

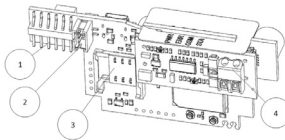
CMi2110_{G3}

Integrated MCM for L+G UH50, Gateway for Mobile Network

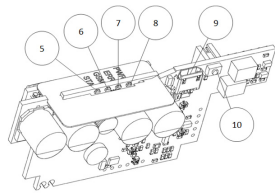
INTRODUCTION

CMi2110 is an integrated solution for L+G UH50 meters. For a complete description of the product or for information in other languages, visit the Elvaco AB website, <http://www.elvaco.com>.

OVERVIEW



1. L+G UH50 interface
2. Power connector
3. SIM card holder
4. M-Bus connector*
5. STA LED (blue)
6. GSM LED (yellow)
7. ERR LED (red)
8. PWR LED (green)
9. USB interface
10. Push button



MOUNTING

CMi2110 is mounted in the module slot of a L+G UH50 meter with software version 5-15 or higher. Please see the CMi2110 user's manual for detailed information on how to mount the MCM.

IMPORTANT

- Electrostatic sensitive device. Handle only static safe work stations.



POWER SUPPLY

The installation should be performed by a qualified electrician or an installer with the required knowledge. The power needs to be connected via a clearly marked and easily accessible switch to make sure the device can be switched off during service work. There are two power supply options for CMi2110: the 24 VAC/VDC power supply (WZU-ACDC24-50) and the 230 VAC power supply (WZU-AC110/230-50).

SIM CARD

For the CMi2110 to be able to use the mobile network, a GSM SIM card needs to be installed in the SIM card holder (3).

IMPORTANT

- The SIM card should not have any PIN code activated.
- The SIM card must have GPRS internet access activated for full functionality.
- If a prepaid SIM card is used, make sure that it has enough credit.

ANTENNA

The included antenna is connected to the SMA connector and needs to be placed at least 1 meter away from the L+G UH50 meter.

IMPORTANT

- CMi2110 should be connected to the antenna when the antenna wiring is done. Otherwise the SMA connector might be damaged.
- Do not mount the antenna close to any metallic objects or the M-Bus 2-wire.

M-BUS*

M-Bus is a multi-drop 2-wire bus with no polarity. Use a cable of area 0.2-0.75 mm², e.g. a standard telephone cable (EKX 2x2x0.5) to connect up to 8 meters to the M-Bus connector (4). Do not exceed the maximum cable length of 1000 m.

INSTALLATION/SEND SMS COMMAND

CMi2110 is normally configured via SMS commands. Select a command from the table below and send it to the phone number of the SIM card.

Function	SMS command
Perform a meter installation	install n [profile]
Perform a meter installation, and delete all previously installed meters	install n [profile] clean
Perform a meter installation, and keep all previously installed meters	install n [profile] keep
Request a status report from the CMi2110	status
Synchronize time with internet time server	timesync
Send momentary meter values via e-mail	momreport
Send momentary meter values to a selected recipient	momreport email.to=name@domain.se
Receive momentary meter values via sms	momreport 10I [secondary address]
Receive meter values from the last day structured in an Excel file	report 1day 1104 email.to=name@domain.se
Receive hourly meter values from the last day, structured in an Excel file, once every day	sch report1 1day 1104

n: the number of meters to be installed.

[profile]: customer specific profile with customized settings (created by Elvaco). If no profile is specified, default settings will be used.

[secondary address]: the secondary address of the meter. When performing a meter installation, a text message will be received from the CMi2110 within one minute, confirming that the installation has started. The MCM will send an additional text message after the installation has completed, informing whether it was successful or not.

TROUBLESHOOTING

All LEDs are permanently off

This indicates an error with the supply voltage. Please verify 100-240 VAC. If the problem persists, please contact Elvaco for support.

Red LED is permanently on

This indicates an error on the M-Bus. Please verify no short-circuit. The voltage on the M-bus should be in the range of 24-30 VDC.

