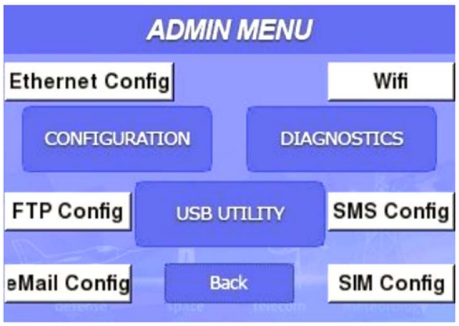
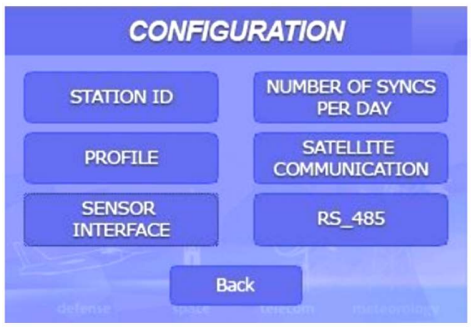
DATA CONCENTRATOR UNIT (DCU)

Totalizer-DCU

It is an intelligent device with built-in LPR/ Wi-Fi modules to acquire data from Electronic Energy Meters or Meter Interface Units (MIU) using AMR software. Its' in-built 4G modules then transmits data to the Data Acquisition Server Interfaced with Data Logger PC. A MIU is connected to meters to enable wireless transmission of data from meters to DCUs. It eliminates conventional cabling requirements between meters and DCUs, thereby ensuring reliability and data integrity of the system.





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Features

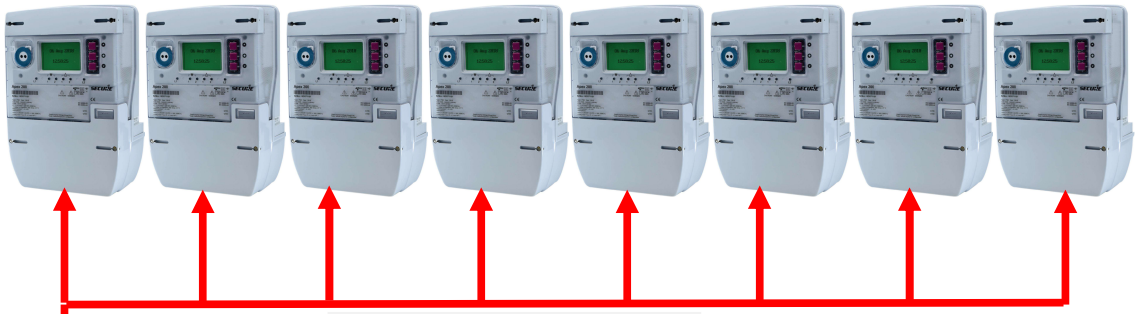
- ✓ Menu based system configuration.
- ✓ Onsite back up facility to pen drive / laptop.
- ✓ User friendly GUI / Browser PC interface.
- ✓ To connect Analog Sensors and Digital Sensors.
- ✓ User programmable logging interval of the measured parameters.
- ✓ One Year data internal storage capability.
- ✓ System Parameters configurable through user interface.
- ✓ Wi-Fi support.
- ✓ Data communication through 4G modem

Benefits

- ✓ TOTALIZER for Grid revenue meters Type Apex 200 / E650 supported by DLMS/MODBUS Protocols
- ✓ Local LCD display for visualization and calculated parameters analysis in the substations.
- ✓ Creating rules and logics via web application for mathematical summation.
- ✓ Supported Ethernet/4G/Wifi/Serial communication for Data Transfer.
- ✓ Local Data Collection

Totalizer- Communication Network Architecture

Feeder Meters- Main (Apex 200/ E650) Max-8nos



RS 485 BUS
DLMS or MODBUS RTU

Connections:

Meters	:	RS485 (RJ45), Left Port
Totalizer	:	RS485-1, Pin type (D+,D-, Gnd)
Cable	:	Cat 6, Max distance, 10mts

Totalizer-DCU

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SPECIFICATIONS

SNO	Description	Specifications
1	Processing System	High speed Cortex Processor with Linux OS
2	Analog Channels	16 – Analog input Channels (Single ended) / 8 – Differential input channels with 12 bit ADC.
3	Ports	2 - RS-232 / 2 - RS-485
4	Pulse Counter	1 (10 Bit)
5	Sensor Power	Sufficient power port (9 –16 V DC)
6	Ethernet Port	1
7	Sampling Interval	1 second to 60 Minutes (subject to the support of sensors)
8	Internal Data Memory	Solid-State flash memory (Minimum 64 M Bit)
9	USB Drive Interface	USB 2.0
10	Real-Time Clock	Resolution of 1 second with +/- 20 PPM
11	GPS	Synchronize RTC with GPS time
12	Watchdog Timer	System Reset upon system failure
13	Data Retrieval	RS-232 Port / Pen Drive / LAN port
14	Display	3.5” TFT LCD Display
15	Keyboard	Industrial grade keypad or touch pad on display
16	Firmware Update	USB and FOTA
17	RTC clock	Rechargeable Battery Backed-up
18	Operating Voltage	9V – 16V DC (Nominal 12 V)
19	Operational Temperature	0^0 C to +60° C
20	Operating Humidity	0 – 95%RH

4. CONNECTOR DETAILS