


NormaLINK 
quick guide



Normalink

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What is Normalink?

Normalink is the platform to control DALI (Digital Addressable Lighting Interface) lighting fittings, both general and emergency lighting.

How can the system be controlled?

Normagrup offers three control options:

1. From the Normalink App, available for downloading at no cost for the main platforms: IOS, Android and Windows.
2. Through the Normalink BMS software (with drawings included) that is pre-loaded in the master gateway (ref: IDNG-MG).
3. Through a BMS (Building Management System) software compatible with the Modbus/IP standard protocol.

What can I do with Normalink?

- Local or remote control of a DALI installation of general lighting and / or emergency lighting.
- Create groups, scenes and timings.
- Integrate external elements such as push buttons, switches, presence detectors, light regulators, input/output signals, etc...
- Supervision and maintenance of the emergency lighting.
- Test programming for self-contained emergency lighting fittings.
- Log and notification of any anomaly in both the general lighting and the emergency lighting.
- Control C24I central battery systems.



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What are the features of the DALI protocol?



- Maximum capacity per line: 64 fittings.
- Maximum wire distance allowed: 300 meters.
- 2 x 1.5mm² wire.
- No polarity.
- Star or tree connections are allowed.
- Loops or closed loops are not allowed.
- Maximum number of allowed groups per line: 16.
- Maximum number of allowed scenes per line: 16.

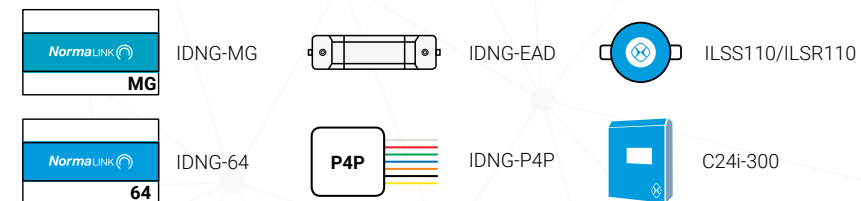
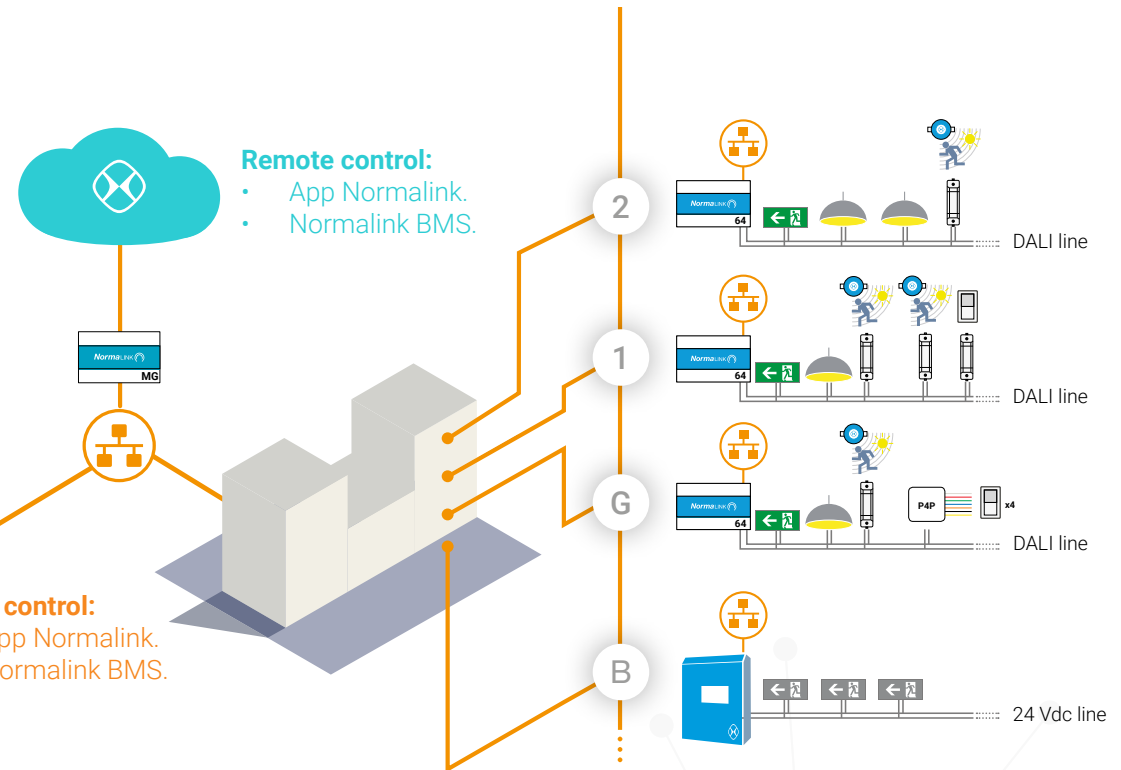


