

# Long Sensing Distance Type

## Long distance sensing type proximity sensor

### ■ Features

- Able to detect up to as 50mm
- Improve the noise resistance by adopting dedicated IC
- Built-in protection circuit of reverse power polarity, surge protection, overcurrent
- Wide range of power supply : 12-48VDC (Voltage range:10-65VDC)
- Simultaneous output of Normal Open+Normal Close
- Built-in power indicator and operation indicator LED
- Waterproof structure by IP 67 (IEC standard)



**⚠ Please read "Caution for your safety" in operation manual before using.**



### ■ Type

◎DC 4-wire long sensing distance type

Appearance	Model
	<b>AS80-50DN3</b>
	<b>AS80-50DP3</b>

### ■ Specifications

Model	AS80-50DN3	AS80-50DP3
Sensing type	NPN Normal Open + Normal Close	PNP Normal Open + Normal Close
Sensing distance	50mm ±10%	
Hysteresis	Max. 15% of sensing distance	
Standard sensing target	150×150×1mm (Iron)	
Setting distance	0 ~ 35mm	
Power supply (Operating voltage)	12-48VDC (10-65VDC)	
Current consumption	Max. 10mA	
Response frequency(*1)	100Hz	
Residual voltage	Max. 1.8V	
Affection by Temp.	±10% Max. for sensing distance at +20°C within temperature range of -25 ~ +70°C	
Control output	Max. 200mA	
Insulation resistance	Min. 50MΩ (at 500VDC)	
Dielectric strength	1500VAC 50/60Hz for 1 minute	
Vibration	1mm amplitude at frequency of 10 ~ 55Hz in each of X, Y, Z directions for 2 hours	
Shock	500m/s <sup>2</sup> (50G) in X, Y, Z direction for 3 times	
Indicator	Operation indicator (Red LED)	
Ambient temperature	-25 ~ +70°C (at non-freezing status)	
Storage temperature	-30 ~ +80°C (at non-freezing status)	
Ambient humidity	35 ~ 95%RH	
Protection circuit	Surge protection circuit, Reverse polarity protection, Overload & short circuit protection	
Cable	φ 5×4P, 2m	
Protection	IP67 (IEC standard)	
Approval	CE	
Unit weight	Approx. 470g	

※(\*1) The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

(A) Counter

(B) Timer

(C) Temp. controller

(D) Power controller

(E) Panel meter

(F) Tacho/Speed/Pulse meter

(G) Display unit

(H) Sensor controller

(I) Switching power supply

(J) Proximity sensor

(K) Photo electric sensor

(L) Pressure sensor

(M) Rotary encoder

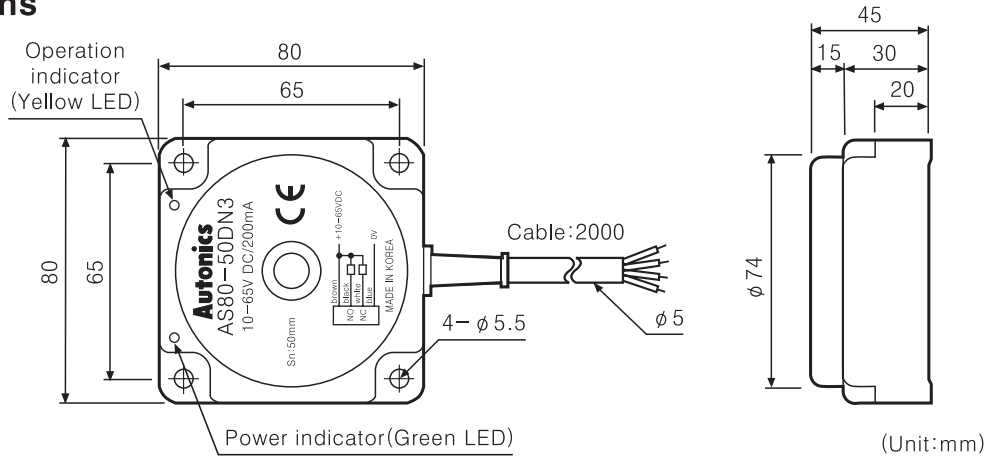
(N) Stepping motor & Driver & Controller

