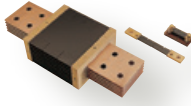







Choosing your shunt

Shunts
 Measurement and instrumentation

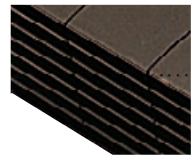
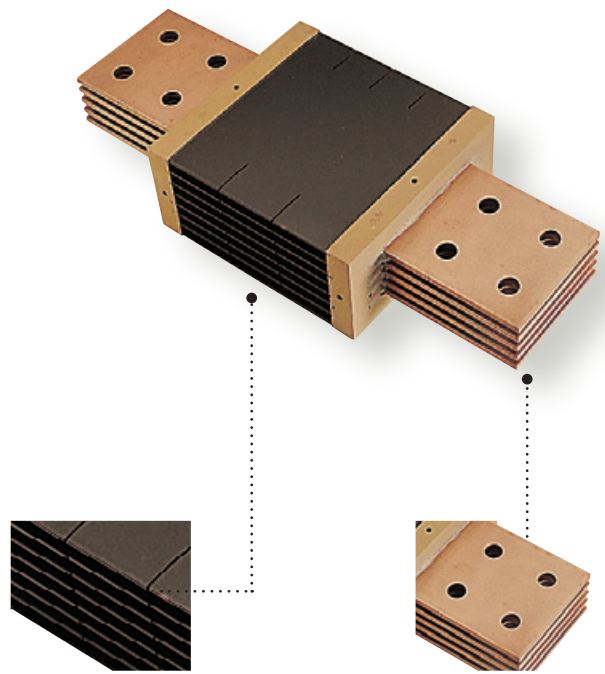
	76-2 and 77-2			SHMI			SHEL	SHMO
	▶ page 145			▶ page 147			▶ page 149	▶ page 150
								
Type	76-2	76-2	77-2	SHMI	SHMI	SHMI	SHEL	SHMO
Type	Eye connection on base	Eye connection	Plate connection for busbar	Screw connection	Eye connection	Connection to block for busbar	Direct connection to measuring component	Modular casing
Voltage drop	100 mV							
Accuracy class	0.2 and 0.5			0.5 and 1			1	
1 A								
1.25 A								
1.5 A								
2 A								
2.5 A								
3 A								
4 A								
5 A								
6 A								
7.5 A								
10 A								
15 A								
20 A								
25 A								
30 A								
40 A								
50 A								
60 A								
75 A								
100 A								
125 A								
150 A								
200 A								
250 A								
300 A								
400 A								
500 A								
600 A								
750 A								
1000 A								
1250 A								
1500 A								
2000 A								
2500 A								
3000 A								
4000 A								
5000 A								
6000 A								
Strengths	High-performance range. High overload capacity. Treated against corrosion.			Range with a good performance/price trade-off. Large choice of voltage drop ratings (on request).			The most economical range.	Range for mounting on DIN 46277 rail.
SPECIFIC PRODUCTS POSSIBLE IN THIS RANGE								

76-2 and 77-2 Ranges

A reference for measurements on demanding applications

PRODUCT ADVANTAGES

- + HIGH-PERFORMANCE RANGE**
- + HIGH OVERLOAD CAPACITY**



Protection against corrosion with epoxy-modified acrylic paint



Large-area fittings to facilitate heat dissipation

► General specifications

Accuracy class defined in the following domain:
Over the whole measurement range, for an ambient temperature of:

- -10°C to +35°C (Class 0.2)
- -25°C to +40°C (Class 0.5 and 1)

For a blade temperature of 80°C
For a shunt current ≤ 5 mA

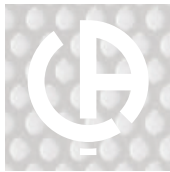
Permitted rated calibres:
In = 1 A - 1.25 A - 1.5 A - 2 A - 2.5 A - 3 A - 4 A - 5 A - 6 A - 7.5 A;
their multiples or sub-multiples

Voltage drops:
50 mV - 60 mV - 100 mV - 150 mV - 200 mV - 300 mV - 1 V

Permitted overloads:
On average and in normal operating conditions

I rated (In)	2 h	5 s Class 0.2	5 s Class 0.5 and 1
< 250 A	1.2 In	2 In	10 In
250 to 2,000 A	1.2 In	2 In	5 In
> 2,000 A	1.2 In	2 In	2 In

Compliance with standards:
Accuracy and influence factor:
IEC 60051-1 to 9
Preferred calibres and dimensions for 100 mV shunts:
NFC 42-151/152/153z
Lead-free range: RoHS directive (2002/95/CE)



