



EAGLE 1500(80)

LoRaWAN Smart Meter

The Compact and Performant Meter



EAGLE/1500(80) is a single-phase din rail smart meter with LoRaWAN communication. EAGLE has a built-in magnetic 80A latching relay and an SMA socket for an external antenna.

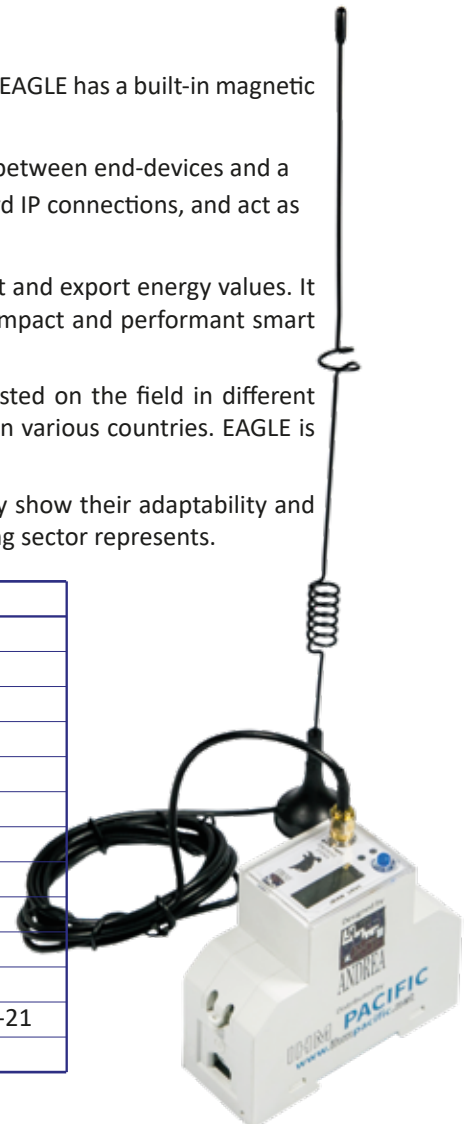
The LoRaWAN® network is a star-of-stars topology in which gateways relay messages between end-devices and a central network server. The gateways are connected to the network server via standard IP connections, and act as a transparent bridge, simply converting RF packets to IP packets and vice versa.

EAGLE has a remote reading facility for the type of energy used, and measures import and export energy values. It also has a remote disconnecter. These are only some of the main features of this compact and performant smart meter.

EAGLE complies with the version 2.0 of the LoRaWAN specifications. It has been tested on the field in different topologies with great success. Several service providers have installed several pilots in various countries. EAGLE is answering to real requirements, particularly in the submetering sector.

In this area, the technology LoRaWAN and the EAGLE 1500(80) smart meter perfectly show their adaptability and performance in the incontestable challenge that the connectivity in the smart metering sector represents.

EAGLE 1500(80) LoRaWAN smart meter specifications	
Ref. voltage	220V/120V
Ref. Current	5(80)
Impulse constant	1600imp/kWh
LCD display	LCD 5+1
Operation temp.	-20°C to 70°C
Relative humidity	< 95%
Ref. frequency	50Hz/60Hz
Accuracy class	Class 1 (MID certified)
Starting current	0,4%/Ib (Cl. 1)
Load control	Built-in 80A magnetic latching relay
Power consumption	< 2W, <10VA
Standard compliant	IEC62052-11/IEC62053-21, IEC62055-41/IEC62056-21
LoRaWAN communication	All frequencies



EAGLE the Smart LoRaWAN meter:

More understandable bills. EAGLE helps to estimate daily consumption. Thanks to the complete energy information, you can have access to a daily record of consumed energy values.

Better understanding of your usage. With EAGLE, you can see the direct impact your habits and lifestyle have on your bill. By making your energy usage easier to understand, you can make smarter decisions to save energy and money.

Prepayment. The EAGLE prepayment function is available and complying with the STS specifications. This is particularly useful for customers, who can better track how their usage impacts their available credit.

Import/Export. EAGLE helps to manage the energy you can produce in your home (solar, geothermic, wind, etc). You have a better control of your real consumption and a clearer financial exchange with your provider.

