

◆ Characteristics / 特點:

- 20-Turns Sensitivity Adjuster. The optimum sensitivity can be set easily.
多迴轉(20 TURNS)靈敏度調整。
- 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。
- Off-delay timer adjustable for 0ms, 40ms and 400ms.
可調整OFF TIMER感應時間(0ms,40ms,400ms)。



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.

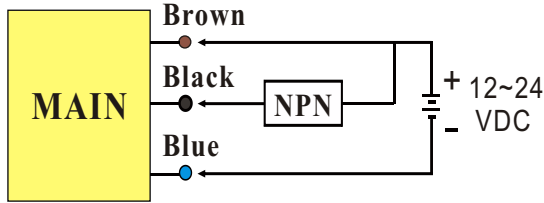


◆ Specifications / 規格表:

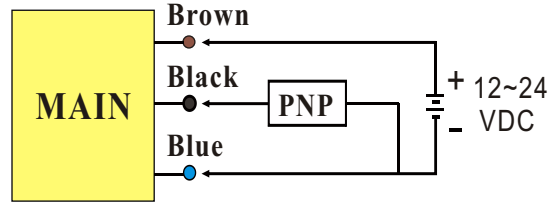
Model / 型號	FR-Z1-N	FR-Z1-P
	FR-Z1-ND	FR-Z1-PD
Sensing type/發光源	RED LED 680 nm	
Operating voltage/工作電壓	DC : 12~24VDC ± 10%	
Current Consumption/消耗電流	40mA max.	
Output Current/輸出電流	24VDC : 100mA max.	
Output Type / 輸出模式	NPN.NO / NC	PNP.NO / NC
Protection circuit / 保護電路	Reversed polarity protection, over-current protection	
Response time/反應時間	0.5 ms max.	
Indicators/指示燈	Output indicator : Red LED, Power indicator : Green LED	
Sensitivity adjustment/靈敏度功能	20 turns trimmer	
Insulation resistance/隔離阻抗	20M Ω min. 500VDC	
Voltage Withstandability/絕緣耐壓	500VAC for 1min.	
Operation temperature/工作溫度	10°C~+60°C	
Ambient humidity/工作濕度	35%~85% RH	
Protection degree/防水等級	IP64	
Material/外觀材質	ABS	
Wiring method / 出線方式	FR-Z1-□	Pre-wired Ø4.2 × 2 M / 3-cores
	FR-Z1-□D	M8 pigtailed type / M8 接頭15cm電線式
Weight / 重量	FR-Z1-□	Approx. 65 g
	FR-Z1-□D	Approx. 35 g

◆ Wiring diagrams:

