

LIGHTWEIGHT PRECISION  
CURRENT SHUNT RESISTORS

NSLA10, NSLA20, NSLA30  
NSLA50, NSLA75, NSLA80  
NSLA85, NSLA100, NSLA150



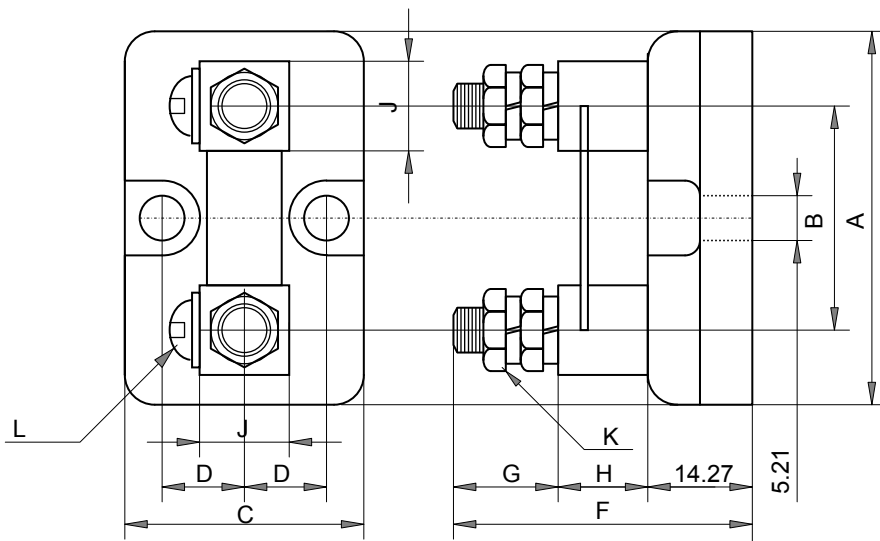
### Features and Applications

Lightweight large current shunt resistors for ampere-meters, designed for power electric equipment.  
Excellent long-term stability, low emf and low TCR.

Easy current measurement is performed by attaching to current bus or wires and connecting to ampere-meter through flexible wires.

All of shunts are calibrated on equipment with current certifications traceable to US-N.I.S.T  
For high precision power supply, power converters, and current measurement instruments.

### Dimension (mm)



mm	NSLA10 -50	NSLA15 -50	NSLA20 -50	NSLA30 -50	NSLA50 -50	NSLA75 -50	NSLA80 -50	NSLA85 -50	NSLA100 -50	NSLA150 -50	
A						50.80 mm					
B						25.40 mm					
C						31.75 mm					
D						11.10 mm					
F						42.88 mm					
G						15.88 mm					
H						12.70 mm					
J						13.0mm x 13.0mm					
K (inch)						1/4-28 (6.0mm)					
L (inch)						0.36L-10-32 scr. (4.0mm-9mm)					

Tolerances +/-0.015 inch (+/-0.38 mm) for hole diameter, Other tolerances +/-0.030 inch (+/- 0.076 mm) unless otherwise noted.

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### Ordering Information

Style	Rating Current in A	Voltage in mV	Tolerance	Code
NSLA	10	-50mV	C	Z00
NSLA	15	-50mV	C(+/-0.25%)	Z00
	20		(1)	
	30			
	50			
	75			
	80			
	85			
	100			
	150			

- (1) Accuracy will be assure B (+/-0.1%) in option.
- (2) Recommended operation current shall be 2/3 of their rated current.

### Specification and Performance

	NSLA10	NSLA15	NSLA20	NSLA30	NSLA50	NSLA75	NSLA80	NSLA85	NSLA100	NSLA150
Rated Current (A)	10	15	20	30	50	75	80	85	100	150
Operating Current (A)	6.67	10.00	13.33	20.00	33.33	50.00	53.33	56.67	66.67	100.00
Net Weight (g)	90	90	90	90	90	90	90	90	90	90
Rated Output (mV)	50, 60									
Resistance (milliohms)	Resistance is based on the amperage and mV rating, nominal resistance is calculated using Ohms law.									
Voltage Tolerance (%)	+/-0.25%(C)									
Operating Temp.	+30 to +70 deg C measured at center of manganin strips									
Storage Temp.	-55 to +80 deg C									

The way to reduce the operating temperature, such as forced air, increasing physical size, adding heat sink to the blocks, designing for water cooling, and etc.

