

LV-N10

Amplifier, Zero-line, Expansion unit

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

Specifications

Model		LV-N10
Type		Zero line
Cable/connector		-
Main/Expansion unit		Expansion unit
I/O	Control outputs	None
	External input	
	Monitor output	
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: ±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
Response time		80 µs (HIGH SPEED)/250 µs (FINE)/500 µs (TURBO)/1 ms (SUPER)/4 ms (ULTRA)/16 ms (MEGA) *1
Monitor output		-
External input		Input time 2 ms (ON)/20 ms (OFF) or more*2
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*3
Case size		H 32.6 mm 1.28" × W 9.8 mm 0.39" × L 78.7 mm 3.1"
Unit expansion		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
Rating	Power voltage	24 VDC (operating voltage 10 to 30 VDC (with ripple)), Ripple (P-P) 10 % or less, Class 2 or LPS*4*5
	Power consumption	Normal: 830 mW or less (at 30 V. 30 mA at 24 V, 56 mA or less at 12 V)*6 Eco on mode: 710 mW or less (at 30 V. 26 mA at 24 V, 48 mA or less at 12 V)*6 Eco Full mode: 550 mW or less (at 30 V. 21 mA at 24 V, 40 mA or less at 12 V) *7
Environmental resistance	Ambient temperature	-20 to +55 °C -4 to 131 °F (No freezing)*8
	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
Material	Cable	PVC
	Case	Main unit and cover material: Polycarbonate
Weight		Approx. 20 g

*1 80 µs cannot be selected when the LV-S31/S62/S63 is connected
*2 Input time is 25 ms (ON)/25 ms (OFF) when external calibration time is selected.
*3 These numbers double when "DOUBLE" is selected.
*4 Use with the over current protection device which is rated 30 V or more and not more than 1 A.
*5 To connect more than 9 units, the power voltage must be 20 V or more.
*6 Increases 30 mW (1 mA) for HIGH SPEED mode.
*7 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 × 860 mW × 1) + (1.15 × 860 mW × 2) = 2967 mW max.
*8 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 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.

Dimensions

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

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