Local control:

- App Normalink.
- Normalink BMS.

Remote control:

- App Normalink.
- Normalink BMS.



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What are the devices of this system?



IDNG-64

DALI gateway

DALI-TCP/IP gateway for the control from Normalink of up to 64 lighting fittings (general lighting and / or emergency lighting), compliant with the DALI standard.

- Ethernet connection.
- DIN Rail mounting (6 modules)
- Internal power supply incorporated to feed the DALI bus and a CR2032 battery to avoid losing information.
- 230v AC 50/60Hz from an UPS (Uninterrupted Power Supply).
- Additionally, this fitting allows the connection, through the DALI line, of up to 16 devices with Normalink code (References IDNG-EAD and / or IDNG-P4P).

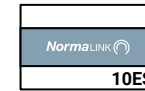


IDNG-MG

Mastergateway

TCP/IP Mastergateway for the control of Normalink installations. Configuration through the incorporated web server. Once connected to the same local network than the rest of Normalink devices, the mastergateway takes over the control of the installation.

- Ethernet connection.
- Configuration of the notifications.
- Remote control of the installation thanks to the Normalink Cloud.
- Exhaustive control of the installation thanks to the BMS (Building Management System) software with drawings included.
- Control the installation from an external software with Modbus /IP support.
- Din rail mounting (12 modules).
- 230v AC 50/60Hz from an UPS (Uninterrupted Power Supply).



IDNG-10ES

Input / Output module

Input / Output module compatible with the Normalink system. Allows the integration of external elements, either inputs or outputs, directly to Normalink (not through DALI).

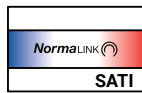
- 10 programmable terminals that can work either inputs or outputs.
- One relay output.
- Ethernet connection.
- Web server for the network configuration.
- Potential free inputs to connect push buttons, switches or signals.
- 24v Outputs for connection of relays, solid state contactors or external devices (PLCs, centrals or others). Maximum output current: 10mA
- Identification through Normalink code.
- DIN Rail mounting (6 modules)
- 230v AC 50/60Hz from an UPS (Uninterrupted Power Supply).

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What are the devices of this system?

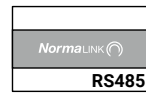


IDALING-TS

SATI ADDRESSABLE Gateway

Gateway to control SATI addressable emergency lighting luminaires, compatible with the DALING protocol.

- Ethernet Connection.
- Normalink compatible.
- 4 outputs, up to 62 luminaires per output.
- DALI Bus: 18v 250mA.
- Battery included: 2 x 3.6v, 2000mA LiFePo.
- Remote control buttons included. It also includes an input for a remote remote control.
- Input for fire alarm signals (SSI).
- 230v AC 50-60Hz from an UPS (Uninterrupted Power Supply).



IRS485

RS485 Gateway

Gateway to control up to 1000 emergency lighting luminaires compatible with RS-485 Normalux protocol.

- Ethernet connection.
- Normalink compatible.
- Exhaustive control of the installation through the Normalink BMS software with drawings.
- 4 outputs, 250 luminaires per output.
- DIN Rail mounting (12 modules).
- 230v AC 50-60Hz from an UPS (Uninterrupted Power Supply).



C24i-300

Central battery system

C24i-300 central battery system for emergency lighting.

