



## FS-N40

Expansion Unit (Zero Line Type)



## Specifications

Model	FS-N40	
Type	Zero Line Type	
Main unit/expansion unit	Expansion unit	
Response time	23 $\mu$ s (S-HSPD <sup>*1</sup> ) /50 $\mu$ s (HSPD <sup>*2</sup> ) /250 $\mu$ s (FINE) /500 $\mu$ s (TURBO) /1 ms (SUPER) /4 ms (ULTRA) /16 ms (MEGA) /64 ms (TERA)	
Number of control outputs	None <sup>*3</sup>	
Light source LED	Transmitter side: Red, four-element LED (wavelength: 660 nm)	
External input	Input time: 2 ms (ON) /20 ms (OFF) or longer <sup>*4</sup>	
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 <sup>*5</sup>
	Power consumption	During normal operation: 870 mW or less (34 mA or less at 24 V/62 mA or less at 12 V) ECO ON: 800 mW or less (31 mA or less at 24 V/56 mA or less at 12 V) ECO FULL: 710 mW or less (28 mA or less at 24 V/49 mA or less at 12 V) <sup>*6</sup>
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) <sup>*7</sup>
	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. 23 g	

<sup>\*1</sup> 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.

<sup>\*2</sup> Restrictions when HSPD is selected  
Display Gain cannot be used.

<sup>\*3</sup> This counts as 1 output when connecting multiple units to the FS-MC8N/P, NU Series.

<sup>\*4</sup> The input time becomes 25 ms (ON)/25 ms (OFF) when external calibration input is selected.

<sup>\*5</sup> When expanding the system to 9 or more units, use a power supply voltage of 12 V or higher.

<sup>\*6</sup> The load current is excluded. The power consumption including the load when the maximum number of units are connected is 38 W max.

<sup>\*7</sup> 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-n40\_dimension\_01.gif

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