76-2 and 77-2 Ranges

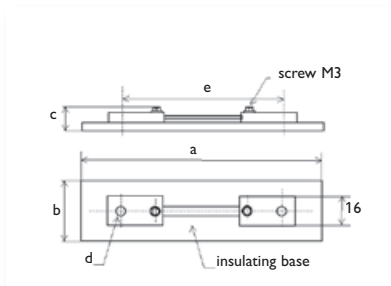
Shunts

Measurement and instrumentation

76-2

Eye connection on base

Voltage drop: 100 mV
Class 0.2 and 0.5

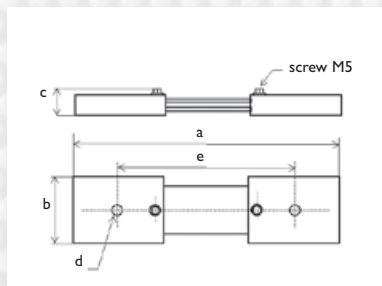


Current	Dimensions (mm)				
	a	b	c	d	e
1 A	150	20	13	6	130
1.25 A	150	20	13	6	130
1.5 A	150	20	13	6	130
2 A	150	20	13	6	130
2.5 A	150	20	13	6	130
3 A	150	20	13	6	130
4 A	150	20	13	6	130
5 A	150	20	13	6	130
6 A	150	20	13	6	130
7.5 A	150	20	13	6	130

76-2

Eye connection

Voltage drop: 100 mV
Class 0.2 and 0.5

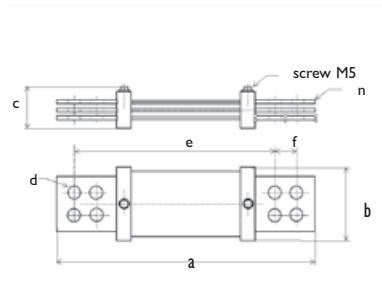


Current	Dimensions (mm)				
	a	b	c	d	e
10 A	160	16	11	6	130
15 A	160	16	11	6	130
20 A	160	16	11	6	130
25 A	160	16	11	6	130
30 A	190	25	11	10	160
40 A	190	25	11	10	160
50 A	190	25	11	10	160
60 A	190	25	11	10	160
75 A	190	25	11	10	160
100 A	190	32	11	10	160
125 A	220	32	13	14	180
150 A	220	32	13	14	180
200 A	220	32	13	14	180
250 A	220	50	13	14	180
300 A	220	50	13	14	180
400 A	240	60	17	18	200
500 A	240	60	17	18	200

77-2

Blade connection for bar

Voltage drop: 100 mV
Class 0.2 and 0.5



Current	Dimensions (mm)						
	a	b	c	d	e	f	n
600 A	280	80	35	11	220	25	1
750 A	280	80	35	11	220	25	1
1000 A	380	115	35	14	280	50	1
1250 A	380	115	35	14	280	50	1
1500 A	380	115	55	14	280	50	2
2000 A	380	115	55	14	280	50	2
2500 A	400	168	55	14	300	50	3
3000 A	400	168	65	14	300	50	4
4000 A	400	168	85	14	300	50	5

TO ORDER

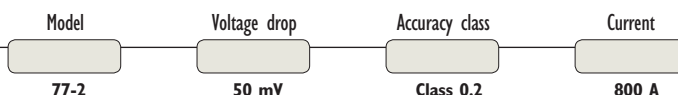
Current	Reference for 100 mV	
	Class 0.2	Class 0.5
1 A	SHUN 1200	SHUN 1300
1.25 A	SHUN 1201	SHUN 1301
1.5 A	SHUN 1202	SHUN 1302
2 A	SHUN 1203	SHUN 1303
2.5 A	SHUN 1204	SHUN 1304
3 A	SHUN 1205	SHUN 1305
4 A	SHUN 1206	SHUN 1306
5 A	SHUN 1207	P01 3042 11
6 A	SHUN 1208	SHUN 1308
7.5 A	SHUN 1209	SHUN 1309

Current	Reference for 100 mV	
	Class 0.2	Class 0.5
10 A	SHUN 1210	P01 3042 01
15 A	SHUN 1211	P01 3042 08
20 A	SHUN 1212	P01 3042 02
25 A	SHUN 1213	P01 3042 09
30 A	SHUN 1214	P01 3042 03
40 A	SHUN 1215	P01 3042 10
50 A	SHUN 1216	P01 3042 04
60 A	SHUN 1217	P01 3042 12
75 A	SHUN 1218	P01 3042 13
100 A	SHUN 1219	P01 3042 05
125 A	SHUN 1220	P01 3042 15
150 A	SHUN 1221	P01 3042 16
200 A	SHUN 1222	P01 3042 06
250 A	SHUN 1223	P01 3042 17
300 A	SHUN 1224	P01 3042 07
400 A	SHUN 1225	P01 3042 18
500 A	SHUN 1226	P01 3042 14

