ENERDIS®
CHAUVIN ARNOUX GROUP

ELOG

web-box data logger

Collect and record multi-energy, climate and process data

Remote data retrieval from meters, sensors, PLCs, etc.

Uniform formatting for data from different sources

Universal access to the data (Web Services)

Multiple communication ports

Large storage capacity


Industry

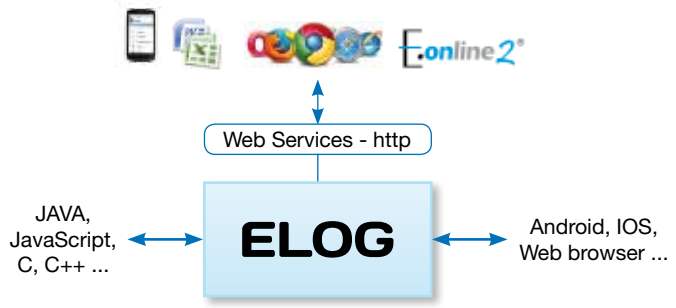

Process


Offices


Tertiary

ELOG web-box data logger

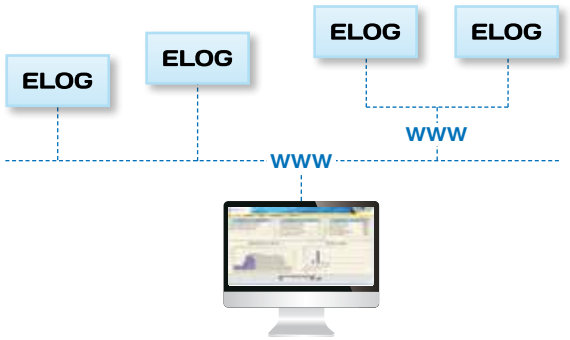
WEB (Operation - Integration)



ELOG is a stand-alone unit combining functions for **monitoring**, **remote data retrieval, recording** and **supervision**.

- **Integrated web pages**: configuration of ELOG and real-time consultation of the variables measured by the equipment linked to ELOG
- **Excel**: presentation of the data recorded in tables and graphs (macro delivered with ELOG)
- **Compatible with multi-platform / multi-language applications**: the WEB SERVICES in JSON format available in ELOG enable integration and processing of the information and data recorded in many applications (web browser, android, ios,, etc.) via a very **wide range of programming languages** (Java, JavaScript, C, C++, Python, Labview, ...)
- **E.online 2 software**: application with advanced functions for analysing and improving energy performance. E.online 2 ensures automatic synchronization with ELOG (whatever the number of ELOGs), periodic remote retrieval of the recorded data and display of all the variables in real time

BOX (Modularity)



Supervision application

The data from the **various ELOGs**, implemented as a fleet over several geographical areas and/or remote sites, can be **grouped** in a single application for supervision and processing of the information.

ELOG can be used to access the data remotely and display in real time the values of the variables measured by the equipment supervised by each ELOG.

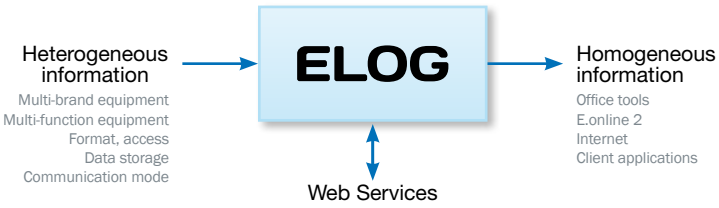
A solution to simplify operation of your installations with:

- Multi-brand, multi-function equipment (meters, power monitors, PLCs, etc.)
- Heterogeneous data (type, format, access, etc.)
- Multiple communication modes
- No storage modes

ELOG converts heterogeneous data from the various types of equipment into a format which is **homogeneous** and intelligible. The technology of the WEB SERVICES guarantees **compatibility with multiple languages** and direct processing by the different types of software and applications for analysis, monitoring and improvement of the energy performance achieved by tertiary buildings and industrial processes.

