

FS-N13N

Fiber Amplifier, Cable Type, Main Unit, NPN

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

Specifications

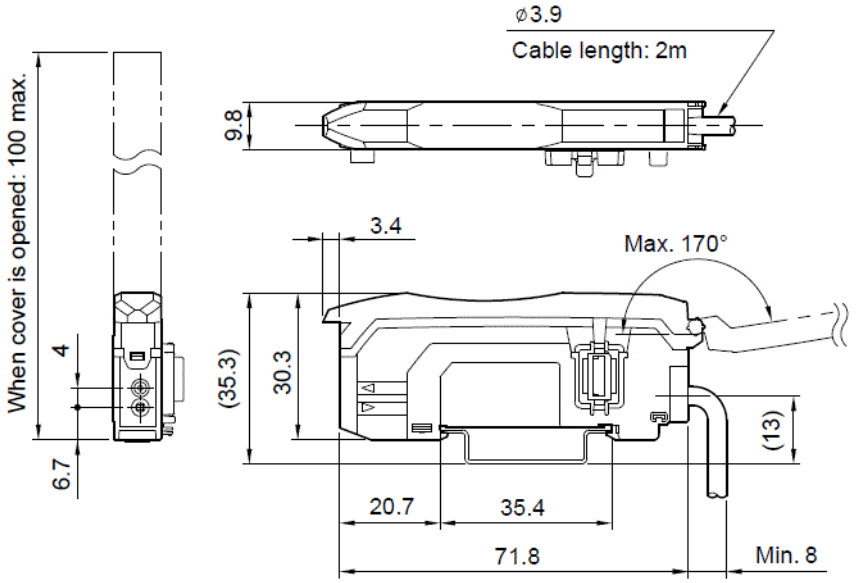
Model		FS-N13N
Type		High functionality 2 output Cable
Output		NPN
Main unit/expansion unit		Main unit
Control output		2 NPN open collector 24 V; 1 output max: 100 mA or less; 2 output total: 100 mA or less (used stand-alone)/20 mA or less (multiple connections); residual voltage 1 V or less
Monitor output (1-5 V)		-
External input		1 Input time 2 ms (ON)/20 ms (OFF) or more (25 ms or more (ON/OFF) when external calibration is selected.)
Light source LED		Red, 4-element LED
APC		ON/OFF switchable (Factory setting: OFF)
Response time		50 µs (HIGH SPEED) /250 µs (FINE) /500 µs (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: 900 mW or less (36 mA max. at 24 V, 48 mA max. at 12 V)*1 Eco on mode: 800 mW or less (32 mA max. at 24 V, 39 mA max. at 12 V)*1 Eco Full mode: 470 mW or less (19 mA max. at 24 V, 23 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)*2
	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. 80 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.

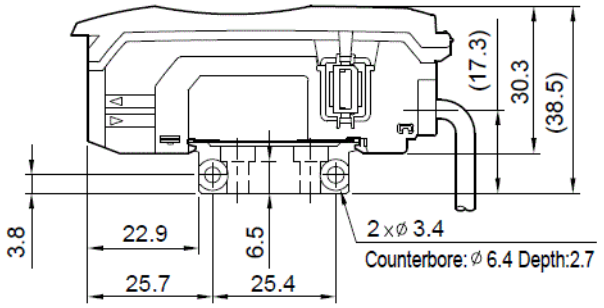
Dimensions

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

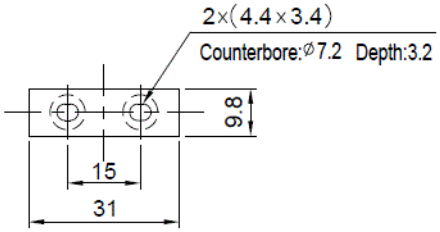
FS-N11N / N11P / N13N / N13P / N11MN



When amplifier mounting bracket (OP-73880) is used



Bottom surface of amplifier mounting bracket

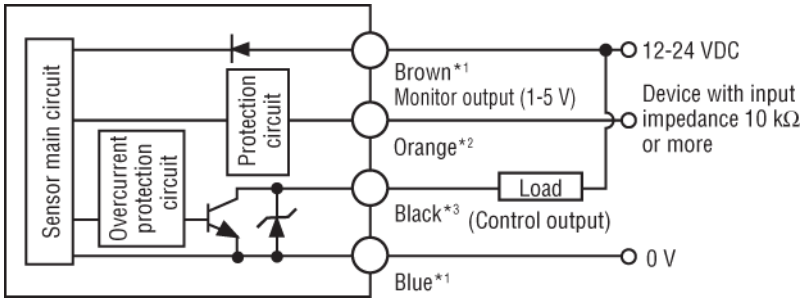


* 1 FS-N11N(P)/N13N(P)/N11MN is not provided with an expansion connector.
* 2 FS-N10 is not provided with cables.

I/O Circuit Connection diagram

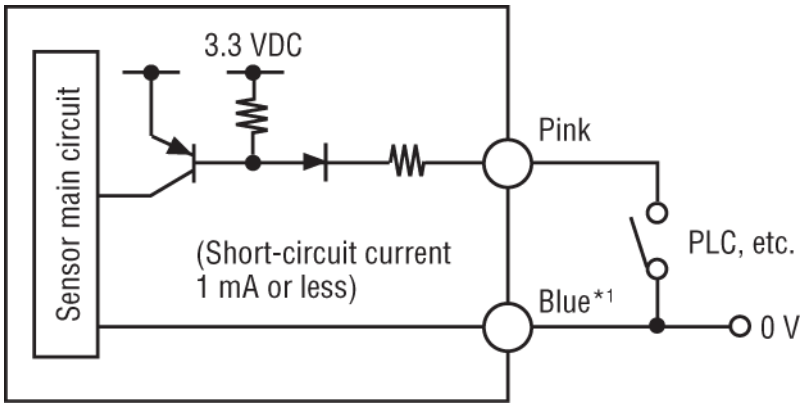
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Output Circuit Diagram



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

Input Circuit Diagram (FS-N13N/N14N only)



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