

# FS-N44P

Amplifier Units Cable type Expansion 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-N44P |
| Type | | Cable |
| Output | | PNP |
| Main unit/expansion unit | | Expansion unit |
| Response time | | 23 µs (S-HSPD*1*2) /50 µs (HSPD*3) /250 µs (FINE) /500 µs (TURBO) /1 ms (SUPER) /4 ms (ULTRA) /16 ms (MEGA) /64 ms (TERA) |
| Number of control outputs | | 2 |
| Number of external inputs | | 1 |
| 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,<br>100 mA or less total for 2 outputs (when used as a solitary unit) /20 mA or less (when used as an expansion unit)<br>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*4 |
| 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*5 |
| | Power consumption | During normal operation: 990 mW or less (39 mA or less at 24 V/72 mA or less at 12 V)<br>ECO ON: 920 mW or less (36 mA or less at 24 V/66 mA or less at 12 V)<br>ECO FULL: 830 mW or less (33 mA or less at 24 V / 59 mA or less at 12 V)*6 |
| 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)*7 |
| | 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/s²; 3 times each for X, Y, and Z axes |
| Case material | | Main unit and cover: polycarbonate |
| Weight | | Approx. 73 g |

*1 Restrictions when S-HSPD is selected: Output 2 of dual output types is fixed to OFF.
*2 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.
*3 Restrictions when HSPD is selected
Display Gain cannot be used.
*4 The input time becomes 25 ms (ON)/25 ms (OFF) when external calibration input is selected.

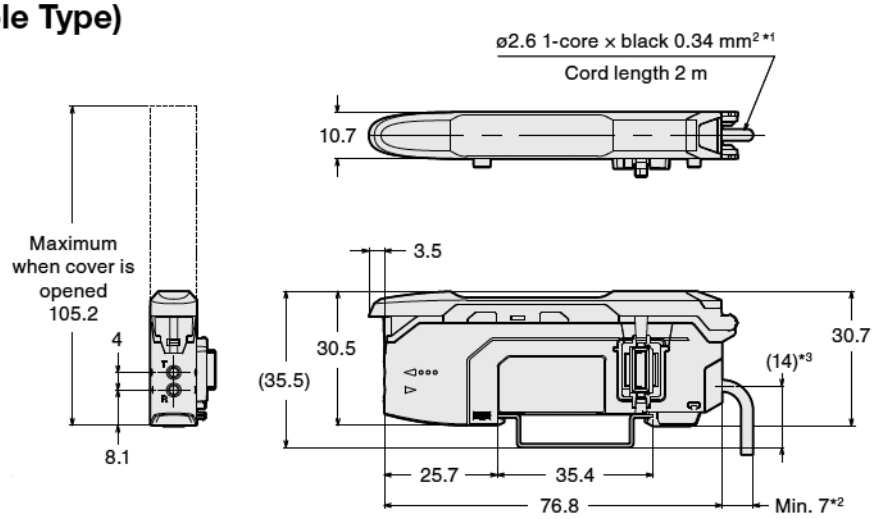
*5 When expanding the system to 9 or more units, use a power supply voltage of 12 V or higher.
*6 The load current is excluded. The power consumption including the load when the maximum number of units are connected is 38 W max.
*7 When expanded by 1 to 2 units: -20°C -4°F to +55°C +131°F. When expanded 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 amplifi er 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-n42_n44_dimension_01.gif

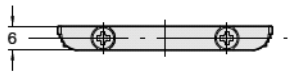
## FS-N42N/N42P/N44N/N44P
## Expansion Unit
## (Cable Type)



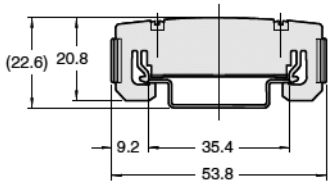

*1. FS-N44N/N44P is ø3.9, 3-core × black/white/pink 0.18 mm²
*2. Minimum 8 for FS-N44N/N44P
*3. (13) for FS-N44N/N44P

### ▮Common to All Models

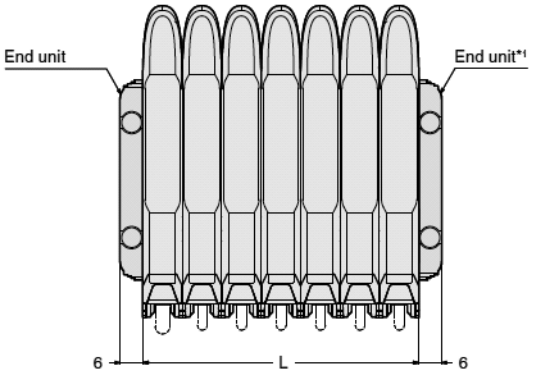
**End Unit**
**(OP-26751 Option, Sold Separately)**




**When Mounted on a DIN Rail**




**When Several Units are Connected**




*1. When using expansion units, be sure to use the end unit. (Optional)