- **Analyse** the data via several interfaces : web pages, Excel, E.online 2 and specific applications
- **Combine the energy metering, climate and process data** to improve your energy performance
- **Reduce integration costs** for the processing applications by using a universal access method (Web Services)

DATA (Database)

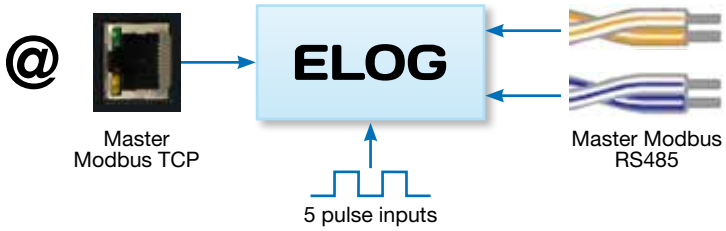


Chronological recordings

The values of the pulse inputs and the Modbus variables of the equipment connected to the communication ports (RS485 and Ethernet) can be recorded periodically.

- **Recording periodicity** :
  - from every 5 seconds to every 60 minutes
  - can be defined for each variable
- **History of recordings** :
  - 3 months (current month, month -1, month -2) for periodicities ≥ 1 min
  - 3 days (current day, day -1, day -2) for periodicities < 1 min
- **Format of recordings :**
  homogeneous whatever the original format
- **Number of variables recorded :** 50 simultaneously

LOGGER (Remote data retrieval)



The data from the equipment are retrieved by ELOG automatically via :

5 pulse inputs

Processing of multi-utility meters (electricity, water, gas, calories, etc.) equipped with pulse outputs. ELOG counts and periodically records the number of pulses.

2 x RS485 Modbus ports and 1 Ethernet Modbus TCP port

Connection of the RS485 and Ethernet networks to communicate remotely with the devices (meters, power monitors, sensors, probes, PLCs, etc.) equipped with a Modbus or Modbus TCP output and to record data.

