

- I/O MODULARITY**
- n.8 analogue inputs (TM) expandable up to 128 inputs (pressure, temperature, measurement differential filters, block valves, counter flow rate, etc.)
 - n.16 digital inputs (TS) expandable up to 256 inputs (congruency control, redundanc hardware / firmware)
 - n.8 digital outputs (TC) expandable up to 128 outputs (short circuit detection or overload) with possibility to exclude commands)

REMOTE CONTROLS FEATURES

- ON/OFF
- ON/OFF + STOP
- Set-point

REMOTE MEASUREMENT FEATURES

- ADC 24 bit
- Leak detection
- Current measurement 4÷20 mA @ 250 Ω

COMMUNICATION INTERFACES E

- n. 4 RS232/485 (optional)
- n. 4 Ethernet

- REDUNDANCY FOR**
- Power supply
 - Processing and control (CPU)
 - Line communication (COM / Ethernet)
 - Field interface serial interface
 - I / O HW (only bipolar digital outputs)

- COMMUNICATION PROTOCOLS**
- to the centers (max. 6)
 - IEC 60870-5-104 to the plant LAN or DCS
 - IEC 60870-5-104
 - MODBUS RTU/TCP

ELECTROMAGNETIC COMPATIBILITY

- CEI EN 60870-2-2
- CEI EN 61000
- CEI EN 60870-2-1
- CEI EN 60950
- IEC 55022 (ITE di classe A)

POWER SUPPLY

- 24/48 Vcc ±20%

OTHER DATA

- 9 inch touch-screen display, which facilitates man-machine interaction
- Content protection level IP30
- Operating temperature -10°C/+60°C

FEATURES _ STCE-NGS | STCE-NGE

SPECIFICATIONS OF THE SMALL RTU STCE-NGS

It comes in the basic version but can be doubled to increase the number of I/O quantities to be acquired if it is not convenient to install higher capacity RTU.

FUNCTIONAL MODULES OF STCE-NGS

- Processing and control (CPU) on ARM Cortex A7 Dual Core 1GHz architecture
- Center-side line communication (Ethernet)
- Field-side line communication (RS232) - optional
- Analog acquisition (TM) - expandable
- Digital acquisition (TS) - expandable
- Commands imposition (TC) - expandable
- Power supply



SPECIFICATIONS OF THE EXPANDABLE RTU STCE-NGE

It is suitable for the construction of medium and large capacity systems both for basic and expandable equipment and for the redundancy features.

FUNCTIONAL MODULES OF STCE-NGE

- Processing and control (CPU) on ARM Cortex A7 Dual Core 1 GHz architecture
- Center-side line communication (Ethernet)
- Field-side line communication (ETH/RS232/RS485) - optional
- Analog acquisition (TM) - expandable
- Digital acquisition (TS) - expandable
- Commands imposition (TC) - expandable
- Supply



Gas Transport Networks

STCE-NG
remote terminal unit



SELTA STCE-NG is a system developed with the aim of **supervising and remotely controlling the gas transport networks**. The new generation RTU fits well into the current market context in which operators aim to **rationalize and sustainably optimize their networks**, serving their industrial and thermoelectric consumers and distribution networks in an increasingly efficient way. **Based on innovative technologies and characterized by a high level of intelligence**, it is able to monitor and intervene on the transport network system in coordination with the control centers. SELTA STCE-NG is a modular and scalable solution, suitable for network scenarios of various sizes, available in two versions, the **Small STCE-NGS** model that can be used in small plants and the **STCE-NGE expandable** model for larger nodes. It is able to manage information to and from the plant, allowing rapid, punctual and flexible communication with the network management centers. It deals with acquiring digital and analog signals, imposing commands and set-points, collecting information from remote devices or local DCS. STCE-NG is used only remotely for security reasons and monitored locally through an optimized HMI interface, while the web-based management software is available remotely to guarantee simple, timely and effective maintenance interventions. The system also has an advanced synchronization and chronological management capability. The expandable version is synonymous with high availability and robustness thanks to the redundancy of the centralized parts.

BENEFITS

- Availability of historical data for web visualization and maintenance / improvement analysis
- Protection of existing investments (systems and wiring)
- Coordination and synchronization of control centers
- Reduced maintenance costs
- Improving network availability
- Operator User eXperience improvement

MAIN FUNCTIONS AND FEATURES

- » Linux Operating System with latest generation kernel
- » Operation both locally and remotely
- » Chronological acquisition of digital signals, analog and digital measurements, energy pulses from the field
- » Execution of equipment control commands engines, valves, set-points)
- » Gas volume conversion according to EN12405 standard
- » Programming of filters, thresholds and scale factors
- » Time synchronization based on NTP, IEC 60870-5-104, IEEE 1588 (PTP) and GPS standards
- » Programmable logic according to IEC 61131 standard (plant management automaton)
- » Management of digital quantities on analog line via HART protocol (Highway Addressable Remote Transducer)
- » Interface to DCS via MODBUS RTU /TCP
- » Compliance with Cyber security requirements (IEC 62351)
- » Hot redundancy for power supply, CPU (in master-slave logic), device bus, serial cards (only Expandable version)

- Data collection and historicizing
- Visualization of data collected through dedicated web interface (without operational interruptions)
- Scan rate configuration for data collection

- » Multicenter communication based on IEC 60870-5-104 protocol
- » Communication towards the center, in local operation, of administrative logs and maintenance operations
- » Equipment projection on WAN with DHCP protocol
- » Ethernet-based communication to and from the center
- » Communication with local operator via HMI interface

- User profiling for access to the device
- Management of AAA protocols (RADIUS)
- Secure access to the device based on TLS standard
- Local configuration and maintenance via web page and remote via XML file
- Web portal for displaying cards and I / O ports status, based on HTTPS protocol

TECHNICAL FEATURES _ STCE-NGS

I/O MODULARITY

- n.4 analogue inputs (TM) expandable up to 8 inputs (pressure, temperature, differential filters, block valves, counter flow rate, etc.)
- n.16 digital inputs (TS) expandable up to 32 inputs (congruency control, hardware / firmware redundancy)
- n.4 digital outputs (TC) expandable up to 8 outputs (short circuit detection or overload) with possibility to exclude commands)
- n.1 temperature sensor

REMOTE CONTROLS FEATURES

- » ON/OFF
- » ON/OFF + STOP
- » Set-point

REMOTE MEASUREMENT FEATURES

- ADC 24 bit
- Leak detection
- Current measurement $4 \div 20$ mA @ 250 Ω

COMMUNICATION INTERFACES

- » n.2 RS232/485 (optional)
- » n.2 Ethernet

COMMUNICATION PROTOCOLS

- to the centers (max. 6)
- IEC 60870-5-104
- to the plant LAN or DCS
- MODBUS RTU/TCP

ELECTROMAGNETIC COMPATIBILITY

CEI EN 60870-2-2, CEI EN 61000, EI EN 60870-2-1, CEI EN 60950, IEC 55022 (ITE class A)

OTHER DATA:

- 9 inch touch-screen display, which facilitates man-machine interaction
- Operating temperature $-10^{\circ}\text{C}/+60^{\circ}\text{C}$

