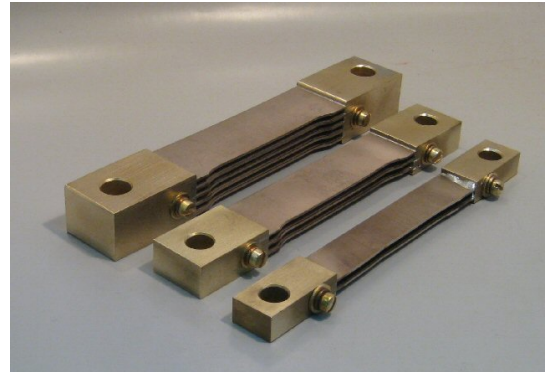


## PRECISION CURRENT SHUNT RESISTORS

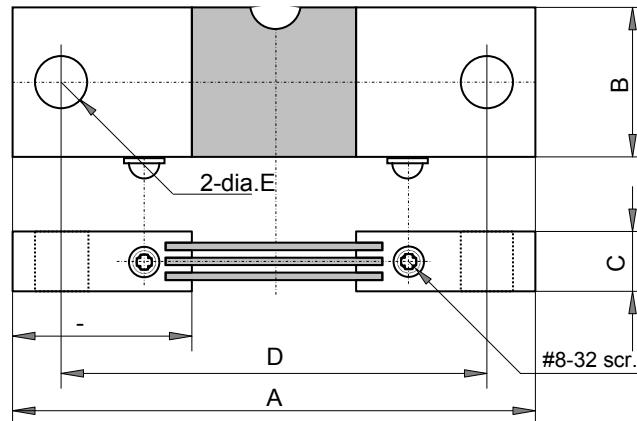
NSA50, NSA100, NSA150  
 NSA200, NSA250, NSA300  
 NSA400, NSA500, NSA600



### Features and Applications

- Large current shunt resistors for ampere-meters, designed for standard current measurement of electric equipment.
- Excellent long-term stability, low emf and low TCR.
- Easy current measurement is performed by attaching to current bus directory 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	NSA50 -50	NSA100 -50	NSA150 -50	NSA200 -50	NSA250 -50	NSA300 -50	NSA400 -50	NSA500 -50	NSA600 -50
A	104.78	104.78	104.78	104.78	104.78	104.78	117.48	117.48	117.48
B	15.88	15.88	23.83	20.65	27.00	31.75	25.40	31.75	38.10
C	9.53	9.53	9.53	12.70	12.70	12.70	19.05	19.05	19.05
D	84.15	84.15	84.15	84.15	84.15	84.15	92.08	92.08	92.08
E	8.74	8.74	8.74	8.74	8.74	8.74	10.31	10.31	10.31
Ohm	1.000	0.500	0.333	0.250	0.200	0.167	0.125	0.100	0.083

Ohm Resistance (milliohm) calculated from the V-I characteristic

mm	NSA50 -100	NSA100 -100	NSA150 -100	NSA200 -100	NSA250 -100	NSA300 -100	NSA400 -100	NSA500 -100	NSA600 -100
A	146.05	146.05	146.05	146.05	146.05	146.05	158.75	158.75	158.75
B	15.88	15.88	23.83	20.65	27.00	31.75	25.40	31.75	38.10
C	9.53	9.53	9.53	12.70	12.70	12.70	19.05	19.05	19.05
D	125.43	125.43	125.43	125.43	125.43	125.43	134.95	134.95	134.95
E	8.74	8.74	8.74	8.74	8.74	8.74	10.31	10.31	10.31
Ohm	2.000	1.000	0.667	0.500	0.400	0.333	0.250	0.200	0.167

Ohm Resistance (milliohm) calculated from the V-I characteristic.