Remote breaker. EAGLE has a disconnecter which can be controlled remotely. EAGLE can also be used as a powerful relay for controlling equipment with big power consumption.

Eagle has a RS485 adaptor. Eagle can be used as a Gateway to collect data from other devices connected to the RS485 bus. Protocols like Modbus can be used on top but any other protocol can be implemented in the firmware.

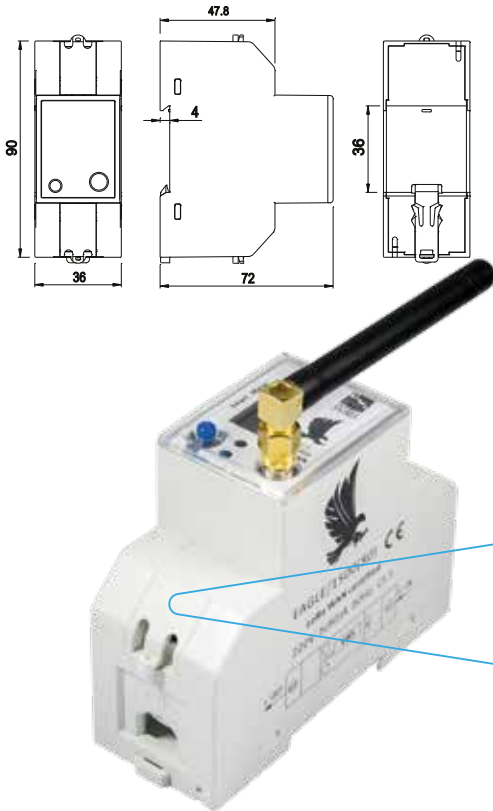
User Port. EAGLE has an optical port to provide energy information locally. The information can be sent by means of MODBUS or can be just raw data. The specific use of the user port can be adapted, under request, to customer requirements.

Tariffs. EAGLE can handle several tariffs to answer to real requirements on the market. As a result, electricity providers can propose more adapted commercial offers to their customers.

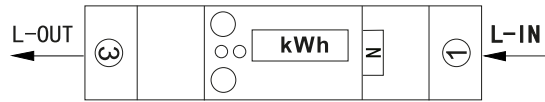
EAGLE can be used by utilities for domestic requirements, but also in submetering for local distributors, for industries or residential sectors.

Firmware Upgrade. EAGLE has a local and remote firmware upgrade function.

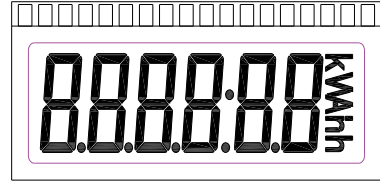
Dimensions



Wiring Diagram



Display



User Port

Metering Function. Active (Power, Demand, Energy Forward and Reverse), Reactive (Power, Demand, Energy Inductive, Power Factor), Status (Power Out, Relay Open)

Communication Function: Support LoRaWAN communication. Eagle sends alarms after a powerfail (5 sec)

Display Function : LCD display, data scroll display, page turning by button, parameter settings, such as voltage, current, reactive power, active power, power factor, number of pages, display order, interval time of page turning.

Other Functions:

This meter is equipped with an 80A built-in magnetic latching relay.

Remote support control & automatic trip under abnormal conditions.

EAGLE DLMS COSEM/LoRaWAN is available and a firmware version can be produced under request.

In order to answer to the market requirements, we can implement **specific functionalities on request.**



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Technical specifications SMA & GSM-31 cm antenna	
Frequency Range (MHz)	824-960/1710-2170
VSWR	<= 2.0
Gain (DBi)	5-7
Input Impedance (u)	50
Max Input Power (W)	50
Polarization type	Vertical or Horizontal
Connector type	SMA (Male pin)
Cable type	RG174 (64 Code)
Cable length (mm)	2000
Antenna height (mm)	310
Base diameter	29.6

Andrea Informatique work together with service companies to provide adapted and cost-efficient solutions to their customers in different topologies and can show different representative situations featuring the adaptability and efficiency of the system.



ANDREA is member of the
ANDREA has designed and produced EAGLE

