Long sensing distance type proximity sensor

▣ Features

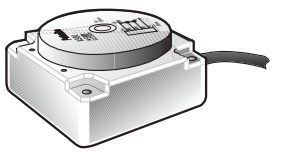
- Sensing up to as 50mm
- Improved the noise resistance with dedicated IC
- Built-in reverse polarity protection circuit,surge protection circuit, overcurrent protection circuit
- Wide range of power supply : 12-48VDC (Voltage range : 10-65VDC)
- Simultaneous output of Normal Open+Normal Close
- Built-in 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

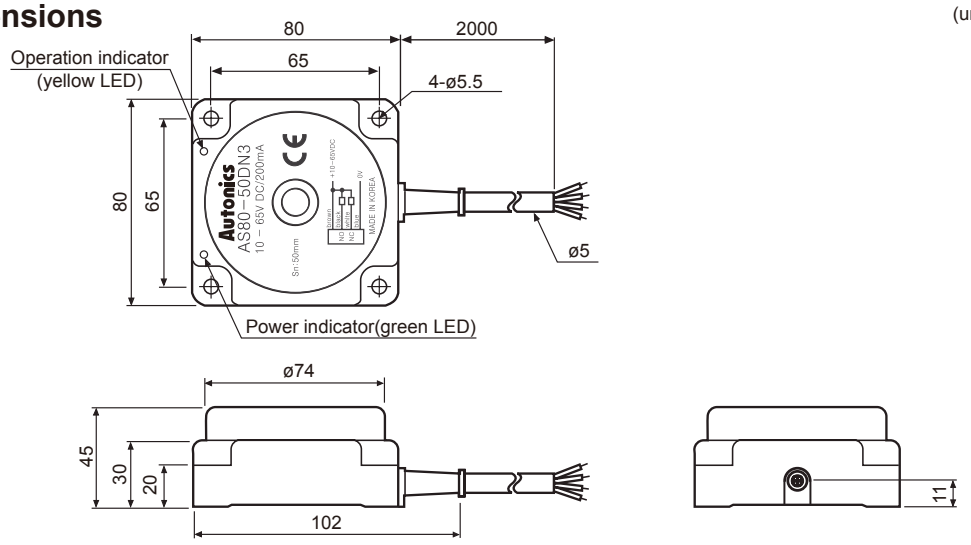
▣ Specification

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℃	
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/s²(appox. 50G) in X, Y, Z direction for 3 times	
Indicator		Power indicator: green LED, Operation indicator: yellow LED	
Environment	Ambient temperature	-25 to 70℃, storage: -30 to 80℃	
	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	

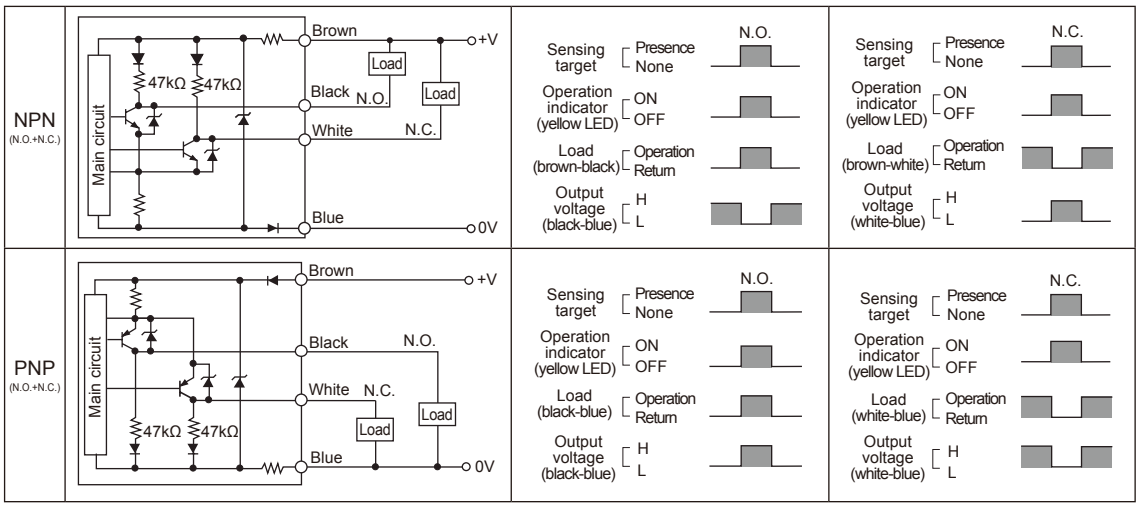
※1: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.
※Environment resistance is rated at no freezing or condensation.

■ Dimensions

(unit: mm)



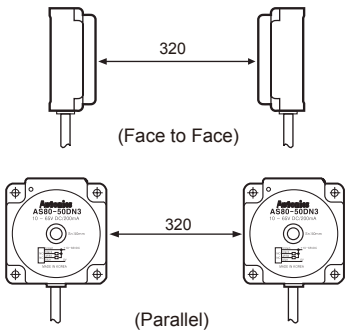
■ Control output diagram



■ 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.

(unit: mm)

