



## LV-N11MN

Amplifier, Cable, Main unit, NPN



## SPECIFICATIONS

Model	LV-N11MN	
Type	Monitor output	
Output	NPN	
Cable/connector	Cable	
Main/Expansion unit	Main unit	
I/O	Control outputs	1 output
	External input	1 input
	Monitor output	1 output
Response time	80 $\mu$ s (HIGH SPEED)/250 $\mu$ s (FINE)/500 $\mu$ s (TURBO)/1 ms (SUPER)/4 ms (ULTRA)/16 ms (MEGA) <sup>*1</sup>	
Output selection	LIGHT-ON/DARK-ON (switch-selectable)	
Timer function	Timer OFF/OFF-delay timer/ON-delay timer/One-shot timer, Timer duration selectable: 1 ms to 9,999 ms, Maximum error against the setting value: $\pm$ 10% max.	
Control outputs	NPN open collector 30 V, Residual voltage 1 V or less (Output current: 10 mA or less) / 2 V or less (Output current: 10 to 100 mA) (Stand-alone) 1 output max: 100 mA or less, 2 output total: 100 mA or less (Multiple connections) 1 output max: 20 mA or less	
Monitor output	1 to 5 V voltage output; load resistance 10 k $\Omega$ or more; repeat precision $\pm$ 0.5% of F.S.; response time: 1 ms (HIGH SPEED, FINE, TURBO), 1.2 ms (SUPER), 1.8 ms (ULTRA), 4.2 ms (MEGA)	
External input	Input time 2 ms (ON)/20 ms (OFF) or more <sup>*2</sup>	
Multiple connections to expansion units	Up to 17 units can be connected in total (two-output type is treated as two units)	
Protection circuit	Reverse polarity protection, Over-current protection, Surge absorber	
Number of interference prevention units	Connected to other than LV-S31: 0 for HIGH SPEED; 2 for FINE/TURBO/SUPER; 4 for ULTRA/MEGA, Connected to LV-S31: 2 for FINE; 4 for TURBO/SUPER/ULTRA/MEGA <sup>*3</sup>	
Case size	H 32.6 mm $\times$ W 9.8 mm $\times$ L 78.7 mm	
Rating	Power voltage	24 VDC (operating voltage 10 to 30 VDC (with ripple)), Ripple (P-P) 10 % or less, Class 2 or LPS
	Power consumption	Normal: 830 mW or less (at 30 V, 30 mA at 24 V, 56 mA or less at 12 V) <sup>*4</sup> Eco on mode: 710 mW or less (at 30 V, 26 mA at 24 V, 48 mA or less at 12 V) <sup>*4</sup> Eco Full mode: 550 mW or less (at 30 V, 21 mA at 24 V, 40 mA or less at 12 V) <sup>*5</sup>
Environmental resistance	Ambient temperature	-20 to +55 $^{\circ}$ C (No freezing) <sup>*6</sup>
	Relative humidity	35 to 85 % RH (No condensation)
	Vibration resistance	10 to 55 Hz, Double amplitude 1.5 mm, 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
Material	Cable	PVC
	Case	Main unit and cover material: Polycarbonate
Weight	Approx. 75 g	

<sup>\*1</sup> 80  $\mu$ s cannot be selected when the LV-S31/S62/S63 is connected

<sup>\*2</sup> Input time is 25 ms (ON)/25 ms (OFF) when external calibration time is selected.

<sup>\*3</sup> These numbers double when "DOUBLE" is selected.

<sup>\*4</sup> Increases 30 mW (1 mA) for High Speed mode.

<sup>\*5</sup> It increases by 15% when connected to the LV-NH100/NH110/NH300. It does not include the power consumption of the load.

Power consumption when expansion units are connected is the total power consumption of each amplifier unit. Example: When one main unit (LV-N11N) is connected to 2 expansion units (LV-N12N) and they are

used with LV-NH100 heads in HIGH SPEED mode.

(1.15  $\times$  860 mW  $\times$  1) + (1.15  $\times$  860 mW  $\times$  2) = 2967 mW max.

<sup>\*6</sup> If more than one unit is used together, the ambient temperature varies with the conditions below. Mount the units on the DIN rail with mounting brackets and check that the output current is 20 mA or less for a unit.

