





## Shunts according to DIN 43 703 / Class 0,5

**1 A to 25.000 A**

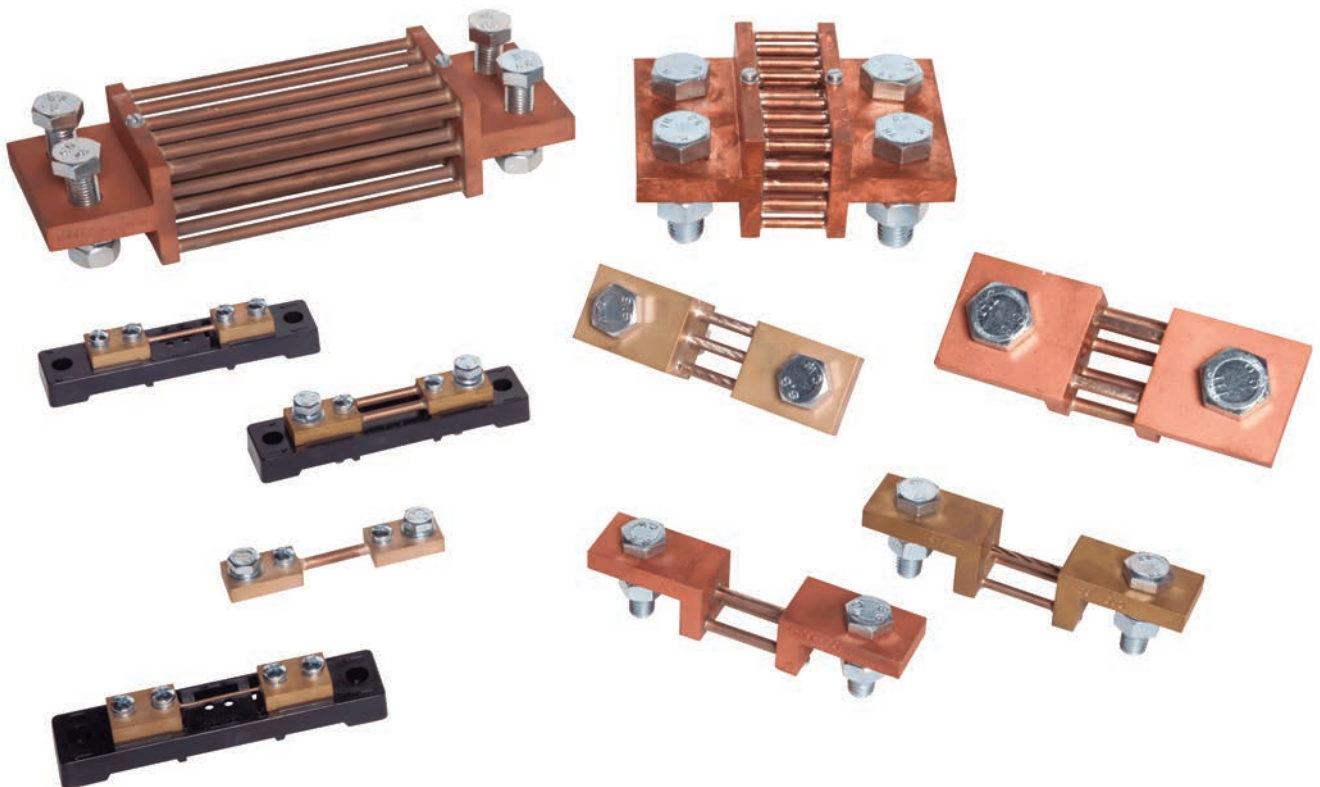
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On request:

- Class 0,2
- Class 0,1
- Special voltages
- Special executions

# SHUNTS

Shunts are the first choice for accurate measuring of current in DC installations. By measuring a standardized voltage-drop at a given input-current, the actual current can be displayed very accurate (accuracy class 0,5) e.g. with a moving coil instrument. Our Shunts are robust, accurate, and easy to mount.



## Shunts



## Shunts according to DIN 43 703

- Class 0,5

Shunts are the first choice for accurate measuring of current in DC installations. By measuring a standardized voltage-drop at a given input-current, the actual current can be displayed very accurately (accuracy class 0,5) e.g. with a moving coil instrument. Our Shunts are robust, accurate, and easy to mount. Our Shunts accord to the standards DIN and CEI. Using high-quality manganese for the Shunts assures a steady voltage drop for a long time and under extreme conditions.

Standard voltage drops are 60mV and 150 mV. Shunts for 60mV can be loaded to a maximum of 0,25 ohm. If this is insufficient, e.g. in case of a long lead, Shunts of 150mV are recommended.

