

## DC Shunts

DC shunts are available for currents between 10 Amps and 5000 Amps, offering reliability and class 0.5 accuracy making them suitable for a large range of industrial applications.

Two ranges are available that develop either 50mV or 60mV at full load current. The millivolt signal can then be safely taken to a suitably scaled moving coil indicating instrument or other monitoring device.

The shunts are brass ended manganin and all shunts up to the 200 Amp rating are mounted on an insulated base ensuring electrical insulation. All non-insulated shunts may need protection against accidental contact. The shunts should be mounted vertically with the blade faces vertical to achieve maximum heat dissipation.

### Models Available

**FST** 50mV Shunt Range

**NST** 60mV Shunt Range

### Product Features

- Brass ended manganin shunts
- 10 Amp to 5000 Amp
- 50mV or 60mV output
- Accuracy class 0.5
- Insulated base on shunts up to 200A

## For measuring DC current by producing a proportional 50mV or 60mV output

### Specification

#### Reference Standard:

- BS89, IEC51

#### Accuracy:

- Class 0.5 ( $\pm 0.5\%$  max. error)

#### Current Rating, $I_n$ :

- 0-10A to 0-5000A

(see range data table)

#### Output:

- 0-50mV (FST series)
- 0-60mV (NST series)

#### Overload:

- 1.2 x  $I_n$  continuous
- 10 x  $I_n$  for 5 seconds (10A to 500A)
- 5 x  $I_n$  for 5 seconds (600A to 2000A)
- 2 x  $I_n$  for 5 seconds (2500A to 5000A)

#### Enclosure:

- Insulated base (all shunts up to 200A)
- M3 screw terminals
- See dimensions for mounting

#### Operating Temperature:

- $-20^{\circ}\text{C}$  to  $60^{\circ}\text{C}$

#### Calibration Temperature:

- $23^{\circ}\text{C}$

#### Temperature Coefficient:

- 0.004%/ $^{\circ}\text{C}$

#### Weight:

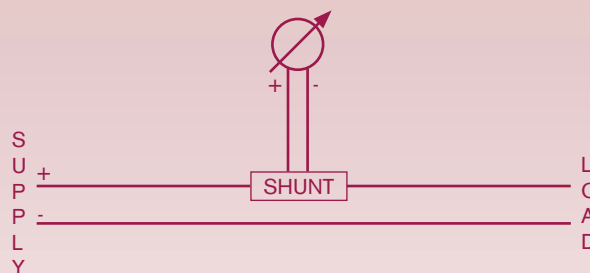
- See range data table

#### Markings:

- CE marked

Specification subject to change without notice.

### Connections

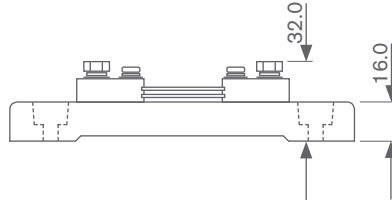
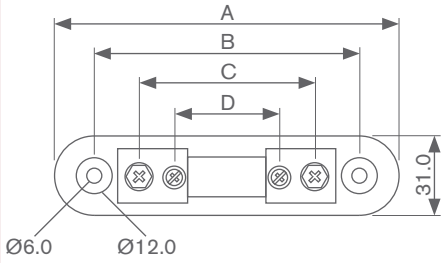


### Ordering information

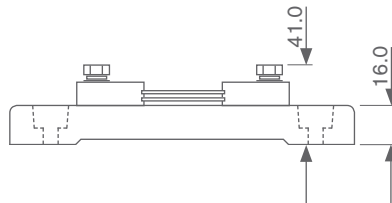
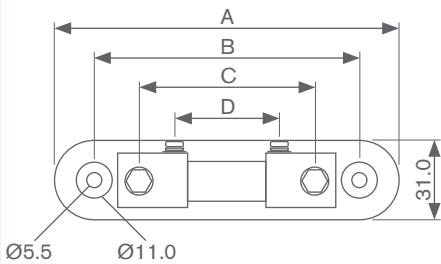
Code	Shunt Output	Current Rating
FST10	50mV	10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 150A
FST20	50mV	200A
FST30	50mV	250, 300, 400, 500, 600A
FST40	50mV	800, 1000A
NST10	60mV	10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 150A
NST20	60mV	200A
NST30	60mV	250, 300, 400, 500, 600A
NST40	60mV	800, 1000, 1200, 1500A
NST50	60mV	2000, 2500, 3000, 4000, 5000A
<b>Example</b>	<b>FST10</b>	<b>100A</b>

