

## ◆Characteristics / 特點：

- Small size, 10 mm thickness, can be mounted in a small space. Several amplifiers can be mounted side by side.  
/體積薄，厚度只有10mm，使用空間小，多個併排安裝。
- 20-Turns Sensitivity Adjuster. The optimum sensitivity can be set easily.  
/多迴轉(20 TURNS)靈敏度調整。
- Off-delay timer adjustable for 0ms, 40ms and 400ms.  
/可調整OFF TIMER感應時間(0ms,40ms,400ms)。



**Ultra-Slim**



### L.on/D.on Switch

Easy selection to switch the output operation as either Light-ON or Dark-ON.



### Off-delay Timer Switch

Three off-delay timers (0ms, 40ms, 400ms) adjustable.



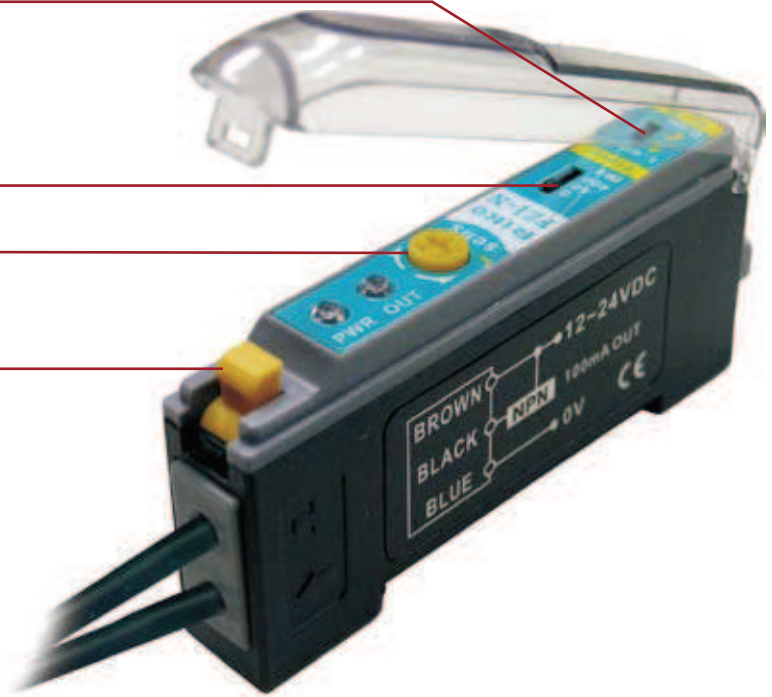
### 20-turn Sensitivity Adjuster

Users can adjust the sensitivity more optimum according to different objects.



### Fiber Lock Level

Special design for fiber cables fixed. Simple operation and easy maintenance.



## ◆Specifications / 規格表：

Model / 型號	Pre-wired Ø4.2	FZ1-N	FZ1-P	FZ1-NI	FZ1-PI
	M8 pigtailed type	FZ1-ND	FZ1-PD	—	—
Emitting light / 發光源		Red LED 680 nm		Infrared LED 850nm	
Operating voltage / 工作電壓		DC12~24V ± 5%			
Current Consumption / 消耗電流		40mA Max.			
Load current / 負載電流		100mA Max.at DC24V			
Output type / 輸出模式		NPN L.on / D.on	PNP L.on / D.on	NPN L.on / D.on	PNP L.on / D.on
Protection circuit / 保護電路		Reversed polarity protection, over-current protection			
Response time / 反應時間		1 ms Max.			
Indicators/指示燈		Output indicator : Red LED, Power indicator : Green LED			
Sensitivity adjusrment/靈敏度功能		20 turns trimmer			
Insulation resistance / 隔離阻抗		20MΩ min. (DC500V)			
Voltage withstandabiligy / 絕緣耐壓		AC500V 60Hz for 60 Sec.			
Operating temperature/工作溫度		- 10 ℃ ~ + 60 ℃			
Ambient humidity / 工作溼度		35% ~ 85% RH			
Protection degree / 防水等級		IP64			
Material / 外觀材質		ABS			
Wiring method / 出線方式	FZ1-□	Pre-wired Ø4.2 x 2 M / 3-wires			
	FZ1-□D	M8 pigtailed type / M8 接頭15cm電線式			
Weight / 重量	FZ1-□	Approx. 65g			
	FZ1-□D	Approx. 35g			

