

Scope

Single-phase static electricity meters **AMS B2x-Fx** are determined for measurement of active, reactive and apparent energy, instantaneous active, reactive and apparent maximum demand, voltage, current and P.F. in 2-wire networks in direct connection. They enable measurement of energy in rates controlled by internal clock (up to 4 rates) or externally controlled in two rates.

The measured values stored in registers according to the OBIS codes are displayed on LCD in cyclic or stepping mode. The electricity meters can be parametrized and readout by using optical probe AMOS type and software supplied by the manufacturer. The testing pulses are signalling by a red LEDs separately for active and reactive energy. The meters can be produced in version with measurement in summary mode (measurement „using an unidirectional mechanical register“) or with measurement in separation mode (measurement of “consumption – supply”).

Highlights

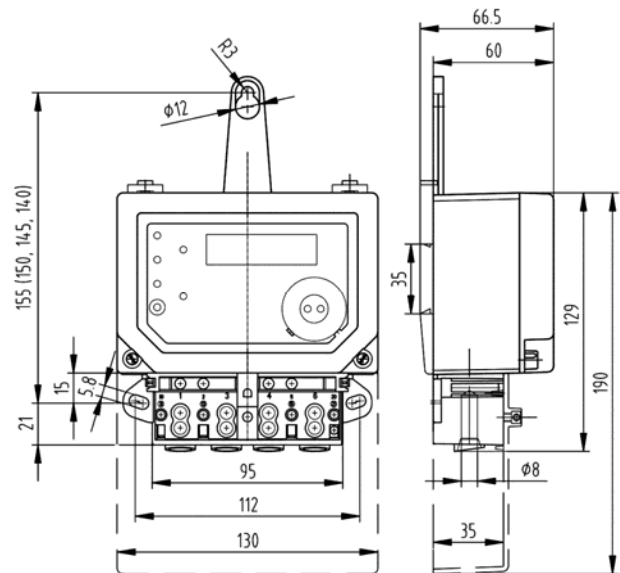
- Measurement of energy, power, voltage, current, power factor ... (+A, -A, +R_i, -R_i, +R_c, -R_c, +R, -R, +S, -S, +P, -P, P_{max}, U, I, cos φ...);
- Removable and adjustable upper hinge is included in the package;
- Historical records of the selected registers, created in the end of month - maximum 15 month historical records;
- Event records (about influence of magnetic field, missing voltage, covers removal,...) – number of events with date of their occurrence;
- Data record in three independent profiles with selectable channels (20 channels);
- Passive impulse SO outputs (particularly for active and reactive energy);
- Communication interface: optical and RS485;
- Welded case on a customer request;
- Compliance 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);
- Electricity meter is delivered with conformity assessment (initial verification) for active energy billing purposes.

Technical data

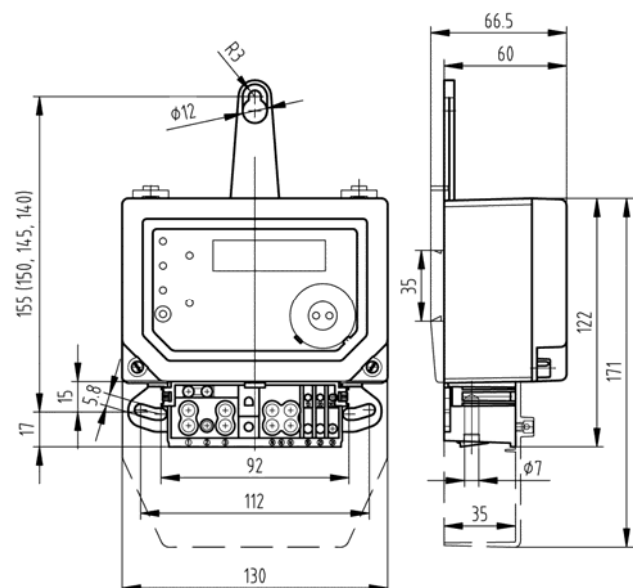
Accuracy class <i>active / reactive energy</i>	A, B (MID); 2, 1 (EN 62053-21)/ 2 and 3 (IEC 62053-23)
Reference voltage [V]	220, 230, 240 (-30,+15%)
Reference frequency [Hz]	50 (± 2 %)
Reference current I_{ref} [A]	5 and 10
Transient current I_{tr} [A]	0,5 and 1
Starting current I_{st} [A]	≤ 0,02
Minimal current I_{min} [A]	0,25 and 0,5
Maximal current I_{max} [A]	60 (DIN terminal block) 100 (BS terminal block)
Power consumption - Voltage circuit [VA/W]	≤ 3,0 / 1,7 (including RS 485)
Power consumption - current circuit [VA]	≤ 0,02
Impulse constant for test output k_{TO} [imp/kWh]	Standard value: 5000; Adjustable by the manufacturer: 1 - 30000
Transistor output SO	24 V / 30 mA
Operating temperature	- 40 °C up to + 70 °C
Mean temperature coefficient [%/K]	≤ 0,04
Terminals <i>current ; voltage ; auxiliary</i> [mm] BS (DIN)	∅ 8 ; ∅ 3 ; ∅ 3 (∅ 7 ; ∅ 3 ; ∅ 3)
Degree of protection	IP53
Meter dimensions š x v/v' x h [mm] BS (DIN)	130 x 129/190 x 60 (130 x 122/171 x 60)
Fixing holes distance š x v [mm] BS (DIN)	104 - 112 x 115 - 155 (92 - 112 x 115 - 155)
Weight [kg]	≤ 0,6



