The **AMKR** device is a simple microserver designed for regular data collection from electricity meters (AMR system) and then upload to an FTP server for further processing. An additional function is the automatic processing of all collected data into own database, thus ensuring a backup of the data and allows the user to check, view or monitor the collected data in a presentation form (tables, graphs, statuses).

The interface of the electricity meter network is a node called „Gateway“, through which it is possible to communicate with electricity meters.

The user interface consists of websites that run on AMKR. It is possible to connect to the website via the network (LAN, possibly the internet) from any web browser (e.g. Firefox, Chrome, Opera,…) in the user equipment (PC, laptop, phone, tablet,...) in the network. The device can be connected to a LAN (by cable with connector RJ45) and assign static network settings to it (static IP adresss), to be able to communicate with the device (perform setup, administration readout meters, viewing collected data). The user can choose the method of **connecting to the LAN from the Internet**:

- **Direct** redirection
- **Indirect** LAN connection
- Using a **mobile network**

The system consists of two applications:

- Electricity meter application „**AMDC**“ – page for electricity meters managing and data from them (default port 80)
- Device settings application „**AMDC Setter**“ – device settings page (network settings) (default port 10000)

Highlights

- Possibility to configure up to 3 different FTP servers (even outside the LAN);
- Communication with electricity meters wireless via MESH, wired via RS485, or a combination thereof;
- User interface - web pages from any web browser (Firefox, Chrome, Opera,…);
- Standard network device with the ability to connect to the Internet and provide remote access;
- Applications have their own database of users, i. user accounts to individual applications are independent of each other, and each application uses a different port for access.



Concentrator AMKR EU

Technical data

Nominal voltage [V_{rms}]	230 ± 10 %
Power consumption [W]	max. 15
USB communication [Bd]	9600 or 19200
Memory capacity	
Data storage space	3 GB
Storage medium	Micro SD (industrial)
Number of connected electricity meters	1 – 10 21 – 50 over 50 (on the basis of a special request by agreement)
Network connection	Gigabit Ethernet
Temperature range [ºC]	1 up to 50
Coverage	IP56
Dimensions w x h x d [mm]	240 x 190 x 125
Weight [kg]	1,56

