



## SHB 4A/60mV

SHB 4A/60mV, Shunt

Code: M71224.

- > Accuracy: 0.5
- > Measurement Range (A): 4A/60mV
- > Input current: 4 A
- > Relation: 4A/60mV

### Description

- Shunt for the measurement of DC, from 1 A dc to 15 000 A dc, depending on the type
- Accuracy class: 0.5
- All types are supplied with 1.5 m long cables, with a section of 1.5 m<sup>2</sup>
- The standard output voltage is .../60 mV, but there are other types of outputs on demand, see coding table.

### Application

Used in DC electrical lines to obtain a voltage signal that is proportional to the current through the shunt



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Shunts

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## Specifications

### Electrical characteristics

|                    |        |
|--------------------|--------|
| Permanent overload | 1,2 In |
|--------------------|--------|

### Environmental characteristics

|                       |                |
|-----------------------|----------------|
| Operating temperature | -25 ... +60 °C |
|-----------------------|----------------|

### Mechanical characteristics

|             |                               |
|-------------|-------------------------------|
| Envelope    | Manganin rods Brass terminals |
| Weight (kg) | 0,15                          |

### Current measurement circuit

|                             |                                                                                             |
|-----------------------------|---------------------------------------------------------------------------------------------|
| Nominal frequency           | 50 / 60 Hz                                                                                  |
| Primary current measurement | 4A                                                                                          |
| Allowable overload          | During 5 s 10 In, yes 10 A ≤ In ≤ 500 A 5 In, yes 600 A ≤ In ≤ 2000 A 2 In, yes 2500 A ≤ In |
| Transformation ratio        | ... / 60 mV                                                                                 |

### Standards

|           |                                   |
|-----------|-----------------------------------|
| Standards | DIN 43703, IEC 51, VDE 410, BS 89 |
|-----------|-----------------------------------|

### Measurement accuracy

|          |     |
|----------|-----|
| Accuracy | 0.5 |
|----------|-----|

SH  
Shunts for direct current measurement

| CODE    | TYPE          | Measurement Range (A) |
|---------|---------------|-----------------------|
| M71211. | SHP 30A/60mV  | 30A/60mV              |
| M71212. | SHP 40A/60mV  | 40A/60mV              |
| M71213. | SHP 50A/60mV  | 50A/60mV              |
| M71214. | SHP 60A/60mV  | 60A/60mV              |
| M71215. | SHP 75A/60mV  | 75A/60mV              |
| M71216. | SHP 100A/60mV | 100A/60mV             |
| M71217. | SHP 150A/60mV | 150A/60mV             |
| M71218. | SHP 200A/60mV | 200A/60mV             |
| M71221. | SHB 1A/60mV   | 1A/60mV               |
| M71222. | SHB 1.5A/60mV | 1.5A/60mV             |
| M71223. | SHB 2.5A/60mV | 2.5A/60mV             |



