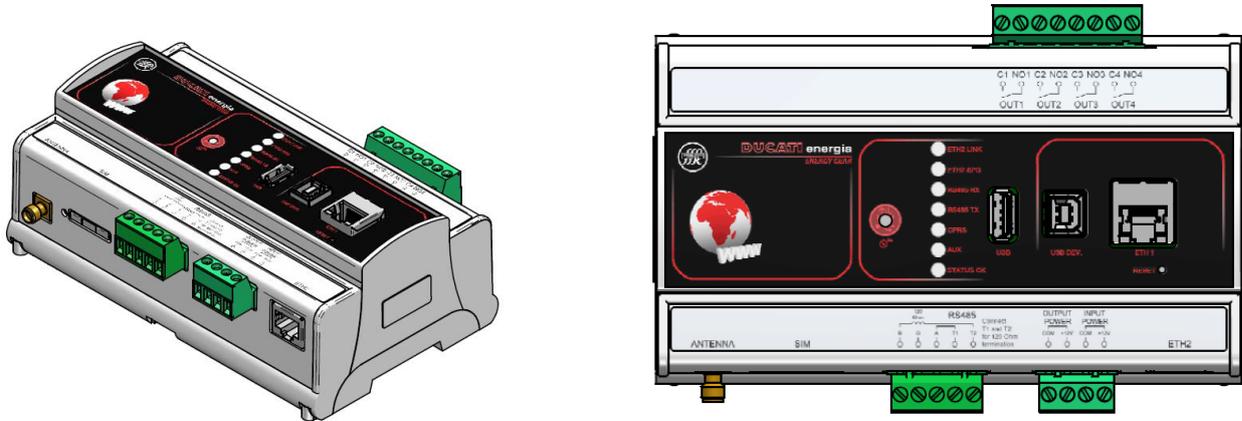




Datalogger-gateway Energy Gear



GENERALITY:

In the context of the DUCnet energy monitoring system, ENERGY GEAR is the data-logger gateway with data reading and storing functions from multi-function analyzers, energy meters, pulse counters, environmental sensors and power factor controllers. ENERGY GEAR has a webserver that simplifies the configuration of the network of monitored instruments, the consultation of measurements, the export of stored data and / or the sending of data to the DUCnet Cloud-Server through connection to the LAN or via GPRS / UMTS modem. ENERGY GEAR is a device for energy management of industrial plants, branched organizations in the area, isolated workstations or production facilities, E.S.CO. Main features are flexibility and ease of use, high reliability and guarantee of measurements.

SENSORS:

ENERGY GEAR can read and store measurements from:

- ❖ power factor analyzers and regulators of DUCATI energia for electricity consumption and electrical system control.
- ❖ internal and external DUCATI energia temperature and humidity sensors
- ❖ DUCATI energia modules for acquisition and storage of digital signals coming from pulsed emission devices: water, gas, steam, compressed air, refrigerating fluids, piece counters, etc.
- ❖ any other third-party measuring device with RS485 port (Modbus RTU protocol) or Ethernet-LAN (Modbus TCP protocol)

STORAGE

ENERGY GEAR has an internal memory with capacity to store measurements up to several years. For example, storing 10 measurements for 10 devices every 15 minutes, the memory autonomy is 5 years.

DATA COMMUNICATION

ENERGY GEAR makes available various methods of data communication:

- ❖ automatic transmission to DUCnet Cloud-Server through connection to the LAN or GPRS / UMTS modem; in this case the data can be consulted and downloaded directly from the website <https://ducnet.ducatienergia.com>
- ❖ automatic sending to third-party servers through connection to the LAN network or via GPRS / UMTS via an integrated modem;
- ❖ download via LAN on a PC through the pages of the integrated http web-server;
- ❖ download on a USB memory to be connected to the front port of the device;

DATA FORMAT

The data collected by ENERGY GEAR are available in .csv format, which can be read by any spreadsheet or in .xml format, compatible with many database acquisition and storage systems.

It is also possible to perform a real-time monitoring of data using Energy Gear as a slave device in a Modbus TCP network.

CONFIGURATION

ENERGY GEAR is easily configurable via webserver using a common browser from a local or remote location.

NOTIFICATION

By using the connection to the DUCnet Cloud Server, it is possible to program a list of addresses for e-mail notifications of reports, real time alarms, excessive consumption, system anomalies, absence of electricity, faults and other similar events.

