

Rectangular Long Distance Type

Long distance type proximity sensor

■ Features

- Able to detect long distance as detecting distance is 50mm
- Complementary output of Normally open and Normally closed with 4 wires
- Reverse polarity protection circuit, Over current protection circuit, Surge protection circuit built in
- Wide range of power source : 12–48VDC (Voltage range : 10–65VDC)
- Water proof structure by IP 67 (IEC specification)



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



■ Type

○DC 4-wire, long distance detection type

Appearance	Model
	AS80-50DN3
	AS80-50DP3

■ Specifications

Model	AS80-50DN3	AS80-50DP3
Detecting type	NPN Normal Open + Normal Closed	PNP Normal Open + Normal Closed
Detecting distance	50mm ±10%	
Hysteresis	Max. 15% of detecting distance	
Standard detecting target	150×150×1mm (Iron)	
Setting distance	0 ~ 35mm	
Power supply (Operation voltage)	12–48VDC (10–65VDC)	
Current consumption	Max. 10mA	
Response frequency	100Hz	
Residual voltage	Max. 1.8V	
Affection by Temp.	±10% Max. of detecting distance at +20°C within temperature range of -25 ~ +70°C	
Control output	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 ² (50G) in X, Y, Z directions for 3 times	
Indicator	Power indicator : Green LED, Operation indicator : Yellow 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	
Protection	IP67 (IEC specification)	
Approval	CE	
Weight	Approx. 470g	

(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) Proximity sensor

(J) Photo electric sensor

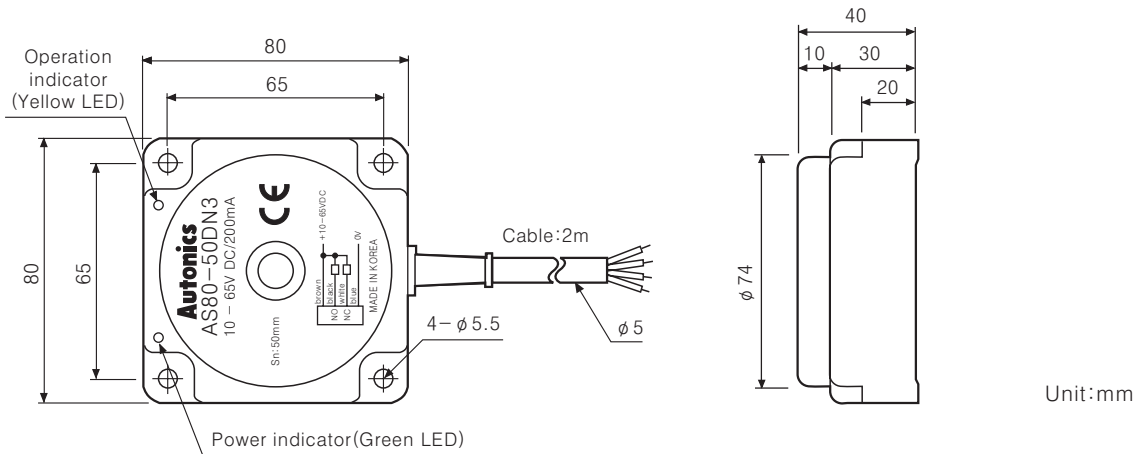
(K) Pressure sensor

(L) Rotary encoder

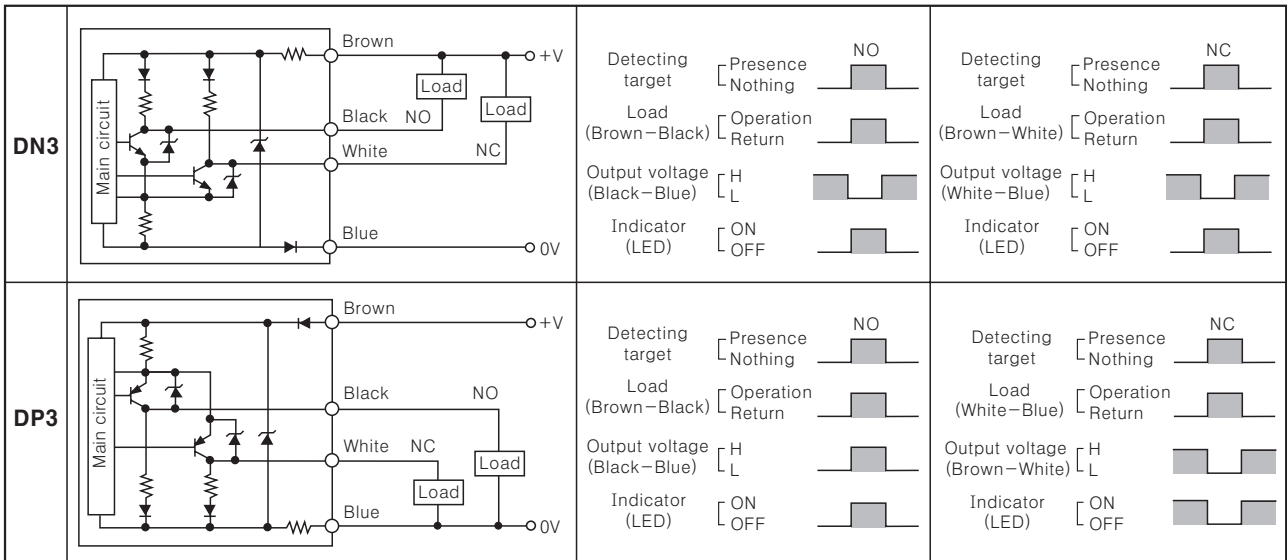
(M) 5-Phase stepping motor & Driver & Controller

AS Series

Dimensions



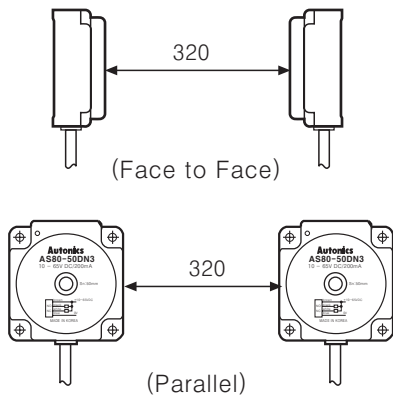
Control output diagram



Mutual-interference & Influence by surrounding metals

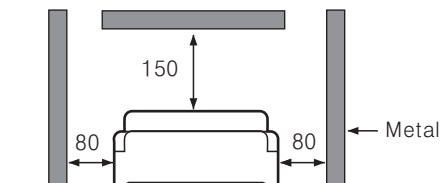
○ Mutual-interference

When several proximity sensors are mounted close together, sensors may cause 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, you must prevent the sensors from being affected by any metallic object except target. Therefore, be sure to provide a minimum distance as shown in picture below.



Unit:mm