



## Features

- LTE and GSM connectivity
- 3 independent relay outputs
- Opto-isolated Modbus RTU
- 2 opto-isolated digital inputs with SMS alert
- Astronomical timer
- GNSS for accurate time and location
- Internal website for configuration
- LAN with PoE
- Output control from server and by SMS
- Modbus archive data in internal memory
- Aluminium compact size casing
- DIN rail mounting

The AG-831 is a Gateway dedicated to work with central controlling and monitoring systems. It support two-way communication with server through LTE/GSM or Ethernet. It has inbuilt timer with 10 ON/OFF schedule within 24h, auto configurable sunrise/sunset timer based on geolocation and has 3 independent relay outputs. Every output can be controlled by separate time schedule. Gateway has isolated Modbus RTU interface to communicate with energy meters, PLCs and other Modbus devices. Can be configured by: internal website, SMS, string from server and configuration

file loaded in predefine URL. For accurate time and location it has GPS and RTC.

Gateway is for use in street light control panels and other application where it is needed to control accurate ON/OFF time with support of Modbus devices. It can be controlled remotely from server or via SMS or also work in stand alone mode.

The AG-831 has advance alert option with 10 mobile number list for SMS alerts. In superCap models there is power backup with power loss alert facility.

Description	Parameter
<b>Serial Interface</b>	
Interface type	RS485
Data rate	1200bps ~ 460800bps
Signals	A and B
Data length	7, 8 bits
Parity	Odd, even, none
Stop bits	1, 1.5, 2
Flow control	None
Connector	Pluggable screw socket
Protection	Opto-isolated 2.5kV RMS per UL 1577 IEC 61000-4-2 level 4: - 15 kV (air discharge) - 8 kV (contact discharge)

Description	Parameter
	MIL STD 883C-method 3015-6: class 3. (human body model) Fail-safe receiver for bus open, short and idle
<b>LTE/GSM Interface<sup>1</sup></b>	
Band LTE FTD	B1/B3/B5/B8
Band LTE TDD	B34/B38/B39/B40/B41
Band GSM	900/1800MHz
GPRS slot	Multi-slot class 12/10
Link	GPRS class 12: max. 85.6 kbps (downlink/uplink)

<sup>1</sup> LTE/GSM Bands are mentioned for IN version of LTE modem. For EU and GL please contact support.

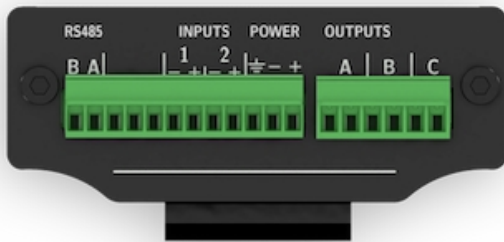
Description	Parameter
<b>LTE/GSM Interface</b>	
<b>Power</b>	Compliant to GSM phase 2/2+ - Class 4 (2 W 900MHz) - Class 1 (1 W 1800MHz)
<b>SIM card</b>	MicroSIM, push-pull type holder 3V/1.8V
<b>Antenna connector</b>	SMA female
<b>GNSS</b>	
<b>GNSS systems</b>	GPS, BDS, Galileo, GLONASS, QZSS
<b>Ethernet<sup>2</sup></b>	
<b>Number</b>	1
<b>Type</b>	10/100M port
<b>PoE</b>	PoE class A (spare pare)
<b>Data to Server Protocol</b>	
<b>Protocol type</b>	TCP/IP and JSON
<b>Authorisation</b>	By authorisation key
<b>Communication type</b>	Dual way by TCP/IP One way in JSON (Gateway to server)
<b>Encryption support</b>	SSL on LTE and GSM, (TLS1.2)
<b>Digital Inputs</b>	
<b>Input number</b>	2
<b>Input type</b>	Opto-isolated 2.5kV
<b>Configuration</b>	Separate IN-GND
<b>Connector</b>	Pluggable screw socket
<b>Relay Outputs</b>	
<b>Output number</b>	3
<b>Output type</b>	NO
<b>Load<sub>max</sub></b>	3A 230V AC or 3A 30V DC
<b>Connector</b>	Pluggable screw socket
<b>System Functions Indicators</b>	
<b>Indicators</b>	PWR - power indicator ACT - activity TXD - data indicator RXD - data indicator Digital output indicators Digital input active indicator
<b>Configuration and System</b>	
<b>Configuration method</b>	SMS specific commands Internal website String from TCP/IP server Remote or local configuration file
<b>Access authorisation</b>	Password protection

<sup>2</sup> The current firmware version does not support SSL over Ethernet

Description	Parameter
<b>System protection</b>	Watchdog, and configurable guard
<b>OS support</b>	Any latest internet browser
<b>Power Supply</b>	
<b>Connector</b>	Pluggable screw socket
<b>Power Voltage range</b>	8-36V DC
<b>Power consumption</b>	3W average
<b>Protection</b>	Reverse polarity Over Voltage
<b>SuperCAP backup<sup>3</sup></b>	
<b>Backup time</b>	30 second
<b>Charging time</b>	10 minute (approx)
<b>Physical Characteristics</b>	
<b>Installation</b>	DIN-Rail
<b>Housing</b>	Aluminium
<b>Weight</b>	270g
<b>Dimensions</b>	88mm x 35mm x 87mm
<b>Environmental Specification</b>	
<b>Operating temp.</b>	-25 ~ 75°C (-13 ~ 167°F)
<b>Storage temp.</b>	-40 ~ 85°C (-40 ~ 185°F)
<b>Ambient RH</b>	5% to 95% (non-condensing)

<sup>3</sup> SC models only

# Gateway



## Selected model list

Models	Hardware Options	
A-831	Mobile LTE	Backup SuperCAP
AG-831-LT-IN	√	
AG-831-LT-EU	√	
AG-831-LT-GL	√	
AG-831-LT-IN-SC	√	√
AG-831-LT-EU-SC	√	√
AG-831-LT-GL-SC	√	√

## Table with model structure for ordering

Model structure			
<b>Model structure example</b>	<b>AG-831-</b>	<b>LT-</b>	<b>EU-SC</b>
<b>Base model name</b>			
AG-831			
<b>Cellular communication modem</b>			
LT (LTE communication module present)			
<b>LTE/GSM module regional information</b>			
IN (certification of LTE module for India)			
EU (certification of LTE module for Europe)			
GL (global certification of LTE module)			
<b>SuperCAP backup</b>			
SC (for last message on power loss)			

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