	50mV
NSLA10-50	5.00000 milliohm
NSLA15-50	3.33333 milliohm
NSLA20-50	2.50000 milliohm
NSLA30-50	1.66667 milliohm
NSLA50-50	1.00000 milliohm
NSLA75-50	0.66667 milliohm
NSLA80-50	0.62500 milliohm
NSLA85-50	0.58824 milliohm
NSLA100-50	0.50000 milliohm
NSLA150-50	0.33333 milliohm

Equivalent resistance (milliohm) calculated from the I-V characteristic. 60mV current shunts are available.

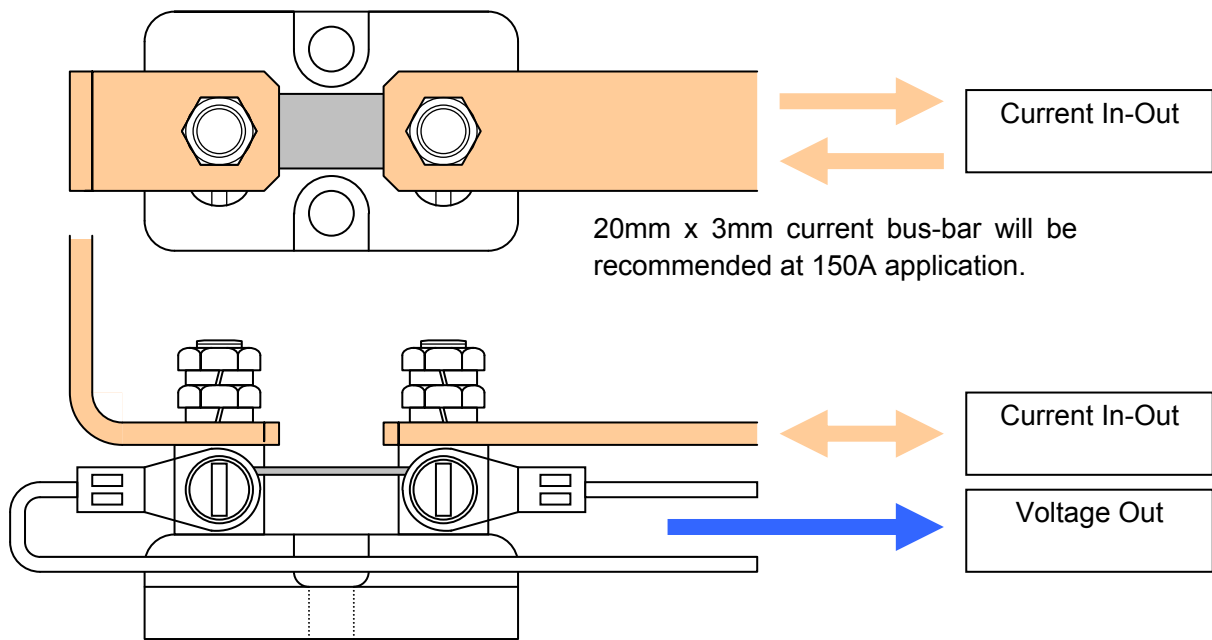
Thickness (mm)	Width (mm)	Current (A) at 30 deg C Temp. Rise	Current (A) at 65 deg C temp. Rise
3	25	230	362
4	25	290	456
4	50	510	802
5	25	340	535
5	50	610	960
6	25	380	598
6	30	430	675
6	40	550	865
6	50	680	1070
6	75	940	1479
6	100	1200	1888
6	125	1440	2265
6	150	1680	2643
8	50	800	1258
8	75	1100	1730
8	100	1400	2202
8	125	1650	2595
8	150	1930	3036
10	50	880	1384
10	75	1220	1919
10	100	1540	2422

Current capacity of copper bus bar, JSIA

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Applications



NSLA10-60mV



NSLA50-60mV



NSLA100-60mV



NSLA150-60mV

**Note**  
 The resistance will remain within 0.25% if the shunt is operated between 20 and 90 degrees C. If the temperature of the shunt exceeds 90 degrees C the resistance may drift. The temperature of the shunt is measured on the resistance strips.