

# 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)

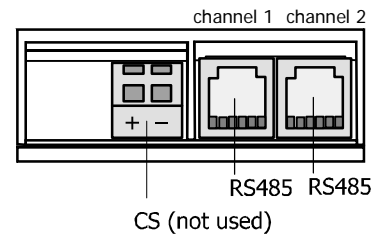
## Weight and Dimensions

Weight ca. 80 g

Width / Height / Depth 65 / 103 / 38 mm

## Connections

### Terminal Layout



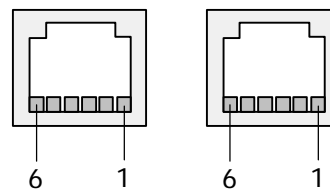
### Connection to meter

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)

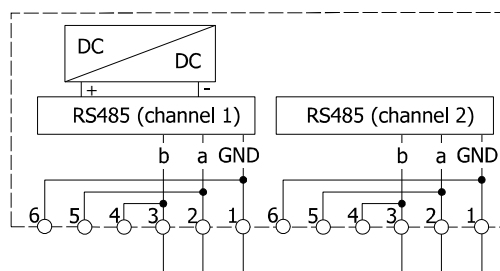
6 GND

## Material

Case polycarbonate

## Connection Diagram

### Example CU-Q22



Subject to change without notice.

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