## PRECISION CURRENT SHUNT RESISTORS

### NSA50, NSA100, NSA150, NSA200, NSA250, NSA300 NSA400, NSA500, NSA600

#### Ordering Information

Style	Rated Current in A	Voltage in mV	Tolerance	Code
NSA	300	-50	C	Z00
NSA	50	-50	C(+/-0.25%)	Z00
	100	-60	(1)	
	150	-100		
	200			
	250			
	300			
	400			
	500			
	600			

- (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

	NSA50	NSA100	NSA150	NSA200	NSA250	NSA300	NSA400	NSA500	NSA600
Rated Current (A)	50	100	150	200	250	300	400	500	600
Operating Current (A)	33.3	66.7	100	133	167	200	267	333	400
Rated Output (mV)	50, 60 or 100								
Eq. Resistance(milliohms)	Resistance is based on the amperage and millivolt rating, nominal resistance is calculated using Ohms law.								
Voltage Tolerance (%)	+/-0.25%(C)								
Operating Temp. (deg C)	+30 to +70 deg C measured at center of manganin strips								
Strage Temp. (deg C)	-55 to +80 deg C								
Weight (Kg)									

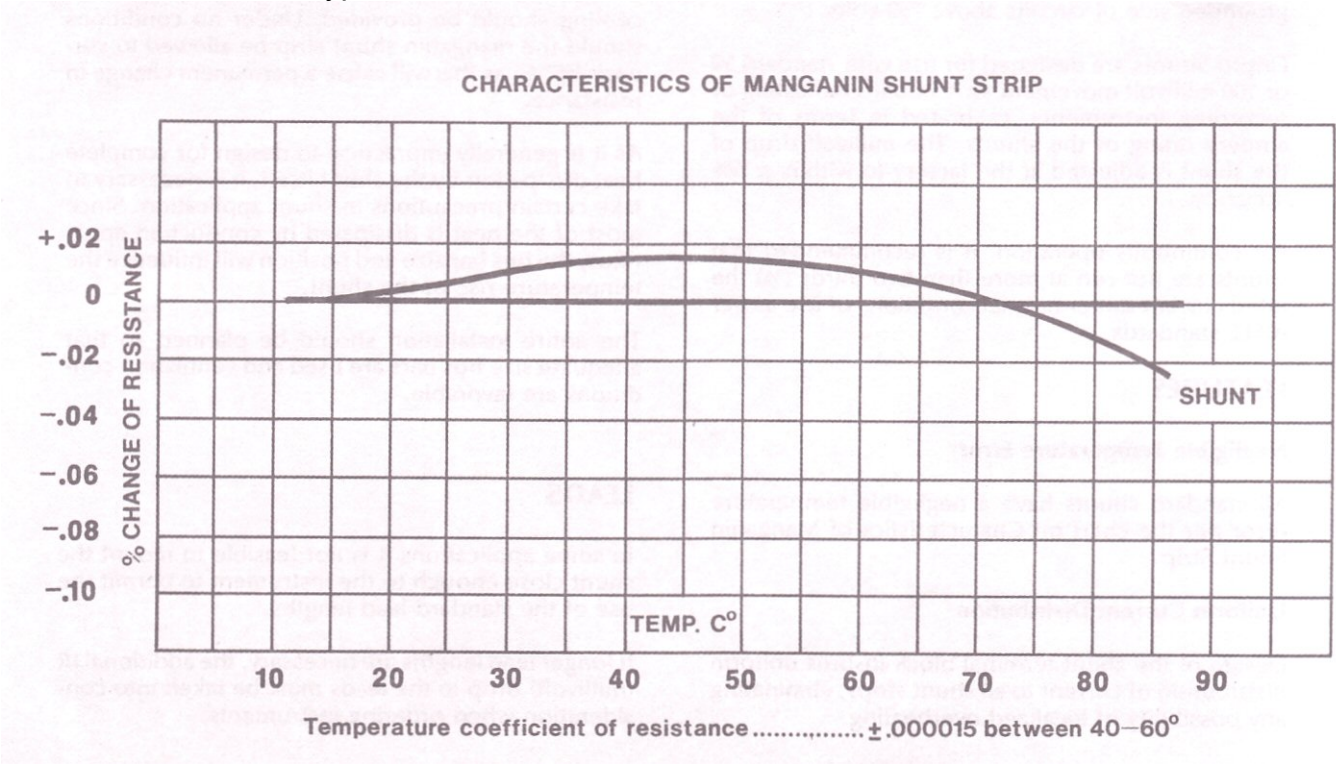
The way to reduce the operating temperature, such as forced air, increasing physical size, adding heat sink to the blocks, designing for water cooling, and etc.

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

PRECISION CURRENT SHUNT RESISTORS  
NSA50, NSA100, NSA150, NSA200, NSA250, NSA300  
NSA400, NSA500, NSA600

TCR Characteristics, Typical



Applications

