Brand: Schneider Electric
Type: Multi-line Digital Display Panel Meter
Models: Conzerv EM1200

CONNECTION DIAGRAM

On the rear panel, Schneider Electric Conzerv EM1200 has an RS-485 communication socket as shown in the following figure.
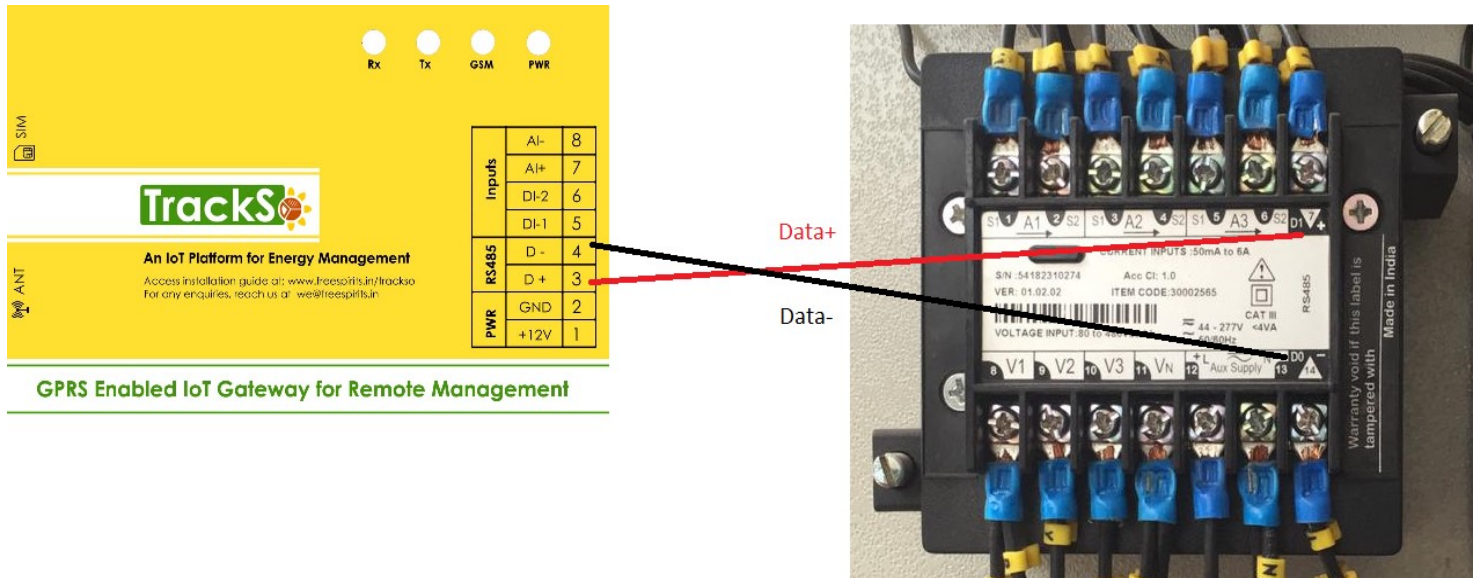
Figure S1 – Rear view of Schneider Electric Meter EM1200

1. Please unscrew the RS485 terminal as shown in *Figure S1*.
2. Connect the cables to the RS485 bus terminal blocks.
3. Please make the connections from Terminal Block chip to TrackSo IoT Gateway as mentioned in the Table – S*T1.*

Schneider Electric EM1200 Pin No. & Assignment		TrackSo Pin No. & Assignment	
7	A	3	D+
14	B	4	D-

Table ST1 – Schneider Electric EM1200 RS485 chip connections with TrackSo IoT Gateway

DEFAULT CONFIGURATION IN TRACKSO IOT GATEWAY

Meter ID: **1 (Range:** 1 to 247)
Baud Rate: **9600 (Default) (Values:** 9600, 19200, 38400)
Data Bits: 8
Stop Bit: 1
Parity: N/A (None)

Operating the EM1000/EM1200/EM1220 meter is easy, using the four smart keys to navigate through the keypad operations table.