Photo Sensor

Area Sensor

Inductive Proximity Sensor

Capacitive Proximity Sensor

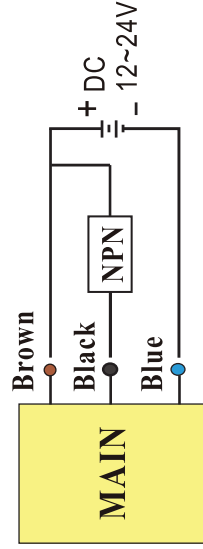
Timer / Counter

Others

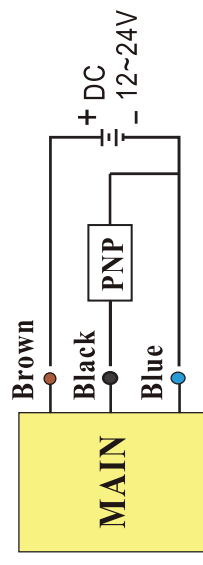
Accessories

## ◆Wiring diagrams :

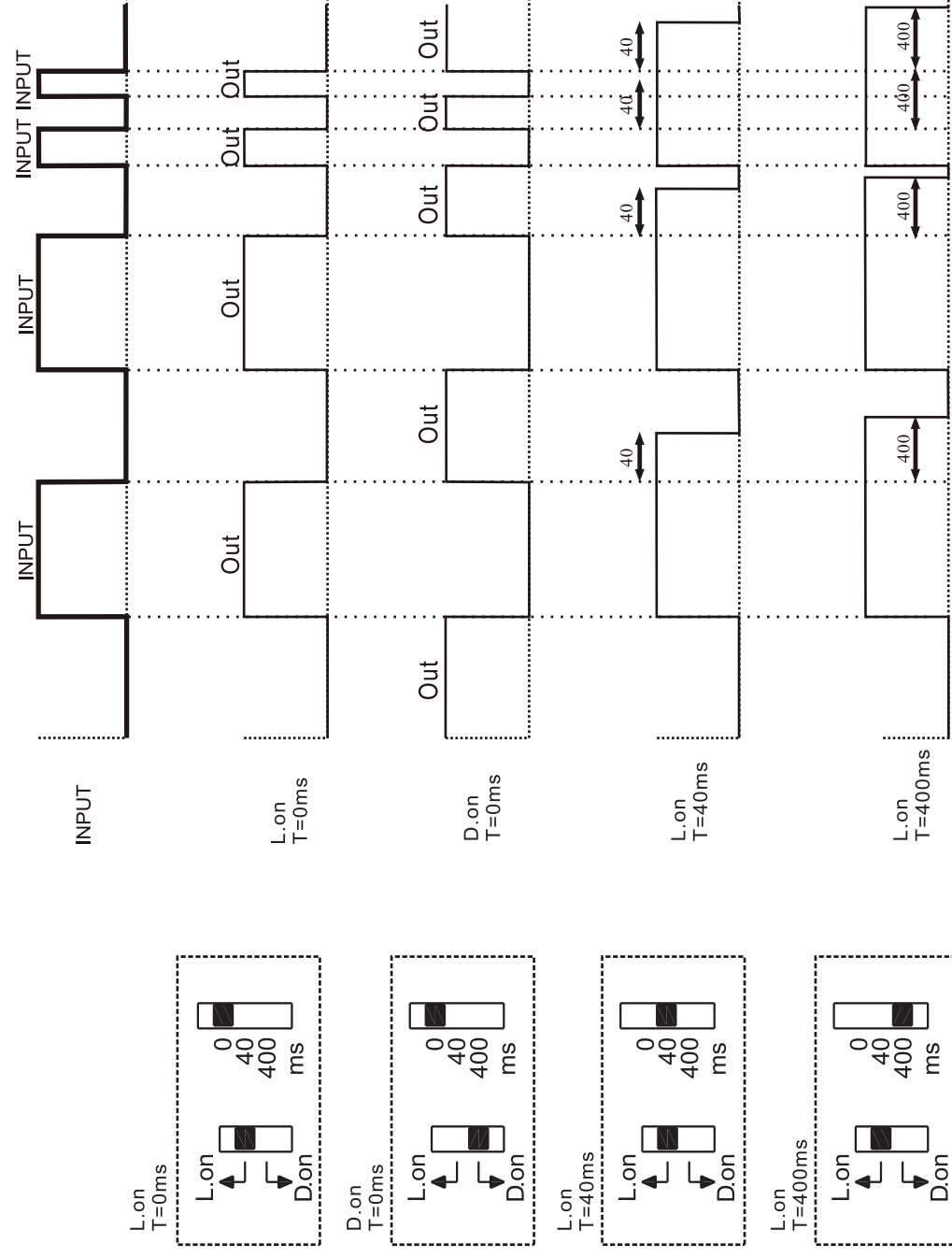
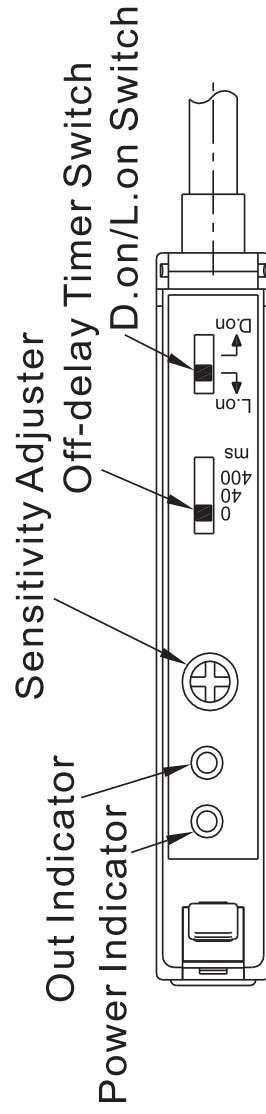
FZ1-N



