Brand: Crompton
Type: VFD Drive
Models: Emotron VSR Series

CONNECTION DIAGRAM

The communication terminals (RS485) are located at the bottom of the drive. And there are two connection terminals on the configuration circuit board: RS485 A/B terminal blocks.
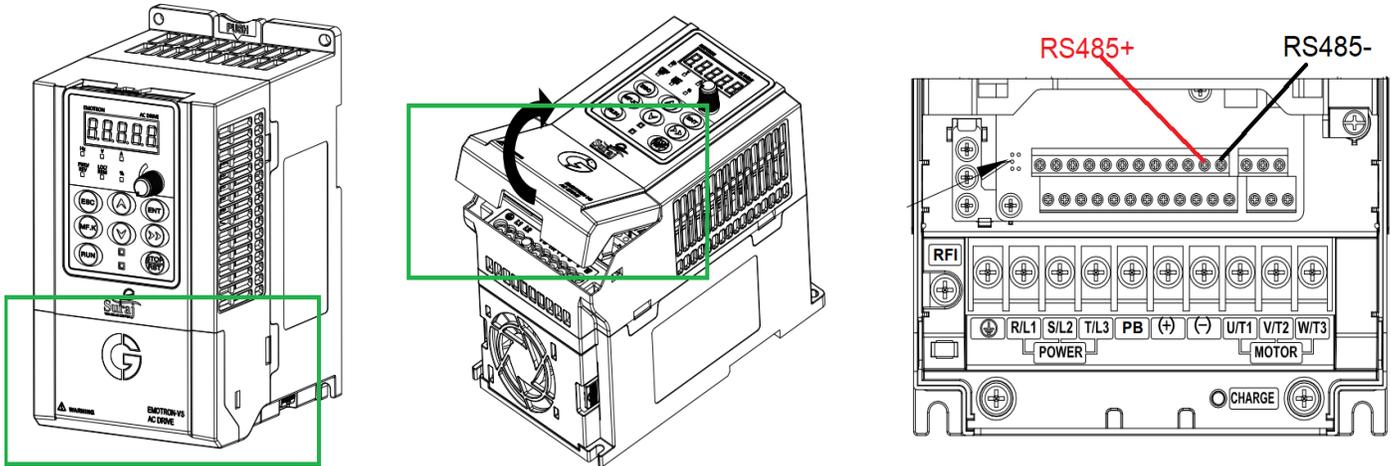

Figure C1– Communication Port of Crompton VSR Series

1. Press and hold in the tabs on each side of the cover. Pull the cover up to release keypad.

2. Locate the RS485 terminal (communication port 1) as shown in *Figure C1*.

Crompton RS485 Communication Card pin no. & Assignment	TrackSo Pin No. & Assignment	
485+	3	DATA+
485-	4	DATA-

3. Please make the connections from the Terminal Block of Crompton RS485 chipset to TrackSo IoT Gateway as mentioned in the Table – *CT1*
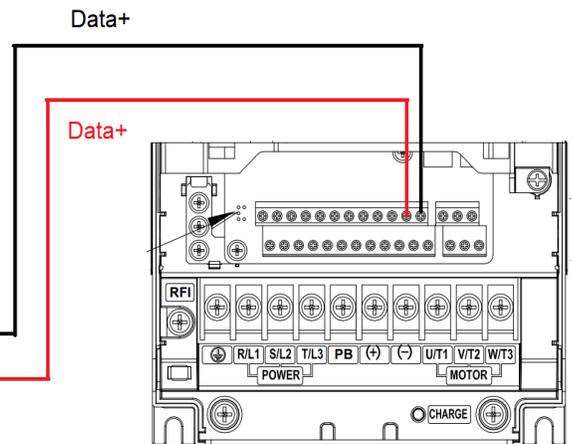4. Proivde 12-24V DC Supply to TrackSo at Pin no. 1& 2.

Table CT1 – Crompton RS485 chip connections with TrackSo IoT Gateway

DEFAULT CONFIGURATION IN TRACKSO IOT GATEWAY

Inverter ID: **1, 2, 3, 4 ….** Continuous numbering starting with 1, **(Range:** 1 to 247)
Baud Rate: **9600 (Default) (Values:** 9600, 19200, 38400)
Data Bits: 8
Stop Bit: 1
Parity: None

CONFIGURATION AT THE AC DRIVE END

How to operate Digital Keyboard

Symbol	Name	Function
ESC	Escape	Enter or exit Level I menu
ENT	Enter	Enter the menu interfaces level by level, and confirm the parameter setting
∧	Increment	Increase data or function code
∨	Decrement	Decrease data or function code
≫	Shift	Select the displayed parameters in the stop or running state, and select the digit to be modified when modifying parameters
MF.K	Multifunction	Perform function switchover (such as jog run and quick switchover of command source or direction) according to the setting of L0.00
(potentiometer)	potentiometer	With the same function as AI1/AI2
RUN	Run	Start the inverter in the keypad control mode
STOP RST	Stop/Reset	Stop the inverter when it is in the running state and perform the reset operation when it is in the fault state. The functions of this key are restricted in L0.01.
RUN + STOP RST	Key combinations	The inverter will coat to stop when the RUN and STOP key are pressed simultaneously

SETTING THE BAUD RATE

This parameter is used to set the transmission speed between the RS485 master (PLC, PC, etc.) and AC motor drive.