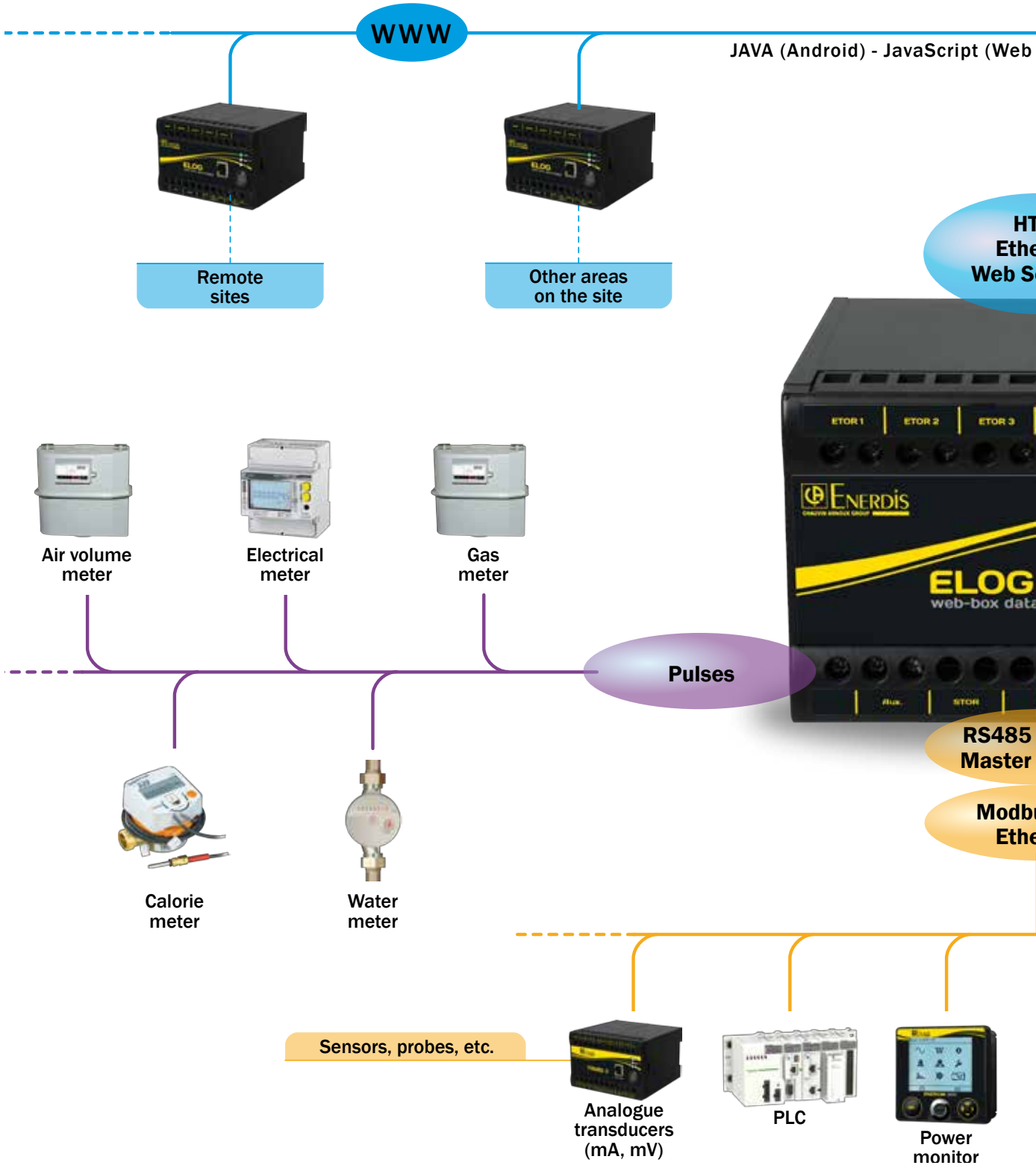
Modbus drivers

ELOG is supplied with a **library** of Modbus drivers for equipment from different manufacturers. It can contain up to **100 drivers**.

Remote data retrieval and recordings

The intervals between remote data retrievals and recordings can be defined for each variable: from 5 seconds to 60 minutes.

Functional diagram



Internet WEB pages

Smartphones Tablets

Client applications

Data server

Office tools

Energy management software

Browser) - C, C++ (iOS) - C# - ...

Upgradable macro delivered with ELOG for remote data retrieval and data analysis

Application for data analysis, archiving and management of multiple ELOGs

TP
ernet
ervices

A and B
Modbus

us TCP
ernet

CIS outputs of tariff meters

Modbus RS485 slaves

RF sensors

Profibus slaves, M Bus, etc.