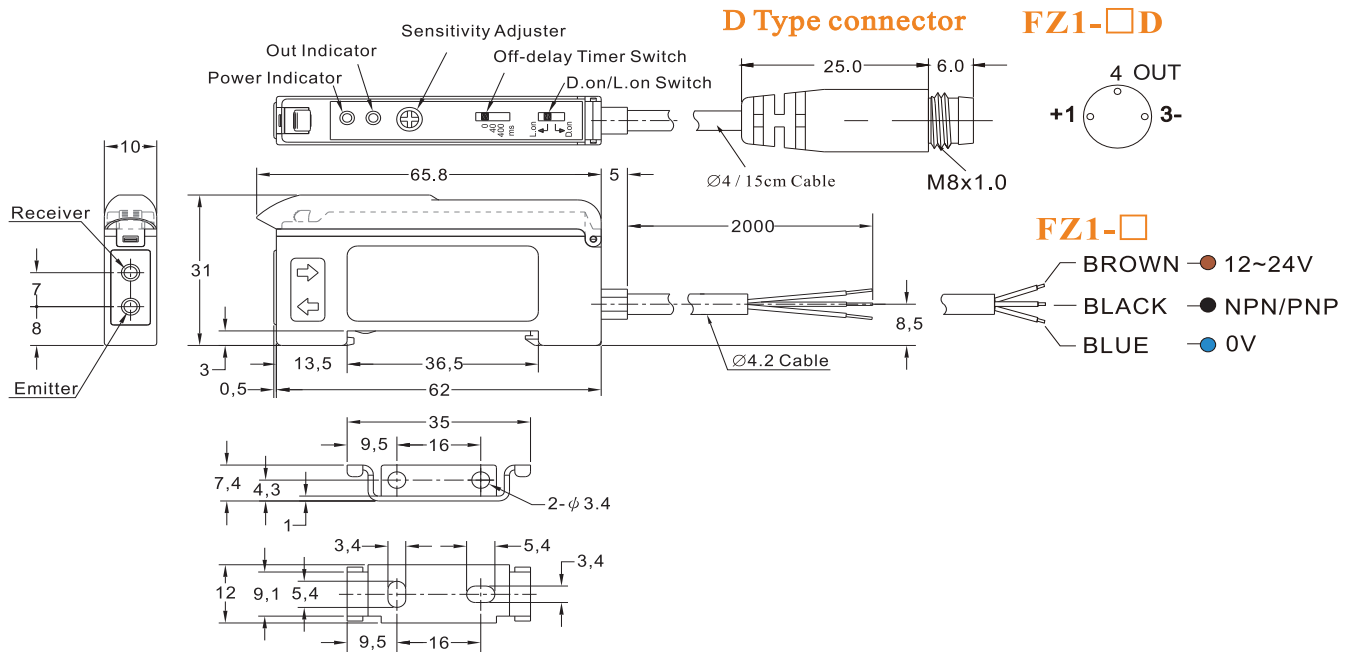
FZ1-P



## ◆Operation chart :



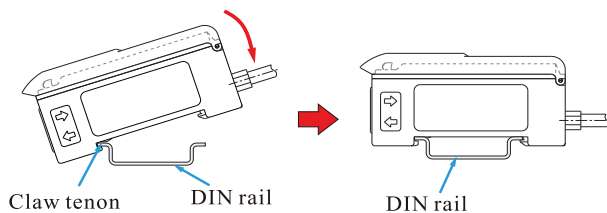
## ◆Dimensions/外型尺寸圖：



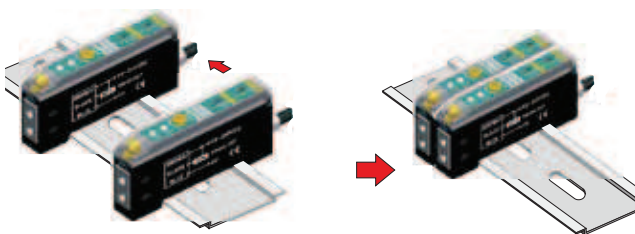
## ◆Fiber amplifier mounting/detaching operation :

### 1. Mounting / 安裝

(1)To mount each amplifier to the attached mounting bracket or DIN rail in sequence.



(2)To connect two amplifiers close together by sliding the amplifier bodies.



### 2. Detaching / 卸下

To detach the amplifiers in sequence by sliding the amplifier bodies. Don't detach two amplifiers at a time.

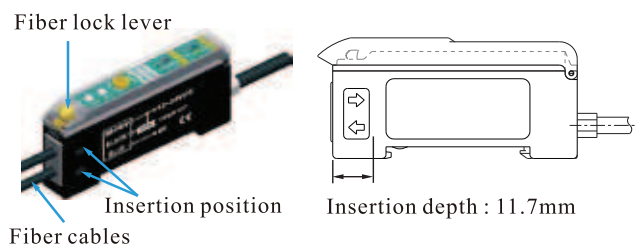


Be sure to switch off the power supply when mounting or detaching the amplifier.

## ◆Fiber cables fixing operation :

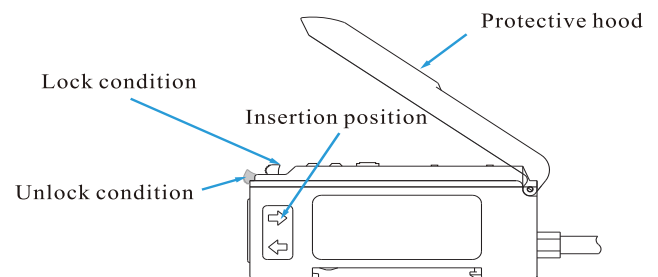
### 1. Insert the fiber cables / 插入光纖

Open the protective hood and tilt the fiber lock lever to release the lock condition. Referring to the side seal of insertion position, fully insert the fiber cables into the mounting holes until the limit. Pull the fiber lock lever back to lock the cables.



### 2. Pull out the fiber cables / 拔出光纖

Open the protective hood and tilt the fiber lock lever to release the lock condition. Pull the fiber cables straight out from the mounting holes.



To protect the fiber cables from incorrect operation, be sure to tilt the fiber lock lever to release the lock condition before pulling out the fiber cables.