Dimensional drawings



Electricity meter with BS terminal block



Electricity meter with DIN terminal block

Marking of meters

AMS B2x5-Fx71x9 x10|x11

AMS B2..... type designation

x₅ overload capacity: **4** – 400 %, **6** – 600 %, **8** – 800 %, **A** – 1000 %, **B** – 1200 %, **D** – 1600 %, **E** – 2000 %

F basic version: multifunctional electricity meter with LCD and RTC

x₇ measured energy: **A** – active energy, **R** – active + reactive energy, **S** – active + reactive + apparent energy

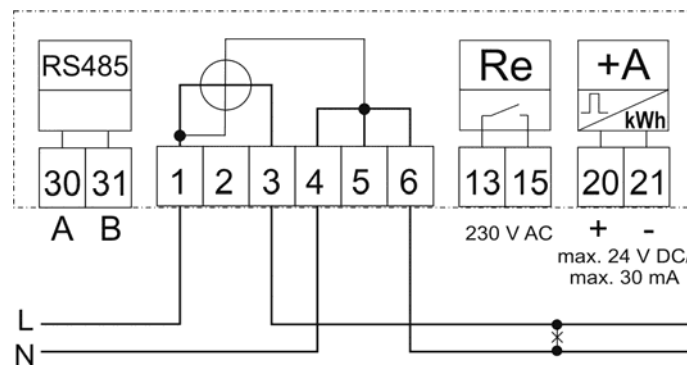
1 network connection: single-phase 2- wire

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

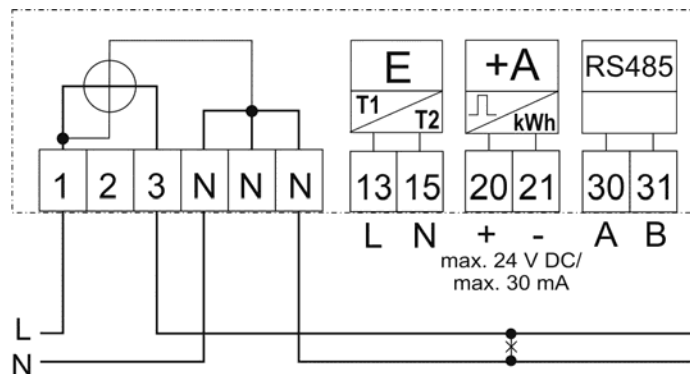
x₁₀ terminal block version: **B** – BS, symmetrical connection, **C** – BS, asymmetrical connection, **D** – DIN, asymmetrical connection

x₁₁ special modules: **4** - RS 485 interface RS 485, **E** - external control of the second rate, **Y** - auxiliary relay 2 A

Connection diagrams - examples



Single-rate measurement, BS terminal block, asymmetrical connection, with SO output, relay and RS485 interface



Double-rate measurement, DIN terminal block, asymmetrical connection with SO output and RS485 interface

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.