Flat type proximity sensor

■Features

- ●Easy to mount in narrow space by Flat structures(Height:10mm)
- ●Enhanced noise−resistance by using exclusive IC(DC power)
- ●Reverse polarity protection, Surge protection function
- ●Able to check the status of operation by Red LED indicator
- ●Wide range of applications, for replacement of Micro switch, Limit switch.
- ●Driving the load of 200mA directly within range of 10−30VDC power source.(Resistive load)
- ●Water proof structure by IP 67(IEC specification)

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

■Type

Appearance	Model
	PFI25−8DN
	PFI25−8DP
	PFI25−8DN2 ※
	PFI25−8DP2 ※

▶※ Mark is optional.

■Specifications

Model	PFI25−8DN PFI25−8DP PFI25−8DN2 PFI25−8DP2
Detecting distance	8mm ±10%
Hysteresis	Max. 10% of detecting distance
Standard detecting target	25×25×1mm(Iron)
Setting distance	0 ~ 5.6mm
Power supply (Operating voltage)	12−24VDC (10−30VDC)
Current consumption	Max. 10mA
Response frequency	200Hz
Residual voltage	Max. 1.5V
Affection by Temp.	±10% Max. of detecting distance at +20℃ within temperature range of −25 ~ +70℃
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/s² (50G) in X, Y, Z directions for 3 times
Indicator	Operation indicator(Red LED)
Ambient temperature	−25 ~ +70℃ (at non−freezing status)
Storage temperature	−30 ~ +80℃ (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)
Weight	Approx. 80g

PFI Series

▣ Dimensions

Unit:mm

▣ Control output diagram

NPN universal output type

		NO	NC
Detecting target	Presence / Nothing		
Load (Brown−Black)	Operation / Return		
Output voltage (Black−Blue)	H / L		
Indicator (LED)	ON / OFF		

PNP universal output type

		NO	NC
Detecting target	Presence / Nothing		
Load (Black−Blue)	Operation / Return		
Output voltage (Brown−Black)	H / L		
Indicator (LED)	ON / OFF		

▣ Connections

PFI25−8DN

〈 PA10−U 〉
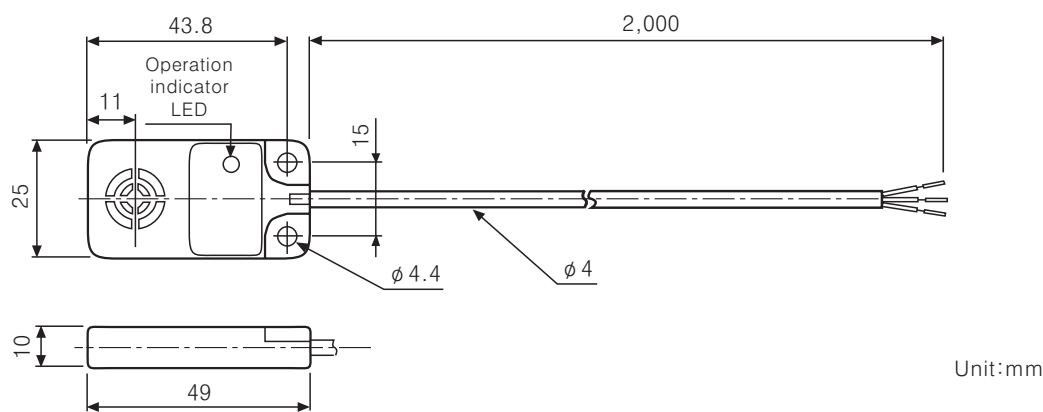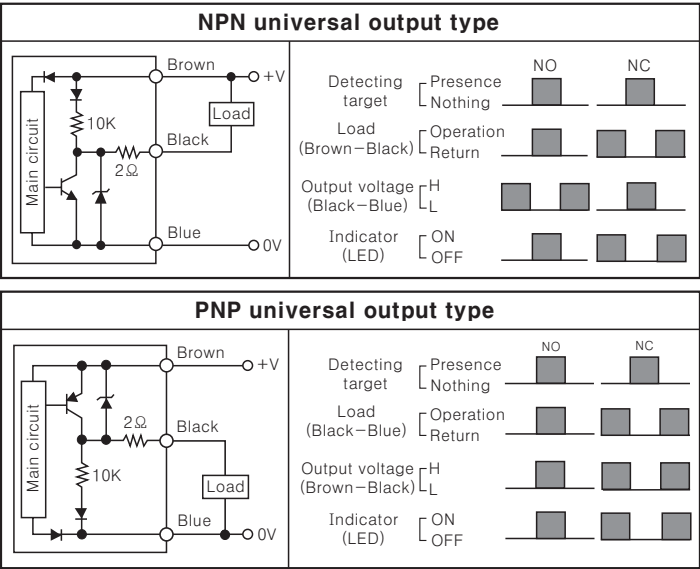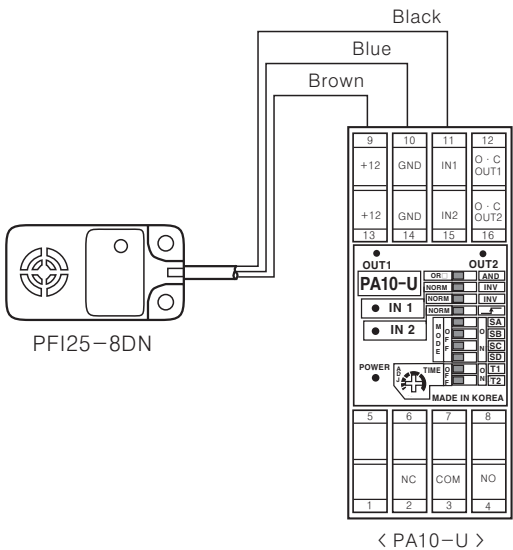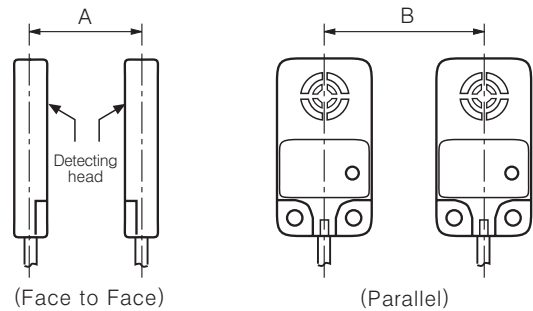
▣ Proper usage

◎ Mutual−interference

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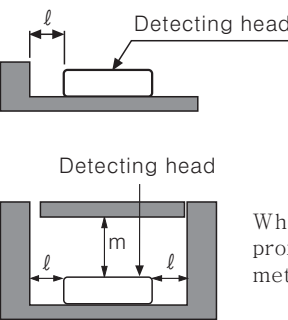

(Face to Face)   (Parallel)

A	100
B	80

Unit:mm

◎ Influence by surrounding metals

When sensors are mounted on metallic panel, you must prevent sensors from being affected by any metallic object except target. Therefore, be sure to provide a minimum as below chart.

When the height between the proximity sensor and surrounding metals is the same.

When the height between the proximity sensor and surrounding metals is different.

ℓ	5
m	15

Unit:mm

Autonics