

# SG-gateway™ with multi-network interface

Anybus SG-gateways make the Smart Grid possible. They have two main application areas. Firstly, to enable remote control and management of electrical equipment in power grids. Secondly, to enable communication between industrial networks (EtherNet/IP, PROFINET, PROFIBUS) and energy protocols (IEC61850 and IEC60870-5-104). Serial devices can also be connected to energy protocols.



## In short

Smart grid gateways for interfacing power grids and industrial automation networks.

## Protocols

IEC61850 client/server, IEC60870-5-104 client/server, Modbus RTU master/slave, Modbus TCP client/server, EtherNet/IP, PROFINET and PROFIBUS.

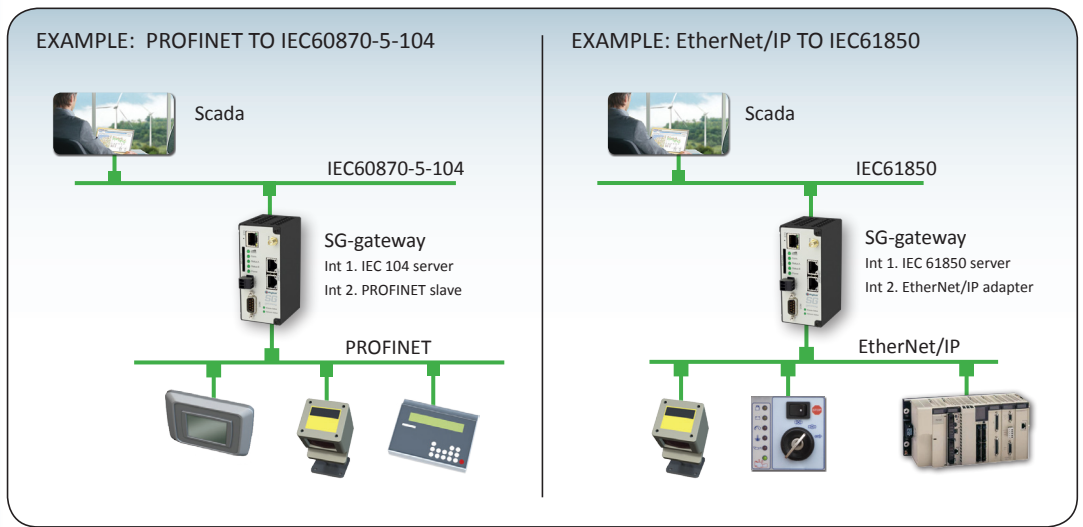
## Interfaces

3G modem, Ethernet and serial (RS232/RS485/RS422).

## Web editor

Embedded webserver supporting functions such as:

- Binary – AND, OR, XOR
- Bits & Bytes – Extract, Pack, Put, Pit, Unpack
- Messages – Send, Receive
- Numerical – Counter, Compare
- Special – Enable/disable, OpenVPN
- Storage and edge detection – RS Flipflop, Trigger
- Timing – TON, TOFF, TP, Timer



## Features and Benefits

- Easy way to transport I/O data from industrial automation networks in the field to SCADA systems
- Several communication protocols are supported (IEC61850 client/server, IEC60870-5-104 client/server, Modbus TCP client/server, Modbus RTU master/slave)
- Anybus CompactCom interface for EtherNet/IP, PROFINET and PROFIBUS
- Transmission over 3G or Ethernet
- Connecting serial devices over RS232/RS485/RS422
- Easy web based configuration using any standard browser
- Robust metal housing for stand-alone operation with DIN rail mounting
- Worldwide technical support and consulting services

## Device description

The Anybus SG-gateway is a remote terminal unit for the energy market. The SG-gateways can communicate with industrial fieldbus or industrial Ethernet networks such as PROFIBUS, PROFINET and EtherNet/IP thanks to Anybus CompactCom technology.

Additionally, the SG-gateway includes an optional 3G modem, an Ethernet interface and a serial port.

Custom applications can be easily developed with the embedded Web Editor supporting logical functions (e.g. AND, OR, XOR, FF, TIMER and COUNTER).

## TECHNICAL SPECIFICATIONS

Technical Details		Standard
Dimensions (L*W*H)	70*46*105 mm	
Protection class	IP20	IEC 60529
Enclosure material	Continuously hot-dip aluminium-zinc coated steel sheet	DIN EN 10215
Installation position	Vertical	
Mounting	DIN rail	
Certifications		
R&TTE Directive		EN 301 489-1 EN 301 489-7 EN 301 511
CE	2004/108/EC	EN61000-6-4 EN61000-6-2
RoHS/WEEE		
Electrical Characteristics		
Power	24 VDC +/- 15 %	
Current consumption	Max 120mA at 24VDC plus digital outputs	
Environmental Characteristics		
Operating temp	0 to 55 °C	
Immunity and Emission for Industrial Environment		
EMC emission		EN 61000-6-4
EMC immunity		EN 61000-6-2
Electrical shock		IEC 61140, class III
Low voltage directive		EN 60950-1
Single Pack Accessories		
• Connector for power supply (Weidmüller BL 3.50/3) • Connector for I/Os (Weidmüller BL 3.50/10)		

## NETWORK SPECIFIC FEATURES

1 = Network connector, 2 = Baud rate,  
3 = I/O data, 4 = Other

SLAVE / ADAPTER / SERVER / DEVICE	
<b>EtherNet/IP - 2 port</b>	1 = 2*RJ45 2 = 10/100 Mbit/s 3 = 256 byte IN/OUT 4 = Device Level Ring (DLR)
<b>PROFIBUS</b>	1 = DSUB9F 2 = Up to 12 Mbit/s 3 = 256 IN/OUT 4 = I&M functions
<b>PROFINET IO - 2 port</b>	1 = RJ45 2 = 100 Mbit/s 3 = 256 byte IN/OUT 4 = SNMP with support for the mibs: LLDP and MIB-II



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