- 8 24v DC outputs.
- Maximum current per output: 3.5A.
- 300W.
- LSS Inputs to control the outputs.
- SL Input to connect phase monitors.
- Auxiliary inputs.
- Auxiliary outputs.
- Selection of autonomy: 1, 3 or 8 hours.
- Ethernet connection.
- Compatible with Modbus IP.
- Web server for controlling the unit from a browser.
- Normalink compatible.
- Dimensions: 587 x 460 x 187 mm.
- 230V AC 50-60Hz
- Manufactured according norm EN50171.

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What are the devices of this system?



IDNG-EAD

Analog - Digital adapter

Adapter to integrate NON DALI devices into the DALI line. Devices such as push buttons, presence detectors or light regulators.

- DALI connection, analog 0-10v input (not isolated) and a 230v AC digital input.
- Automatic detection and configuration from the Normalink app.
- Powered through the DALI bus.
- It does not occupy a DALI address.
- Identification through Normalink code.
- Dimensions: 215 x 33.5 x 30mm.



IDNG-P4P

Push button interface

Interface for the connection of 4 push buttons or a switch (potential free) to the DALI line and its integration into the Normalink system.

- Interface for the connection of 4 push buttons or a switch (potential free) to the DALI line and its integration into the Normalink system.
- Connection to the DALI line
- Four inputs or channels (IN0, IN1, IN2 and IN3) and a shared terminal.
- Includes 0.5mm section wires (200mm long)
- Terminals IN0, IN1, IN2 and IN3 cannot be extended using additional wire.
- Automatic detection and configuration through the Normalink app.
- Powered through the DALI bus.
- It does not occupy a DALI address.
- Identification through Normalink code.



ILSR110
ILSS110

Presence and light regulators

Constant closed loop light regulator 1/10 V DC for connecting to an IDNG-EAD adapter from Normalink.

- Surface (Ref: ILLSS110) or recessed (Ref: ILSR110) mounting.
- Incorporates a PIR sensor, allowing the activation of the lighting in case there are people in the zone if needed.
- 230v AC 50Hz
- Luminosity level: 100-1000 lux.
- Connection time: 10-30 min
- IP 20 according to UNE 20324
- Working temperature 0°C to 40°C.
- Detection range 360°/day 7m at 2.5m height.
- ILSR110 diameter: 80mm
- ILSS110 diameter: 118.50mm, 45mm height.

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Steps to follow...

1

DALI line

Connect all the luminaires, both general and emergency lighting to the DALI line. Make sure that all the fittings are connected to the power supply.

Main DALI features:

- Wire 2x1.5mm²
- Maximum distance 300 meters.
- No polarity.
- Star connections are allowed.
- Closed loops are not allowed.
- Isolated BUS.
- Maximum n° of groups per line: 16
- Maximum number of scenes per line: 16.

Connect the DALI line to the IDNG64 gateway and press the test button. All the luminaires connected to that gateway should blink. If some of them are not, this could be because:

- It is not properly connected to the DALI line.
- It does not have power supply
- It has a functioning defect
- It is not 100% DALI.

By pressing a second time the test button the blinking of the fittings will end. This will also end automatically after 15 minutes if you forget to press the button again.

In this step you can also connect to the DALI line those devices that allow the connection of external elements, such as the IDNG-EAD adapters and / or IDNG-P4P interface. Remember that these devices do not occupy a DALI address and that the maximum number you can connect to a single DALI line is 16.

2

Integration in the local network

Now its time to configure the network parameters of the Normalink devices to allow their integration in the local network of the installation.

Using a computer and an ethernet crossover cable:

1. Connect the wire to each fitting.
2. Open the web browser of the computer and introduce the default IP address of the device.

Remember that the computer should be in the same range than the one the device to be configured is.

From the Webserver of the device you will be able to modify the network parameters and add information that will allow its identification in the upcoming steps. For example, you can define now in which zone or building it is installed.

Devices that will require this configuration:

- IDNG-64.
- IDNG-MG.
- IDNG-10ES.

3

Download the app and search

The Normalink app is available for devices compatible with IOS, Android and Windows. You can download it for free from the AppleStore or Google Play. To receive the Windows version, please send an email to normalink@normagrup.com and we will send it to you for free as well.