Red LED is flashing

This indicates an error on the GSM network or with the SIM card. Please verify that:

- The SIM card is activated and has clean contact areas.
- The SIM card does not use a PIN code.
- The network coverage is sufficient (a signal strength of at least 3). A poor network coverage will sometimes require an external antenna.

The product does not respond to SMS requests

Please verify that:

- The product is powered and LEDs are indicating normal operation.
- There is enough credit on the SIM card.
- The correct verify access code is used when sending the SMS.

No meters are found

Please verify that:

- Voltage over connected M-Bus meters is in the range of 24–30 VDC.
- All M-Bus slaves have a unique secondary addresses.
- The slave devices support the baud rate used by the CMI2110.

Status Report indicates missing APN

This may be due to the fact that the auto APN detection is missing information about your network provider. The APN can be set manually. See the CMI2110 Operations guide for more information.

E-mail settings have been configured but no e-mails are received

This may be due to one of the following reasons:

- No/no valid recipients have been set. Set recipients by using the command qset email [recipient].
- The wrong SMTP server is set. Check current SMTP server by using the command status. If no SMTP server has been set, use the command qset email [recipient] [server] to set it manually.
- The report is not correctly activated. Use the command sch to schedule e-mail Push Reports (see table).
- There is not enough credit on the SIM card.

SAFETY

The warranty does not cover damage to the product caused by usage in any other way than described in this manual. Elvaco AB can not be liable for personal injury or property damage caused by usage in any other way than described in this manual.

ORDERING INFORMATION

Product	Part number	Description
CMI2110 (gen.3)	1050125	Integrated MCM for L+G UH50, Gateway for Mobile Network (OT/0)
CMI2110 (gen.3)	1050122	Integrated MCM for L+G UH50, Gateway for Mobile Network (8T/128 meters)
CMip2110	1050055	Power supply 24 VAC
CMip2110	1050053	Power supply 100–240 V

SIMPLIFIED DECLARATION OF

CONFORMITY

Hereby, Elvaco declares that the product is in compliance with the following directives:

EU:

- 2014/53/EU (RED)
- 2014/30/EU (EMC)
- 2014/35/EU (LVD)
- 2011/65/EU + 2015/863 (RoHS)

UK:

- 2017 No. 1206
- 2016 No. 1091
- 2016 No. 1101
- 2012 No. 3032

The complete Declaration of Conformity can be found at www.elvaco.se/en > Search on product.

TECHNICAL SPECIFICATIONS

Mechanics

Protection class	IP54
Mounting	In Landis+Gyr UH50
SIM card	Slide, standard size

Electrical connections

Supply voltage	WZU-AC 110/230-50 or WZU-ACDC24-50
Connection M-Bus*	Push-pull connector, cable area 0,2–0,75 mm ²

Electrical characteristics (WZU-AC 110/230-50)

Nominal voltage	100–240 VAC (+/- 10%)
Frequency	50/60 Hz
Power consumption (max)	<6 W
Power consumption (nom)	<1 W
Installation category	CAT 2

User interface

Green LED	Power
Red LED	Error
Yellow LED	GSM status
Push button	Factory reset
Configuration	SMS, HTTP, GSM CSD, Telnet

Integrated M-Bus Master*

M-Bus baud rate	2400 and 9600 bit/s
Nominal voltage	28 VDC
Maximum unit loads	8T/12 mA (in addition to the meter in which the MCM is mounted)
Maximum cable length	1000 m (100 nF/km, maximum 90 Ω)

Approvals

EMC	EN 61000-6-2, EN 61000-6-3, EN 301 498-1, EN 310 489-7
Safety	EN 61010-1, CAT 2

*Only applicable to the CMI2110 equipped with M-Bus Master

CONTACT INFORMATION

Elvaco AB Technical support:

E-mail: support@elvaco.com

Online: www.elvaco.com