Radio-frequenc gateway

Meter CIS gateway

Protocol gateway

Ethernet / RS485 gateway

Digital panel meter

Electricity meter

Pulse receiver

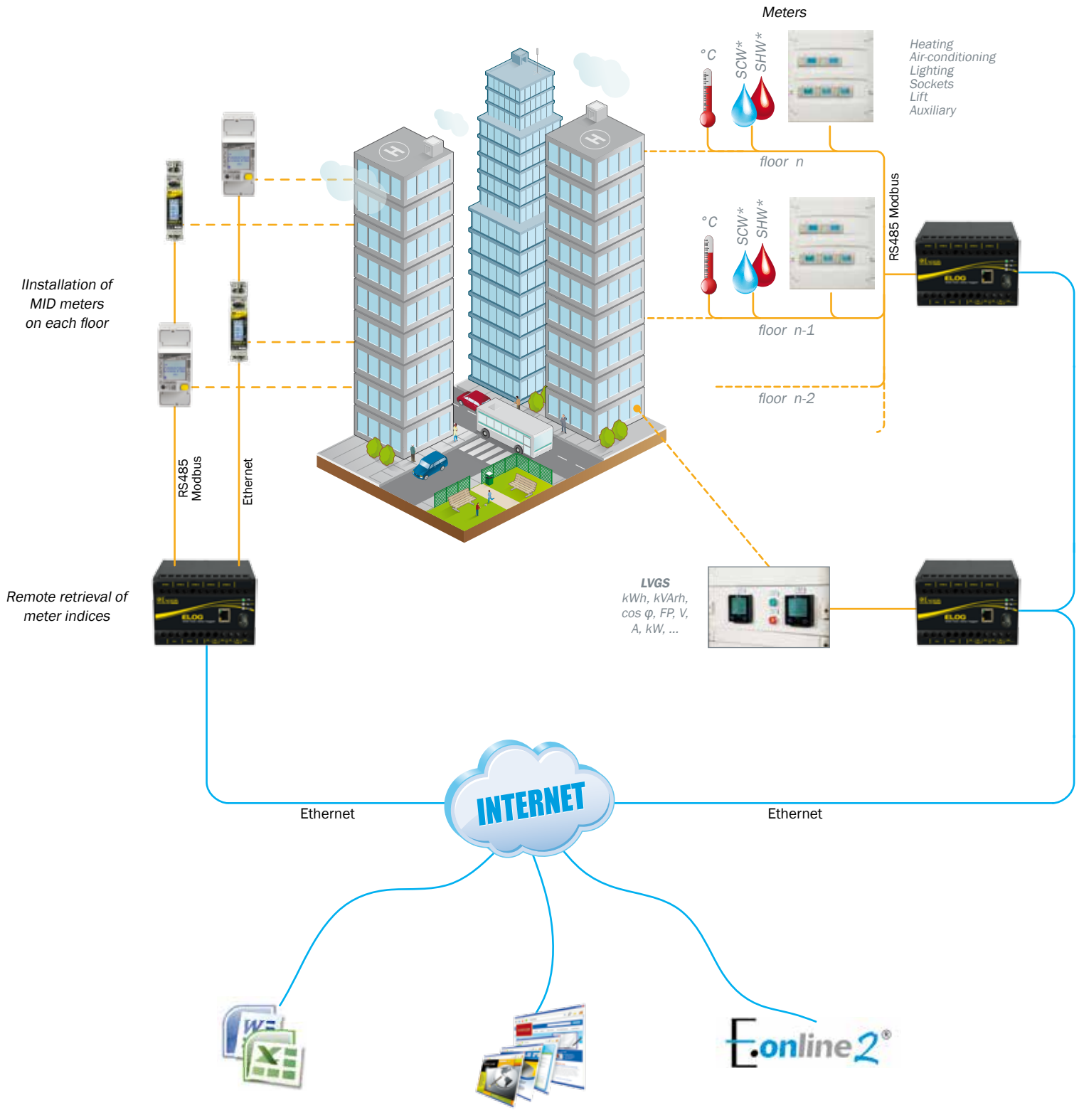
Photos: Chauvin Arnoux – Schneider Electric – Elster

Tertiary application

- Supervision and monitoring of multi-utility consumption (HQE Operation - Breeam - Leed)
- Allocation and rebilling of energy costs (MID application)

