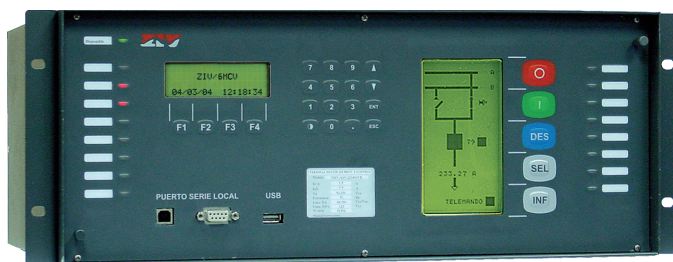


# 6MCV

## Control and Metering IED



## 6MCV Control and Metering IED is the ideal complement to **Protective Relays** for **Intelligent Management** of **Analog** and **Digital** signals

One of the functions of **6MCV** models is a **fully configurable** one called **Programmable Logic**.

The user can freely interconnect this logic digitally and analogically by using the *ZivercomPlus®* program.

All the signals generated by the equipment will be available to the events, oscillograph records, digital inputs and outputs, HMI and communications according to how their programmable logic has been configured.

From the signals or readings generated by any of the functions of the relay:

- ✓ Protection functions.
- ✓ Digital input mapping.
- ✓ Communications.
- ✓ Control functions.
- ✓ Logic and arithmetic of analog quantities.

the user can define a **logical operation** using primitive logic functions (AND, OR, XOR, NOT, etc.), bistable circuits (latched or not), timers, comparators, constants, values, etc.

The programming function allows definition of the **trip logic**, **control logic**, **interlocks**, **functional modules**, **local and remote** states and **control hierarchy** required for complete protection and operation of a bay.



## Control Functions

- ✓ Status of digital inputs and internal logic.
- ✓ Local and remote control via programmable trip-rated contacts.
- ✓ Customizable graphical HMI: includes LCD displays of the bay single line diagram and control push buttons.
- ✓ Programmable I/O logic, lockouts, interlocks, control hierarchy and automatic control functions.
- ✓ Flexible communications via substation central unit or directly to SCADA.

## Metering Functions

- ✓ Captured analog quantities: voltages and currents (both phase and line).
- ✓ Harmonic content for phase A current and voltage up to the 8th harmonic.
- ✓ Positive, negative, and zero sequence voltages and currents.
- ✓ Calculated power: active, reactive, and apparent.
- ✓ Cos phi.
- ✓ Frequency.
- ✓ Thermal image.
- ✓ Energy meters: active incoming and outgoing; reactive capacitive and inductive.

## Additional Functions

- ✓ Sequence of events record with programmable metering annotation.
- ✓ Time synchronization.
- ✓ Front panel LED targets.
- ✓ Programmable digital inputs (8 to 82 depending on model).
- ✓ Programmable auxiliary inputs (7 to 34 depending on model).
- ✓ ZivercomPlus® Software.

## Communications

Three simultaneous protocols available in standard model: DNP 3.0, Modbus, IEC 870-5 (Procome).

Optional IEC 61850 via optical and electrical Ethernet (100FX and RJ45). IEC 61850 allows the exchange of all information to the upper levels or between peers. It is a self descriptive protocol based on international open standards.

### Ports:

Front (COM1)	Local
Rear P1 (COM2)	Remote
Rear P2 (COM3)	Remote

### Protocols:

PROCOME	MODBUS
DNP 3.0	IEC 61850

### Connectors:

RS232  
USB  
Glass Fiber Optic  
Plastic Fiber Optic  
RS232 Full Modem  
RS232-RS485  
100 FX  
RJ45

