

TrustLink

MULTI-PROTOCOL DATA CONCENTRATOR

Main/Solar Powered Data Concentrator Unit (DC – 100 Series)



Fanna Technology's TrustLink DC-100 is a Main/Solar Powered Data Concentrator intelligent utility metering Multi-Protocol device to acquire data from cluster of meters with built-in Multi-Wireless communication to transfer data to the remote data acquisition server.

Trust Link is used in automatic meter reading (AMR) and Advanced Metering Infrastructure (AMI) architectures. Collects information and data from Utility Meters (Electricity & Water), and saves into the local storage before forwarding data to the headquarters.

The built in web server feature increase flexibility and convenience, making it easy to configure and maintain the system via internet.

MULTI-METERING PROTOCOLS



MULTI-WIRELESS COMMUNICATION



IMPORTANT FEATURES

- + Manages 1:1, 1:2, 1:Many utility meters
- + Detects device failures and logs the same and to meters via communication port
- + Alerts during power outages
- + During the network outage, stores up-to 10 days meter data
- + Inbuilt monitoring system
- + Industrial grade design
- + Support for Multi-Metering Protocols and various Legacy meter protocols
- + Isolated RS232 and RS485 interface
- + Interfaces: RS232, RS485, M-Bus, I2C, UART, Analog Input, Digital Input,
- + Communication to central server via LoRaWAN, NB-IOT and GSM (LTE/3G/2G)
- + Collects complete meter data (Instantaneous Parameters, Load Survey, Tamper, Energies, Volume)
- + Built-in flash memory for backup data storage
- + Built-In battery back-up Real-Time Clock (RTC)
- + LED indicators for field diagnosis & testing
- + Simple design for easy field installation
- + Suitable for wall/rack mounting
- + Expandable card combinations as per application requirement

TECHNICAL SPECIFICATIONS

- + Operational temperature range: -40...+85 °C
- + Humidity: 0-100%
- + 2 MB Flash
- + One RS232 port for external interface
- + One RS485 port for interfacing energy meters
 - Transient voltage suppressors, 3000 VDC,
 - Surge Protection
 - Data rate up to 115 Kbps
- + Built-in Real Time Clock with battery backup
- + M-Bus and Wireless M-Bus
 - 1, 2, 64, 128, 256 connected meters
- + LoRaWAN 1.0.3 class A
 - EU868, US915, AU915/AS923-1, RU864, CN490
 - Max Tx: 16 dBm @ -137 dBm sensitivity
- + Nb-IoT (cat. NB2)
 - B1, B3, B5, B8, B20, B28
 - Max Tx: 23 dBm @ -129 dBm sensitivity
- + GSM/GPRS
 - Quad band: 850/900/1800/1900/2100-2700 MHz
 - Nano-SMS, GPRS
 - Push type sim card tray with lock function
- + Network Communication Protocol
 - MQTT/CoAP/OTAA/HTTPS/Non-IP
 - Flexible protocol to customer requirement
- + Time Synchronization
 - Internet time servers using SNTP
 - MDAS Server
- + Location
 - GPS

OTHER FEATURES

- + Data logging/compression/encryption
- + Supports text, CSV, ASCII, binary etc.
- + Alarming & Scheduling
- + Remote access/remote configuration
- + Over-The-Air-Update via Bluetooth
- + HES interface with restricted access

Interfaces

- RS-485 / RS-232: DLMS, EURIDIS, Modbus
- M-Bus
- Wireless M-Bus
- 4-20mA
- Analog Input: for pressure sensor, temperature sensor and other sensors
- Digital Input: Arming mode or pulse counter, for pressure sensor, temperature sensor and other sensors
- Open Collector: (switching current up to 1A)
- I2C
- Output 12 V and 5V: Power for External Sensors

Communication Interface

- Wireless Communication
 - LoRaWAN
 - NB-IOT
 - GSM
- Protocol for Communication
 - DC to Meter: MODBUS/DLMS/EURIDIS/Legacy protocols
 - DC to Wired and Wireless M-bus
 - DC to Digital Input (Pulse, ASCII, alarm mode)
 - DC to Analog Input (Pressure sensor, Temperature sensor, Smoke sensor, Motion sensor, etc.)

Power Supply

- 220-240 ± 10% VAC input / 12-24 VDC input
- Solar Panel System compatible
- Power Consumption: Max 130mA
- Backup battery: 3.7V rechargeable, 130mAh

EMI/EMC specifications

- Surge Immunity as per IEC 61000-4-5
- Fast Transient Burst as per IEC 61000-4-4
- Electrostatic Discharge as per IEC 61000-4-2

Environmental

- Temperature: -40 °C to +85 °C
- Operating Humidity 100%, Non-Condensing

Mechanical

- Dimensions 140mm(L) X 115mm(W) X 40mm(H)
- IP67

Specifications are subject to change without prior notice

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