

Landis+Gyr ZMD4xx with CU-XE - Commissioning

This brief installation instruction provides a quick overview of all the necessary steps. Additional information, safety instructions, references, and sources can be found in our [HelpCenter](#). The Installation instructions are only valid for the integration of the energy management system and the configuration of relevant assets. Make sure to carefully read the **safety instructions** and adhere to the **infrastructural requirements for a gridBox gateway installation**.

Required:

- Admin credentials for the management UI
- Scaling factors to configure voltage and current ratios of the used voltage and current transformers.
- Latest firmware



Configuration

The meter and the communication module must be configured by a certified metering operator.



IMPORTANT

While the laptop is connected to the CU-XE unit for administration via the UI, the meter does not provide updated meter values in reasonable time. For a correct operation of the meter, the laptop must be disconnected from the UC-XE unit.



NOTE

Scaling factors are required in order to configure voltage- and current ratios of the used voltage- and current transformers.

During this configuration, these steps are required:

1. Connect a laptop to the management Ethernet port and logon as Admin to the management UI.
2. Configure the IP address, subnet mask (CIDR notation) and default gateway.
3. Make sure that the Modbus TCP port is set to **1502** and byte order is selected as **CDAB**.
4. Under section **Protocol conversion** edit the **Clients** configuration as shown below:



- a. **DLMS Config** - this represents the mapping of OBIS Codes to field names.

Apparent power L2	Mapper	Number to Number scaled (2,3)	1-1:49.7.0.255	3	High	<input checked="" type="checkbox"/>	⌕ ⬆ ⬇ ⬆
Apparent power L3	Mapper	Number to Number scaled (2,3)	1-1:69.7.0.255	3	High	<input checked="" type="checkbox"/>	⌕ ⬆ ⬇ ⬆
Current L1	Mapper	Number to Number scaled (2,3)	1-1:31.7.0.255	3	High	<input checked="" type="checkbox"/>	⌕ ⬆ ⬇ ⬆
Current L2	Mapper	Number to Number scaled (2,3)	1-1:51.7.0.255	3	High	<input checked="" type="checkbox"/>	⌕ ⬆ ⬇ ⬆
Current L3	Mapper	Number to Number scaled (2,3)	1-1:71.7.0.255	3	High	<input checked="" type="checkbox"/>	⌕ ⬆ ⬇ ⬆
Voltage L1	Mapper	Number to Number scaled (2,3)	1-1:32.7.0.255	3	High	<input checked="" type="checkbox"/>	⌕ ⬆ ⬇ ⬆
Voltage L2	Mapper	Number to Number scaled (2,3)	1-1:52.7.0.255	3	High	<input checked="" type="checkbox"/>	⌕ ⬆ ⬇ ⬆
Voltage L3	Mapper	Number to Number scaled (2,3)	1-1:72.7.0.255	3	High	<input checked="" type="checkbox"/>	⌕ ⬆ ⬇ ⬆
Frequency	Mapper	Number to Number scaled (2,3)	1-1:14.7.0.255	3	High	<input checked="" type="checkbox"/>	⌕ ⬆ ⬇ ⬆
s/n	Mapper	OctetString to Bit	0-0:42.0.0.255	1	High	<input checked="" type="checkbox"/>	⌕ ⬆
	Value Attribute	2					
	Bit Number	32					

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save

DLMS Status
DLMS Config
Modbus Config

Access security

Authentication

Password (secret) (hex encoded)

Message security

Extended meter study

Mappings:

