

## **Technical Guide**

Title:

i-Controller 2.0 Modbus Communication Settings

### Overview

For proper data transfer to occur between the Siemens building controller and the Flō i-Controller 2.0, the Modbus communication connection must be properly configured. If the two controllers are not communicating and if the BMS Communication Status displays 'Offline' in the BMS Status screen of the i-Controller, verify the following information.

**CAUTION**: Before connection, ensure there is no earth ground on the wires used for the RS485 connection. Do not ground any of the wires connected to the RS485 terminal blocks inside the unit. Doing so will result in damage to the i-Controller hardware.

### i-Controller 2.0 Modbus Network Configuration

Verify the i-Controller protocol, address, and baud rate.

i-Controller 2.0 Settings	BMS Status
BMS Protocol: <b>MODBUS</b> Address: <b>1</b> Baud rate: <b>19200</b>	BMS Protocol: MODBUS Address: 1 Baudrate: 19200
BMS COMM STAT:	BMS COMM STAT: Offline

Figure 1. i-Controller BMS Status screen

The "BMS Status" screen displays the Flō i-Controller BMS protocol, Modbus address, baud rate and the status of the connection to the Building Management System (BMS). If the Flō i-Controller is connected, the BMS status will display "Online". The BMS status will display "Offline" if the BMS is offline or the Flō i-Controller is not connected or properly configured.

To change the communications protocol, address, or baud rate, perform the following steps:

- 1. From the Home Screen, press the program button three times to navigate to the settings menu.
- 2. Use the down arrow button to highlight "Communications" and press enter button twice to navigate to the BMS Configuration Screen.
- 3. On BMS Connectivity page 1, you can set the controller address and baud rate.
- 4. Use the enter 🛃 button to navigate to the value that you wish to change.
- 5. Using the **1** and **1** buttons increase and decrease the value as desired.
- 6. Once the desired value has been reached press the enter dutton to set the value.
- 7. Repeat steps 4-6 until all desired values have been updated.
- 8. On BMS Connectivity page 2, you can set the communication protocol.

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- 9. With the cursor back in the home position, at top right of screen, Use the down arrow button to navigate to page2.
- 10. Use the enter 🗹 button to navigate to the value that you wish to change.
- 11. Using the **1** and **1** buttons increase and decrease the value as desired.
- 12. Once the desired value has been reached press the enter dutton to set the value.
- 13. Once all changes have been completed, press and hold the escape button to return to the Home Screen.

Note: Once the baud rate is changed, you will be prompted to restart the controller. A restart is required apply this change.

BMS Connectiv	it <u>a 17</u> 2
BMS Protocol:	MODBUŞ
Baudrate:	19200
Error:	Offline

Figure 2. i-Controller BMS Configuration Screen 1



Figure 3. i-Controller BMS Configuration Screen 2

#### i-Controller 2.0 Modbus Network Connection

Verify the i-Controller physical connection between the Siemen's controller and the Flō i-Controller 2.0. Ensure there is a signal on the communication cable, the correct polarity is maintained between devices and the RS485 Modbus cable is connected to the port on the controller.

If all connections are settings are correct, but communication cannot be established between the two controllers, please contact the sites BMS provider.