Energy rebilling

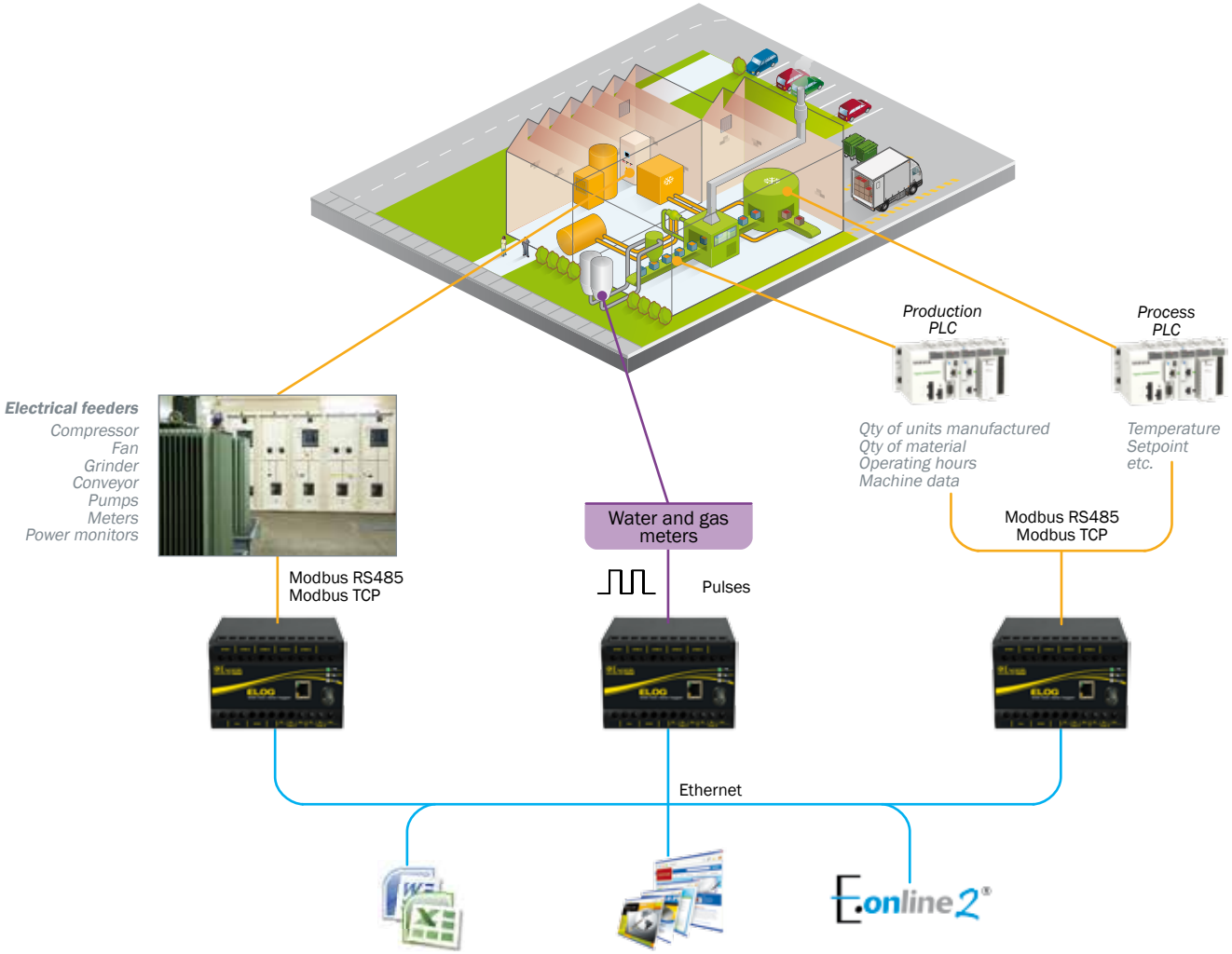
Consumption monitoring



* SCW: Sanitary Cold Water
SHW: Sanitary Hot Water

Industrial application

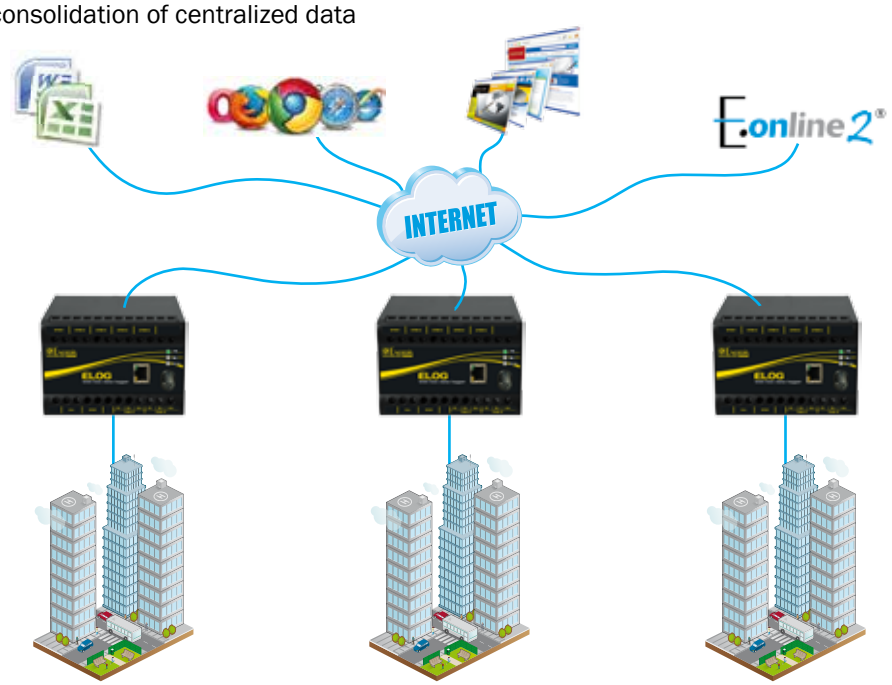
- Monitoring and improvement of energy performance
- Implementation of an EMS (Energy Management System, EN 50001)
- Real-time display of energy data
- Calculation of process energy indices