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| CODE    | TYPE           | Measurement Range (A) |
|---------|----------------|-----------------------|
| M71224. | SHB 4A/60mV    | 4A/60mV               |
| M71225. | SHB 5A/60mV    | 5A/60mV               |
| M71226. | SHB 6A/60mV    | 6A/60mV               |
| M71227. | SHB 10A/60mV   | 10A/60mV              |
| M71228. | SHB 15A/60mV   | 15A/60mV              |
| M71229. | SHB 25A/60mV   | 25A/60mV              |
| M7122A. | SHB 30A/60mV   | 30A/60mV              |
| M7122B. | SHB 40A/60mV   | 40A/60mV              |
| M7122C. | SHB 50A/60mV   | 50A/60mV              |
| M7122D. | SHB 60A/60mV   | 60A/60mV              |
| M7122E. | SHB 80A/60mV   | 80A/60mV              |
| M7122F. | SHB 100A/60mV  | 100A/60mV             |
| M7122N. | SHB 200A/60mV  | 200A/60mV             |
| M71231. | SH 30A/60mV    | 30A/60mV              |
| M71232. | SH 40A/60mV    | 40A/60mV              |
| M71233. | SH 50A/60mV    | 50A/60mV              |
| M71234. | SH 60A/60mV    | 60A/60mV              |
| M71235. | SH 80A/60mV    | 80A/60mV              |
| M71236. | SH 100A/60mV   | 100A/60mV             |
| M71237. | SH 150A/60mV   | 150A/60mV             |
| M71238. | SH 200A/60mV   | 200A/60mV             |
| M71239. | SH 250A/60mV   | 250A/60mV             |
| M7123A. | SH 300A/60mV   | 300A/60mV             |
| M7123B. | SH 400A/60mV   | 400A/60mV             |
| M7123C. | SH 500A/60mV   | 500A/60mV             |
| M7123D. | SH 600A/60mV   | 600A/60mV             |
| M7123E. | SH 750A/60mV   | 750A/60mV             |
| M7123F. | SH 800A/60mV   | 800A/60mV             |
| M7123G. | SH 1000A/60mV  | 1000A/60mV            |
| M7123H. | SH 1200A/60mV  | 1200A/60mV            |
| M7123J. | SH 1500A/60mV  | 1500A/60mV            |
| M7123K. | SH 2000A/60mV  | 2000A/60mV            |
| M7123L. | SH 2500A/60mV  | 2500A/60mV            |
| M7123M. | SH 3000A/60mV  | 3000A/60mV            |
| M7123N. | SH 4000A/60mV  | 4000A/60mV            |
| M7123O. | SH 20000A/60mV | 20000A/60mV           |
| M7123P. | SH 5000A/60mV  | 5000A/60mV            |
| M7123Q. | SH 6000A/60mV  | 6000A/60mV            |
| M7123R. | SH 7500A/60mV  | 7500A/60mV            |



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Shunts

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| CODE    | TYPE           | Measurement Range (A) |
|---------|----------------|-----------------------|
| M7123S. | SH 8000A/60mV  | 8000A/60mV            |
| M7123T. | SH 10000A/60mV | 10000A/60mV           |
| M7123U. | SH 12500A/60mV | 12500A/60mV           |
| M7123V. | SH 15000A/60mV | 15000A/60mV           |
| M7123Z. | SH 18000A/60mV | 18000A/60mV           |

**SHP:** Faston connection; **SHB:** Insulating base socket(up to 100 A); **SH:** Without base

For other configurations see additional performance table.  
All shunts are supplied with 1.5 m long cables with a 1.5 mm<sup>2</sup> cross-section

SHB 4A/60mV

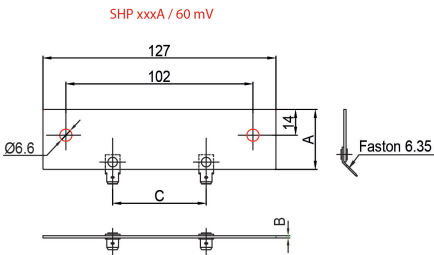
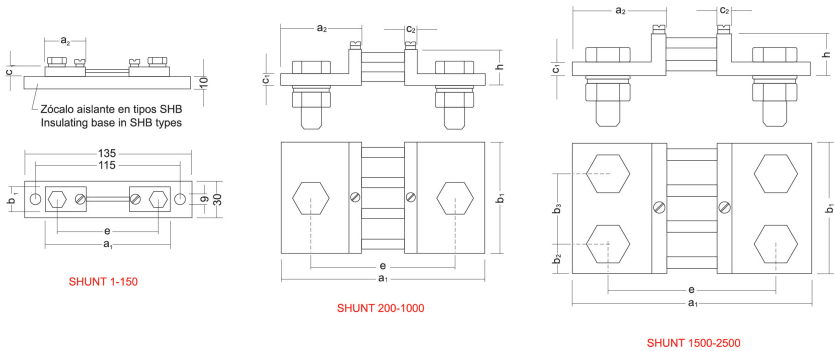


Shunts

Code: M71224.

