

XCELL compact

HV / MV Automation



Xcell Compact is an **automation platform** for transmission and distribution substations

Functions

Substation's IED integration via **industrial communications protocols**.

Substation **gateway**.

Local and remote HMI through webserver.

IED and legacy RTU integration of existing systems.

Three modes of operation

- ✓ **Gateway**. Connects the substation's IEDs (Level 1) with the control center's SCADA (level 3).
- ✓ **HMI**. Serves as a local SCADA for substations without remote communications.
- ✓ **HMI + Gateway**. The device brings together the two previously mentioned functions. Operates as local HMI of the installation with the added Gateway function connecting the level 1 IEDs with the level 3 SCADA.



Main Functions

Embedded Web HMI

Acts as local HMI / SCADA. This functionality allows the user to access all the database information in a convenient and user-friendly way.

Programmable Logic

The **Xcell Compact** delivers flexible solutions for any substation. The programmable logic module allows users to develop applications from elements in a database, load shedding schemes, or service restoration algorithms.

The configuration of this module is done through the SmartLogic application integrated in the ZIVeNetTool configuration tool. This application is in accordance with the 61131-3 standard and supports the five programming languages indicated in the standard.

Redundancy

Hot / Stand-By configurations are possible with two Xcell Compact devices. One unit maintains communications with the level 1 and level 3 devices and the second unit takes control of the installation in case of failure of the first one. ⁽¹⁾

Communications Protocols ⁽¹⁾

- IEC61850 Ed.1 and 2 (client and server, GOOSE service, etc.)
- SNTP V.4 (client and server)
- 60870-5-101 / 104 (slave)
- DNP3 (master and slave) serial and/or TCP
- Procome (master + transparent channel) serial and/or TCP
- Modbus (master and slave) serial and/or TCP

General Characteristics

- ✓ HW and SW modular architecture. Supports up to 4 CPUs and redundant power supply.
- ✓ Real time operating system
- ✓ Dimensions :19" Rack x 4U
- ✓ 5 serial electric ports (RS232 / RS422 / RS485) per CPU
- ✓ 2 Ethernet ports 10/100 BaseT (RJ45) per CPU
- ✓ LCD Display and keyboard
- ✓ 8 general purpose, configurable LEDs

Cybersecurity

Xcell Compact has a wide range of secure software interfaces used for maintenance purposes, operation, reporting of alarms and events, and communication protocols.

Listed below are the most representative ⁽¹⁾

- ✓ SSH - Secure Shell Version 2
- ✓ SFTP - SSH File Transfer Protocol
- ✓ SSL / TLS - Secure Socket Layer / Transport Layer Security (TLS Version 1.2)
- ✓ Secure Web Server (HTTPS)
- ✓ Websockets (RFC 6455 v13)
- ✓ SNMP V3 (Simple Network Management Protocols Version 3) (slave agent)
- ✓ Radius Client
- ✓ DNP3-SAv5

CPU (1 to 4)



1 or 2 power supplies

⁽¹⁾ Please inquire about additional options with the sales department