Meter Smart keys description

|	
OK	OK Key • Go forward into sub-parameter pages. • Going right past EDIT in SET. • In setup, selects next (right side) digit.
ESC	ESC Key: • Go back towards to the main parameter page. • In setup, selects previous (left side) digit. • Exits from Edit mode, back to the setup
△	Up Key: • Scroll up through display pages at the same level, within the same function. • Continuous pressing for three seconds initiates auto-scroll mode. • In setup, while editing, increases the value of the blinking digit
▽	Down Key: • Scroll down through other display pages at the same level, through all functions. • Continuous pressing for three seconds initiates auto-scroll mode. • In setup, while editing, decreases the value of the blinking digit

Enter Setup Menu in Edit Mode
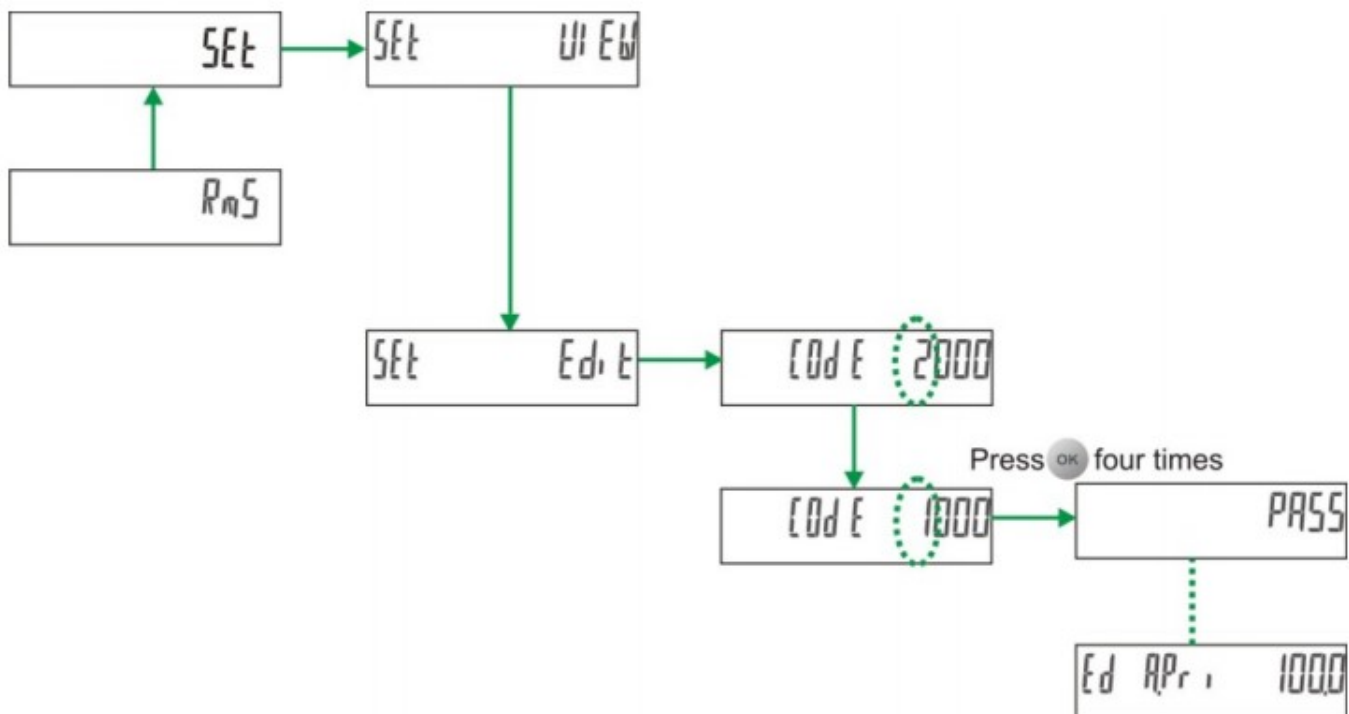
1. From **RMS**, press △. The display shows **SET**.
2. Press OK. The display shows **SET VIEW**.
3. Press ▽. The display shows **SET EDIT**.
   You are required to enter **CODE** to enter the setup menu in edit mode.
4. Press OK. The display shows **CODE 2000** with blinking **2**. The factory set code is **1000**.
5. Press ▽. The display shows **CODE 1000** with blinking **1**.
6. Press OK four times to accept the new **CODE** value. The display shows **PASS** and then **EDIT A.PRI 5.000k.** This indicates that you have successfully entered the setup menu in edit mode.