Current	Reference for 100 mV	
	Class 0.2	Class 0.5
600 A	SHUN 1227	P01 3042 48
750 A	SHUN 1228	P01 3042 41
1000 A	SHUN 1229	P01 3042 42
1250 A	SHUN 1230	P01 3042 49
1500 A	SHUN 1231	P01 3042 43
2000 A	SHUN 1232	P01 3042 44
2500 A	SHUN 1233	P01 3042 45
3000 A	SHUN 1234	P01 3042 46
4000 A	SHUN 1235	P01 3042 47

► Customized products

Example

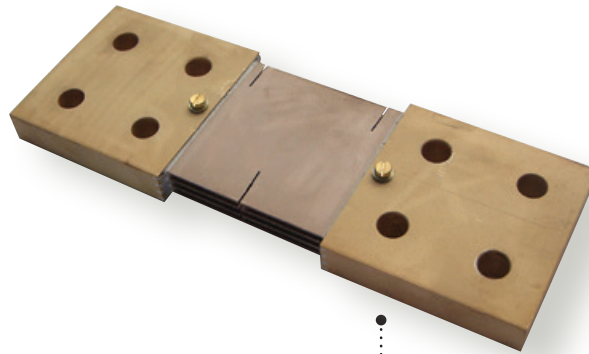


SHMI Range

Offering a vast range of industrial applications

PRODUCT ADVANTAGES

- +** Range with excellent **PERFORMANCE/PRICE** trade-off
- +** **A WIDE CHOICE** of voltage drops
- +** **COMPACT DESIGN** that respects accepted thermal dissipation requirements



Easy-to-connect brass plates

► General specifications

Accuracy class defined in the following domain:

Over the entire measurement range
 For an ambient temperature of:
 -10°C to +35°C (class 0.2)
 -25°C to +40°C (class 0.5 and 1)
 For a blade temperature of 80°C
 For a shunt current ≤ 5 mA

Permitted rated calibres:

$I_n = 1$ A - 1.25 A - 1.5 A - 2 A - 2.5 A - 3 A - 4 A - 5 A - 6 A - 7.5 A
 and their multiples or sub-multiples

Permitted overloads:

On average and in normal operating conditions

I nominal (I_n)	2 h	5 s class 0.2	5 s class 0.5 and 1
< 250 A	1.2 I_n	2 I_n	10 I_n
250 to 2000 A	1.2 I_n	2 I_n	5 I_n
> 2000 A	1.2 I_n	2 I_n	2 I_n

Voltage drops:

50 mV - 60 mV - 100 mV - 150 mV - 200 mV - 300 mV - 1 V

Compliance with standards:

Accuracy and influence factor:
 IEC 60051-1 to 9
 Preferred ratings and dimensions for 100 mV shunts:
 NFC 42-151/152/153
 Lead-free range: RoHS directive (2002/95/CE)

► Mounting accessories

Kit of screw connectors + lead for shunt	Reference
1 to 25 A range	2919 9901
30 to 75 A range	2919 9902
100 A range	2919 9903
125 to 200 A range	2919 9904
250 to 500 A range	2919 9905
600 A and 750 A range	2919 9906



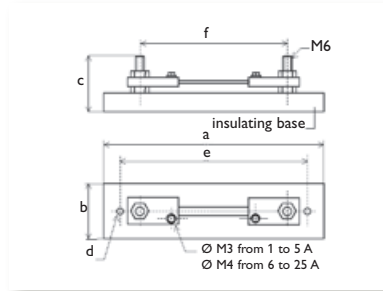
SHMI Range

Shunts
Measurement and instrumentation

SHMI

SHMI 1 A to 25 A
screw connection

Voltage drop: 100 mV
Class 0.5 and 1

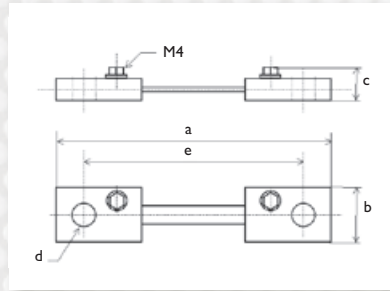


Current	Dimensions (mm)					
	a	b	c	d	e	f
1 A	162	25	40	3.5	152	110
2 A	162	25	40	3.5	152	110
2.5 A	162	25	40	3.5	152	110
3 A	162	25	40	3.5	152	110
4 A	162	25	40	3.5	152	110
5 A	162	25	40	3.5	152	110
6 A	162	25	40	3.5	152	110
7.5 A	162	25	40	3.5	152	110
10 A	162	25	40	3.5	152	110
15 A	162	25	40	3.5	152	110
20 A	162	25	40	3.5	152	110
25 A	162	25	40	3.5	152	110