Name	Mapper	Object	Class	Polling group	PA	
Active Power Sum	Mapper	Number to Number scaled (2,3)	1-1:16.7.0.255	3	High	<input checked="" type="checkbox"/> ⌕ ⬆ ⬇ ⬆
Reactive Power Sum	Mapper	Number to Number scaled (2,3)	1-1:131.7.0.255	3	High	<input checked="" type="checkbox"/> ⌕ ⬆ ⬇ ⬆
Apparent Power Sum	Mapper	Number to Number scaled (2,3)	1-1:9.7.0.255	3	High	<input checked="" type="checkbox"/> ⌕ ⬆ ⬇ ⬆
Active Power L1	Mapper	Number to Number scaled (2,3)	1-1:36.7.0.255	3	High	<input checked="" type="checkbox"/> ⌕ ⬆ ⬇ ⬆
Active Power L2	Mapper	Number to Number scaled (2,3)	1-1:56.7.0.255	3	High	<input checked="" type="checkbox"/> ⌕ ⬆ ⬇ ⬆
Active Power L3	Mapper	Number to Number scaled (2,3)	1-1:76.7.0.255	3	High	<input checked="" type="checkbox"/> ⌕ ⬆ ⬇ ⬆
Reactive Power L1	Mapper	Number to Number scaled (2,3)	1-1:151.7.0.255	3	High	<input checked="" type="checkbox"/> ⌕ ⬆ ⬇ ⬆
Reactive Power L2	Mapper	Number to Number scaled (2,3)	1-1:171.7.0.255	3	High	<input checked="" type="checkbox"/> ⌕ ⬆ ⬇ ⬆
Reactive Power L3	Mapper	Number to Number scaled (2,3)	1-1:191.7.0.255	3	High	<input checked="" type="checkbox"/> ⌕ ⬆ ⬇ ⬆
Apparent power L1	Mapper	Number to Number scaled (2,3)	1-1:29.7.0.255	3	High	<input checked="" type="checkbox"/> ⌕ ⬆ ⬇ ⬆
Apparent power L2	Mapper	Number to Number scaled (2,3)	1-1:49.7.0.255	3	High	<input checked="" type="checkbox"/> ⌕ ⬆ ⬇ ⬆

b. **Modbus Config** - this represents the mapping of field names to Modbus register numbers.

Modbus
IEC 60870-5-104

grid x

grid x

Label
grid x

Mappings

Data point	Bank	Address	Format	Scaling	
dims-cosem-client/dv/1/3/1-116.7.0.255/n_ns(2,3) --> Active Power Sum <- float	input	0	float	0.04	✕ ↕
dims-cosem-client/dv/1/3/1-131.7.0.255/n_ns(2,3) --> Reactive Power Sum <- float	input	2	float	0.04	✕ ↕
dims-cosem-client/dv/1/3/1-19.7.0.255/n_ns(2,3) --> Apparent Power Sum <- float	input	4	float	0.04	✕ ↕
dims-cosem-client/dv/1/3/1-136.7.0.255/n_ns(2,3) --> Active Power L1 <- float	input	6	float	0.04	✕ ↕
dims-cosem-client/dv/1/3/1-156.7.0.255/n_ns(2,3) --> Active Power L2 <- float	input	8	float	0.04	✕ ↕
dims-cosem-client/dv/1/3/1-176.7.0.255/n_ns(2,3) --> Active Power L3 <- float	input	10	float	0.04	✕ ↕
dims-cosem-client/dv/1/3/1-151.7.0.255/n_ns(2,3) --> Reactive Power L1 <- float	input	12	float	0.04	✕ ↕
dims-cosem-client/dv/1/3/1-171.7.0.255/n_ns(2,3) --> Reactive Power L2 <- float	input	14	float	0.04	✕ ↕
dims-cosem-client/dv/1/3/1-191.7.0.255/n_ns(2,3) --> Reactive Power L3 <- float	input	16	float	0.04	✕ ↕
dims-cosem-client/dv/1/3/1-29.7.0.255/n_ns(2,3) --> Apparent power L1 <- float	input	18	float	0.04	✕ ↕
dims-cosem-client/dv/1/3/1-49.7.0.255/n_ns(2,3) --> Apparent power L2 <- float	input	20	float	0.04	✕ ↕
dims-cosem-client/dv/1/3/1-69.7.0.255/n_ns(2,3) --> Apparent power L3 <- float	input	22	float	0.04	✕ ↕
dims-cosem-client/dv/1/3/1-31.7.0.255/n_ns(2,3) --> Current L1 <- float	input	24	float	40	✕ ↕
dims-cosem-client/dv/1/3/1-51.7.0.255/n_ns(2,3) --> Current L2 <- float	input	26	float	40	✕ ↕
dims-cosem-client/dv/1/3/1-71.7.0.255/n_ns(2,3) --> Current L3 <- float	input	28	float	40	✕ ↕
dims-cosem-client/dv/1/3/1-32.7.0.255/n_ns(2,3) --> Voltage L1 <- float	input	30	float	1	✕ ↕
dims-cosem-client/dv/1/3/1-52.7.0.255/n_ns(2,3) --> Voltage L2 <- float	input	32	float	1	✕ ↕
dims-cosem-client/dv/1/3/1-72.7.0.255/n_ns(2,3) --> Voltage L3 <- float	input	34	float	1	✕ ↕
dims-cosem-client/dv/1/3/1-14.7.0.255/n_ns(2,3) --> Frequency <- float	input	36	float	1	✕ ↕
dims-cosem-client/dv/1/1/0-0.42.0.0.255/oa_b(2,32) --> s/n <- bool	input	38	float	1	✕ ↕

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