P/N: V5PN-SM8310OF) (available)
	Connector	M8, 3 PIN, Male type, IP67, Straight, Female, Screw connection (P/N: EAM8MC3001A) (available)

## ■ Input/Output circuit