← **Set the baud rate to 9600**

Parameter	Name	Settings	Factory Settings	Setting for TrackSo
H0.00	Baud Rate	0: Baud rate 4800bps 1: Baud rate 9600bps 2: Baud rate 19200bps 3: Baud rate 38400bps 4: Baud rate 57600bps 5: Baud rate 115200bps	1	1

SETTING THE VFD ID

The communication address for each AC motor drive must be different and unique. Otherwise, the drive cannot be correctly identified.

Each VFD-E AC motor drive has a pre-assigned communication address specified by Pr.0H.02. The RS485 master then controls each AC motor drive according to its communication address.

← Set correct Ids

Parameter	Name	Settings	Factory Setting
0H.02	Communication Address	1 to 254	1

SET COMMUNICATION PROTOCOL

A VFD-E can be set up to communicate in Modbus networks using one of the following modes: ASCII (American Standard Code for Information Interchange) or RTU (Remote Terminal Unit). Users can select the desired mode along with the serial port communication protocol in Pr.09.04.

Parameter	Name	Settings	Factory Setting	Setting for TrackSo
0H.01	Data Format	0: No check, data format (1-8-N-2) 1: Even parity check, data format (1-8-E-1) 2: Odd Parity check, data format (1-8-O-1) 3: No check, data format(1-8-N-1) ~ all for RTU	0	3

The above details are mentioned in the **_Installation & Operation Manual_** for Crompton VFD.

1. Insure correct connections as detailed in the installation guide.
2. Insert the SIM card.

Push Yellow Nob

Pull the SIM Tray

Place the SIM card In tray Inside

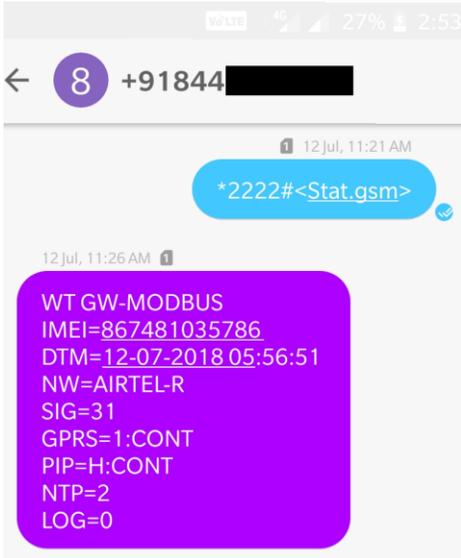Place the SIM Tray in SLOT and Push the Tray

3. Switch on the power to the TrackSo device. (Minimum 12V/1A input is required)
4. Power LED (Red) of TrackSo IoT gateway glows and stays ON.

   NOTE: TrackSo IoT Gateway will only be able to send data if the GPRS network is available at the installed location.

LED	NAME	DESCRIPTION	
GREEN	POWER	Light when Power on the device	
RED	GSM	**LED Status**	**Connection State**
		Flashing (ON for 100ms and OFF for 100ms)	SIM Card not found
		Flashing (ON for 500ms and OFF for 500ms)	Searching for GSM Network
		Flashing (ON for 0.1s and OFF for 2.9s) Once at every 3sec	GSM Network Registered
		Flashing twice at every 3sec	GPRS IP Connected
		Flashing 5times	GPRS IP Sending data
		LED OFF	GSM Fault
GREEN	COM TX	Blink on data transmission in RS485 port	
YELLOW	COM RX	Blink on data reception in RS485 port	

5. To check the exact network status send the following message to mobile number of the device

SMS Command= *2222#<Stat.gsm>	
IMEI	IMEI No. of the data logger (Device Key)
NW	Network
SIGN	Signal Strength out of 31
GPRS	CONT- connected , NC- not connected
PIP	Connected to TrackSo Server or not CONT- connected, NC- not connected
LOG	no. of data points stored in devices incase of no interet

6. If the GSM light starts flashing 5 times then Login to www.trackso.in with your Username/Password.
7. Click on 'Units' from the menu bar. You will be able to view your installed unit in the table as shown below.
8. Check if the **Status** becomes Receiveing for the relevant Unit.

Unit Name ⬍	Site	Unit Key ⬍	Category	Data Status	Last Event Timestamp	Device Key	Device Phone	Actions		
1-Schnieder	▮	▮▮cc	Inverter	Receiving	2018-07-16 02:24:04	▮1034235444/1	▮▮▮9	View Data	☑	🗑
2-Schneider	▮	▮7799	Inverter	Receiving	2018-07-16 02:24:05	▮034235444/2	▮▮▮	View Data	☑	🗑
▮▮▮▮	▮School	▮5	Inverter	Not Receiving			▮▮▮B	View Data	☑	🗑
▮▮▮▮	▮hool	▮5	Inverter	Not Receiving				View Data	☑	🗑

9. If the state remains Not receiveing for more than 10 minutes, click on your email ID at the top right of the screen and click on 'Event Ingestion Logs' in the dropdown.

10. Check if there is some log generated at the time of installation of the TrackSo IoT Gateway device.
    a. If **NO,** please restart the device and try the same flow again.
    b. If **YES,** email us at support@trackso.in to consult the same.