



## FS-N11P

Fiber Amplifier, Cable Type, Main Unit, PNP



## Specifications

Model	FS-N11P	
Type	Standard 1 output Cable	
Output	PNP	
Main unit/expansion unit	Main unit	
Control output	1 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 $\pm$ 10 %, Ripple (P-P) 10 % or less
	Current Consumption	Normal: 950 mW or less (39 mA max. at 24 V, 52 mA max. at 12 V)*1 Eco on mode: 850 mW or less (35 mA max. at 24 V, 44 mA max. at 12 V)*1 Eco Full mode: 520 mW or less (21 mA max. at 24 V, 26 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 <b>-4 to +131 °F</b> (No freezing)*2
	Relative humidity	35 to 85 % RH (No condensation)
	Vibration resistance	10 to 55 Hz, Double amplitude 1.5 mm <b>0.06"</b> , 2 hours in each of the X, Y, and Z directions
	Shock resistance	500 m/s <sup>2</sup> , 3 times in each of the X, Y, and Z directions
Case material	Both main unit and expansion unit housing material: Polycarbonate	
Weight	Approx. 75 g	

\*1 Increases 100 mW (4.0 mA) for High Speed mode

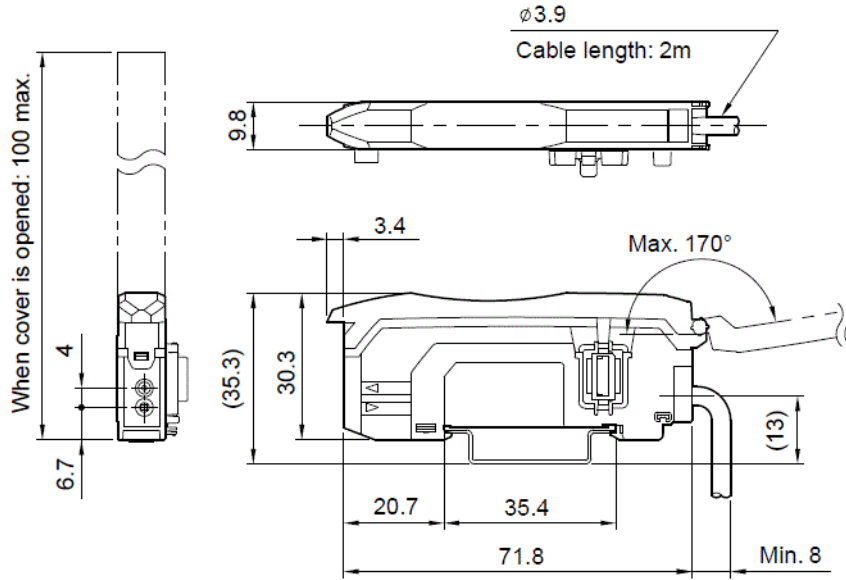
\*2 One or two more units connected: -20 to +55 °C **(-4 to +131 °F)**; 3 to 10 more units connected: -20 to +50 °C **(-4 to +122 °F)**; 11 to 16 more units connected: -20 to +45 °C **(-4 to +113 °F)**.

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.

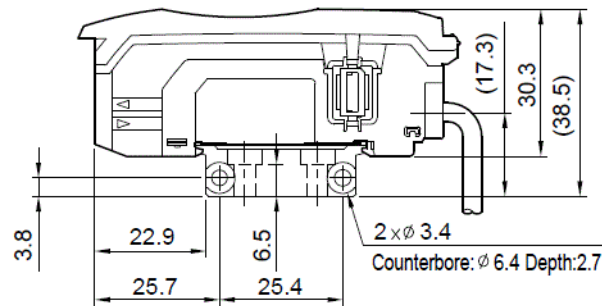
# Dimensions

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

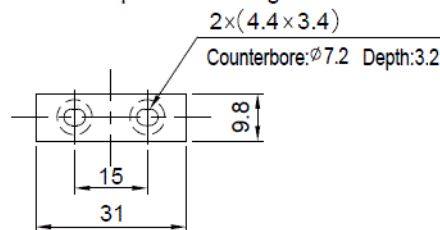
## FS-N11N / N11P / N13N / N13P / N11MN



When amplifier mounting bracket (OP-73880) is used



Bottom surface of amplifier mounting bracket



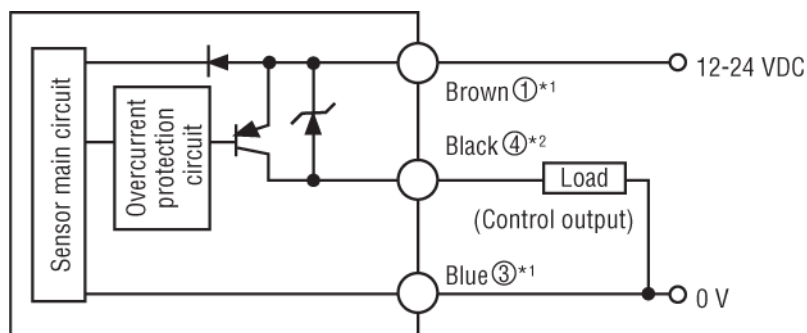
\* 1 FS-N11N(P)/N13N(P)/N11MN is not provided with an expansion connector.

\* 2 FS-N10 is not provided with cables.

## I/O Circuit Connection diagram

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

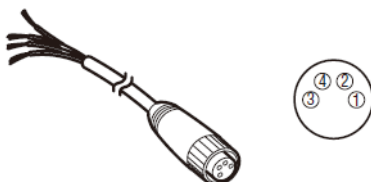
### Output Circuit Diagram



\*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.