

TN 10

Remote Terminal Unit (RTU) for remote control, monitoring and automation of medium-voltage line disconnectors

The TN 10 Remote Terminal Unit (RTU) is designed for the control and supervision of line disconnectors in medium-voltage (MV) distribution networks. It can be used for control of pole-top MV disconnectors, as well as for RMUs in MV/LV substations. The TN 10 controls other field-devices through its digital, analog and data interfaces. Communication between the device and SCADA system in control room can be wireless (radio, GSM/GPRS/3G, Wimax, TETRA), modem (fiber optics).

MAIN CHARACTERISTICS OF THE DEVICE

- 8 to 32 digital inputs
- 4 to 12 digital outputs
- 4 analog inputs
- 1x Ethernet or RS-232 interface + 1x serial interface (RS-232)
- Control of up to 6 MV line disconnectors
- Battery-backup memory for storing the time-tagged events
- Real-time clock
- LED indication of the RTUs' status
- SCADA connectivity: DNP 3.0 slave
- Spa Bus master protocol driver for communication with fault current indicators
- Built in algorithms for MV switch automation (automatic isolation of faulted line)
- High EMC immunity



Inputs and outputs are parameterized according to the required functions (alarms, status signalling, control) by means of a personal computer, connected to a data input. The other data input is intended for connection with an external device, such as a fault-current indicator. The protocol for the communication with the external device can be implemented optionally, according to the device's characteristics or the customer's specification. It is possible to upgrade the device by means of additional analog and digital inputs, digital outputs, communication interfaces etc..

The communication with the control centre is based on the DNP3.0 protocol, however, optionally also other protocols can be implemented, according to the customer's requirements/specifications. The signalling and control are possible also by means of SMS messages.