ADDSECURE
SMART GRIDS

GIO200

Gateway-RTU with 2G/3G/4G

Reliable monitoring and control via cellular network

The demand of more control and knowledge regarding the distribution network requires increased number of measurement and control devices in the network.

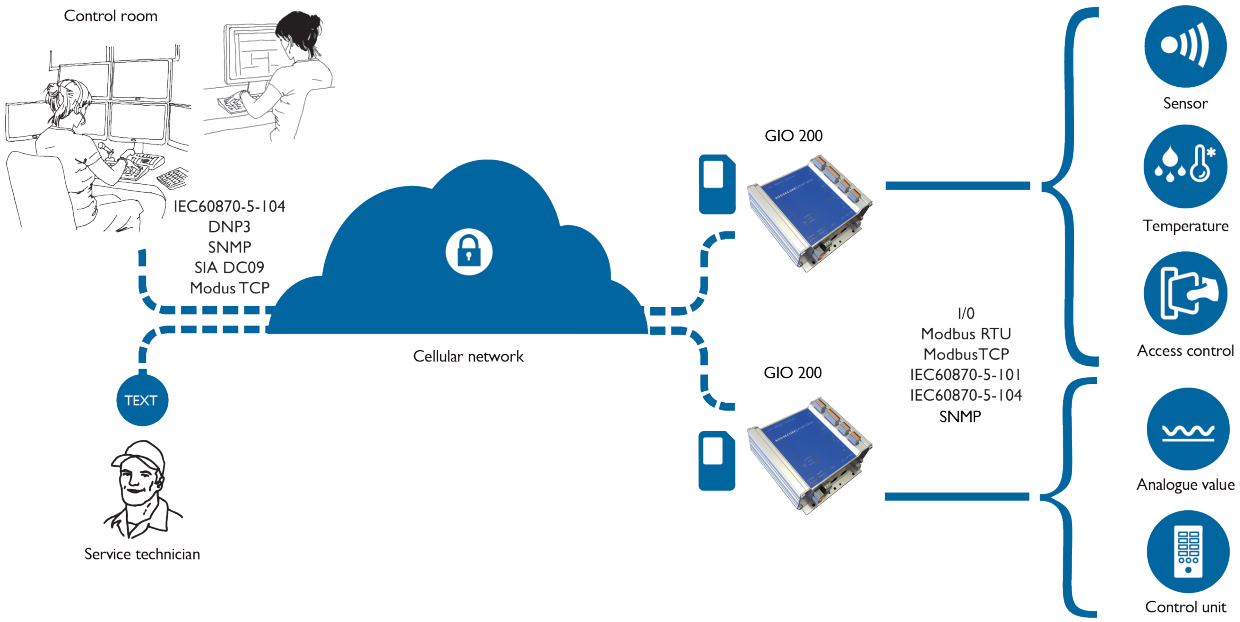
Conventional implementations with separate units for communication and RTU-functionality can be both expensive and complex. GIO200 combines RTU functionality and Gateway features with 2G/3G/4G communication in one single unit. The small form factor and robust metal enclosure makes GIO200 useful in tough environments with limited space. Powerful and multifunctional GIO200 is easy to configure via user-friendly Web interface thanks to the built-in help function.

Digital inputs and outputs, analogue inputs in combination with standard data protocols makes it possible to control equipment, also remotely, in a reliable and cost effective way. Supervision and control can take place from one single or several centrals simultaneously via different standard protocols. GIO200 supports text message in addition to the ordinary communication between the remote device and control room. GIO200 sends a text message to listed numbers when alarm occurs in the distribution network. It is also possible to perform limited remote control via command sent in text message format.

The Linux-based network structure enables advanced Router and Gateway functionalities. GIO200 can be used as an advanced node to connect different networks with various network protocols or serial protocols. GIO200 contains two independent network ports to enable separation of networks e.g. WAN/LAN plus several serial interfaces (RS485, RS232) and USB.

To get a complete safe and robust communication system, combine GIO200 with the IoT solution AddSecure Link and its secure SIM-cards. Link utilises roaming between different operators and the network will be totally separated from regular mobile traffic and internet. The system will be self-administered and controlled. Additional monitoring and alarm handling services are available via AddView, also from AddSecure.

Power supply					
Voltage	9-32 VDC				
Current consumption	Average 175 mA @ 12 V, 88 mA @ 24 V				
Power consumption	Average 2.1 W, max 15 W < 1s				
Inputs and outputs					
10 digital inputs	Max voltage 60 VDC, impedance 10 kΩ, isolation 1500 Vrms, indications on the front				
8 digital outputs	Max voltage 60 VDC, max current 0,5 A, isolation 1500 Vrms, indications on the front				
6 analogue inputs	Input current 0-20 mA, impedance 200 Ω (can be used as digital inputs)				
Cellular communication frequency	800	900	1800	2100	2600
2G, 3G & 4G	4G	2G, 3G & 4G	2G & 4G	3G & 4G	4G
RTU-functionality	Text message, IEC60870-5-104 (slave and master), DNP3 (slave), IEC60870-5-101 (master), Modbus TCP (slave and master), Modbus RTU (master), SIA DC09, Modbus TCP to RS485 Gateway				
Network functionality	IPSec, SNMP v1/v2c, OpenVPN, GRE, SSH, NTP, DHCP, Firewall/routing-functionality				
Connectors					
Power supply	2 way plugable screw terminal 1.5 mm^2				
USB	USB 2.0 master				
2 ETH	RJ45 (TCP/IP, UDP/IP), 10/100 Mbps				
2 RS232	Tx, Rx, GND 3 way plugable push in terminal 0.5 mm^2				
2 RS485	A, B, GND 3 way plugable screw terminal 1.5 mm^2				
2 Antennas	Main and Div, female SMA, 50 Ω				
SIM card	Push-push mini SIM card, form factor 2FF				
Inputs and outputs	Plugable push in terminal 0.5 mm^2				
Temperature range	-40 °C to +85 °C				
Enclosure	Aluminium, dimensions 142 x 149 x 62, weight 770 g, IP51				



AddSecure Smart Grids has long experience regarding distribution networks business with specialist competence in communication, control, automation, fault detection and measurement technologies. We offer modular, transparent and customer adapted solutions to achieve cost-effective modernisation of the distribution network.

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