



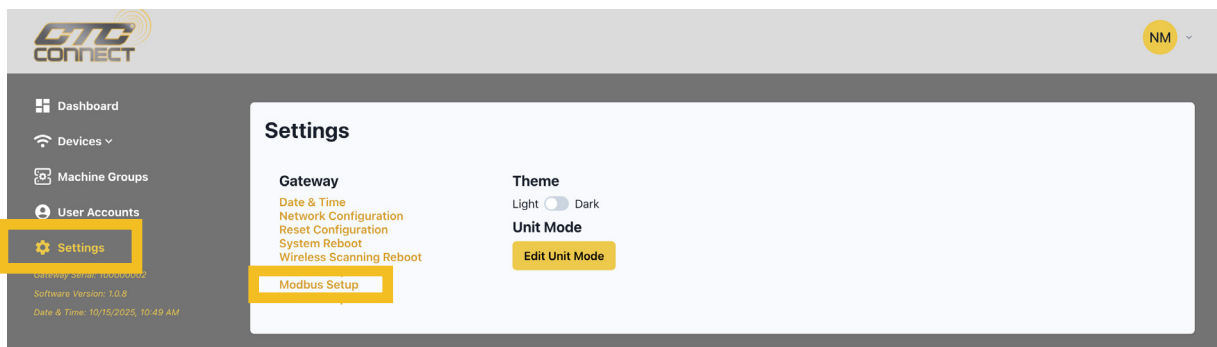
MODBUS PROTOCOL

FOR CONNECTBRIDGE™ WIRELESS GATEWAY

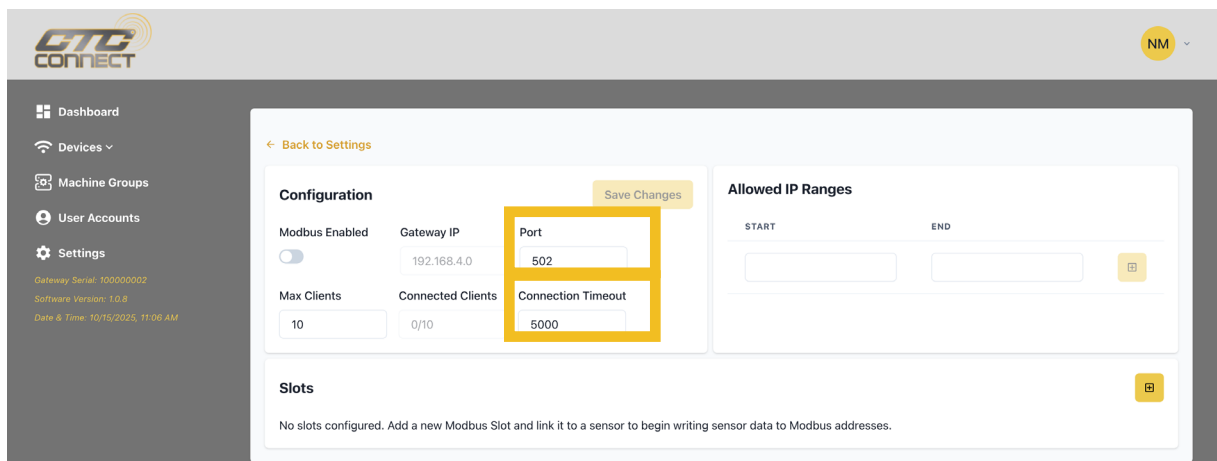
Modbus is a protocol for communicating with Industrial Control Systems over Ethernet TCP.

To configure Modbus:

- 1 Navigate to the Settings page in the ConnectView™ Web App, then click Modbus Setup:



- 2 Enter the required parameters such as Port, Connection Timeout, and other relevant options:



- 3 Optionally, you can enable IP range filtering for additional access control:

The screenshot shows the GTC Connect web interface. On the left is a sidebar with navigation links: Dashboard, Devices, Machine Groups, User Accounts, and Settings. The main content area has a 'Back to Settings' link and a 'Save Changes' button. The 'Configuration' section includes fields for Modbus Enabled (a toggle switch), Gateway IP (192.168.4.0), Port (502), Max Clients (10), Connected Clients (0/10), and Connection Timeout (5000). The 'Allowed IP Ranges' section is highlighted with a yellow box and contains 'START' and 'END' input fields with a plus icon to add ranges. Below this is a 'Slots' section with a plus icon and a message: 'No slots configured. Add a new Modbus Slot and link it to a sensor to begin writing sensor data to Modbus addresses.'

- 4 To determine which ConnectSens™ sensors are exposed through Modbus, create a slot - click the yellow “plus” button in the upper right corner of the slots section:

This screenshot is similar to the previous one, showing the same settings page. However, the 'plus' icon in the upper right corner of the 'Slots' section is now highlighted with a yellow box, indicating where to click to add a new slot.

- 4 Each slot requires an integer ID and a selected sensor.

The 'Add New Slot' dialog box is shown. It has a title bar with a close button. Below the title is a message: 'Select a Modbus memory Slot and the Sensor to populate that memory.' There are two input fields: 'Slot' (with a plus icon) and 'Serial' (with a dropdown arrow). A 'Save' button is to the right. Below these is a table of available sensors. The table has columns for ADDRESS, DESCRIPTION, UNIT, and a 'SELECT' checkbox. The sensors are categorized into COILS, DISCRETE INPUTS, INPUT REGISTERS, and HOLDING REGISTERS.

ADDRESS	DESCRIPTION	UNIT	SELECT
0	Take Reading	bool	
1	Take Temperature	bool	
2	Take Battery	bool	
3	Disconnect	bool	
4			
5			
6			
7			
8			

A slot represents a group of 48 consecutive addresses, which corresponds to the data displayed in the UI:

Add New Slot

Select a Modbus memory Slot and the Sensor to populate that memory.

Enable ☒ Slot Serial Save

ADDRESS	COILS		DISCRETE INPUTS		INPUT REGISTERS		HOLDING REGISTERS	
	DESCRIPTION	UNIT	DESCRIPTION	UNIT	DESCRIPTION	UNIT	DESCRIPTION	UNIT
0	Take Reading	bool	Done Reading	bool	Sensor Type	uint16		
1	Take Temperature	bool	Done Temperature	bool	X RMS	float32		
2	Take Battery	bool	Done Battery	bool	X RMS	float32		
3	Disconnect	bool	Connected	bool	Y RMS	float32		
4					Y RMS	float32		
5					Z RMS	float32		
6					Z RMS	float32		
7					X Peak	float32		

This structure ensures organized mapping of sensor information for efficient Modbus communication.

Once a slot is selected, the address on the left of the table will update to show where the data is being mapped to.

Use this link to view the [Address Map excel spreadsheet](#).