EDL100, EDL110: Energy Data Logger for EMS

How energy efficiency is improved

With numerous communication options and an integrated firewall, SAUTER Energy Data Loggers (EDL's) are the ideal data capture devices. They allow all local measured data and meters to be recorded on site – reliably and economically – and independent of a building management system (BMS). The data is synchronised regularly with the EMS Server and the measurements can be protected for several days. This acts as a safeguard in the event that connection to the server is interrupted.

Areas of use

SAUTER EDL offers the possibility of connecting systems to the EMS server and benefiting from all the advantages of the software SAUTER EMS without having to use a building management system. Available in the "Cloud Computing " version (hosting package) or in the local version without hosting (system solution), SAUTER EMS is a complete solution for energy data management. The SAUTER EDL collector has the most diverse range of drivers for integrating your system. The drivers for BACnet/IP, Modbus (IP-RTU), M-BUS and KNX IP are already included in the basic version.

Keep your firmware always updated

SAUTER EDL include a software package regularly updated to include new features and improve existing features. Security is also and mostly a SAUTER concern for its customers and software upgrade package include security patches to keep the system as safe as possible. The yearly software maintenance option allows to be sure to always receive the last version for the EDL Software. This option can be activated for any EDL and at any time.

Options for more adaptability and flexibility

SAUTER EDL comes with a hardware and software configuration that meets the majority of requirements. However, with the advent of digital technologies, the need for intercommunication is increasingly large and complex. To meet these needs, SAUTER offers you a range of additional drivers in the form of software options.

Features

- No moving parts
- The supply input is reverse polarity protected and protected against overvoltages
- No fan

Technical description

- EDL100 and 110 are based on a fully industrial Raspberry RPi compatible computer platform
- Power Consumption from 3-4 watts

Products

Type	Description
EDL100F001	EMS Energy Data Logger EDL - SMINT3 without Software
EDL100F002	(EDL) 10 EDL Datapoints from 1 to 100 DP
EDL110F001	EMS Energy Data Logger (EDL) - SMINT3 with GSM (4G)
EDL110F002	(EDL) 10 EDL Datapoints from 1 to 100 DP

Software Options

Type	Description
EDL140F001	(EDL) Driver Wurm/IP Refrigeration Systems *
EDL140F002	(EDL) Driver Danfoss Refrigeration Systems *
EDL140F003	(EDL) Driver Elreha Refrigeration Systems *
EDL140F004	(EDL) Driver SNMP (Simple Network Management Protocol) *
EDL140F005	(EDL) Driver SQL (Database Connection) *
EDL140F006	(EDL) Driver SAIA-S-Bus IP (UDP)*
EDL140F007	(EDL) Driver Siemens Simatic S5/S7*
EDL140F008	(EDL) Driver MQTT IoT
EDL420F001	(EDL) Software maintenance per year from delivery
EDL420F004	(EDL) Software maintenance reinstatement per month since last maintained day.

*Driver availability depending on EDL Firmware version (details on EDL driver datasheet)

SAUTER EDL

Technical features

Power supply

Supply voltage	10-40 VDC (Not included)
Power consumption	3-4 Watts, Peak 6W
Current Max	1.2 A

Important note on the power input:
The ON pin on the power connector can be used in combination with a button for manual power-on. In order for the box to start automatically, the ON pin must be connected together with the + line

Interface, communication

Ethernet	1x 10/100 Mbps (RJ45 Port)
COM	1x RS-232
USB	2x USB 2.0
Various	1x M-Bus master level converter up to 25 slave devices
Display	1 x hdmi

Architecture

Processor	1.2GHz ARM Cortex A53 Quad core
RAM	1GB DDR2
Storage	4GB eMMC

Permissible ambient conditions

Operating temperature	-20°C … +70°C non condensing
Storage	-40°C … +85°C

Drivers available as standard	BACnet IP
	Modbus (TCP & RTU)
	M-BUS
	KNX-IP

Physical specifications

Type, holder	DIN rail snap-in holder
Dimensions	113 (W) x 94 (D) x 31 (H) mm
Weight	0.340kg

Compliance

CE, RoHS	

Comments on the project study

All drivers listed are included with the software and are activated via a license key. For all relevant data points alarms can be defined. Alarms can be kept in sync with EMS, so that acknowledge is possible on EDL or EMS. There is also the possibility to define time schedules. In addition, the EDL establish a VPN connection in order to meet the necessary security requirements for transmission of data over the Internet from remote locations.

EDL configuration can be done via a dedicated development studio The EDL contains a full HTML5 Web Server allowing to configure, visualize data and monitoring the system from any device (computer, smartphone or tablet).

Integration with the EMS server is completely prepared. An EMS administrator is being able to manage local users on EDL, upgrade remotely the EDL firmware and backup all EDL linked to the project automatically.

Dimension drawing (in mm)

93,50

DIN-Rail-Holder

50,00

113,00

30,90

8,50

DIN-Rail-Holder

50,00
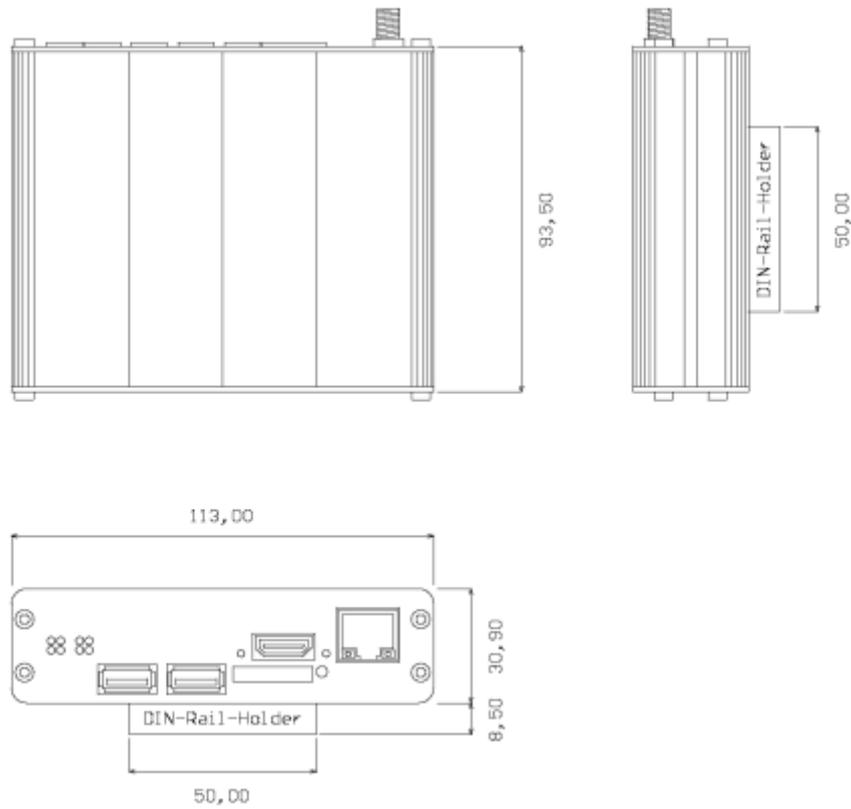
Connection diagram

Label on the casing	Designation in software
LAN0	eth0
RS232	ttyS1
MBUS up to 25 slaves	ttyAMA0

4G

MBUS
MBOVI
MBCOM
– +

RS232 DC-IN
DBUG
RxD TxD GND + – ON

NU CS L2 L4
ON DISK L1 L3

USB B   USB A   SIM-Card   LAN0