

RESIDENTIAL AMM (AMR)

Landis+Gyr Advantis

AC-RG

TECHNICAL DATA



The data concentrator manages and communicates with PLC meters over the power line. It polls the meters on a regular interval (defined in its task list) to supervise the connection to the meters, to detect new meters and to gather registered values and status information from all meters.

PLC Concentrator

Functions

The main functions of the concentrator are:

- manage the inventory and the status of the connected meters;
- execute jobs according to the defined task list;
- periodically gather registered values and store them locally;
- provide an interface to the central system for data exchange;
- provide transparent access from Central System to a single meter.

Voltage

Nominal voltage 3 x 230/400 V

Voltage range 80–115% U_n

Frequency

Nominal frequency 50 Hz

Frequency 47–52 Hz

Power Consumption

Voltage circuits 5 W/10 VA

Environmental Influences

Temperature ranges

Specified operating range -20 °C to +55 °C

Storage and transport -25 °C to +60 °C

Relative Humidity

Annual average < 75%

Vibration according to IEC 60068-2-6

Frequency 10 – 150 Hz

Frequency < 60 Hz 0.15 mm

Frequency > 60 Hz 2 g

Sweep rate 1 octave per min.

Duration 10 sweep cycles (10 min at 100 Hz)

Bump according to IEC 60068-2-29

Number of bumps 1000

Severity 10 g

Impact according to IEC 60068-2-63

Kinetic energy 0.5 J

Impermeability according to IEC 60529

Housing IP 51

Electromagnetic Compatibility

ESD according to IEC 61000-4-2

Contact discharge 15 kV

Air discharge 8 kV

Oscillatory waves immunity

according to IEC 61000-4-12

Common mode 2.5 kV

Differential mode 1 kV

Fast Transient Burst

according to IEC 61000-4-4

Voltage circuits 4 kV

Auxiliary circuits 2 kV

Magnetic Field according to IEC 61000-4-8

Field 400 A/m – 50 Hz

Immunity to Electromagnetic RF Fields

according to IEC 61000-4-3

80 – 1000 MHz 30 V/m

Immunity to conducted disturbances induced by radio-frequency fields

according to IEC 61000-4-6

Wave 10 V

Frequency 150 kHz – 80 MHz

Radio Interference

Level class B

Surge Immunity according to IEC 61000-4-5

Surge 1.2/50 μ s

- circuits/earth 5 kV

- circuits/neutral 4 kV

Insulation Strength

Impulse voltage according to IEC 61180-1

Surge 1.2/50 μ s

- differential mode (main circuit) 12 kV

- common mode (between circuits) 8 kV

Alternating Voltage according IEC 61180-1

All circuits to earth 4 kV

Between circuits 2 kV

Insulation resistance

Circuits/earth 1200 T Ω

Calendar Clock

Accuracy at 23 °C < 30 ppm

Backup Time (Power reserve)

With super cap > 6 days

Loading time for max. backup time 24 h

Communication Interface

PLC Network

Output levels CENELEC 50065-1/A1

Protocols IEC 61334-5-1/-4-32

Application layer dmls IEC 61334-4-41

Encoding, AXDR IEC 61334-6

Network management IEC 61334-4-512

Indicators run, snd/rcv, crc_OK

Ethernet Network

Network 10/100 Mbps

Connector RJ45

Indicators Act, Link 10, Link 100, FDx

PSTN Network (optional)

Standard ITU-T V.92

Connector RJ11

Indicators Rx, Tx, Line

GSM Network (optional)

Network GSM Network

Modem Dual band 900/1800 MHz

Antenna connector SMA

Indicators Rx, Tx, RSL, OPM

Connections

Terminal Layout

Type Screw terminal

Conductor cross section 1.5 – 2.5 mm²

Material

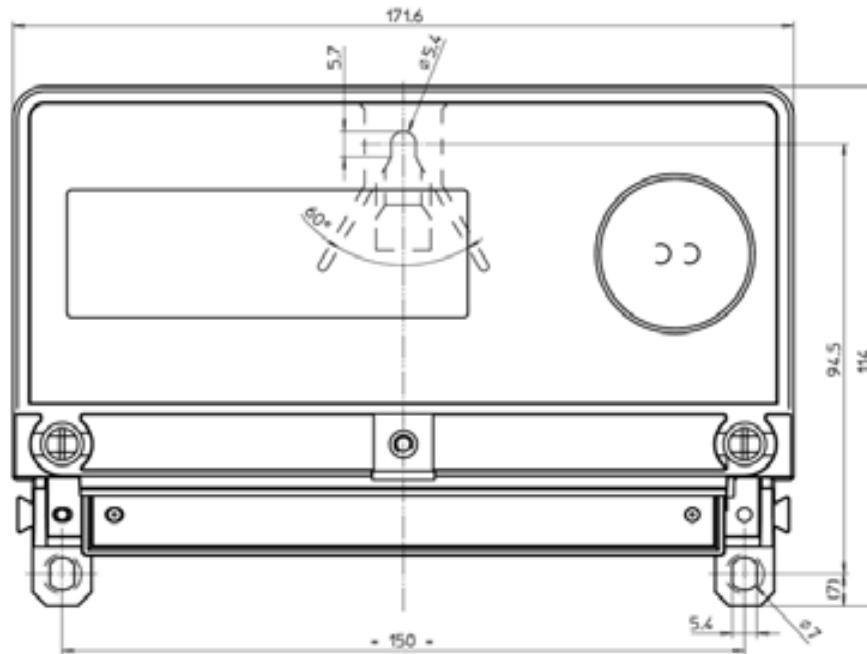
Case polycarbonate

Weight and Dimensions

Weight approx. 700 g

Width/Height/Depth 178/183/69 mm

Size



Type Designation

AC – R G O A

Type

R Generation with Ethernet interface

Communication Medium

G GSM/GPRS

I Reserve

P PSTN

X None

Extended Memory

0 None

1 Extended memory 4 MByte

2 Extended memory 8 MByte

Extended Functions

A None

B Reserve

Data subject to change without notice

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