

# DATA SHEET—DC SHUNTS

SHUNTS  
CLASS-0.5  
1.0

50mV

60mV

75mV

100mV

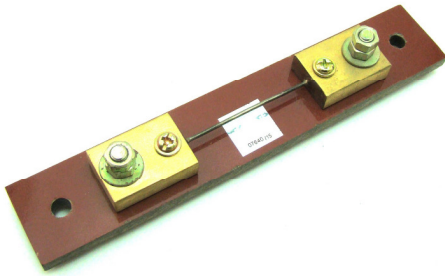
150mV



The YOKINS shunts are available from 1A up to 15000A with an accuracy of 0.5% & 1% as per ISI248. Standard voltage drop is 50mV, 60mV & 75mV. Intermediate current ratings, other voltage outputs, better accuracy and purpose built shunts can also be supplied.

## APPLICATION

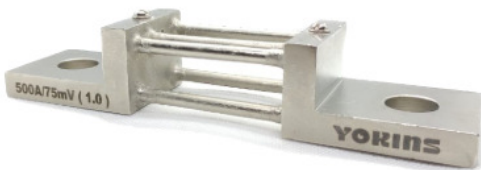
SHUNTS ARE USED TO MEASURE DC CURRENTS. THEY PROVIDE AN ACCURATE DC MILLI VOLT SIGNAL TO DRIVE AMMETER INDICATORS, OVERLOAD PROTECTION AND CONTROL DEVICES, ESPECIALLY FOR HIGHER AMPERAGE. THEY ARE USED TO EXTEND THE RANGE OF AMMETERS WHENEVER THE CURRENT TO BE MEASURED IS TOO LARGE TO BE PASSED THROUGH THE INSTRUMENT DIRECTLY. OUR SHUNT AS PER IS1248 CAN WITHSTAND CONTINUOUS LOAD OF 120% OF THE RATED CURRENT.



## OPERATING PRINCIPLE

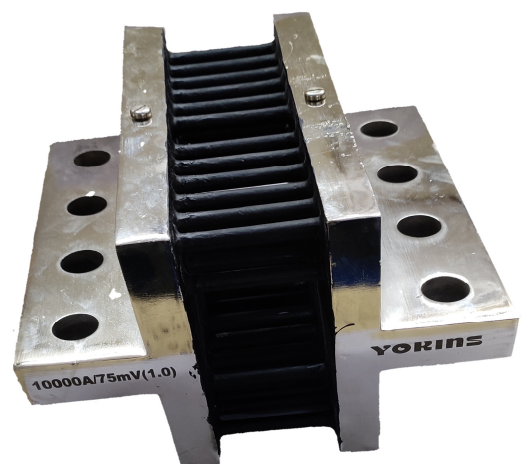
THE SHUNT, IS A DIVERTER WHICH IS USED TO "SHUNT" THE MAJORITY OF THE CURRENT AROUND THE INDICATING INSTRUMENT. ESSENTIALLY, THE SHUNT IS A SPECIALLY-DESIGNED RESISTOR WHICH DELIVERS A MILLIVOLT OUTPUT (TO A MILLIVOLT METER OR INSTRUMENT) IN PROPORTION TO THE CURRENT FLOWING THROUGH THE RESISTOR.

A CURRENT PASSING THROUGH THE SHUNT PRODUCES A PROPORTIONAL VOLTAGE DROP. A DIGITAL INDICATOR OR A MOVING COIL INSTRUMENT CONNECTED TO SHUNT MEASURES THE VOLTAGE DROP ACROSS THE SHUNT TERMINALS. SHUNTS ARE CALIBRATED IN SUCH A WAY THAT THEY PRODUCE AN ACCURATELY DEFINED VOLTAGE DROP (50mV, 60mV, 75mV and 150mV).



## FEATURES

- **RATING 1A TO 15000A**
- **BRAZED CONSTRUCTION**
- **IN LINE BUS BAR MOUNTING**
- **VERY LOW TEMPERATURE CO-EFFICIENT**
- **HIGH OVERLOAD WITHSTAND**
- **SHOCK & VIBRATION PROOF**
- **LONG TERM STABILITY**



## TECHNICAL SPECIFICATION

Continuous over load	120% rated current
5 seconds withstand	10 times for 1 A to 500 Amp. 5 times for 600A to 2000Amp. 2 times for 2500A to 15000Amp
Temp. Coefficient	0.002% per °C.
Ambient temp.	23 °C.
Operating temp.	-10°C to 55°C.
Storage temp.	-20°C to 70°C
Maximum load	The load should not exceed 0.1% of the nominal current rating for specified accuracy.

