



### FS-N13CP

Fiber Amplifier, M8 Connector Type, Main Unit, PNP





\*Please note that accessories depicted in the image are for illustrative purposes only and may not be included with the product.

# **Specifications**

Model		FS-N13CP
Туре		High functionality 2 output M8 connector*1
Output		PNP
Main unit/expansion unit		Main unit
Control output		2 PNP open collector 24 V; 1 output max: 100 mA or less; 2 output total: 100 mA or less (used stand-alone)/20 mA or less (multiple connections); residual voltage 1 V or less
External input		-
Light source LED		Red, 4-element LED
APC		ON/OFF switchable (Factory setting: OFF)
Response time		$50~\mu s$ (HIGH SPEED) /250 $\mu s$ (FINE) /500 $\mu s$ (TURBO) /1 ms (SUPER) /4 ms (ULTRA) /16 ms (MEGA)
Number of interference prevention units		0 for HIGH SPEED; 4 for FINE; 8 for TURBO/SUPER/ULTRA/MEGA (When set to double, the number of interference-prevention units will be doubled.)
Unit expansion		Up to 16 units can be connected total (two output type is treated as two units)
Rating	Power voltage	12 to 24 VDC ±10 %, Ripple (P-P) 10 % or less
	Current Consumption	Normal: 1050 mW or less (42 mA max. at 24 V, 56 mA max. at 12 V)*2 Eco on mode: 950 mW or less (38 mA max. at 24 V, 47 mA max. at 12 V)*2 Eco Full mode: 600 mW or less (24 mA max. at 24 V, 29 mA max. at 12 V)
Environmental resistance	Ambient light	Incandescent lamp: 20,000 lux or less, Sunlight: 30,000 lux or less
	Ambient temperature	-20 to +55 °C -4 to +131 °F (No freezing)*3
	Relative humidity	35 to 85 % RH (No condensation)
	Vibration resistance	10 to 55 Hz, Double amplitude 1.5 mm 0.06", 2 hours in each of the X, Y, and Z directions
	Shock resistance	500 m/s², 3 times in each of the X, Y, and Z directions
Case material		Both main unit and expansion unit housing material: Polycarbonate
Weight		Approx. 22 g

 $<sup>^{\</sup>star 1}$  Use a cable length of 30 m 98.43' or less for M8 connector and e-CON connector types.

When using 2-outputs, one unit is counted as two units. All temperature regulations are for when the unit is mounted on a DIN rail and installed on metal sheeting.

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<sup>\*2</sup> Increases 100 mW (4.0 mA) for High Speed mode

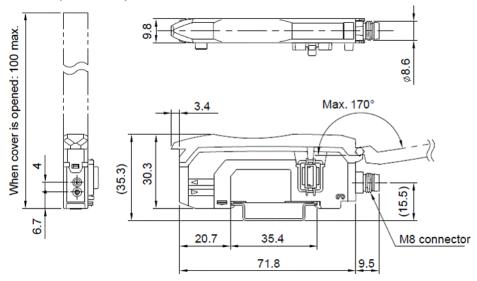
<sup>\*3</sup> One or two more units connected: -20 to +55 °C (-4 to +131 °F); 3 to 10 more units connected: -20 to +50 °C (-4 to +122 °F); 11 to 16 more units connected: -20 to +45 °C (-4 to +113 °F).



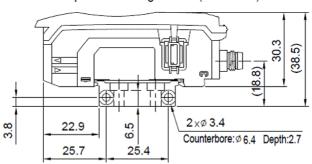
### **Dimensions**

\* Download CAD file or product manual for larger image/text and more detail.

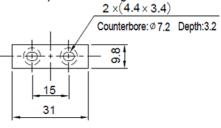
#### FS-N11CN / N11CP / N13CP



When amplifier mounting bracket (OP-73880) is used



Bottom surface of amplifier mounting bracket



<sup>\* 1</sup> FS-N11CN(P)/N13CP/ is not provided with an expansion connector.



## I/O Circuit Connection diagram

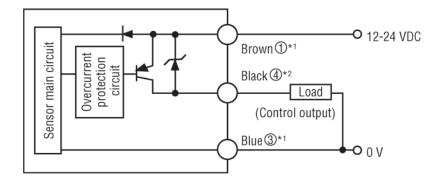
\* Download CAD file or product manual for larger image/text and more detail.

### **Output Circuit Diagram**



- \*1 FS-N11N/N11MN/N13N only
- \*2 FS-N11MN only
- \*3 The FS-N13N/N14N has a white cable as separate output 2.

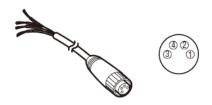
### **Output Circuit Diagram**



- \*1 FS-N11P/N13P/N13CP only
- \*2 The FS-N13P/N14P has a white cable as separate output The FS-N13CP/N14CP has pin 2 as separate output 2.



### Output Circuit Diagram



\*1 FS-N11P/N13P/N13CP only
\*2 The FS-N13P/N14P has a white cable
as separate output The FS-N13CP/
N14CP has pin 2 as separate output
2.