NOTE: If you enter a wrong code, the display flashes FAIL and then displays SET EDIT. Repeat the procedure and make sure that you enter the correct CODE.

SETTING BAUD RATE , PARITY AND ID

This is the 10, 11 & 12th option on the Setup Menu. It can be used to configure baud rate, Parity and ID
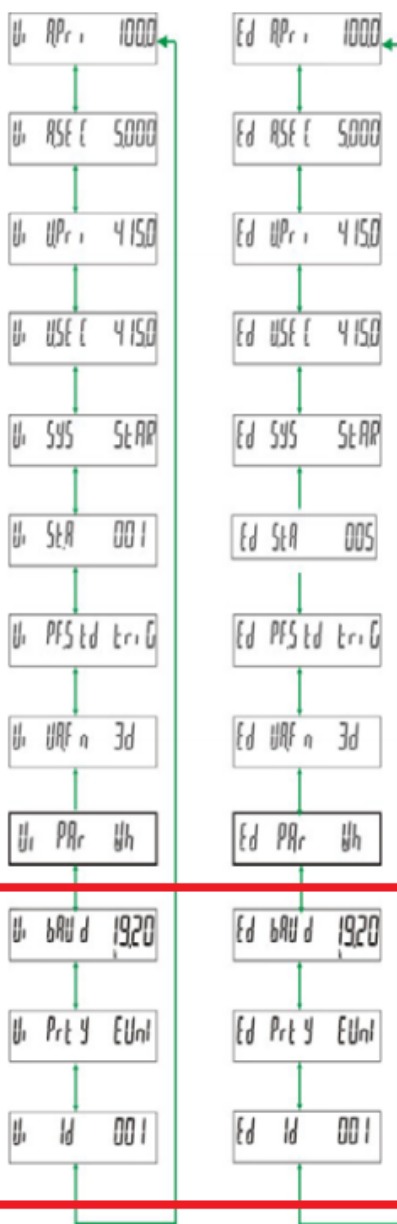
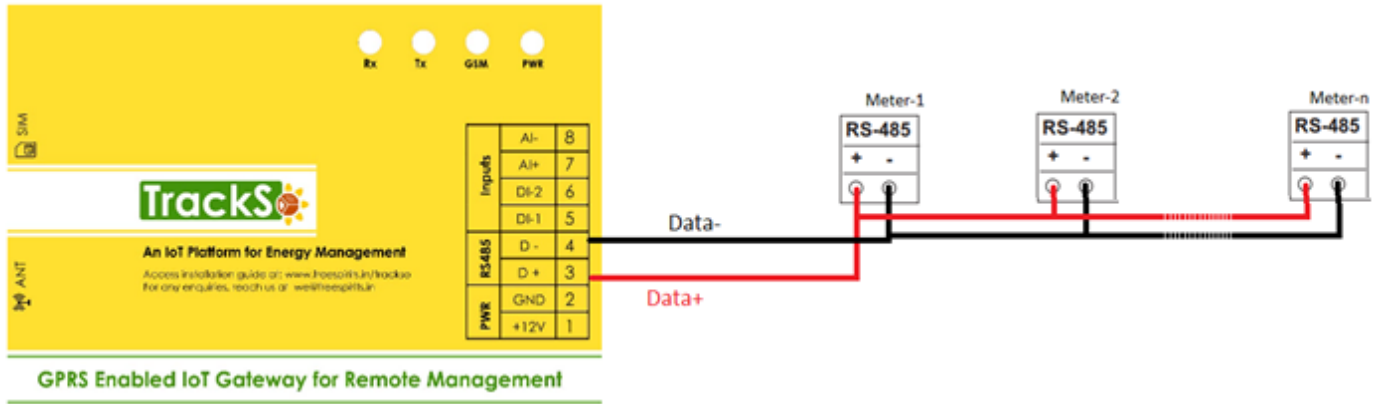|		
Ui APri 1000	Ed APri 1000	A.PRI = Current primary winding (CT); Input range 1 A to 99 kA. Default value is 100.0
Ui ASEC 5.000	Ed ASEC 5.000	A.SEC = Current secondary winding (CT); Default value is 5.000.
Ui UPri 415.0	Ed UPri 415.0	V.PRI = Voltage primary winding (PT), line to line; Input range 100 V to 999 kV; Default value is 415.0.
Ui USEC 415.0	Ed USEC 415.0	V.SEC = Voltage secondary winding (PT), line to line; Input range 50 V to 600 V; Default value is 415.0.
Ui SYS StAR	Ed SYS StAR	SYS = System configuration; Select from StAR, dLtA, 2 ph, 1 ph; Default value is StAR.
Ui StA 001	Ed StA 005	St.A = Starting current; 1 to 200 mA Default value is 005.
Ui PFStd triG	Ed PFStd triG	PF.STD = PF standard; Select from IEC, IEEE, TRIG Default value is TRIG.
Ui VAFn 3d	Ed VAFn 3d	VA.FN = VA function selection; Select between 3D and Arth; Default value is 3D.
Ui PAr Wh	Ed PAr Wh	*PAR = Parameter selection ; Select from Wh, VA VAh, VAR VARh; Default value is Wh.
Ui bAUd 1920	Ed bAUd 1920	Baud = Baud rate; Select from 4800, 9600, 19200; Default value is 19200.
Ui PrtY EUn1	Ed PrtY EUn1	PRTY = Parity and stop bit settings; Select from EVN.1, ODD.1, no.2; Default value is EVN.1.
Ui Id 001	Ed Id 001	ID = RS 485 device ID number; 001 to 247; Default value is 001.