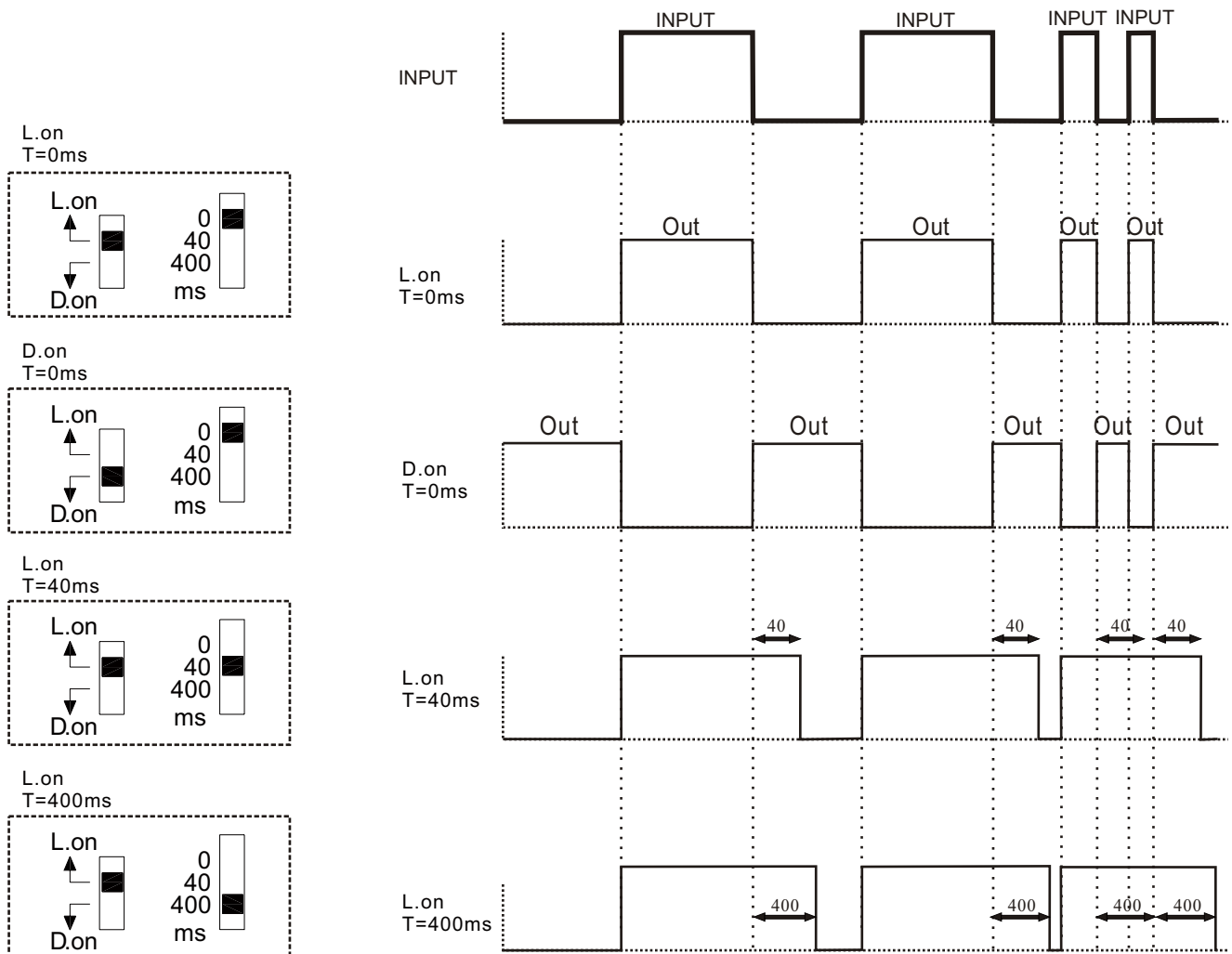
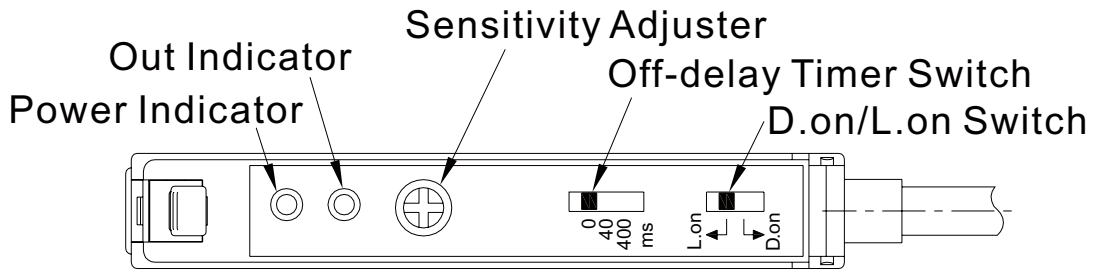
FR-Z1-N