Marking of the concentrators

AMKR EUx-CG

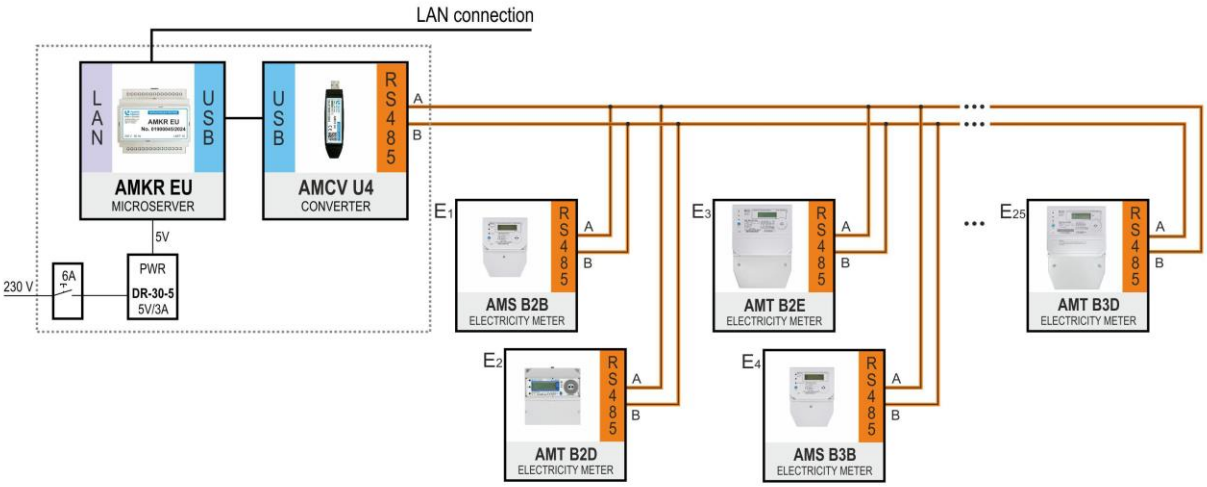
AMKR - marking of the type of equipment

EU - interfaces: **E** – IP interface – ethernet
U – USB interface

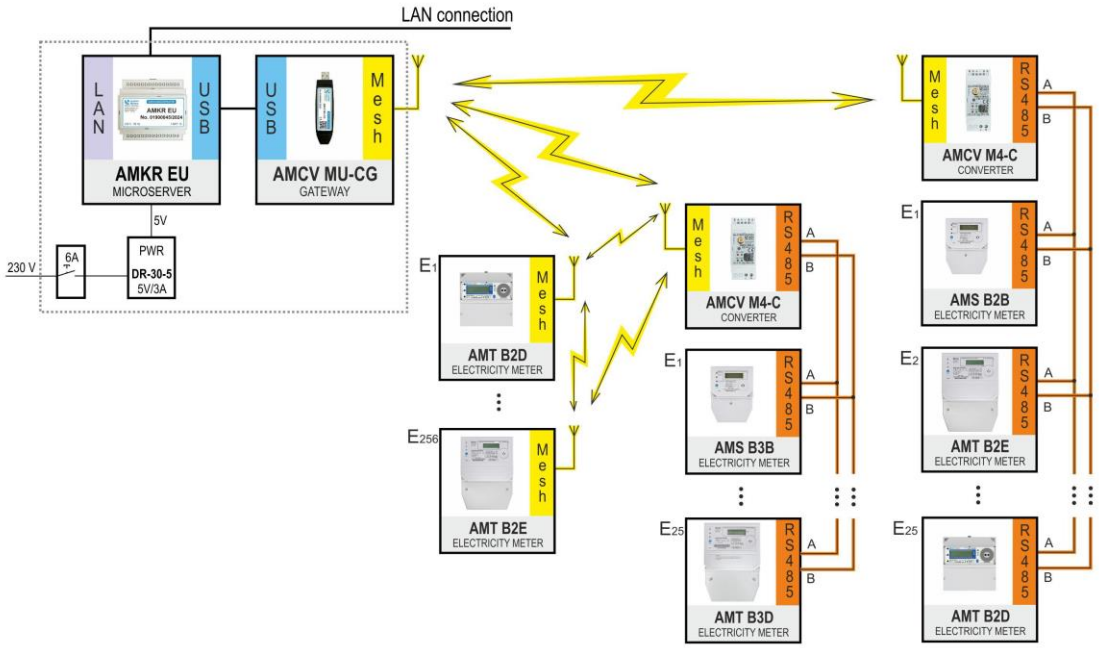
Ordering data

Specification of type and number of pieces.

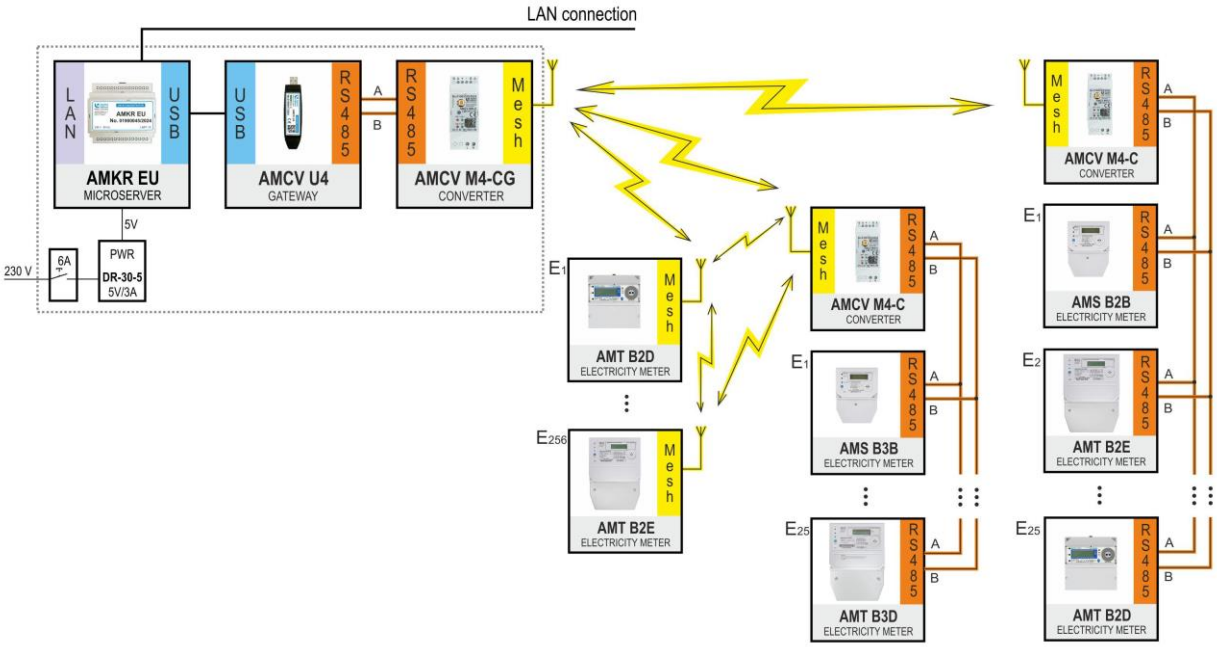
AMR Flow charts – examples of concentrator´s usage



SET1: A group of electricity meters connected to each other by wire via RS485 connected by wire to the concentrator via a USB/RS485 converter



SET 2: Groups of wired and wireless connected electricity meters connected to the concentrator via a USB/Mesh gateway



SET 3: Groups of wired and wirelessly connected electricity meters wirelessly connected to the concentrator via a power gateway and a USB/RS485 converter