(O) Graphic panel

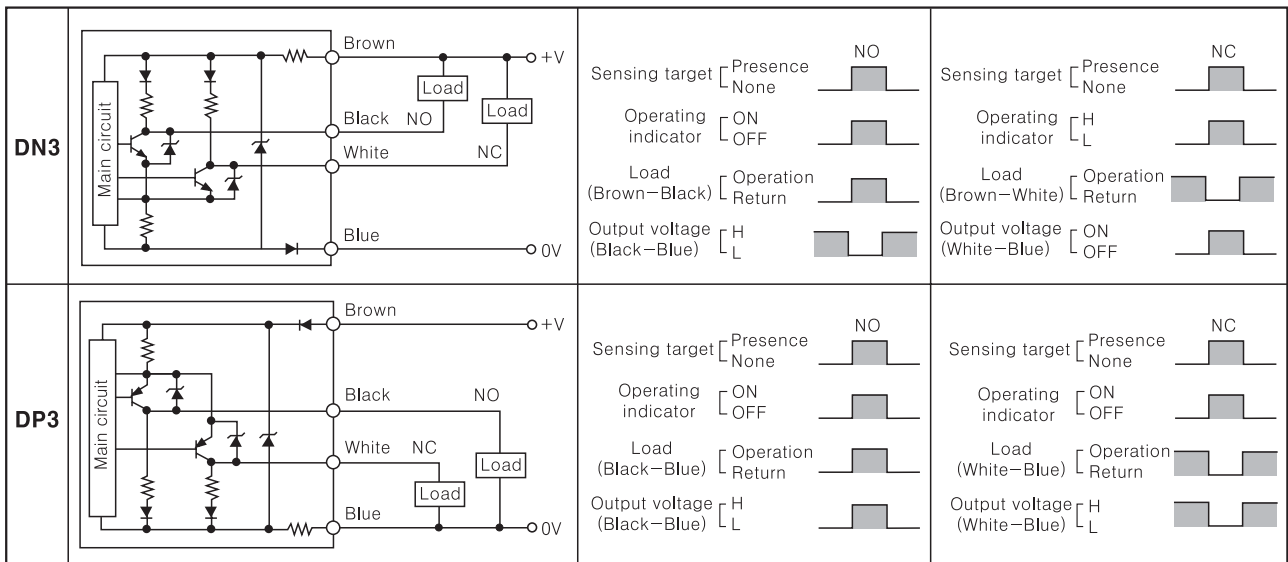
(P) Production stoppage models & replacement

# AS Series

## Dimensions



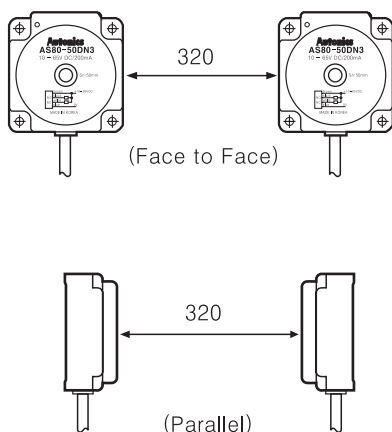
## Control output diagram



## Mutual-interference & Influence by surrounding metals

### ◎Mutual-interference

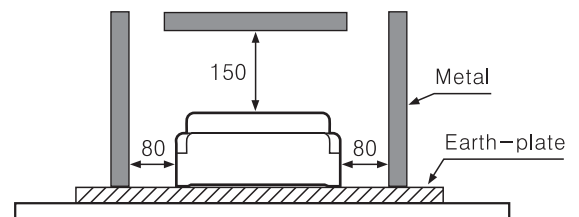
When several proximity sensors are mounted closely, sensors may cause a malfunction due to mutual interference. Therefore, be sure to provide a minimum distance between the two sensors, as picture below.



### ◎Influence by surrounding metals

When sensors are mounted on metallic panel, it may malfunction affected by any metallic object except target.

Therefore, be sure to provide a minimum distance as shown in picture below.



(Unit:mm)