SHMI

SHMI 30 A to 750 A
eye connection

Voltage drop: 100 mV
Class 0.5 and 1

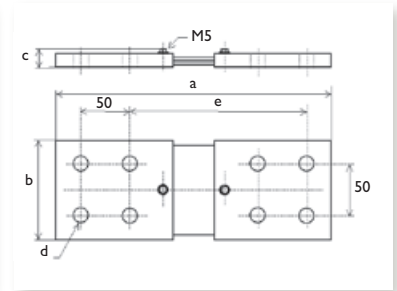


Current	Dimensions (mm)				
	a	b	c	d	e
30 A	150	16	10	8.5	130
40 A	150	16	10	8.5	130
50 A	150	16	10	8.5	130
60 A	150	16	10	8.5	130
75 A	150	16	10	8.5	130
100 A	150	21	10	8.5	130
125 A	150	32	10	8.5	130
150 A	150	32	10	8.5	130
200 A	150	32	14	8.5	130
250 A	210	52	13	14.5	180
300 A	210	52	13	14.5	180
400 A	210	52	17	14.5	180
500 A	210	52	17	14.5	180
600 A	210	52	22	14.5	180
750 A	210	52	22	14.5	180

SHMI

SHMI 1,000 A to 6,000 A
busbar connection block

Voltage drop: 100 mV
Class 0.5 and 1



Current	Dimensions (mm)				
	a	b	c	d	e
1000 A	290	100	20	14.5	190
1250 A	290	100	25	14.5	190
1500 A	290	100	25	14.5	190
2000 A	290	100	35	14.5	190
2500 A	290	100	45	14.5	190
3000 A	290	100	45	14.5	190
4000 A	330	150	45	16.5	230
5000 A	330	150	45	16.5	230
6000 A	330	150	45	16.5	230

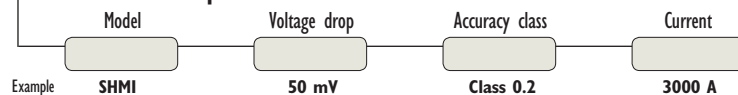
TO ORDER

Current	Reference for 100 mV	
	Class 0.5	Class 1
1 A	2901 0301	2901 0101
2 A	2901 0303	2901 0103
2.5 A	2901 0304	2901 0104
3 A	2901 0305	2901 0105
4 A	2901 0306	2901 0106
5 A	2901 0307	2901 0107
6 A	2901 0308	2901 0108
7.5 A	2901 0310	2901 0110
10 A	2901 0312	2901 0112
15 A	2901 0314	2901 0114
20 A	2901 0315	2901 0115
25 A	2901 0316	2901 0116

Current	Reference for 100 mV	
	Class 0.5	Class 1
30 A	2901 0317	2901 0117
40 A	2901 0318	2901 0118
50 A	2901 0319	2901 0119
60 A	2901 0321	2901 0121
75 A	2901 0323	2901 0123
100 A	2901 0325	2901 0125
125 A	2901 0326	2901 0126
150 A	2901 0328	2901 0128
200 A	2901 0330	2901 0130
250 A	2901 0331	2901 0131
300 A	2901 0333	2901 0133
400 A	2901 0335	2901 0135
500 A	2901 0336	2901 0136
600 A	2901 0338	2901 0138
750 A	2901 0340	2901 0140

Current	Reference for 100 mV	
	Class 0.5	Class 1
1000 A	2901 0361	2901 0161
1250 A	2901 0362	2901 0162
1500 A	2901 0363	2901 0163
2000 A	2901 0364	2901 0164
2500 A	2901 0365	2901 0165
3000 A	2901 0366	2901 0166
4000 A	2901 0368	2901 0168
5000 A	2901 0369	2901 0169
6000 A	2901 0370	2901 0170