Settings to be done in Meter as mentioned on TrackSo Device

Generic Settings

- Baud rate- 9600
- Id- as mentioned
- Parity-None

NOTE: The above details are mentioned in the ***Installation & Operation Manual*** for Schneider Electric

CONNECTING MULTIPLE METER

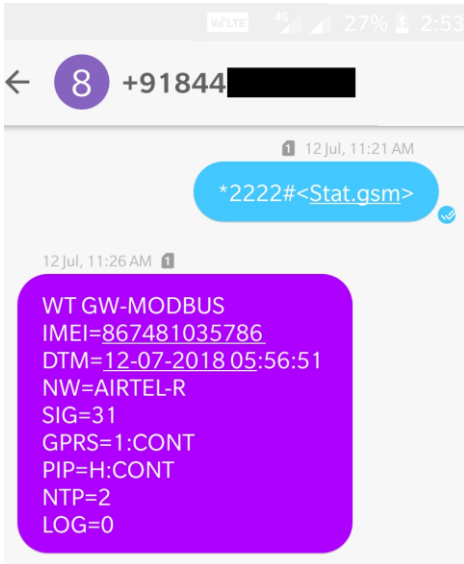1. Insure correct connections as detailed in the installation guide.
2. Insert the SIM card.

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.

9. If the state remains <mark>Not receiveing</mark> 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.