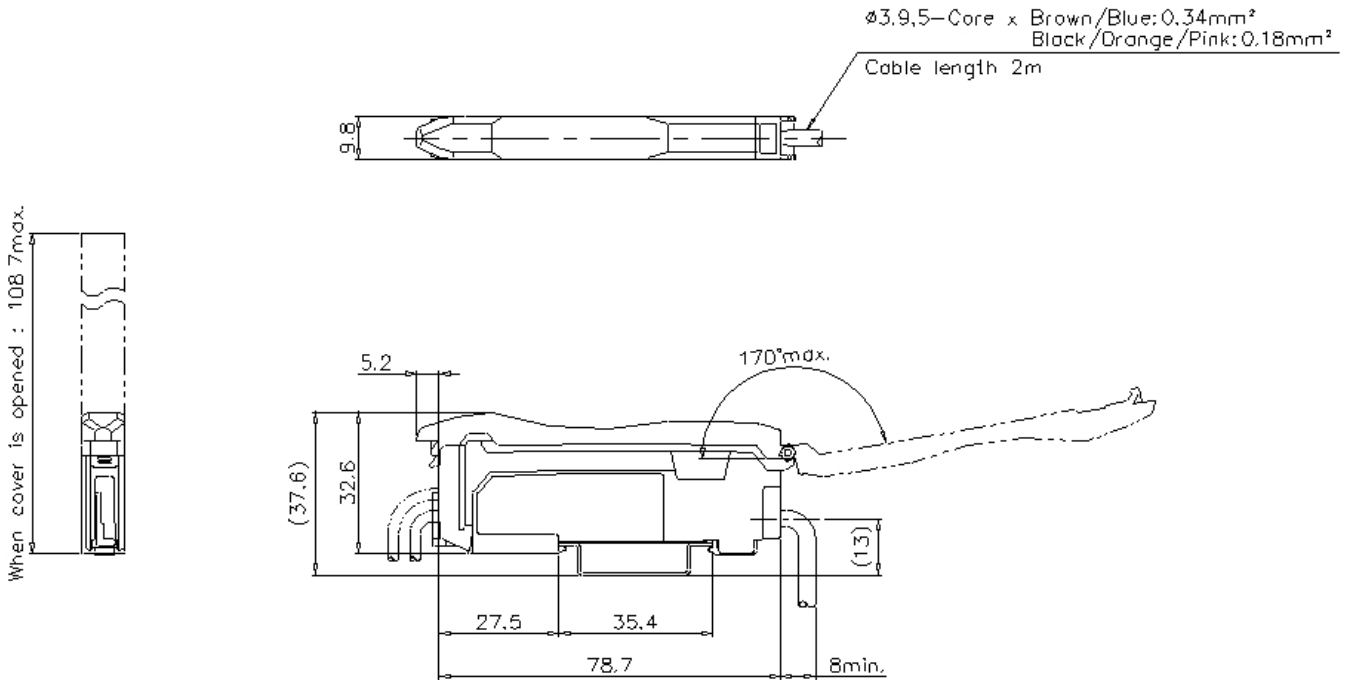
One or two more units connected: -20  $^{\circ}$ C to +55  $^{\circ}$ C ; 3 to 10 more units connected: -20  $^{\circ}$ C to +50  $^{\circ}$ C; 11 to 16 more units connected: -20  $^{\circ}$ C to +45  $^{\circ}$ C. When using 2-outputs, one unit is counted as two units.

NOTE	UL Listing(c/us)	Contact us regarding a sensor head under UL Certification.
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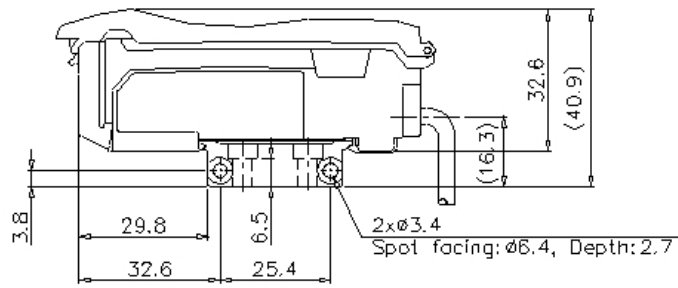
Dimensions

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

LV-N11MN



When mounting bracket is attached  
 OP-73880 (Option)



Back side of bracket