Photos: Chauvin Arnoux – Schneider Electric

Multi-site application

- Supervision and consolidation of centralized data



Specifications

Pulse / On-off inputs	
Number	5
Acceptable voltage	Logic level 1: 12 to 72 Vdc / Logic level 0: 0 to 5 Vdc
Pulse duration	30 ms min. at level 1 and 30 ms min. at level 0
RS485A and RS485B ports	
Type	Type : RS485, 2 or 3 wires (shielding)
Operation	Master mode - half-duplex
Protocol	ModBus RTU mode
Ethernet port	
Type	RJ45 - 8 pins
Speed	10 - 100 baseT
Operation	http in slave mode - ModBusTCP, encapsulated ModBus TCP in Master mode
Protocol	http, smtp, ftp, JSON/REST, tftp, ntp, ssh, etc.,
Storage	
Recording periodicities	every 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30 and 60 minutes every 5, 6, 10, 12, 15, 20, 30 and 60 seconds
Depth	3 months for data ≥ 1 minute / 3 days for data < 1 second
Storage mode	FIFO (First In First Out)
Storage medium	Interchangeable memory card
Capacity	8 GB
Immunity to micro-outages	2.5 seconds (at 230 Vac)
Processor	ARM9 - 180 MHz
Auxiliary power supply	80 to 265 Vac - 10 VA - 42.5 to 69 Hz / 80 to 375 Vdc - 7W
Environment	
Operating temperature	-10 °C to +55 °C
Storage temperature	-25 °C to +70 °C
Protection	IP20
Mechanical specifications	
Weight	560 g
Mounting	DIN-rail mounting
Connection	Screw terminal strip (6 mm² single-strand wire - 4 mm² multi-strand wire)
Dimensions (DxLxH)	120.5 x 120 x 81 mm (DxLxH)
Electromagnetic constraints	Compliance with IEC 62052-11 (electricity-metering standard)
Compliance	IEC 61000-4-2/3/4/5/6/8/11 - CISPR22
Functional limits	
Max. number of ModBus drivers	100
Number of variables per driver	40
Max. number of measurement points	100
Max. number of trend curves	50

Connection diagrams

To order

ELOG	P01331230
Switchboard mounting accessory	ACCT 1006
E.online 2	EONLINE2-CFG

Related products

ULYS energy meters

ENERIUM power monitors

E.online 2 software

FRANCE
Enerdis
16, rue Georges Besse - Silic 44
92182 ANTONY Cedex
Tél : +33 1 75 60 10 30
Fax : +33 1 46 66 62 54
info@enerdis.fr
www.enerdis.fr

UNITED KINGDOM
Chauvin Arnoux Ltd
Nelson Ct, Flagship Sq, Shaw Cross Business Pk
Dewsbury, West Yorkshire - WF12 7TH
Tel: +44 1924 460 494
Fax: +44 1924 455 328
info@chauvin-arnoux.co.uk
www.chauvin-arnoux.com

MIDDLE EAST
Chauvin Arnoux Middle East
P.O. BOX 60-154
1241 2020 JAL EL DIB - LEBANON
Tel: +961 1 890 425
Fax: +961 1 890 424
camie@chauvin-arnoux.com
www.chauvin-arnoux.com

CHAUVIN ARNOUX GROUP