

# **MV/LV SUBSTATION MONITORING - SENTINEL FRTU**



Sentinel-FRTU (Feeder Remote Terminal Unit) / Centraliser of data for the remote monitoring of MV/LV transformer substations.

#### **Main characteristics**

Installed in MV/LV transformer substations, the Sentinel-FRTU centralises data and events collected in a power substation and sends this information remotely to a control IT centre therefore:

- Monitors the main components of a MV/LV substation
  - Fault passage indicators (FPI / FCI)
  - Substation environment
  - MV/LV transformer
  - Low voltage panel board
- Collects the main LV electrical amounts
- Monitors these amounts and generates alarms or events
- Stores and timestamps these events and measures
- Reproduces the alarms, measurements and events locally or remotely via a communication means (GSM/GPRS, Ethernet) to:
  - Field agents (receiving SMS alerts)
  - Operations managers (ex. on-call staff)
  - A remote computer system for analysis or monitoring

#### **Key points:**

- Powered from the substation's 230 Vac LV
- Collects data from measurement units
- Two groups of 4 digital inputs (door opening contact, water level, etc.)
- Two PT1000 inputs for monitoring temperatures
- Four communication ports
- Onboard web server

### **Advantages**

- Easy installation, on new structures and when retrofitting
- Better perception of balance between loads and production
- Integration of optimised renewable energy
- Monitored quality of the distributed energy
- Highlighted phase imbalances
- Easy prioritisation of necessary network improvements

## **Uses**

- Private network and public distribution network
  Any type of MV/LV substation can be monitored