

# RTU

## Remote Terminal Unit

### RTU: Reliable protection of your distribution network

The RTU Remote Terminal Unit can be used in combination with every type of switchgear. This RTU provides remote control of the switchgear installation through a modbus connection, which can also connect to other equipment.

#### SUBSYSTEMS FOR THE RTU:

- Environmental monitoring as temperature, humidity and PD effects.
- Load monitoring (using current transformer).
- Input/output and analog monitoring for driving actuators.
- Reading back of auxiliary contacts, battery voltage, ...

#### CHARACTERISTICS:

- It communicates over the GSM data network with minimum configuration effort (no firewall problems). If needed, it can also communicate over a fixed ethernet link or wifi.
- The hardware is redundant: inside the box there are two systems, guarded by an MCU (Micro Controller Unit) watchdog that can switch between them should one of them fail for some reason. There are also two modems, allowing a choice between different GSM networks, should one fail. This provides high reliability.
- It can be supplied from 220 VAC, 110 VAC, 110 VDC, 48 VDC and 24 VDC, allowing it to be run straight from batteries (power usage is low).
- The RTU provides a modbus connection, which can connect to other equipment.
- It also provides multiple USB connections that can be connected to any standard USB equipment, for instance a web camera.



# SGC

SwitchGear Company

THE SPECIALIST IN MEDIUM VOLTAGE SWITCHGEAR

[www.switchgearcompany.eu](http://www.switchgearcompany.eu) - [info@switchgearcompany.eu](mailto:info@switchgearcompany.eu)

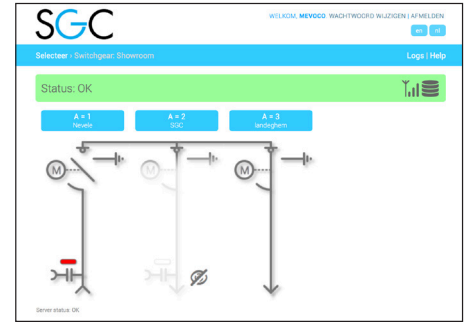
# The Human Machine (web-) Interface

To get maximum flexibility, an IoT (Internet of Things) approach is used in the HMI (Human Machine Interface) and data distribution. Using the mobile data network, data is sent between the different RTU's and a central server over secured connections (inaccessible to the general internet) and using password authentication over encrypted links.

The server gathers all data in a database and presents it via a dynamic website interface such as tables, synoptic drawings and graphs.

Individual clients can connect to the system via the website using a personal password and view the equipment under their control. By clicking or tapping (touchscreen) on the equipment in the synoptic drawings, commands can be given e.g. close or open high voltage switches.

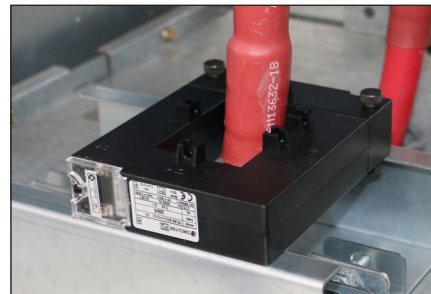
Any IT equipment that can run a web browser, can be used for this (pc, iMac, iPhone, Android phone, ...).



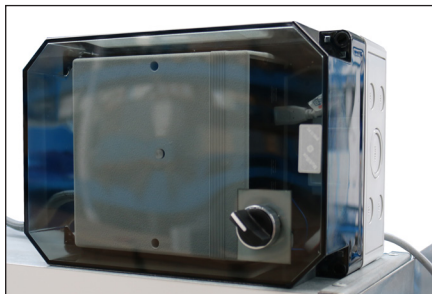
Web-driven interface



Current sensor



Current transformer



Modbus connection



Local / remote switch



**SGC nv**

Moorstraat 24 - 9850 Nevele  
Belgium

☎ +32 (0)9/321.91.12

[www.switchgearcompany.eu](http://www.switchgearcompany.eu)

[info@switchgearcompany.eu](mailto:info@switchgearcompany.eu)

**SGC - SwitchGear Company nv.**

**Medium voltage switchgear, built to last.**

SGC - SwitchGear Company nv has been supplying reliable products for electrical distribution for more than 35 years. Innovative ideas and environmental care are the driving forces behind SGC - SwitchGear Company nv. The development of complete solutions consists of a minimum number of components, all of which have an exceptional life span. SGC - SwitchGear Company nv stands for exceptional quality and superior customer care. Your desired specifications and deadlines are our main concern. An exclusive factory and highly automated production lines are key factors in our "state of the art" components and systems. It enables us to develop switchgear such as DF-2, DR-6/DT-6, DF-3, DI-2, SI-2 and DW-2 to the highest quality standards. When it comes to delivery times, prices and products SGC - SwitchGear Company nv delivers.

**THE SPECIALIST IN MEDIUM VOLTAGE SWITCHGEAR**