### Overload capacity:

Continuously:		1,2	In
For 5 Seconds:	from 10 A-	500A: 10	In
	from 501A-	2000A: 5	In
	from 2001A-	10000A: 2	In

### Ambient temperature:

Shunts are calibrated at  $20^{\circ}\text{C} \pm 10^{\circ}\text{C}$ . At this temperature the shunts meet their accuracy class. Operating temperature:  $-20^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ . Shunts can be overheated short-time up to  $300^{\circ}\text{C}$ .

### Installation:

Please consider the following instructions:

1. Shunts can be mounted horizontally or vertically. Horizontal mounting allows a better heat dissipation.
2. The full connecting area must be in contact with the busbar.
3. The contact surfaces have to be clean.
4. Bolts and nuts must be fully tightened.
5. Sustain to get a good ventilation.

Shunts up to 25 A / 60 mV or 150 mV are delivered with insulating thermoplastic base.

### Available special executions:

- Covers are available for shunts up to 150A/60mV and 25A/150mV.
- Shunts 30A/ up to 800A/60mV or 150mV can also be delivered with insulating thermoplastic base (additional charge).
- Shunts with non-standard voltage-drop or non-standard rated current.
- Shunts by customers' requirements (if technically realisable).
- Shunts in accuracy class 0,2 or 0,1.

## Technical Data

Rated current	60mV Voltage drop	150 mV Voltage drop	300mV Voltage drop
A	Article No.	Article No.	Article No.
1	70001 - 1067	70001 - 1064	70001 - 1066
1,5	70001 - 1012	70001 - 1010	70001 - 1011
2 <sup>1</sup>	70001 - 1108	70001 - 1106	70001 - 1107
2,5	70001 - 1070	70001 - 1068	70001 - 1069
3 <sup>1</sup>	70001 - 1123	70001 - 1121	70001 - 1122
4	70001 - 1139	70001 - 1136	70001 - 1138
5 <sup>1</sup>	70001 - 1154	70001 - 1152	70001 - 1153
6	70001 - 1168	70001 - 1166	70001 - 1167
8	70001 - 1191	70001 - 1189	70001 - 1190
10	70001 - 1031	70001 - 1027	70001 - 1029
12 <sup>1</sup>	70001 - 1046	70001 - 1044	70001 - 1045
15	70001 - 1059	70001 - 1057	70001 - 1058
20 <sup>1</sup>	70001 - 1089	70001 - 1086	70001 - 1088
25	70001 - 1103	70001 - 1101	70001 - 1102
30 <sup>1</sup>	70001 - 1116	70001 - 1114	70001 - 1115
40	70001 - 1134	70001 - 1131	70001 - 1133
50 <sup>1</sup>	70001 - 1150	70001 - 1147	70001 - 1148
60	70001 - 1164	70001 - 1160	70001 - 1162
75	70001 - 1181	70001 - 1178	70001 - 1179
80 <sup>1</sup>	70001 - 1188	70001 - 1186	70001 - 1187
100	70001 - 1023	70001 - 1019	70001 - 1020
125	70001 - 1043	70001 - 1040	70001 - 1041
150	70001 - 1055	70001 - 1052	70001 - 1054
200 <sup>1</sup>	70001 - 1082	70001 - 1206	70001 - 1079
250	70001 - 1098	70001 - 1096	70001 - 1097
300 <sup>1</sup>	70001 - 1112	70001 - 1110	70001 - 2038
400	70001 - 1127	70001 - 1125	70001 - 1126
500 <sup>1</sup>	70001 - 1145	70001 - 1142	70001 - 1143
600	70001 - 1158	70001 - 1156	70001 - 1157
750 <sup>1</sup>	70001 - 1176	70001 - 1174	70001 - 1175
800 <sup>1</sup>	70001 - 1184	70001 - 1182	70001 - 1183
1000	70001 - 1016	70001 - 1014	70001 - 1015
1200 <sup>1</sup>	70001 - 1035	70001 - 1033	70001 - 1034
1250 <sup>1</sup>	70001 - 1039	70001 - 1037	70001 - 1038
1500	70001 - 1050	70001 - 1048	70001 - 1049
2000 <sup>1</sup>	70001 - 1074	70001 - 1072	70001 - 1073
2500	70001 - 1092	70001 - 1090	70001 - 1091
3000 <sup>1</sup>	○	○	○
4000	○	○	○
5000 <sup>1</sup>	○	○	○
6000	○	○	○
8000 <sup>1</sup>	○	○	
10000	○	○	
12000 <sup>1</sup>	○		
15000	○		
20000 <sup>1</sup>	○		
25000 <sup>1</sup>	○		

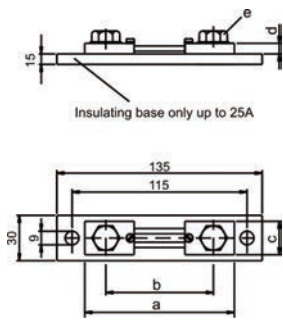
● available ○ on request

<sup>1</sup> out of DIN-Norms

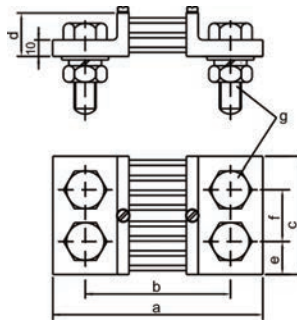
Shunts with non-standard voltage-drop or non-standard rated current on request.

