

COMMUNICATION

Landis+Gyr

CU-Q22 FOR ZMQ METERS

TECHNICAL DATA



Design

Type

Type	RS485	RS485
CU-Q22	•	•

Supported Communication Protocols

IEC 62056-21 *dlms*
subset of IEC 870-5-102

Fitting

Directly in ZxQ meter

Power Consumption

Maximum Active/Apparent Power 1.3 W / 2.1 VA

Subset of IEC 870

Protocol with the following functions

<1>	Single message with time stamp
<2>	Meter readings for billing, each 4 octets

System information

<70>	End of initialisation (only used for dedicated line)
<71>	Manufacturer and product specification of the meter (LGZ, Serial number)
<72>	Current system time

<100>	Retrieval of manufacturer and product specification
<102>	Event log (message memory)
<103>	Retrieval of current system time of meter
<104>	Retrieval of meter readings for billing of the oldest measuring period
<106>	Retrieval of meter readings for billing of a particular measuring period in the past
<120>	Retrieval of meter readings for billing of a specified time and address range

Channel	Application	Protocol	Measuring period
Channel 1	operation management	IEC 870 or dlms	$t_m = 3$ min (dedicated line)
Channel 2	billing	IEC870 or dlms	$t_m = 15$ min

The t_m values are examples of real applications. t_m can be parametrised. However, all t_m values must be the same for one particular meter.

Applications

Version a	Limitation: channel 1+2 IEC 870 no remote parametrisation
Version b	Channel 1 IEC 870 Channel 2 dlms number can be used for remote parametrisation
Version c	Channel 1+2 as dlms

RS485 Interfaces

2 interfaces are present

asymmetric, serial, asynchronous, bi-directional interface (slave only)

standard ISO-8482

maximum number of slaves 31

channel 1:

maximum transmission rate 9'600 bps

channel 2:

maximum transmission rate 57'600 bps

max. line length depending on environment/cable

- up to 250 m at max. 57'600 bps+max. 31 slaves

- up to 550 m at max. 38'400 bps+max. 31 slaves

- up to 1000 m at max. 19'200 bps+max. 15 slaves

Displays

LED Displays TX, RX

connection and data flow

Environmental Influences

In general same as for base meter

Insulation Strength to Meter

Insulation Strength 4 kV at 50 Hz for 1 min

insulation spacing at least 6.3 mm

insulation between RS485 (1) – RS485 (2)

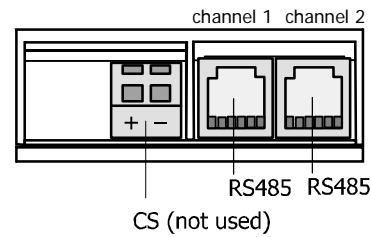
Weight and Dimensions

Weight ca. 80 g

Width / Height / Depth 65 / 103 / 38 mm

Connections

Terminal Layout



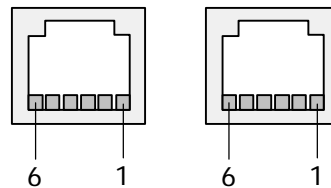
Connection to meter

10-pin connector at rear of CU

RS485 Interface

RJ12 socket

Pin assignment:



RS485:

1 GND

2 UP (Data a)

3 UN (Data b)

4 UN (Data b)

5 UP (Data a)

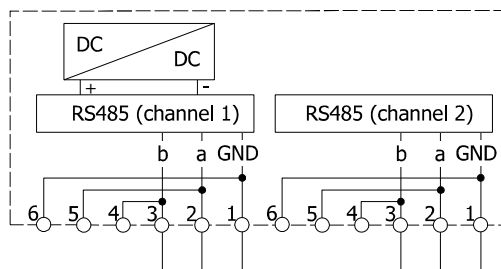
6 GND

Material

Case polycarbonate

Connection Diagram

Example CU-Q22



Subject to change without notice.

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