



[www.edibon.com](http://www.edibon.com)  
 ↳ PRODUCTS  
 ↳ 40.- ELECTRICITY

### INTRODUCTION

Nowadays, people are forced to install intrusion detection systems at home because of the lack of safety. There are many intrusion detection systems but, generally, they are devices able to detect movement, sound or vibrations to send an alarm.



ISO 9001: Quality Management (for Design, Manufacturing, Commercialization and After-sales service)



European Union Certificate (total safety)



Certificates ISO 14001 and ECO-Management and Audit Scheme (environmental management)



Certificate and Worlddidac Member

## GENERAL DESCRIPTION

The Movement and Sound Detection Application, "AEL-AD31", is an application designed to understand the operation of the most common intrusion detector. The intrusion detector of this application consists of a device made up of magnets, which can be located in windows or doors. So when it detects the opening of a window or door, it sends an alarm signal. It can also send the alarm signal when it detects sound above a threshold. To check the operation of this device, the application includes a bell, two halogen lamps, two switches with light, two incandescent lamps and two pushbuttons with light. In other words, the sensor can be connected to any of these elements to simulate real situations, so the student can understand its operation.

The AEL-AD31 includes the following modules:

- N-ALI02. Domestic Main Power Supply.
- N-INT15. Two Switches with Light.
- N-LAM08. Two Lamp-holders + Incandescent Lamps
- N-INT31. Intrusion Detector from 40 to 300 W.
- N-LAM10. Two Halogen Lamps.
- N-PUL22. Two Pushbuttons with Light.
- N-TIM05. Bell + Buzzer.

Expansion learning software:

In addition, Edibon provides expansion learning software (AEL-AD31/ICAI) to reinforce knowledge about this field.

This software is formed by:

- ECM-SOF. EDIBON Classroom Manager (Instructor Software).
- ESL-SOF. EDIBON Student Labsoft (Student Software).

The application AEL-AD31 can be mounted on rack (option A) or on rail (option B):

Option A:

This application needs the following racks:

- N-RACK-A.

Optionally the AEL-WBR. Electrical Workbench (Rack) can be supplied to place the rack/s.

Option B:

This application can be mounted on rail.

Optionally the AEL-WBC. Electrical Workbench (Rail) can be supplied to mount the modules.

## SPECIFICATIONS

The application includes the following modules:

- **N-ALI02. Domestic Main Power Supply.**

Voltage supply (Single-Phase): 230 VAC, PH+N+G.

ON-OFF removable key.

Output Voltage Connections:

Two Single-Phase: 230 VAC.

Single-Phase supply hose connecting plug.

Differential magnetothermal, 2 poles, 25 A, 30 mA AC 6 KA.



N-ALI02



N-INT15



N-LAM08



N-INT31



N-LAM10



N-PUL22



N-TIM05

- **N-INT15. Two Switches with Light.**

2 one pole switches with light.

10 A.

250 VAC.

Domestic use.

- **N-LAM08. Two Lamp-holders + Incandescent Lamps.**

Voltage supply: 230 VCA (PH+N).

Two lamps.

Consumption: 40 W each one.

2 terminals each one.

- **N-INT31. Intrusion Detector from 40 to 300 W.**

Voltage supply, 230 VAC.

Magnet for the mobile part of the window/door.

Sensor for the fixed part of the window/door.

- **N-LAM10. Two Halogen Lamps.**

Nominal voltage: 230 VAC.

Nominal Power: 2 x 40 W.

- **N-PUL22. Two Pushbuttons with Light.**

2 light push buttons.

250 VAC.

10 A.

- **N-TIM05. Bell + Buzzer.**

Voltage supply, 230 VAC.

Bell sound, 70 dB.

Buzzer sound, 80 Db.

- **All necessary cables to realize the practical exercises are included.**

**Cables and Accessories**, for normal operation.

**Manuals:**

This unit is **supplied with the following manuals**: Required Services, Assembly and Installation, Starting-up, Safety, Maintenance & Practices Manuals.

## EXERCISES AND PRACTICAL POSSIBILITIES

- |   |  |
|---|--|
| 1.- Movement and sound detection controlled through switches.     | 3.- Testing of the intrusion sensor.   |
| 2.- Movement and sound detection controlled through push-buttons. | 4.- Simulate an intrusion through the intrusion detector and the bell + buzzer module. |

### REQUIRED SERVICES

- |   |
|---|
| - Electrical supply: single phase, 220 V./50 Hz. or 110 V./60 Hz. |
|---|

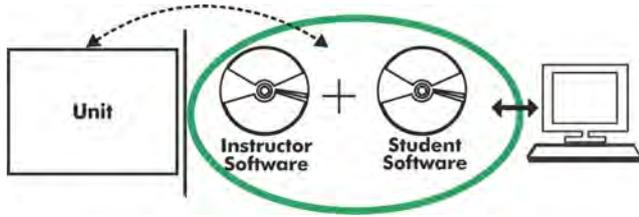
### DIMENSIONS AND WEIGHTS

AEL-AD31:

- |  |
|--|
| - Dimensions: 640 x 320 x 920 mm approx.<br>(25.19 x 12.59 x 32.22 inches approx.) |
| - Weight: 60 Kg approx.<br>(132 pounds approx.)                                    |

## Optional

### AEL-AD31/ICAI. Interactive Computer Aided Instruction Software System:



With no physical connection between unit and computer (PC), this complete software package consists of an Instructor Software (EDIBON Classroom Manager -ECM-SOF) totally integrated with the Student Software (EDIBON Student Labsoft -ESL-SOF). Both are interconnected so that the teacher knows at any moment what is the theoretical and practical knowledge of the students.