LOAD CONTROL

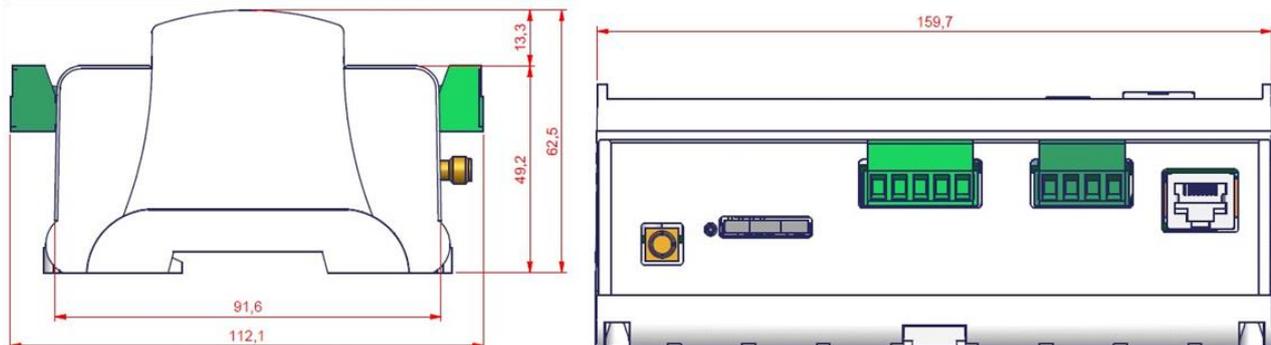
ENERGY GEAR is equipped with 4 outputs for connection to as many load control relays. The 4 outputs can be connected directly to drive four 250V-2A loads.

By using the connection to the DUCnet Cloud Server it is possible to program the outputs for operation as 4 time switches through the definition of an annual table for turning on and off the loads with a 30 minute granularity. The Energy Manager of the building or plant can thus ensure that certain loads are excluded at times when they are not expected to be left on. This excludes the frequent episodes of consumption due to forgetfulness of the operators. You can also control ignitions and shutdowns of heating, lighting and loads based on logical conditions related to internal temperatures, external, radiation of the building and electrical measurements.

TECHNICAL FEATURES

- ❖ Container 9 Modules from DIN bar complying with CEI EN 60715 and DIN 43880 standards.
- ❖ Power supply: 12VDC - max. 15W (maximum absorption depends on the model)
- ❖ RS485 port for data acquisition with Modbus-RTU protocol (with integrated termination resistor).
- ❖ 2 Ethernet LAN ports 10/100 Mbps; auto-negotiating, auto-discovery, full / half duplex.
- ❖ 1 USB port for data download and SW update (1 USB DEV port for maintenance)
- ❖ 7 signaling LEDs and 1 multi-function button.
- ❖ 4 programmable relay outputs 2A - 250V.
- ❖ GPRS modem: Telit GL865 module
- ❖ UMTS modem: Telit UL865 module
- ❖ Technical standard:
 - Electrical safety CEI EN 60950-1
 - Electromagnetic compatibility: CEI EN 61000-6-1, CEI EN 61000-6-3, CEI EN 61000-6-3 / A1, CEI EN 61000-6-2, CEI EN 61000-6-4, CEI EN 61000-6-4 / A1, ETSI EN 301 489-1, ETSI EN 301 489-7
 - Radio Equipment Directive ETSI EN 301 511, ETSI TS 151 010-1, ETSI EN 62311

DIMENSIONS



MODELS AND OPTIONS

Order code	Modem	Frequency Band 2G	Frequency Band 3G
468001313 G S P L	GPRS	900/1800 MHz	-
468001313 E S P L	UMTS EUD	900/1800 MHz	900/2100 MHz
468001313 A S P L	UMTS NAD	850/1900 MHz	850/1900 MHz
468001313 B S P L	UMTS BR	850/900/1800/1900 MHz	850/2100 MHz



DUCATI energia

DUCATI energia s.p.a.

Via M. E. Lepido, 182 - 40132 Bologna (BO) - ITALY

Tel. +39.051.6411.511 - Fax 39.051.6411.692

Web: www.ducatienergia.com - E-mail: info@ducatienergia.com