

Single-phase static electricity meters **AMS B1x-SA<sub>x</sub>** are determined for direct and indirect measurement of active energy displaying value on mechanical register with stepping motor. In the case of CT (current transformer) operated meters ( $\times/5A$ ) it is necessary value of register to multiply by the current transformer ratio.

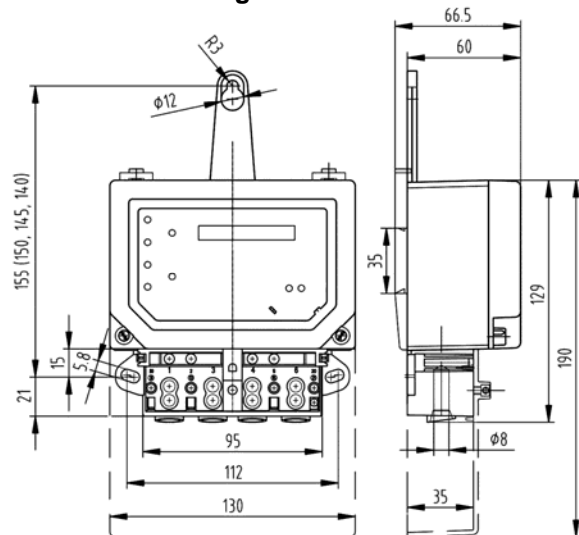
The test pulses indicated by red LED are proportional to the consumed energy. Measurement „using an unidirectional mechanical register“ provides positive energy measurement even if the reverse energy flow.



### Highlights

- The meters can be mounted on the DIN rail (the clips only on request);
- Removable and adjustable upper hinge is included in the package;
- Passive transmitting pulse SO output for remote transmission;
- Indication of voltage presence and reverse energy flow;
- Resistant to external influence;
- Complies with IEC/EN 62052-11, IEC/EN 62053-21; EN 50470-1, EN 50470-3 and with requirements of European Parliament and EC Directive 2014/32/EU (MID);
- It is supplied initially verified for billing measurement.

### Dimensional drawing



### Technical data

<b>Accuracy class</b>	A or B (MID), 2 or 1 (EN 62053-21)
<b>Reference voltage [V]</b>	120, 220, 230, 240 (-30,+15%)
<b>Nominal frequency [Hz]</b>	50 or 60
<b>Reference current <math>I_{ref}</math> [A] direct connection</b>	5 and 10
<b>Nominal current <math>I_n</math> [A] indirect connection</b>	5
<b>Transient current <math>I_{tr}</math> [A] direct/indirect connection</b>	0,5 and 1 / 0,25
<b>Starting current <math>I_{st}</math> [A] direct/indirect connection</b>	$\leq 0,02$ and $0,04 / 0,01$
<b>Minimal current <math>I_{min}</math> [A] direct/indirect connection</b>	0,25 a 0,5 / 0,05
<b>Maximal current <math>I_{max}</math> [A] direct/indirect connection</b>	40, 60, 80, 100 / 6; 7,5; 10
<b>Power consumption - voltage circuit [VA/W]</b>	$\leq 7,5 / 0,4$
<b>Power consumption - current circuit [VA]</b>	$\leq 0,1$
<b>Impulse constant for test output <math>k_{TO}</math> [imp/kWh]</b>	1 - 10 000; normally 6400
<b>Impulse constant for impulse output <math>k_{SO}</math> [imp/kWh]</b>	1 - 10 000; normally 6400
<b>Transistor output SO</b>	24 V / 30 mA
<b>Operating temperature</b>	- 40 °C up to + 70 °C
<b>Mean temperature coefficient [%/K]</b>	$\leq 0,04$
<b>Terminals current ; voltage ; auxiliary [mm]</b>	$\varnothing 8$ ; $\varnothing 3$ ; $\varnothing 3$
<b>Degree of protection</b>	IP54
<b>Meter dimensions <math>w \times h/h' \times d</math> [mm]</b>	130 x 129/190 x 60
<b>Fixing holes distance <math>w \times h</math> [mm]</b>	104 - 112 x 115 - 155
<b>Weight [kg]</b>	$\leq 0,6$

## Marking of meters

### AMS B1x5-SAx8 x9 x10

#### AMS B1..... type designation

**x5** ..... overload capacity: **1** – 120 %, **2** – 150 %, **3** – 200 %, **4** – 400 %, **6** – 600 %, **8** – 800 %, **A** – 1000 %, **B** – 1200 %

**S** ..... basic version: single-rate electricity meter with mechanical register

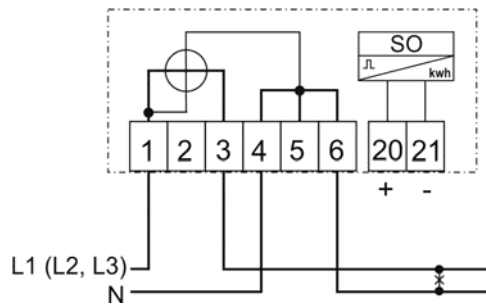
**A** ..... measured energy: active

**x8** ..... network connection: **1** - single-phase 2-wire, **2** single-phase 2-wire with measurement in phase & neutral (only at the terminal block execution of BS type)

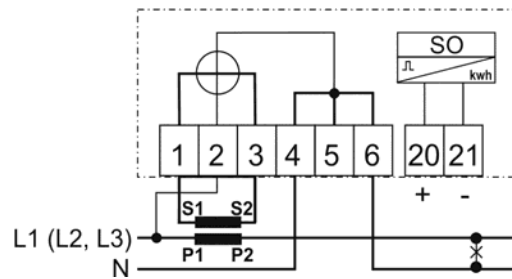
**x9** ..... current converter: **S** - shunt, **T** - transformer

**x10** ..... terminal block version: **B** – BS, symmetrical connection, **C** – BS, asymmetrical connection

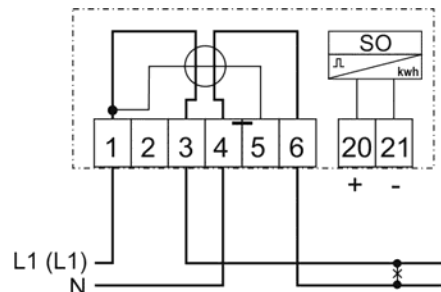
## Connection diagrams - examples



**AMS B1x-SA1**  
(direct, BS terminal block,  
asymmetrical connection)



**AMS B1x-SA1**  
(CT operated, BS terminal  
block, asymmetrical connection)



**AMS B1x-SA2**  
(direct, BS terminal block, asymmetrical connection  
with measurement in phase & neutral)

## Ordering data

- Type and version marking;
- Reference voltage and current range  $I_{ref}/I_n, I_{max}$ ;
- Reference frequency;
- Number of units;
- Required delivery terms.