CM3-Ethernet Quick Guide

CM3-Ethernet is a plug-in card with Ethernet 10/100 Mbit interface in RJ45 connector. It provides an interface for connecting a PC with through ethernet/internet network, for sending active e-mails and for integration of the controller into a building management (MODBUS TCP and SNMP protocols).
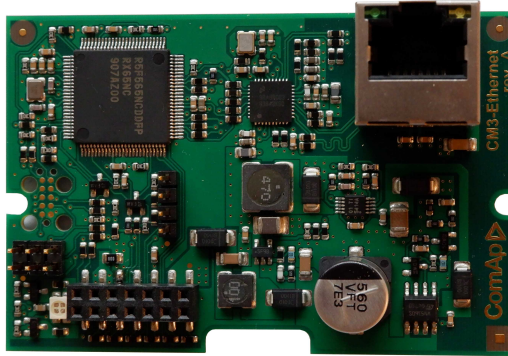

Image 1.1 CM3-Ethernet interface

> **IMPORTANT: Any manipulation with plug-in module shall be done with disconnected power supply to controller.**

Use an Ethernet UTP cable with a RJ45 connector for linking the module with your Ethernet network. The module can also be connected directly to a PC using cross-wired UTP cable.

> **IMPORTANT: Module functionality depends on used controller. Before usage of module please check controller manual to see which functions are supported.**

CM3-Ethernet module setup

All settings related to the module are to be adjusted via the controller setpoints. The respective setpoints are located in the setpoint group CM-Ethernet.

All actual operational values like actual IP address etc. are available in controller values in a specific group as well.

Getting started with AirGate

1. Make sure controller has link to Internet
   a. CM3-Ethernet is connected to LAN infrastructure, has an IP address and access to Internet
   b. CM2-4G-GPS is connected to a mobile operator (preferably to 3G/4G network) and has an IP address
2. Connect with InteliConfig e.g. via USB and check setpoints as follows:
   a. *AirGate connection* = ENABLED
   b. *AirGate port* = 54440
   c. *AirGate address* = global.airgate.link
3. Adjust *AirGate key* in InteliConfig – this is your "secret key" that you have to provide always when you want to connect to the controller via AirGate.
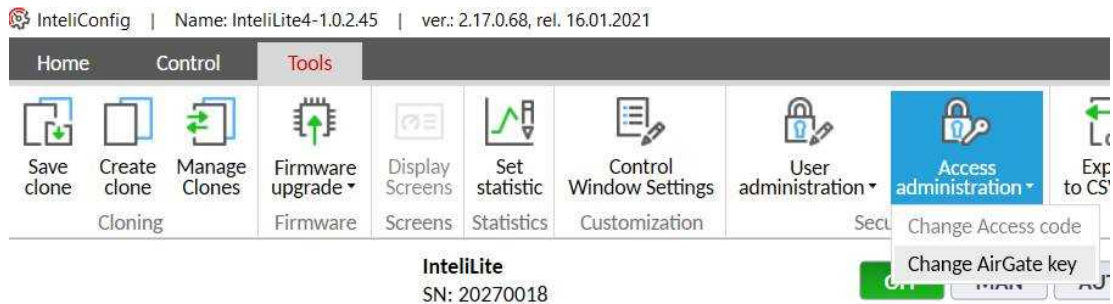
Image 1.2 Changing AirGate key

4. Wait for approx 2 – 4 minutes until the controller connects to AirGate. You can see the progress by observing the value *AirGate status* in InteliConfig

5. When the controller is connected to AirGate it will generate *AirGate ID* for the controller. This AirGate ID is the "phone number" of the controller.

Note: If CM3-Ethernet and CM2-4G-GPS are used simultaneously the assigned AirGate ID will be different for each module, so the controller will be accessible via two different AirGate ID.

Connecting from InteliConfig via AirGate 2.0

AirGate ID	controller addressing ID (see above)
Access Code	leave empty
AirGate Key	AirGate Key adjusted in controller as per description above
AirGate Server	"global.airgate.link:54441"
Username, Password	use your credentials

AirGate operational and diagnostic information

Object	Description
Not defined	Indicated while the controller is actually not trying to connect to AirGate. This is initial value of the status.
Wait to connect	Indicated while the controller is waiting the "repetition period" before next attempt to connect to a node is performed.
Resolving	Indicated while the controller is resolving domain name of the node to which it is attempting to connect.
Connecting	Indicated while the controller is attempting to establish TCP link to the node.
Creat sec chan	Indicated while CCS encrypted channel is being negotiated.
Registering	Indicated when the CCS channel has been established until AirGate sends message "setRuntimeParams" (with any registration status).
Conn inoperable	Indicated when AirGate sent registration status other than "Authorized" until the status changed to "Authorized".
Conn operable	Indicated when AirGate sent registration status "Authorized" until the status changed to any other one.
Susp AGkeyEmpty	Indicated when the service is enabled but suspended due to empty AirGate key. *Note: If you see this status message you have to adjust AirGate Key as per instructions above.*

Getting started with active e-mails

The built-in e-mail client is **capable to operate with most SMTP servers**, including those requiring secure sockets and/or user login.

Preferred procedure

1. Obtain a suitable SMTP server. There are following options:

   a. Use a SMTP server located inside the infrastructure where the module is to be used and ask IT personal for the information about it and about appropriate settings.

   b. Create an account in some public e-mail service like smtp2go.com

2. Adjust the setpoints as follows:

   a. SMTP Server Address = < selected smtp server>:<port> (ilustration example: *smtp.company.net:465*)

   b. SMTP Sender Address = adjust a sender address here, which **must** match the selected server policy (illustration example: controller001@company.net)

   c. SMTP User Name = <account name> or blank if authentication is not required by the server

   d. SMTP Password = <account password> or blank if authentication is not required by the server

   e. SMTP Encryption = <according to the server requirements>

Optional procedure

If your controller and module are connected to AirGate you may also use AirGate SMTP service. Using this option is possible only if the controller and module are connected to AirGate.

Note: It may take up to 10 minutes after the controller/module have connected to AirGate till the service becomes available.

1. Adjust the setpoints as follows:
    a. SMTP Server Address = mail.airgate.link
    b. SMTP Sender Address = adjust some e-mail address here, it **must** be from an **existing domain** and the domain must allow sending e-mails from 3rd party SMTP servers.
    c. SMTP User Name = blank
    d. SMTP Password = blank
    e. SMTP Encryption = NONE

Firmware upgrade

- > Download the newest FW of module from ComAp website (in form of PSI file or installation package)
- > Instal package to computer or open PSI to instal it into InteliConfig
- > Plug the module into the controller and power the controller on.
- > Open a connection with controller via InteliConfig
- > Go the menu Tools -> Firmware upgrade, select the Plug-in modules tab and select the appropriate firmware you want to program into the module (in InteliConfig).
- > Press the OK button to start upgrade of firmware.

The firmware update process may be performed via any kind of connection including connection via the same module in which the firmware is to be updated. The connection is reestablished again automatically when the update process is finished.

*Note: For more information see InteliLite4 Global Guide on www.comap-control.com.*

Plug-in module installation

> **IMPORTANT: Any manipulation with plug-in module shall be done with disconnected power supply to controller.**

Remove the back cover. To do this, press four holders which are located in corners.
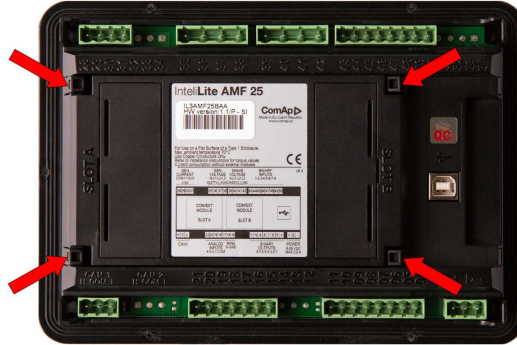
After removing back cover insert the plug-in module. Plug-in module has to be inserted under holders. Start with holders marked by symbol 1. On the controller are also arrows for better navigation. After inserting plug-in module under holders (1) press it down to holders marked by symbol 2 which lock the module.
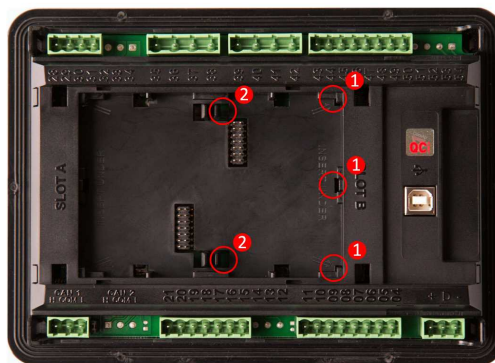
Insert the plug-in module under holders marked by symbol 1. Then insert the plug-in module under holders marked by symbol 2.
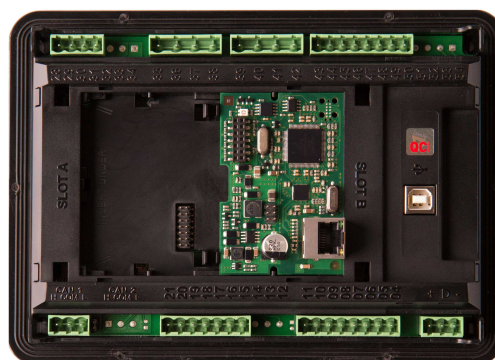
After locking the plug-in module into holders, place back the back cover (small cover for connectors has to be removed from back cover). Finally insert the small cover for connectors. Small covers are unique for each plug-in module.