


Long sensing distance type proximity sensor

■ Features

- Sensing up to as 50mm
- Improved the noise resistance with dedicated IC
- Built-in reverse polarity protection circuit, surge protection circuit, overcurrent protection circuit
- 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
- Protection structure IP67(IEC standard)

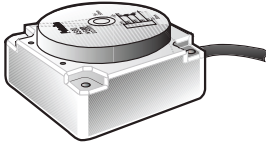


 Please read "Caution for your safety" in operation manual before using.



■ Type

◎ DC 4-wire long distance type

Appearance	Model
	AS80-50DN3
	AS80-50DP3

■ Specification

Model	AS80-50DN3	AS80-50DP3
Sensing type	NPN Normally Open + Normally Closed	PNP Normally Open + Normally Closed
Sensing distance	50mm	
Hysteresis	Max. 15% of sensing distance	
Standard sensing target	150×150×1mm(Iron)	
Setting distance	0 to 35mm	
Power supply (Operating voltage)	12-48VDC (10-65VDC)	
Current consumption	Max. 20mA	
Response frequency*1	30Hz	
Residual voltage	Max. 2V	
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20°C	
Control output	Max. 200mA	
Insulation resistance	Min. 50MΩ(at 500VDC megger)	
Dielectric strength	1500VAC 50/60Hz for 1 minute	
Vibration	1mm amplitude at frequency of 10 to 55Hz(for 1 min.) in each of X, Y, Z directions for 2 hours	
Shock	500m/s ² (approx. 50G) in X, Y, Z direction for 3 times	
Indicator	Power indicator: green LED, Operation indicator: yellow LED	
Environment	Ambient temperature	-25 to 70°C, storage: -30 to 80°C
	Ambient humidity	35 to 95%RH, storage: 35 to 95%RH
Protection circuit	Surge protection circuit, Reverse polarity protection circuit, Overcurrent protection circuit	
Cable	ø5, 4-wire, 2m(AWG22, Core diameter: 0.08mm, Number of cores: 60, Insulator diameter: ø1.25)	
Approval	CE	
Protection	IP67(IEC standard)	
Unit weight	Approx. 470g	

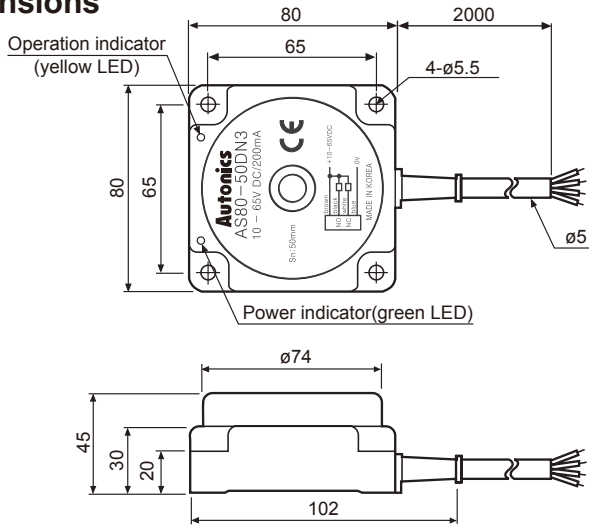
*1: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

※Environment resistance is rated at no freezing or condensation.

Long Sensing Distance type

Dimensions

(unit: mm)



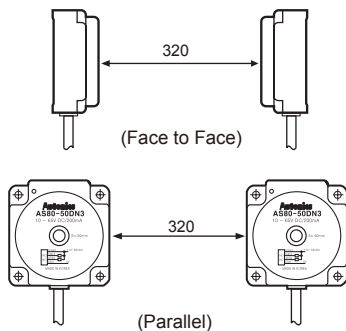
Control output diagram

	Main circuit	Output	Waveform
NPN (N.O.+N.C.)		Sensing target Presence: N.O. None: N.C.	
		Operation indicator (yellow LED) ON: ON OFF: OFF	
PNP (N.O.+N.C.)		Sensing target Presence: N.O. None: N.C.	
		Operation indicator (yellow LED) ON: ON OFF: OFF	

Mutual-interference & Influence by surrounding metals

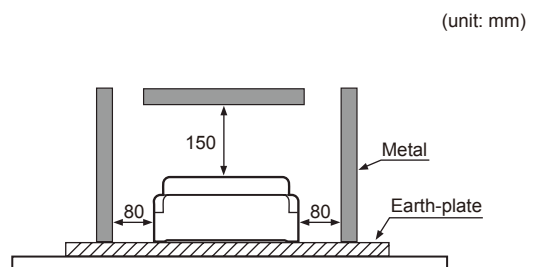
◎ Mutual-interference

When several proximity sensors are mounted close to one another a malfunction of the sensor may be caused due to mutual interference. Therefore, be sure to provide a minimum distance between the two sensors as below chart indicates.



◎ 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 below chart indicates.



(A)	Photo electric sensor
(B)	Fiber optic sensor
(C)	Door/Area sensor
(D)	Proximity sensor
(E)	Pressure sensor
(F)	Rotary encoder
(G)	Connector/Socket
(H)	Temp. controller
(I)	SSR/Power controller
(J)	Counter
(K)	Timer
(L)	Panel meter
(M)	Tacho/Speed/Pulse meter
(N)	Display unit
(O)	Sensor controller
(P)	Switching mode power supply
(Q)	Stepper motor& Driver&Controller
(R)	Graphic/Logic panel
(S)	Field network device
(T)	Software
(U)	Other