Customized products



Associated products

Mounting accessories
page 147

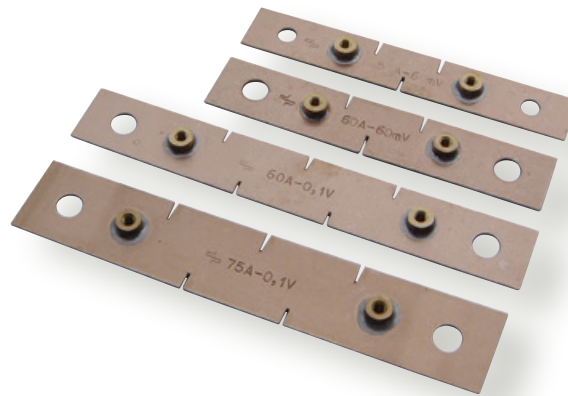


SHEL and SHMO Ranges

For simplified installation on low-power networks

PRODUCT ADVANTAGES

- + ECONOMY RANGE**
for construction (SHEL)
and for simplified
installation (SHMO)
- + DIRECT CONNECTION**
to measuring component
(SHEL)
- + MODULAR CASING**
for quick and easy
mounting (SHMO)
- + COMPACT DESIGN**
(SHEL)



► General specifications

Accuracy class 1 defined in the following domain:

Over the entire measurement range
For an ambient temperature of
-25°C to +40°C
For a blade temperature of 80°C
For a shunt current ≤ 5 mA

Permitted rated calibres:

$I_n = 1$ A - 1.25 A - 1.5 A - 2 A - 2.5 A -
3 A - 4 A - 5 A - 6 A - 7.5 A and their
multiples or sub-multiples
Max. 300 A for SHEL and 60 A for SHMO

Permitted rated calibres:

50 mV - 60 mV - 100 mV

Permitted overloads:

On average and in normal operating
conditions

$I_{\text{nominal}} (I_n)$	2 h	5 s
< 250 A	$1.2 I_n$	$10 I_n$
≥ 250 A	$1.2 I_n$	$5 I_n$

Compliance with standards:

Accuracy and influence factor:
IEC 60051-1 to 9
Lead-free range: RoHS directive
(2002/95/CE)

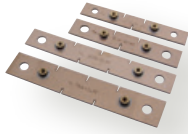


SHEL and SHMO Ranges

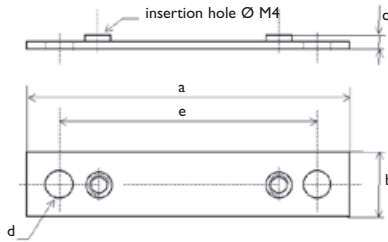
Shunts

Measurement and instrumentation

SHEL



Voltage drop: 100 mV Class 1



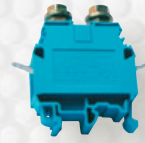
Dimensions (mm)

Current	a	b	c	d	e
10 A	150	10	5	6.5	122
15 A	150	12	5	6.5	122
20 A	150	12	5	6.5	122
25 A	150	15	5	6.5	122
30 A	150	15	5	6.5	122
40 A	150	15	5	6.5	122
50 A	150	20	5	6.5	122
60 A	150	25	5	8.5	122
75 A	150	30	5	8.5	122
100 A	150	20	6	8.5	122
125 A	150	25	6	8.5	122
150 A	150	30	6	8.5	122
200 A	150	40	6	10.5	122
250 A	150	50	6	10.5	122
300 A	150	60	6	10.5	122

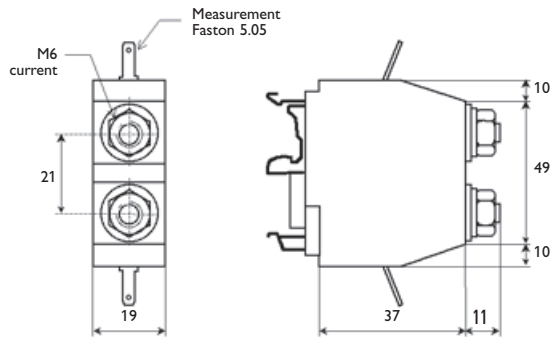
TO ORDER

Current	Reference for 100 mV Class 1
10 A	2901 0246
15 A	2901 0247
20 A	2901 0227
25 A	2901 0228
30 A	2901 0229
40 A	2901 0230
50 A	2901 0231
60 A	2901 0232
75 A	2901 0233
100 A	2901 0235
125 A	2901 0236
150 A	2901 0237
200 A	2901 0238
250 A	2901 0239
300 A	2901 0248

SHMO



Voltage drop: 100 mV Class 1



TO ORDER

Current	Reference for 100 mV Class 1
	1 A
5 A	2925 0107
10 A	2925 0112
15 A	2925 0114
20 A	2925 0115
25 A	2925 0116
30 A	2925 0117
40 A	2925 0118
50 A	2925 0119
60 A	2925 0121

Customized products