**Dimensions**

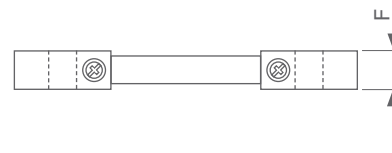
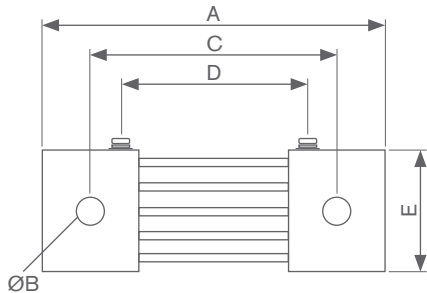
FST10 & NST10



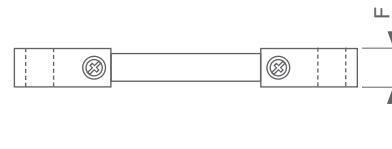
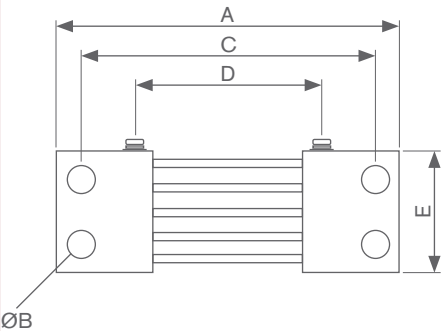
FST20 & NST20



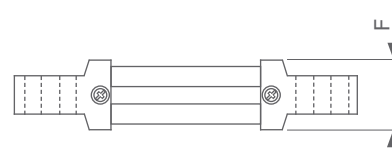
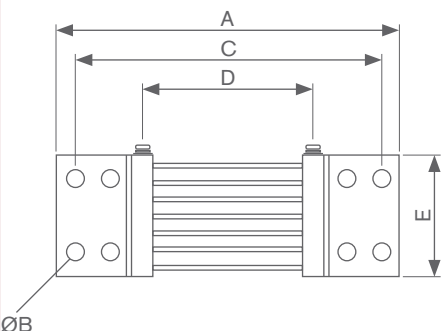
FST30 & NST30



FST40 & NST40



FST50 & NST50



All dimensions in mm (subject to ±3mm/±3% tolerance)

**Range Data**

Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Weight (kg)
FST10-10	136	110	74	43	-	-	0.16
FST10-15	136	110	74	43	-	-	0.16
FST10-20	136	110	74	43	-	-	0.16
FST10-25	136	110	74	43	-	-	0.16
FST10-30	136	110	74	43	-	-	0.16
FST10-40	136	110	74	43	-	-	0.16
FST10-50	136	110	74	43	-	-	0.16
FST10-60	136	110	74	43	-	-	0.16
FST10-80	136	110	74	43	-	-	0.16
FST10-100	136	110	74	43	-	-	0.16
FST10-150	136	110	74	43	-	-	0.16
FST20-200	136	110	74	48	-	-	0.26
FST30-250	115	10.0	88	64	41	12	0.32
FST30-300	116	12.5	88	64	35	20	0.44
FST30-400	116	12.5	86	64	44	20	0.54
FST30-500	116	12.5	88	64	55	20	0.68
FST30-600	122	12.5	90	64	55	20	0.85
FST40-800	125	12.5	90	64	70	20	0.95
FST40-1000	160	12.5	120	64	70	20	1.45

NST10-10	136	110	74	43	-	-	0.16
NST10-15	136	110	74	43	-	-	0.16
NST10-20	136	110	74	43	-	-	0.16
NST10-25	136	110	74	43	-	-	0.16
NST10-30	136	110	74	43	-	-	0.16
NST10-40	136	110	74	43	-	-	0.16
NST10-50	136	110	74	43	-	-	0.16
NST10-60	136	110	74	43	-	-	0.16
NST10-80	136	110	74	43	-	-	0.16
NST10-100	136	110	74	43	-	-	0.16
NST10-150	136	110	74	43	-	-	0.16
NST20-200	136	110	74	51	-	-	0.26
NST30-250	115	10.0	88	64	41	12	0.32
NST30-300	116	12.5	88	64	35	20	0.44
NST30-400	116	12.5	86	64	44	20	0.54
NST30-500	116	12.5	88	64	55	20	0.68
NST30-600	122	12.5	90	64	55	20	0.85
NST40-800	125	12.5	90	64	70	20	0.95
NST40-1000	160	12.5	120	64	70	20	1.45
NST40-1200	160	12.5	120	64	70	20	1.90
NST40-1500	160	12.5	120	64	100	20	2.10
NST50-2000	230	12.5	205	65	103	50	4.80
NST50-2500	230	12.5	205	65	103	50	5.00
NST50-3000	280	15.0	238	65	103	64	6.90
NST50-4000	292	17.0	253	65	110	82	9.50
NST50-5000	315	17.0	271	65	128	106	15.6