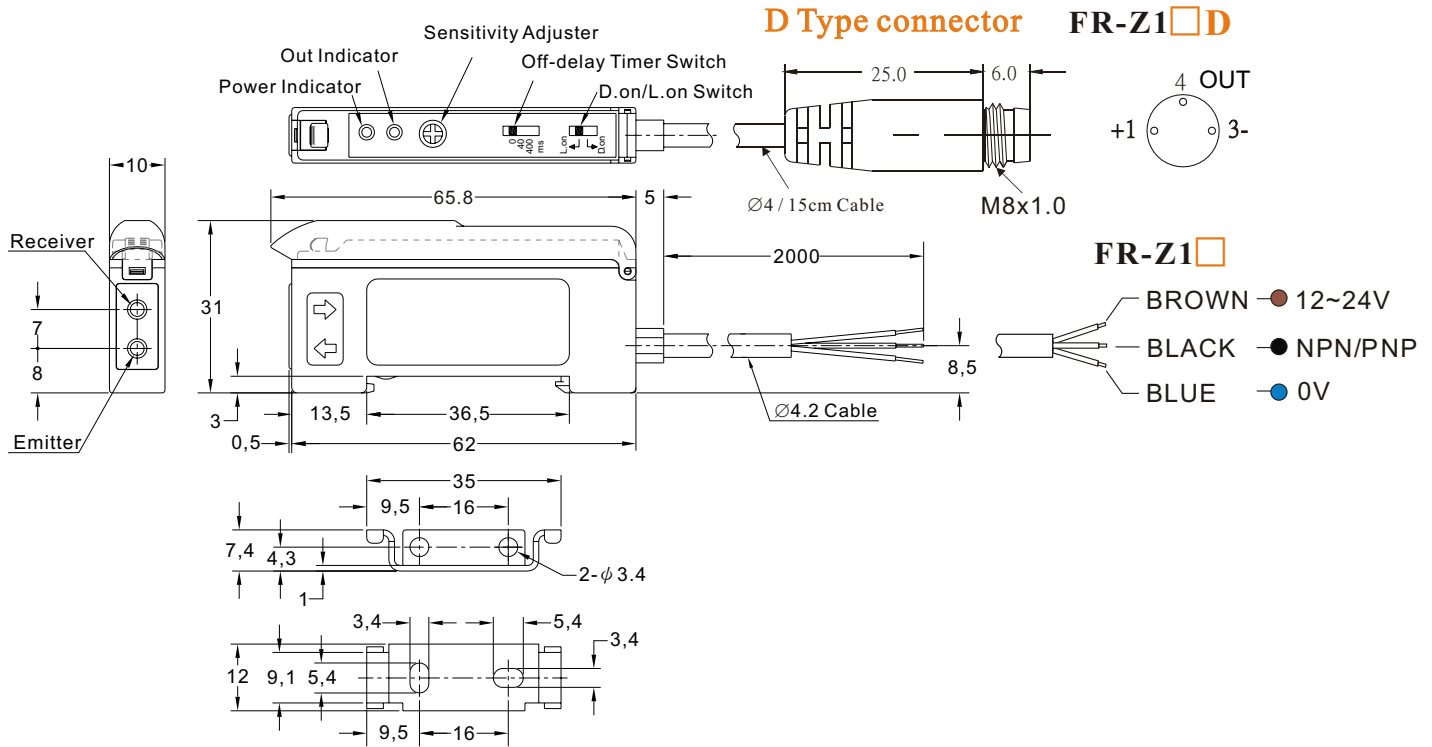
FR-Z1-P



◆ Operation chart:



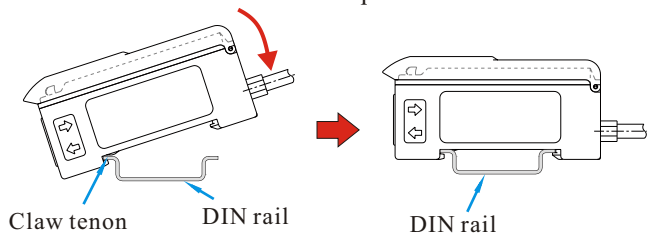
◆ Dimensions/外型尺寸圖:



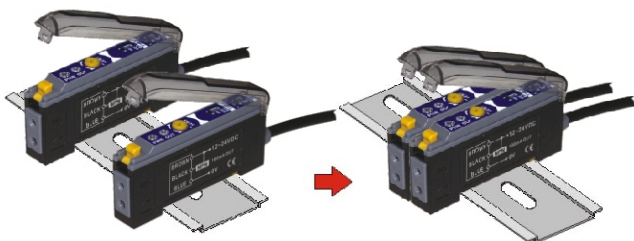
Fiber amplifier mounting/detaching operation:

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.

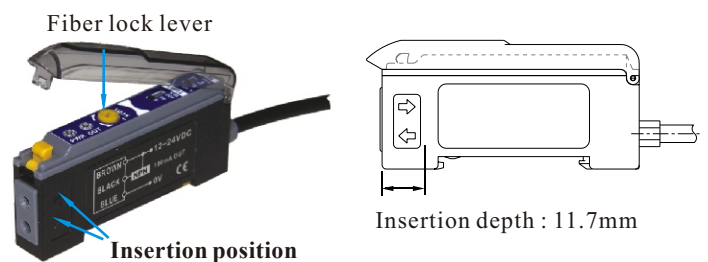


Be sure to switch off the power supply when mounting or detaching the amplifier.

Fiber cables fixing operation:

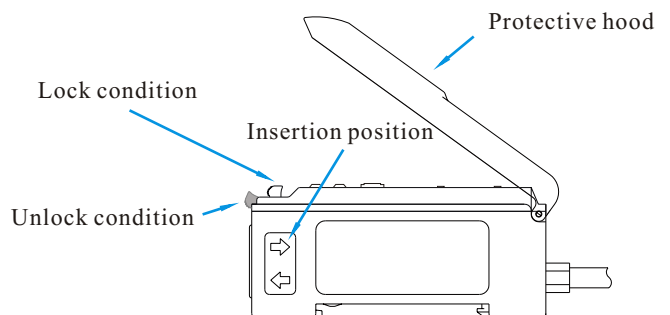
1. Insert the fiber cables / 插入光纖

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.