


## Flat type proximity sensor

### ■ Features

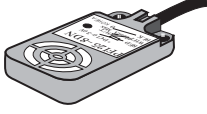
- Easy to mount in narrow space by flat structure (Height:10mm)
- Integrated surge protection circuit
- Integrated overload & short protection circuit, reverse polarity protection circuit (DC type)
- Improved the noise resistance with dedicated IC (DC type)
- Red LED status indication
- Protection structure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

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



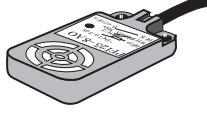
### ■ Type

#### ◎ 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

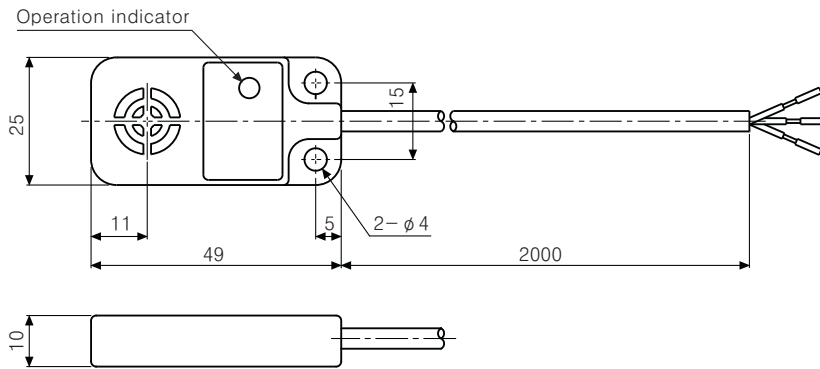
Model	PFI25-8DN PFI25-8DP PFI25-8DN2 PFI25-8DP2	PFI25-8AO PFI25-8AC
Sensing distance	8mm ±10%	
Hysteresis	Max. 10% of sensing distance	
Standard sensing target	25×25×1mm (Iron)	
Setting distance	0 to 5.6mm	
Power supply (Operating voltage)	12-24VDC (10-30VDC)	100-240VDC (85-264VAC)
Current/Leakage consumption	Max. 10mA	Max. 2.5mA
Response frequency(*1)	200Hz	20Hz
Residual voltage	Max. 1.5V	Max. 10V
Affection by Temp.	±10% Max. for sensing distance at 20°C within temperature range of -25 to 70°C	
Control output	Max. 200mA	Max. 150mA
Insulation resistance	Min. 50MΩ (at 500VDC megger)	
Dielectric strength	1500VAC 50/60Hz for 1 minute	2500VAC 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	φ4×3P, 2m	φ4×2P, 2m
Protection	IP67 (IEC standard)	
Approval		
Unit weight	Approx. 80g	

※ (\*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

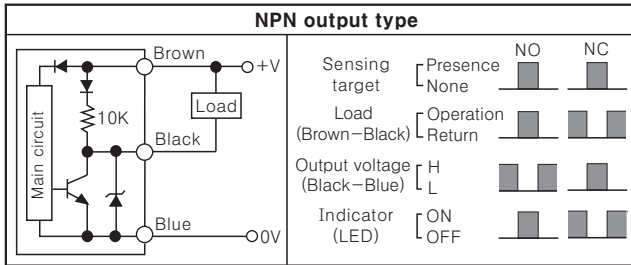
## ■ Dimensions



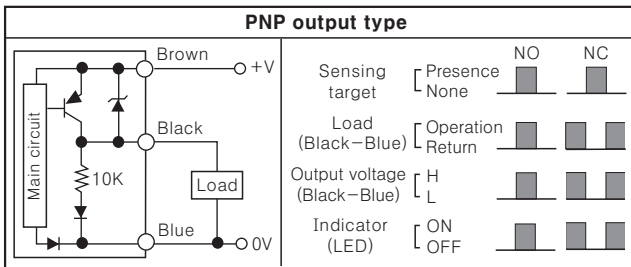
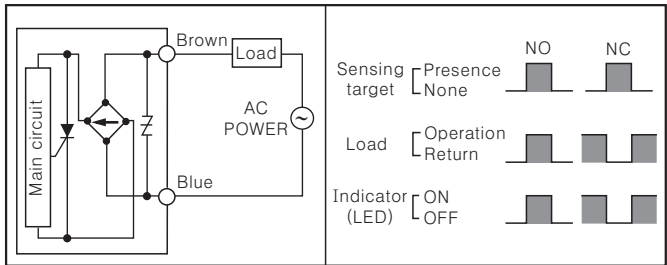
(Unit:mm)

## ■ Control output diagram

### ◎ DC 3-wire type



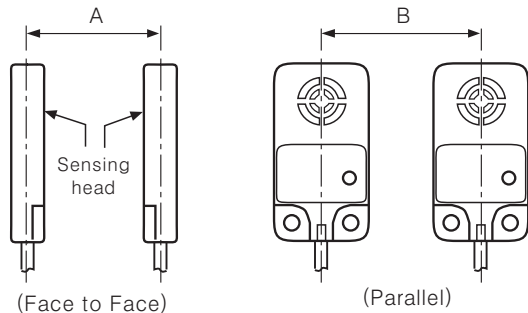
### ◎ AC 2-wire type



## ■ 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.

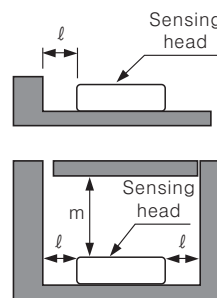


A	100
B	80

(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)