Once downloaded and installed, open it. Please indicate whether you are locally or remotely connected.

Afterwards, choose one of the three available user profiles:

- Standard user.
- Maintenance user.
- Administrator.

The system will automatically search for network devices compatible with Normalink and will group them by "Building" or "Zone" (if they were given a building or zone in Step 2").

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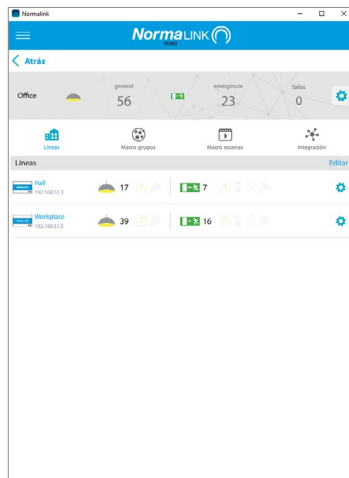
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Steps to follow...

4

Within a zone or building

When pressing over a zone or building, we will get access to its control and supervision, with the following information displayed. Number of fittings, events in the installation and a button that grants access to general configuration.



There are four buttons on this screen to access different sections:

- Lines: A list of Normalink devices with the number of luminaires and events on the installation, as well as an access to its configuration.
- Macro Groups: Groups of luminaires from different gateways for a global control.
- Macro Scenes: Actions over groups from different gateways.
- Integration: Detection and configuration of external elements.

5

Addressing

The DALI random addressing can be done globally (all gateways at once) from the general configuration menu or individually (gateway by gateway) from the configuration menu of each gateway.

The random addressing does the following:

- Detects the DALI fittings (general or emergency lighting).
- Erases previous DALI IDs in the fitting, should there be any.
- DALI addressing from 0 to 63.
- Reading of the type of luminaire (General lighting or emergency lighting).
- Basic agrupation

Normalink creates by default the following DALI groups:

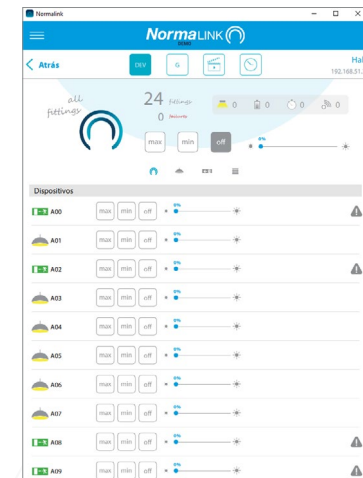
- Group 0: General Lighting.
- Group 1: Emergency Lighting.
- Group 2: Emergency lighting with even addresses.
- Group 3 : Emergency lighting with odd addresses.

6

Within an IDNG-64 gateway

By pressing over an IDNG-64 gateway you can access the control of the luminaires connected to that particular gateway and will be able to:

- Manage each fitting individually or globally (establish maximum or minimum levels of lighting, turn off or set a determined % of illumination).
- Get information about any event that occurred either in the general or emergency lighting.
- Control de DALI groups.
- Control scenes.
- Consult the programmed timings and the ones that are currently being used.



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Steps to follow...

7

Integration

External elements such as push buttons, switches, light regulators or presence sensors can be integrated through the IDNG-EAD adapters or the IDNG-P4P interface.

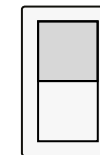
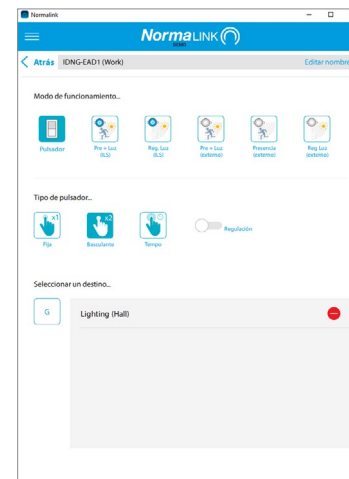
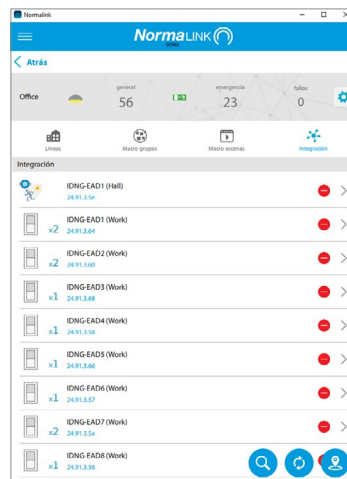
IDNG-EAD adapter can be used to integrate a push button, a light regulator or a presence detector. The IDNG-P4P can be used to connect up to 4 push buttons and associate them to 4 different actions.

