



## FS-N41P

Amplifier Units Cable 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-N41P	
Type	Cable	
Output	PNP	
Main unit/expansion unit	Main unit	
Response time	23 $\mu$ s (S-HSPD*1) / 50 $\mu$ s (HSPD*2) / 250 $\mu$ s (FINE) / 500 $\mu$ s (TURBO) / 1 ms (SUPER) / 4 ms (ULTRA) / 16 ms (MEGA) / 64 ms (TERA)	
Number of control outputs	1	
Number of external inputs	—	
Light source LED	Transmitter side: Red, four-element LED (wavelength: 660 nm)	
Control output	Open-collector, 30 V or less 100 mA or less per output, 100 mA or less total for 2 outputs (when used as a solitary unit) / 20 mA or less (when used as an expansion unit) Residual voltage: 1.6 V or less (output current: 10 mA or less) / 2.2 V or less (output current: 10 to 100 mA)	
External input	Input time: 2 ms (ON) / 20 ms (OFF) or longer*3	
Unit expansion	Up to 16 units (17 units connected in total including the main unit) . However, each dual output type will be treated as two expansion units.	
Protection circuit	Protection against reverse power connection, output overcurrent, output surge, and reverse output connection	
Mutual interference prevention	S-HSPD/HSPD: 0 units, FINE: 4 units, TURBO/SUPER/ULTRA/MEGA/TERA: 8 units (The mutual interference prevention values are twice those shown here when Double is set.)	
Power supply	Power voltage	10 to 30 VDC (including 10 % ripple (P-P) or less) , class 2 or LPS*4
	Power consumption	During normal operation: 910 mW or less (36 mA or less at 24 V/65 mA or less at 12 V) ECO ON: 840 mW or less (33 mA or less at 24 V/60 mA or less at 12 V) ECO FULL: 750 mW or less (30 mA or less at 24 V/52 mA or less at 12 V)*5
Environmental resistance	Ambient light	Incandescent lamp: 20,000 lx or less, sunlight: 30,000 lx or less
	Ambient temperature	-20 °C -4 °F to +55 °C +131 °F (no freezing)*6
	Vibration resistance	10 to 55 Hz; double amplitude 1.5 mm 0.06"; 2 hours each for X, Y, and Z axes
	Shock resistance	500 m/s <sup>2</sup> ; 3 times each for X, Y, and Z axes
Case material	Main unit and cover: polycarbonate	
Weight	Approx. 78 g	

\*1 Restrictions when S-HSPD is selected

Area detection, Area % Mode, DATUM, Rising edge, and Falling edge cannot be selected for Detection Mode.

Output timer, Limit Detection, and Display Gain cannot be used.

FULL cannot be selected for the ECO function.

\*2 Restrictions when HSPD is selected

Display Gain cannot be used.

\*3 The input time becomes 25 ms (ON)/25 ms (OFF) when external calibration input is selected.

\*4 When expanding the system to 9 or more units, use a power supply voltage of 12 V or higher.

\*5 The load current is excluded. The power consumption including the load when the maximum number of units are connected is 38 W max.

\*6 When expanded by 1 to 2 units: -20°C -4°F to +55°C +131°F. When expanded by 3 to 10 units: -20°C -4°F to +50°C +122°F.

When expanded by 11 to 16 units: -20°C -4°F to +45°C +113°F. When using 2 outputs, 1 unit is counted as 2 units.

The prescribed values for the ambient temperature assume that the sensor amplifier has been mounted on a DIN rail installed on a metal surface. Exercise special care when installing the product in an airtight space.

## Dimensions

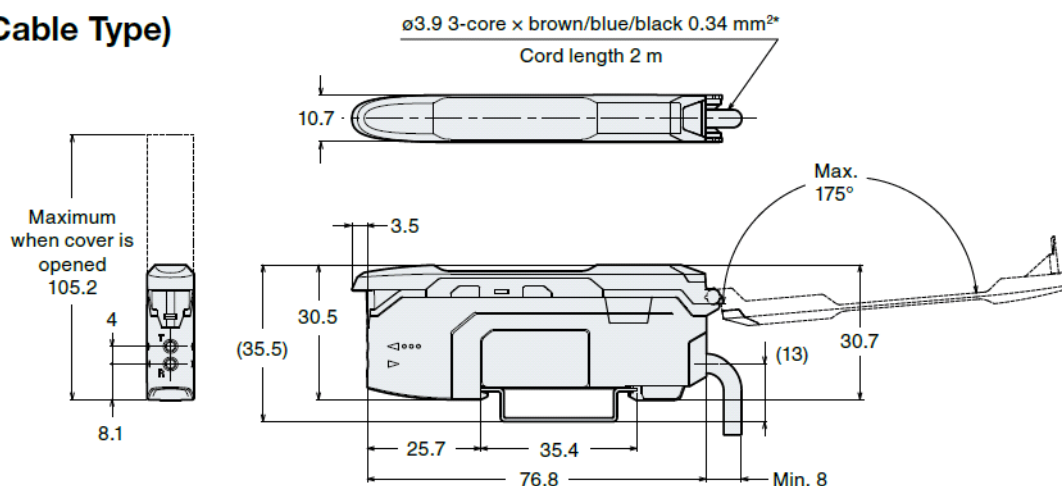
\* Download CAD file or product manual for larger image/text and more detail.

fs-n41\_n43\_dimension\_01.gif

### FS-N41N/N41P/N43N/N43P

#### Main Unit

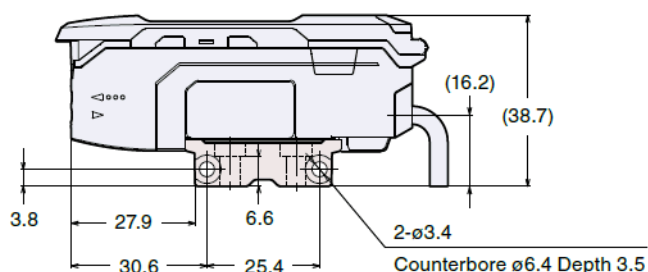
#### (Cable Type)



\* FS-N43N/N43P is 3.9, 5-core x brown/blue 0.34 mm², black/white/pink 0.18 mm²

### Amplifier Securing Bracket (OP-88245 Option, Sold Separately)

#### Cable Type



#### Back of securing bracket