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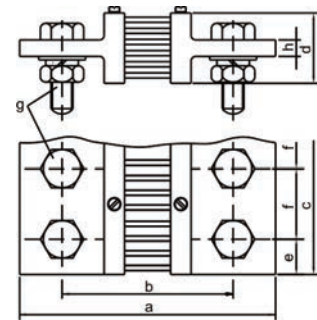
Form A (Fig. 1)



Form B (Fig. 2)



Form C (Fig. 3)



## Dimensions

Form A (Fig.1):

Dimensions in mm	Voltage drop 60 mV		Voltage drop 100 mV <sup>1</sup>		Voltage drop 150 mV		Voltage drop 300 mV <sup>1</sup>	
	1 A... 25 A	30 A... 150 A	1 A... 25 A	30 A...150 A	1 A... 25 A	30 A...150 A	1 A... 25 A	30 A...150 A
a	90	100	90	145	90	225	90	384
b	78	80	78	5	78	205	78	364
c	20	20	20	25	20	25	20	25
d	8	8	8	8	8	8	8	8
e	M5	M8	M5	M8	M5	M8	M5	M8

Form B (Fig.2):

Dimensions in mm	Voltage drop 60 mV					Voltage drop 100 mV <sup>1</sup>					Voltage drop 150 mV			Voltage drop 300 mV <sup>1</sup>		
	200A 250A 300A	400A 500A 600A 800A	1000A 1200A 2000A	1500A 2000A	2500A	200A 250A 300A	400A 500A 600A 800A	1000A 1200A	1500A 2000A	200A 250A 300A	400A 500A 600A 800A	1000A 1200A	200A 250A 300A	400A 500A 600A 800A	1000A 1200A	
a	145	145	165	165	165	190	190	210	210	270	210	290	429	429	449	
b	105	105	115	115	115	150	150	160	160	230	230	240	389	389	399	
c	30	40	60	90	120	30	40	60	120	30	40	70	30	40	70	
d	30	30	30	30	30	30	30	30	30	30 <sup>2</sup>	30 <sup>2</sup>	30 <sup>2</sup>	30	30	30	
e	15	20	30	21	30	15	20	30	30	15	20	35	15	20	35	
f	-	-	-	48	60	-	-	-	60	-	-	-	-	-	-	
g	M12	M16	M20	M16	M20	M12	M16	M20	M20	M12	M16	M20	M12	M16	M20	
Quantity of current terminals	2 x 1	2 x 1	2 x 1	2 x 1	2 x 1	2 x 1	2 x 1	2 x 1	2 x 1	2 x 1	2 x 1	2 x 1	2 x 1	2 x 1	2 x 1	

Form C (Fig.3):

Dimensions in mm	Voltage drop 60 mV				Voltage drop 100 mV <sup>1</sup>				Voltage drop 150 mV				Voltage drop 300 mV <sup>1</sup>			
	3000A 4000A	5000A 6000A	8000A 10000A	15000A	2500A 3000A	4000A 5000A	6000A	1500A	2000A 2500A	3000A 4000A	5000A 6000A	8000A 10000A	1500A 2000A	2500A 3000A	4000A 5000A	6000A
a	165	175	185	185	210	220	220	290	290	300	300	310	449	449	459	459
b	115	125	135	135	160	170	170	240	240	250	250	260	399	399	409	409
c	120	154	206	310	120	120	154	90	120	120	154	206	90	120	120	154
d	60	130	170	170	60	130	130	60	60	130	130	170	60	60	130	130
e	30	25	25	25	30	30	25	21	30	30	25	25	21	30	30	25
f	60	52	52	52	60	60	52	48	60	60	52	52	48	60	60	52
g	M20	M20	M20	M20	M20	M20	M20	M16	M20	M20	M20	M20	M16	M20	M20	M20
h	15	25	30	30	15	25	25	15	15	25	25	30	15	15	25	25
Quantity of current terminals	2 x 2	2 x 3	2 x 4	2 x 6	2 x 2	2 x 2	2 x 3	2 x 2	2 x 2	2 x 2	2 x 3	2 x 4	2 x 2	2 x 2	2 x 2	2 x 3

<sup>1</sup> out of DIN-Norms

<sup>2</sup> out of DIN-Dimensions



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