Dimensions

| Voltage drop mV <sub>50</sub> | Range A <sub>50</sub>    | Fig. | a1  | a2 | b1  | b2 | b3 | c1 | c2 | e   | h  | N° Current connections | Current connections      |                |             | Voltage connections                           |
|-------------------------------|--------------------------|------|-----|----|-----|----|----|----|----|-----|----|------------------------|--------------------------|----------------|-------------|-----------------------------------------------|
|                               |                          |      |     |    |     |    |    |    |    |     |    |                        | Hexagonal screws DIN 933 | Washer DIN 125 | DIN 934 nut |                                               |
| 60                            | 1-1, 5-2, 5-4-6-10-15-25 | 1    | 90  | 28 | 20  | -  | -  | 8  | -  | 78  | -  | 2 x 1                  | M5 x 12                  | 5,3            | -           | 2 Screws M5 x 8 DIN 94 & 2 Washer 5,3 DIN 433 |
|                               | 30-40-60-100-150         |      | 100 | 33 | 20  | -  | -  | 8  | -  | 80  | -  | 2 x 1                  | M8 x 16                  | 8,4            | -           |                                               |
|                               | 250                      | 2    | 145 | 55 | 30  | 15 | -  | 10 | 10 | 105 | 30 | 2 x 1                  | M12 x 40                 | 13             | M12         |                                               |
|                               | 400-600                  |      |     |    | 40  | 20 |    |    |    |     |    | 2 x 1                  | M16 x 45                 | 17             | M16         |                                               |
|                               | 800                      |      | 165 | 65 | 60  | 30 | -  | 10 | 10 | 115 | 30 | 2 x 1                  | M20 x 50                 | 21             | M20         |                                               |
|                               | 1500                     |      |     |    | 90  | 21 |    |    |    |     |    | 2 x 2                  | M16 x 45                 | 17             | M16         |                                               |
|                               | 2500                     |      |     |    | 120 | 30 |    |    |    |     |    | 2 x 2                  | M20 x 50                 | 21             | M20         |                                               |
|                               |                          |      |     |    |     |    |    |    |    |     |    |                        |                          |                |             |                                               |
| 150                           | 1-1, 5-2, 5-4-6-10-15-25 | 1    | 90  | 25 | 20  | -  | -  | 8  | -  | 78  | -  | 2 x 1                  | M5 x 12                  | 5,3            | -           | 2 Screws M5 x 8 DIN 94 & 2 Washer 5,3 DIN 433 |
|                               | 40-60-100-150            |      | 225 | 33 | 25  | -  | -  | 8  | -  | 205 | -  | 2 x 1                  | M8 x 16                  | 8,4            | -           |                                               |
|                               | 250                      | 2    | 270 | 55 | 30  | 15 | -  | 10 | 10 | 230 | 50 | 2 x 1                  | M12 x 40                 | 13             | M12         |                                               |
|                               | 400-600                  |      |     |    | 40  | 20 |    |    |    |     |    | 2 x 1                  | M16 x 45                 | 17             | M16         |                                               |
|                               | 800                      |      | 290 | 65 | 70  | 35 | -  | 10 | 10 | 240 | 60 | 2 x 1                  | M20 x 50                 | 21             | M20         |                                               |
|                               |                          |      |     |    |     |    |    |    |    |     |    |                        |                          |                |             |                                               |
|                               |                          |      |     |    |     |    |    |    |    |     |    |                        |                          |                |             |                                               |
|                               |                          |      |     |    |     |    |    |    |    |     |    |                        |                          |                |             |                                               |



| Units: (A) | A    | B    | C    |
|------------|------|------|------|
| 30         | 35   | 0.7  | 73.5 |
| 40         | 35   | 0.7  | 73.5 |
| 50         | 35   | 0.7  | 73.5 |
| 60         | 35   | 0.7  | 62   |
| 75         | 35   | 1.25 | 48   |
| 100        | 28.5 | 1.25 | 50.5 |
| 150        | 35   | 1.25 | 41.5 |
| 200        | 28.5 | 3    | 64   |