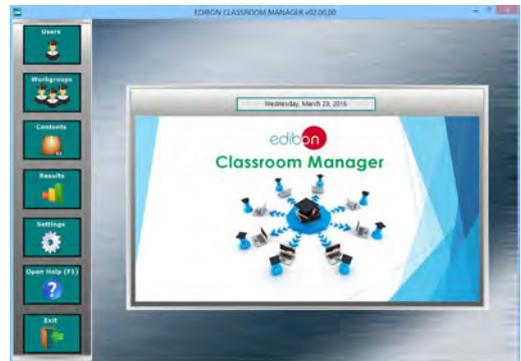
### Instructor Software

- ECM-SOF. EDIBON Classroom Manager (Instructor Software).

ECM-SOF is the application that allows the Instructor to register students, manage and assign tasks for workgroups, create own content to carry out Practical Exercises, choose one of the evaluation methods to check the Student knowledge and monitor the progression related to the planned tasks for individual students, workgroups, units, etc... so the teacher can know in real time the level of understanding of any student in the classroom.

Innovative features:

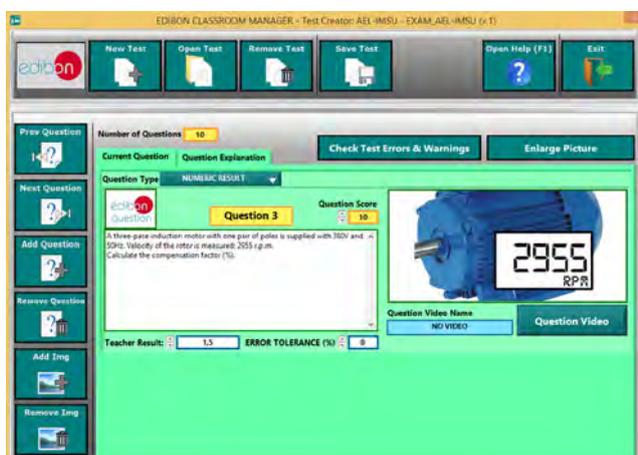
- User Data Base Management.
- Administration and assignment of Workgroup, Task and Training sessions.
- Creation and Integration of Practical Exercises and Multimedia Resources.
- Custom Design of Evaluation Methods.
- Creation and assignment of Formulas & Equations.
- Equation System Solver Engine.
- Updatable Contents.
- Report generation, User Progression Monitoring and Statistics.



ECM-SOF. EDIBON Classroom Manager (Instructor Software) Application Main Screen



ECAL. EDIBON Calculations Program Package - Formula Editor Screen



ETTE. EDIBON Training Test & Exam Program Package - Main Screen with Numeric Result Question



ERS. EDIBON Results & Statistics Program Package - Student Scores Histogram

Optional  
**Student Software**

- ESL-SOF. **EDIBON Student Labsoft (Student Software)**.

ESL-SOF is the application addressed to the Students that helps them to understand theoretical concepts by means of practical exercises and to prove their knowledge and progression by performing tests and calculations in addition to Multimedia Resources. Default planned tasks and an Open workgroup are provided by EDIBON to allow the students start working from the first session. Reports and statistics are available to know their progression at any time, as well as explanations for every exercise to reinforce the theoretically acquired technical knowledge.

Innovative features:

- **Student Log-In & Self-Registration.**
- **Existing Tasks checking & Monitoring.**
- **Default contents & scheduled tasks available to be used from the first session.**
- **Practical Exercises accomplishment by following the Manual provided by EDIBON.**
- **Evaluation Methods to prove your knowledge and progression.**
- **Test self-correction.**
- **Calculations computing and plotting.**
- **Equation System Solver Engine.**
- **User Monitoring Learning & Printable Reports.**
- **Multimedia-Supported auxiliary resources.**

For more information see **ICAI** catalogue. Click on the following link:

[www.edibon.com/en/files/expansion/ICAI/catalog](http://www.edibon.com/en/files/expansion/ICAI/catalog)



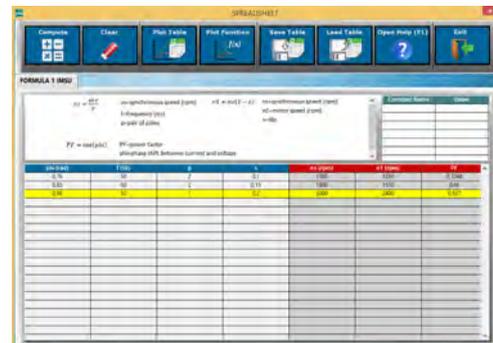
ESL-SOF. EDIBON Student LabSoft (Student Software)  
Application Main Screen



EPE. EDIBON Practical Exercise Program Package Main Screen



ERS. EDIBON Results & Statistics Program Package - Question Explanation



ECAL. EDIBON Calculations Program Package Main Screen

\* Specifications subject to change without previous notice, due to the convenience of improvement of the product.



C/ Del Agua, 14. Polígono Industrial San José de Valderas.  
28918 LEGANÉS. (Madrid). ESPAÑA - SPAIN.  
Tel: 34-91-6199363 Fax: 34-91-6198647  
E-mail: edibon@edibon.com Web: [www.edibon.com](http://www.edibon.com)

Edition: ED01/17  
Date: November/2017

REPRESENTATIVE:

