# Getting started with CAL-EDGE-0 device

Thank you for purchasing CALMS device. Further in this document you will find how to start using it.

## CONNECTING ANTENNA & POWER SUPPLY

1. Connect the **antenna** to CAL-EDGE-0. Install antenna connector to »**ANT1**« port and screw it firmly. Place antenna where signal reception is best (near the window, higher place,...).
2. Connect the device to **power supply**. »**STATUS**« led starts blinking when the device successfully connects to the internet. It can take up to 10 minutes, depends on mobile signal strength.



| Terminal | Meaning |
|---|---|
| **LAN** | - Used to connect device to any other TCP/IP protocol capable device (MODBUS TCP, ADS...). <br> - Can be used to connect device on internet (DHCP server must be installed in the network!) |
| **LED RS485** | - If MODBUS communication between sensor and device is established, LED flashes rapidly (red color). <br> - If LED is not flashing communication is not established. |
| **LED STATUS** | <table><tr><td>**LED Status**</td><td>**Module Status**</td></tr><tr><td>On</td><td>Searching Network/Call Connect</td></tr><tr><td>200ms On, 200ms Off</td><td>Data Transmit</td></tr><tr><td>800ms On, 800ms Off</td><td>Registered network</td></tr><tr><td>Off</td><td>Power off / Sleep</td></tr></table> |
| **CAN – BUS / RS485** | - Terminal used to connect RS485 fieldbus. <br> - To properly connect the sensor check the electric scheme! |
| **DC IN** | - Power supply terminal. <br> - Device accepts voltage 9-24VDC. |
| **ANT1, ANT2** | - Used for antenna connection with SMA connector. <br> - ANT1 is MAIN terminal! Connect antenna to ANT1 terminal! <br> - Mount antenna on the place with best signal reception possible! |
| **ANT3, ANT4, ANT5, PROG, SERIAL** | - Not used |

# START USING CALMS APPLICATION

1. Device will start capturing data after it is configured on CALMS → Open CALMS app.calms.com
2. Create new »System«, add device into the system and connect sensors to it. (https://docs.calms.com/getting-started/web/setting-up-your-system/)

# CONNECTING SENSORS

## MODBUS RTU SENSORS

1. Device has one RS485 port where MODBUS RTU sensors are connected. (check the picture below)
2. **Connect sensors accordingly to configuration you've done on CALMS system setup. Double check the communication parameters and sensor MODBUS addresses!**
3. Follow the installation quide provided on CALMS (https://docs.calms.com/resources/field_installation_setup_guide_template/)
4. »RS485« LED is blinking red if the device communicates with connected sensors.
5. Check sensor values on the **»Device dashboard«** page.
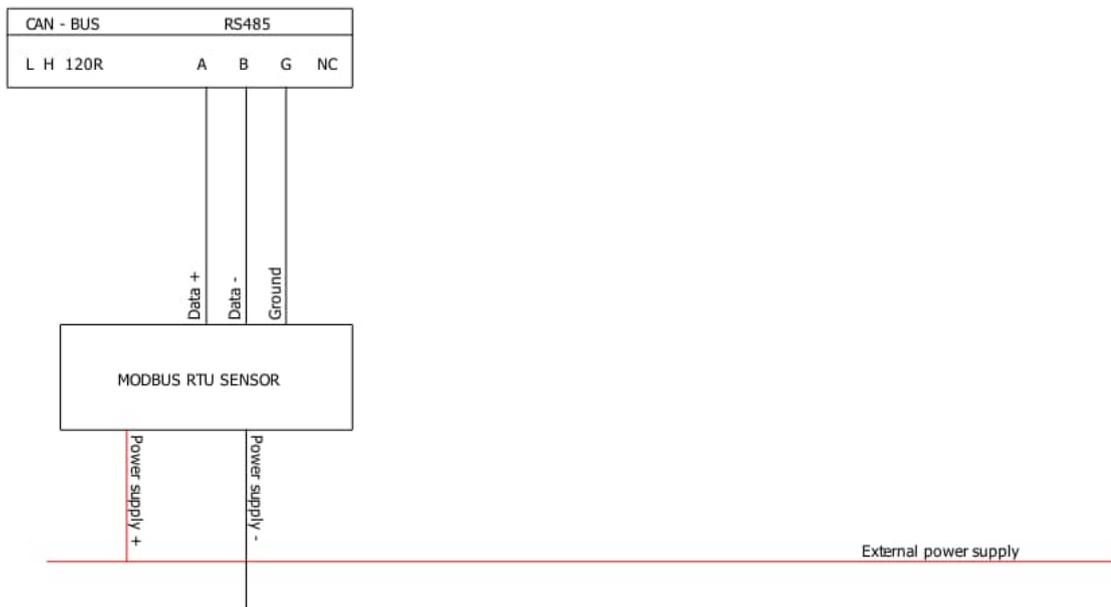
## MODBUS TCP SENSORS

1. Device has one ethernet port (»LAN«) where MODBUS TCP sensors are connected.
2. Device receives its static IP address (**192.168.0.102**) after start-up if there is not DHCP server in the network.
3. Connect sensors accordingly to configuration you've done on CALMS system setup. **Double check the sensors IP adresses!**
4. Follow the quide provided on CALMS (https://docs.calms.com/resources/field_installation_setup_guide_template/)
5. Check sensor values on the **»Device dashboard«** page.

## TROUBLESHOOTING

- **»STATUS« LED is constantly off:**
  - check the power supply. Device accepts 9-24VDC.
- **Device does not want to connect to the internet:**
  - Connect the antenna firmly on »ANT1« port.
  - Place the antenna near windows and on higher places.
  - Reboot the device,
- **MODBUS communication is not working:**
  - Follow the installation quide provided on CALMS (https://docs.calms.com/resources/field_installation_setup_guide_template/)
  - Check the configuration on CALMS (communication parameters)

For more instructions and troubleshooting scan the QR code!



If you have any difficulty, please contact support team for further assistance.

Contact: support@calms.com

When contacting support team, please send them the serial number of your device (written on back of device).