

Converters Mesh-gateway/USB of **AMCV MU-CG** type are designed for collection of data from electricity meters in the distribution network, mainly in case of creating of small local networks within AMR systems.

Converters are designed for duplex RF transmission of data between electricity meters equipped with a Mesh radio module or the converter itself in the small local networks within AMR system.

Maximal output transmitting power of the receiver/transmitter Mesh module is 500 mW (27 dBm). Modules with higher power are used for increasing of the transmission range.

Converters are connected to the PC via USB interface. Supply of +5 Vdc is acquired through USB interface, it is stabilized in converter and adapted for feeding the USB/UART converter and the Mesh module.



Properties

- Converters enable cheap and simple solution of AMR system;
- Converters work as a gateway and enable to concentrate data from electricity meters in the PC;
- Small dimensions;
- Does not need its own supply source;
- The converters are manufactured in accordance with the standards IEC/EN 300220, IEC/EN 301489, IEC/EN 60950, IEC/EN 62056-21, IEC/EN 62056-61 and according to requirements of EU Directive for R&TTE.

Technical data

Nominal voltage [V]	+5 Vdc ± 10 % (Supply from USB port in PC)
USB communication [Bd]	9600 or 19200 (In accordance with EN 62056-21)
ISM – Mesh communication [MHz]	868 – 870 (In accordance with EN 300 220)
Number of frequency channels	max. 17
Output power	adjustable: 10 mW / 10 dBm, 25 mW / 14 dBm, 300 mW / 25 dBm, 500 mW / 27 dBm
Sensitivity [dBm]	- 106 (typically, at 4800 bps at RF side)
Range for ISM Mesh [m] For direct connection	typ. 2 000
Range for ISM Mesh [m] In buildings with obstacles	typ. 100
Antenna [ohm]	50 (SMD-chip or SMA female for external antenna)
Dimensions w x h x d [mm]	105 x 21 x 27
Temperature range [°C]	0 to 65
Relative humidity [%]	5 – 75
Weight [kg]	0.05

Marking of the converters

AMCV MU - C G

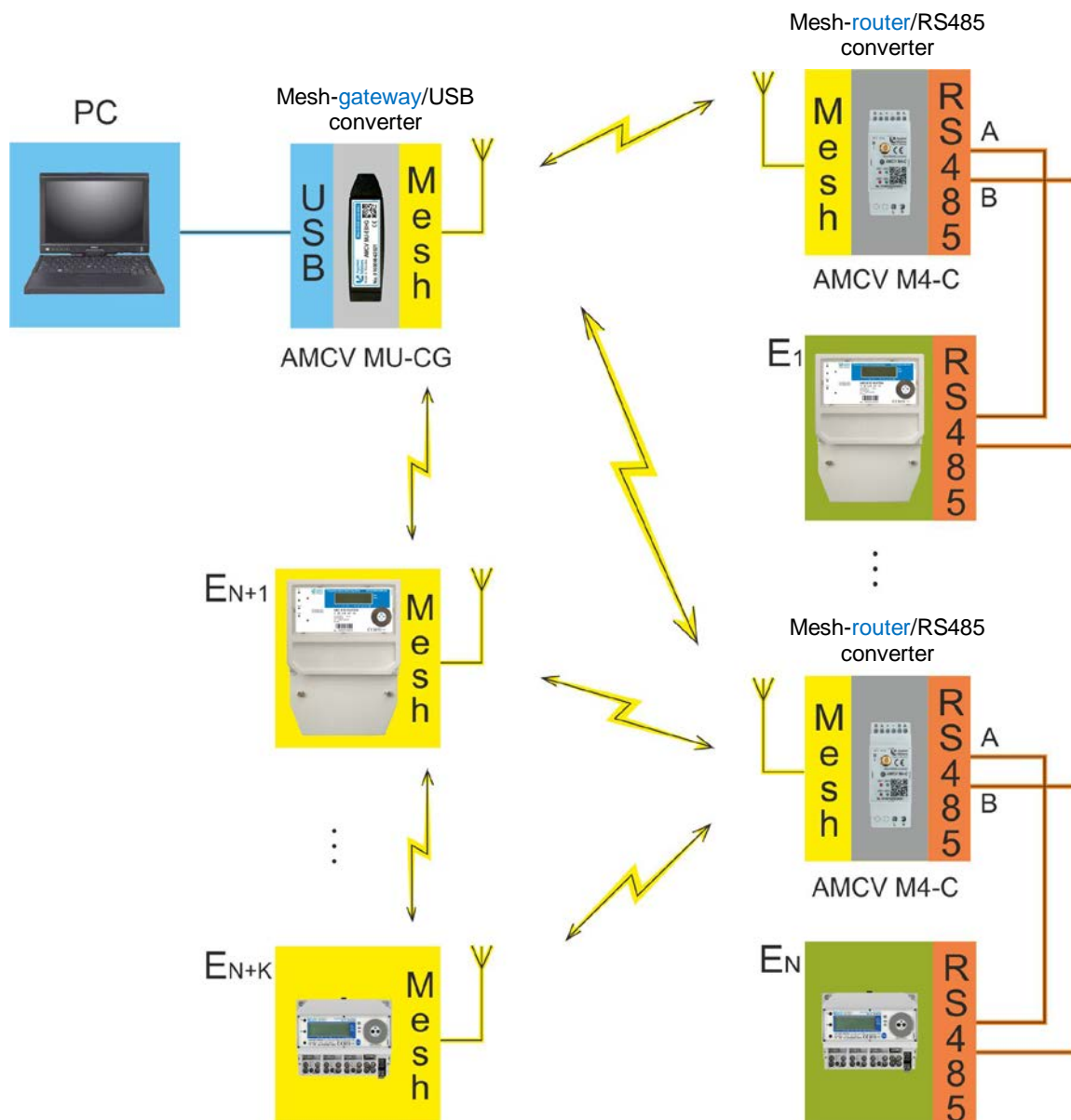
AMCV *designation of a type*

MU *interfaces: M – Mesh interface – wireless, U – USB interfaces*

x₄ *antenna: external antenna with cable and SMA connector (wall mount)*

G *parametrization: gateway*

AMR Flow chart – example of converter's usage



Ordering data - specification of type and version, number of pieces.