IXXAT SG-gateway with EtherNet/IP Interface

Remote terminal unit for Smart Grid applications

The SG-gateway with EtherNet/IP implements a real-time EtherNet/IP adapter interface with an integrated 2-port switch, allowing seamless network integration regardless of network topology (line, star, bus).

The SG-gateway supports the communication protocols used in the energy sector, e.g. IEC60870-5-104 and IEC61850 and enables connectivity for energy devices to EtherNet/IP-based automation systems.

In addition to EtherNet/IP and IEC protocols, other electric equipment in the field can also be connected via an Ethernet interface and/or a serial port, using the protocols Modbus TCP and RTU. As an option, the SG-gateway can also include a 3G modem for remote connectivity.

Easy WEB-PLC programming

The application logic can be programmed on the device either using the integrated graphical web editor or by using a predefined configuration loaded to the device. The graphical web editor is a very intuitive and easy to use interface to program software applications and configure the gateway. No engineering tools are required and it can easily be accomplished by service technicians.

Features and benefits

- Connects intelligent electrical devices (IEDs) with IEC protocols to industrial automation PLC systems using EtherNet/IP or Modbus TCP/RTU.
- Easy way to transport I/O data from electrical equipment in the field to SCADA systems
- Connects machines to PLC's and Virtual Power Plant / Demand Response companies
- Suppots several communication protocols (IEC61850 client/server, IEC60870-5-104 client/server, Modbus TCP client/server, Modbus RTU master/slave)
- Transmission over *3G (*optional) or over Ethernet
- Connects serial based Modbus RTU electrical equipment over a selectable RS232/RS485 interface
- Easy web based configuration using any standard browser
- Robust metal housing for stand-alone operation with DIN rail mounting
- Global free technical support and consulting services

EtherNet/IP Adapter/Slave interface

- EtherNet/IP CONFORMANCE TESTED™ by ODVA
- Support for Generic Device profile
- Dual port cut-through switch implemented in the Anybus NP40 processor
- Device Level Ring (DLR) Beacon-based
- Supports QuickConnect Class B
- CIP energy object support
- Customized identity information
- Explicit messaging up to 1500 using Large Forward Open
- Multiple I/O assembly support
- Modular device support
- 2x RJ-45 EtherNet/IP 100 Mbit/s ports available simultaneously

Technical specifications

Dimensions (LxWxH)	73 x 46 x 103mm
Weight	320 g
Operating temperature	0 to +55ºC
Enclose	Continuously hot-dip aluminium-zinc coated steel sheet
Power supply	24 VDC Weidmuller BL 3.50/03
Current consumption (at 24 VDC)	0.2 A Modem version: 0.24 A
LED indicators	X5
SD card slot	Supporting micro SD cards up to 32 Gbyte
Ethernet connector	1x 10/100 BaseT RJ45
EtherNet/IP connectors	2x 100 Mbit/s BaseT RJ45 available simultaneously
Serial connector	1x Weidmuller BL 3.50/08
CAN connector	1x Weidmuller BL 3.50/04
Cellular Modem	3G Tri Band UTMS modem (optional with SIM card slot)
Mechanical rating	IP20, NEMA rating 1
Mounting	DIN-rail (EN 50022 standard)
Supported protocols	IEC61850 Client/Server, IEC60870-5-104 Client/Server, EtherNet/IP Adapter, Modbus TCP Client/Server, Modbus RTU Master/Slave
Required software	CHIPtool for IP configuration
Config method	Integrated webserver
Certifications	CE