### OUTPUTS

50mV 60mV

75mV

100mV 150mV

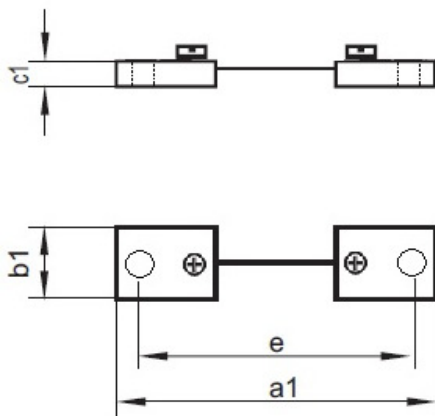
### SPECIFICATION

1A TO 15KA

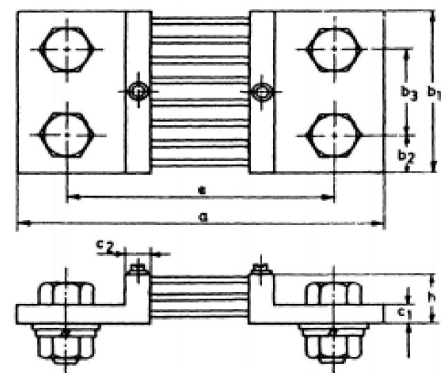
CLASS-0.5 , 1.0

## DIMENSIONAL SHEET As Per IS1248

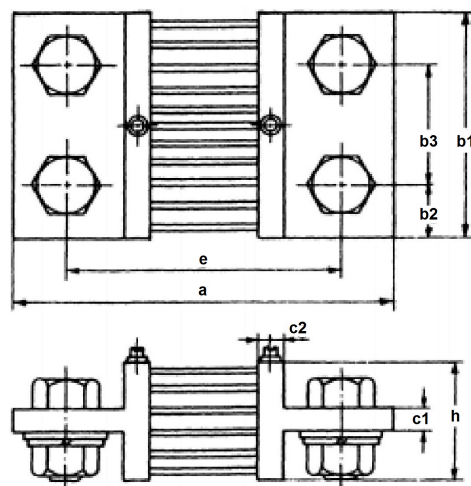
FORM A



FORM B



FORM C



IS 1248 STANDARD											
50mV / 60mV										Current Terminal	
IN (A)	Version	A max.	B1	B2	B3	C1	C2	E	H	T	Hole
1-30	A	90	20	.....	.....	8	.....	70	.....	2x1	M5
31-150	A	110	20	.....	.....	8	.....	80	.....	2x1	M8
151-300	B	155	30	15	.....	10	10	105	30	2x1	M12
301-750	B	155	40	20	.....	10	10	105	30	2x1	M16
751-1000	B	175	60	30	....	10	10	115	30	2x1	M20
1001-1500	B	175	90	21	48	10	10	115	30	2x2	M16
1501-3000	B	175	120	30	60	10	10	115	30	2x2	M20
3001-5000	C	175	120	30	60	15	15	115	60	2x2	M20
5001-7500	C	185	154	25	52	25	15	125	130	2x3	M20
7501-10000	C	195	206	25	52	30	20	135	170	2x4	M20
10001-15000	C	195	310	25	52	30	20	135	170	2x6	M20

IS 1248 STANDARD											
75mV										Current Terminal	
IN (A)	Version	A max.	B1	B2	B3	C1	C2	E	H	T	Hole
1-30	A	100	20	.....	.....	8	.....	88	.....	2x1	M5
31-150	A	120	20	.....	.....	8	.....	100	.....	2x1	M8
151-300	B	165	30	15	.....	10	10	125	30	2x1	M12
301-750	B	165	40	20	.....	10	10	125	30	2x1	M16
751-1000	B	185	60	30	....	10	10	135	30	2x1	M20
1001-1500	B	185	90	21	48	10	10	135	30	2x2	M16
1501-3000	B	185	120	30	60	10	10	135	30	2x2	M20
3001-5000	C	185	120	30	60	15	15	135	60	2x2	M20
5001-7500	C	195	154	25	52	15	15	145	130	2x3	M20
7501-10000	C	205	206	25	52	25	20	155	170	2x4	M20
10001-15000	C	205	310	25	52	30	20	155	170	2x6	M20

IS 1248 STANDARD											
150mV										Current Terminal	
IN (A)	Version	A max.	B1	B2	B3	C1	C2	E	H	T	Hole
1-30	A	100	20	.....	.....	8	.....	88	.....	2x1	M5
31-150	A	225	25	.....	.....	8	.....	205	.....	2x1	M8
151-300	B	270	30	15	.....	10	10	230	50	2x1	M12
301-750	B	270	40	20	.....	10	10	230	50	2x1	M16
751-1000	B	290	70	30	.....	10	10	240	60	2x1	M20
1001-1500	B	290	90	21	48	15	10	240	60	2x2	M16
1501-3000	B	290	120	30	60	15	10	240	60	2x2	M20
3001-5000	C	300	120	30	60	25	15	250	130	2x2	M20
5001-7500	C	300	154	25	52	25	15	250	130	2x3	M20
7501-10000	C	310	206	25	52	30	20	260	170	2x4	M20
10001-15000	C	310	310	25	52	30	20	260	170	2x6	M20

**IN-** Rated Current

**T-** Number of Terminals

**Hole**— Mounting holes for current terminals

**Voltage Terminal** :- Two M4 x 6 Philips head with inbuilt washer bolts for 1 A - 5000 A  
Two M5 x 8 cheese-head bolts with + 5.5 washers for 5001 A - 15kA

## Compact Low cost shunts

**We offer compact low cost shunts as well. These shunts are often requested for special applications for small size or low cost applications. We generally recommend continuous load of ½ or 2/3 times the rated current, in these shunts. These can also be provided from 1A upto 15000A with an accuracy of 0.5% & 1%. Can also customize the shunts for any range.**