From the "Integration" screen they will be detected and they can be configured.

When working with the IDNG-EAD, Normalink will ask you which type of device has been connected, how do we want it to work and which fittings will be involved in the action.

When working with the IDNG-P4P, we can choose the behaviour of each one of the 4 inputs and which group of luminaires they will activate.

In this screen you will also see all the terminals of the Input / output module that have been configured as inputs.



Push button. There are three different types.

- **Fixed action:** One press will activate one action (maximum level, turn off, execution of a scene...) over the selected group of luminaires.
- **Swivelling action:** A press will turn on to the maximum the selected group of luminaires and a second press will turn it off. Enabling the "Regulation" option, by pressing and holding will dim the lights up. A second press and hold will dim the lights down.
- **Timed action:** A press will turn on the selected group of luminaires for the pre-set duration.



Light regulator and detector. There are two types:

- **Normagrup brand (Blue color).** You can connect up to 8 units per IDNG-64 gateway (using IDNG-EAD adapters)
- **Any other brand (Grey colour).** In this case there is a limitation of one per line (IDNG-64).



Remember that the light regulator has to be 0-10v and closed loop.

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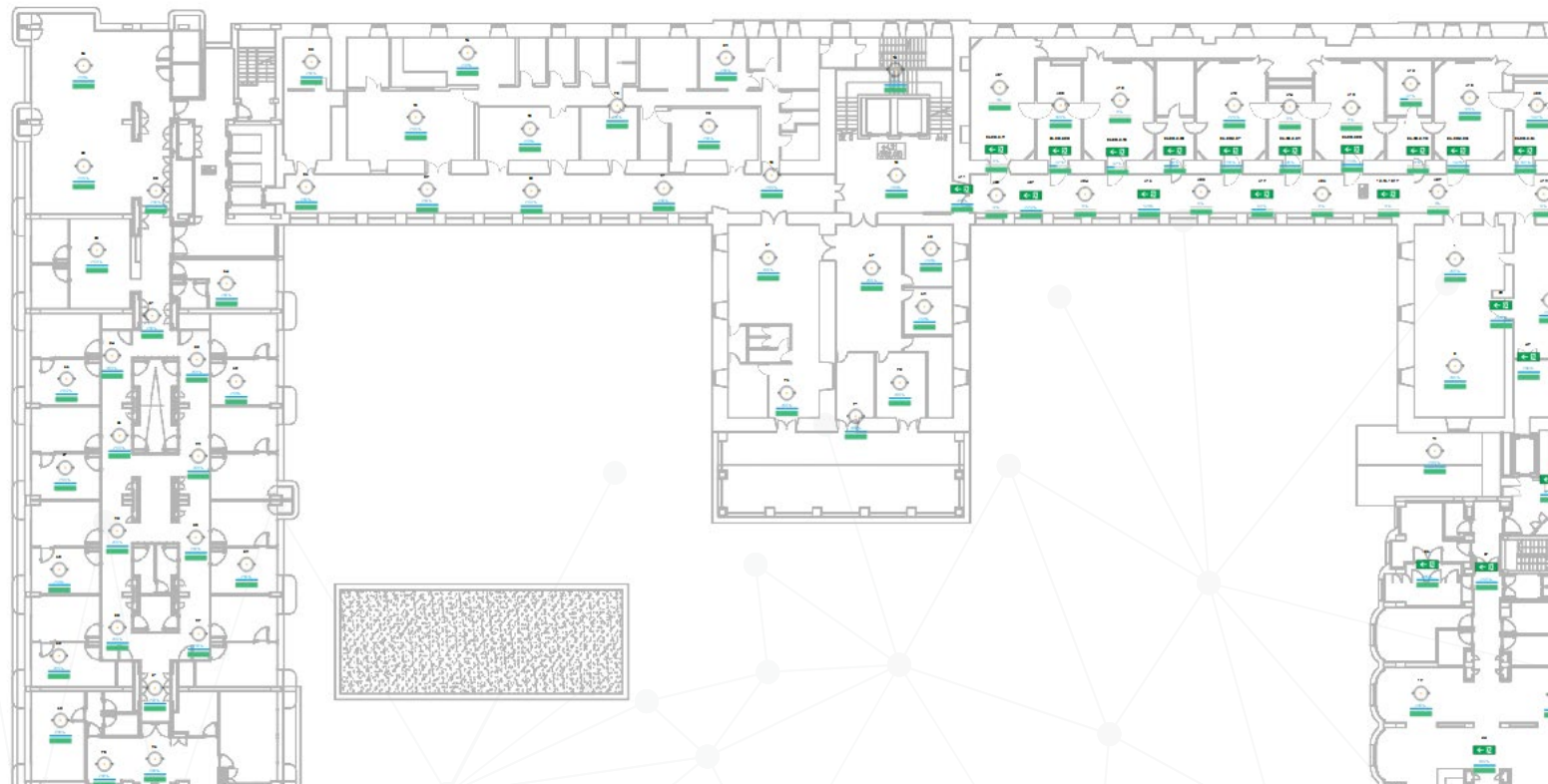
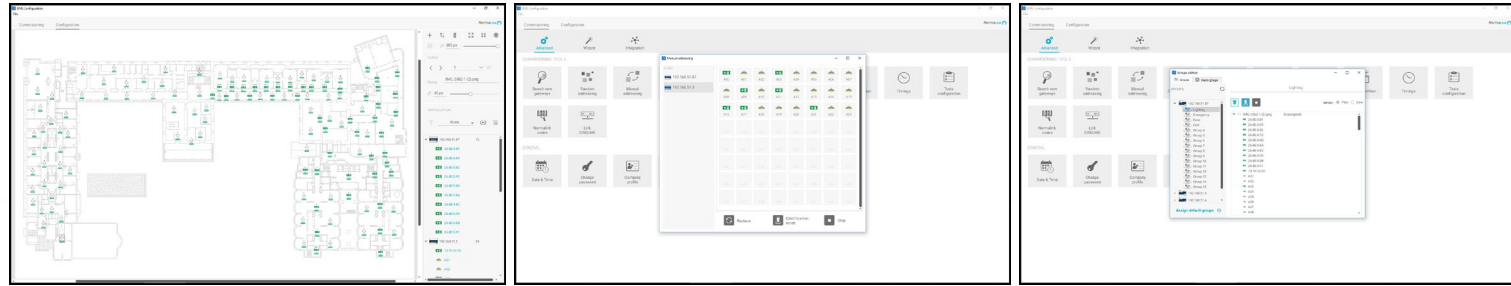
Steps to follow...

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BMS and master gateway

The master gateway IDNG-MG incorporates many functionalities. These are the most noteworthy:

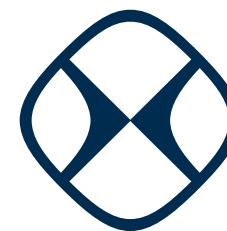
- **Modbus/IP support:** In the web server of the gateway you can find the commands to control the installation through an external software, as long as this software is compatible with the Modbus/IP communication protocol.
- **Notifications management:** The master gateway incorporates a screen to configure the warnings and notifications of possible incidents in the installation through email.
- **Normalink Cloud connection:** By adding this gateway to any existing Normalink installation, you will be able to control it remotely through our free cloud service.
- **Normalink BMS:** If the project requires a more exhaustive control, within the gateway you will find the Normalink BMS software (Building management system). It is a control software with drawings with multiple possibilities that ensure the correct functioning of the installation at all times and to optimize the maintenance work.



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