

## Flat type proximity sensor

### ■ Features

- Easy to mount in narrow space by flat structure (Height:10mm)
- Integrated surge protection circuit
- Integrated overload & short protection circuit, reverse polarity protection circuit (DC type)
- Improved the noise resistance with dedicated IC (DC type)
- Red LED status indication
- Protection structure IP67 (IEC standard)
- Replaceable for micro switches and limit switches

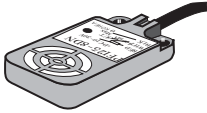


**⚠ Please read "Caution for your safety" in operation manual before using.**



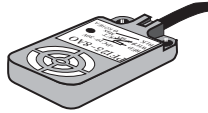
### ■ Type

#### ◎ DC 3-wire type

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

▶ "※" mark can be customized.

#### ◎ AC 2-wire type

Appearance	Model
	PFI25-8AO
	PFI25-8AC

### ■ Specification

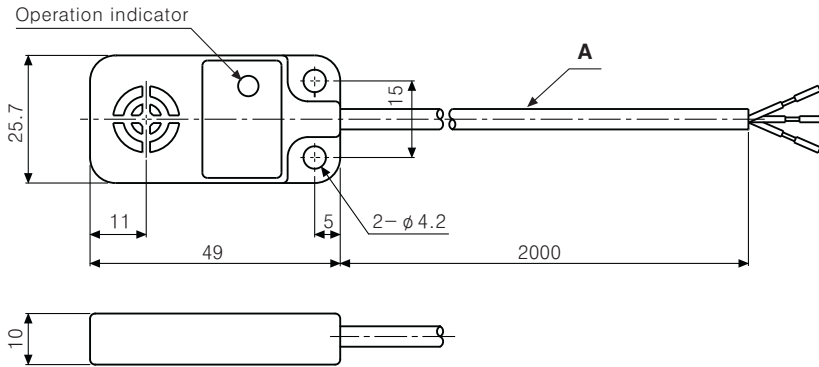
Model	PFI25-8DN PFI25-8DP PFI25-8DN2 PFI25-8DP2	PFI25-8AO PFI25-8AC
Sensing distance	8mm	
Hysteresis	Max. 10% of sensing distance	
Standard sensing target	25×25×1mm (Iron)	
Setting distance	0 to 5.6mm	
Power supply (Operating voltage)	12-24VDC (10-30VDC)	100-240VDC (85-264VAC)
Current/Leakage consumption	Max. 10mA	Max. 2.5mA
Response frequency(*1)	200Hz	20Hz
Residual voltage	Max. 1.5V	Max. 10V
Affection by Temp.	When it is 20°C at the rated ambient temperature, it is below 10%.	
Control output	Max. 200mA	5 to 150mA
Insulation resistance	Min. 50MΩ (at 500VDC megger)	
Dielectric strength	1,500VAC 50/60Hz for 1 minute	2,500VAC 50/60Hz for 1 minute
Vibration	1mm amplitude at frequency of 10 to 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	Output operation indicator (Red LED)	
Ambient temperature	-25 to 70°C (at non-freezing status)	
Storage temperature	-30 to 80°C (at non-freezing status)	
Ambient humidity	35 to 95%RH	
Protection circuit	Surge protection circuit, Reverse polarity protection circuit, Overload & Short protection circuit	Surge protection circuit
Cable	φ 4×3P, 2m	φ 4×2P, 2m
Protection	IP67 (IEC standard)	
Material	Case : PPS, General cable (Black) : Polyvinyl chloride (PVC)	
Approval	<b>CE</b>	
Unit weight	Approx. 70g	

※ (\*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)	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 power supply
(Q)	Stepping motor & Driver & Controller
(R)	Graphic/Logic panel
(S)	Field network device
(T)	Production stoppage models & replacement

# PFI Series

## Dimensions

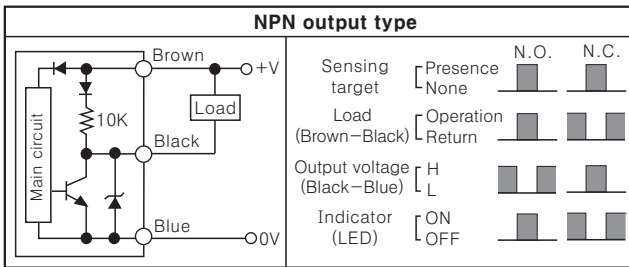


※ "A" type :  $\phi 4, 2$  cores /  $\phi 4, 3$  cores (Conductor cross section:  $0.3\text{mm}^2$ , Insulator diameter:  $\phi 1.25$ )

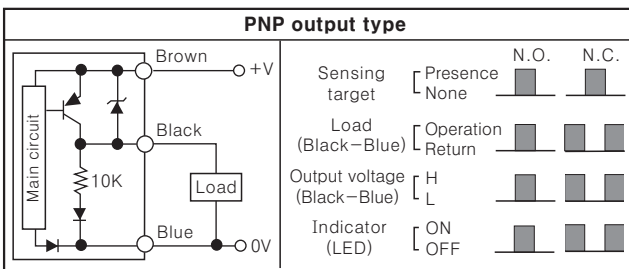
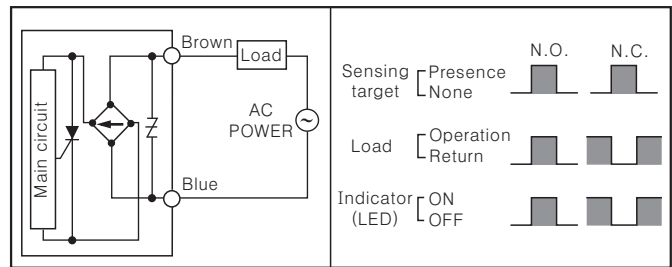
(Unit:mm)

## Control output diagram

### DC 3-wire type



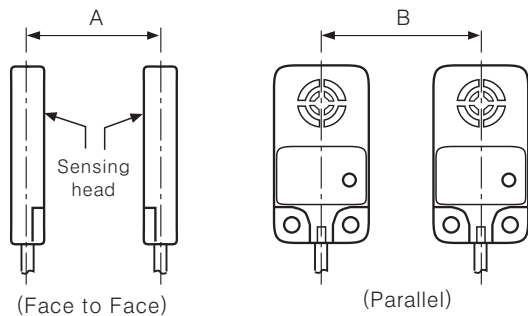
### AC 2-wire type



## Proper usage

### 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.

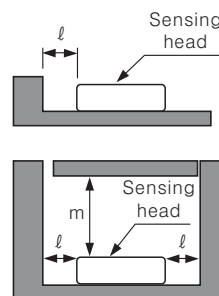


A	100
B	80

(Unit:mm)

### 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.



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

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

l	5
m	15

(Unit:mm)