OmniBAS

building automation system

The solution for
building automation and
home automation

Engineering OmniBus

Intelligent Building

Building Automation = Intelligent Building

The concept of Building Automation identifies those buildings designed and constructed in such a way as to enable the integrated management of the installed technological systems.

The ability to control different systems with a common logic helps to achieve the following objectives:

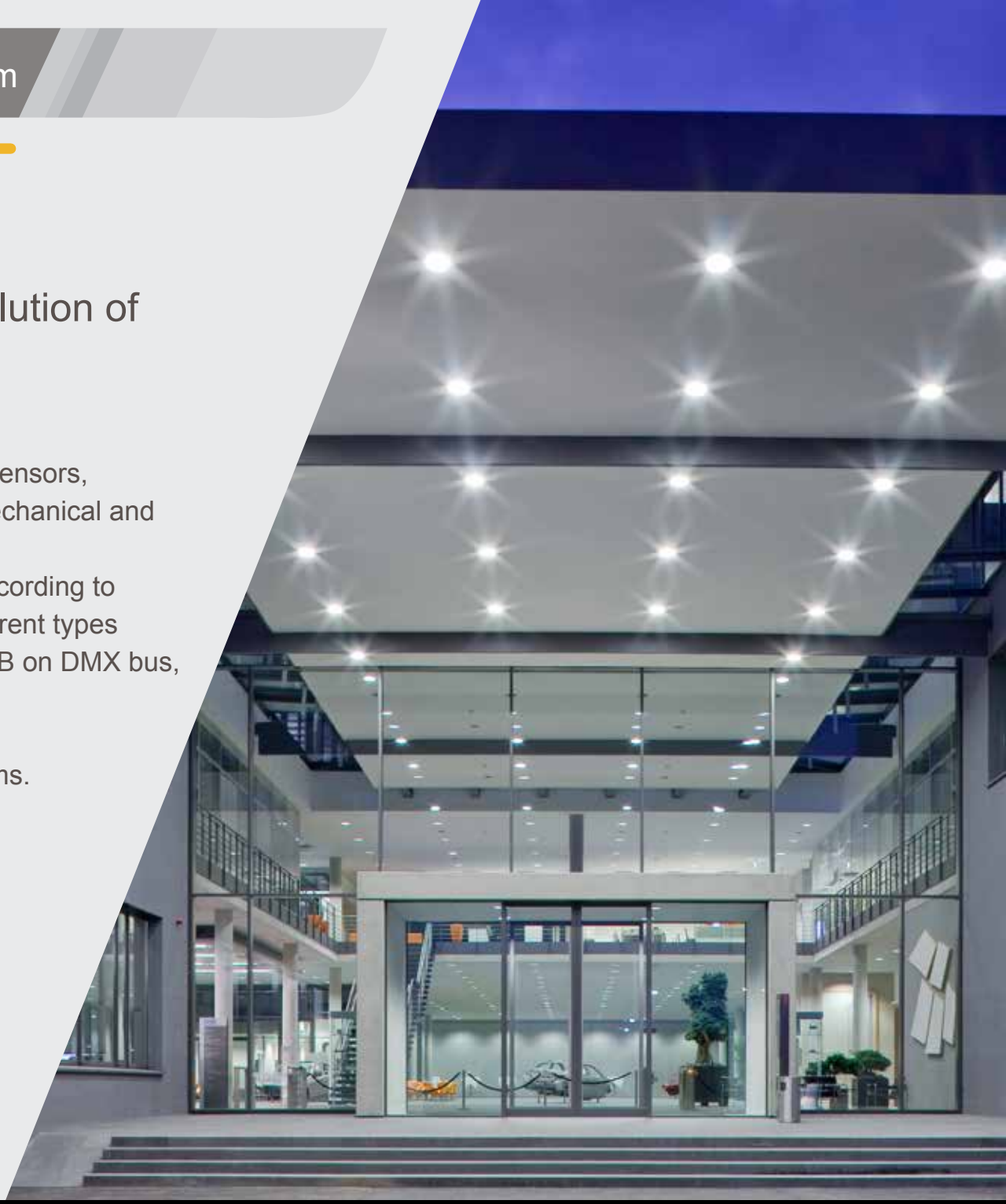
- Optimization of resources
- Reduction of service cost
- Increase of comfort and productivity

The realization of optimal logics in building automation allows to create Intelligent Building installations, which, once powered up, are able to achieve by themselves the objectives described above, adapting to the environment that surrounds them.

The product line OmniBAS represents the Intelligent Building solution of OmniBus.

OmniBAS allows to

- capture data from sensors, such as presence sensors, weather stations, temperature sensors, and mechanical and electronic command buttons,
- use programmable logic that is configurable according to customer requirements, to control lights of different types such as on/off, adjustable, via bus Dali, led RGB on DMX bus, motors (curtains, blinds, lamella, doors, ..),
- integrate with AC systems,
- interact with multimedia and supervision systems.



Two fundamental concepts are at the basis for the development of the OmniBAS solution:

Distributed Intelligence

Each module is fully programmable and customizable and is able to manage its own interfaces as a function of a predefined default logic.

The modularity and flexibility of programming allows modifications or extensions of any system without affecting the existing installation.

The complete intellectual ownership of both hardware and firmware allows OmniBus to customize each module according to customer requirements.

LonWorks® Technology

The LonWorks® technology has established itself for decades as a world leader in building automation. Based on the LonTalk protocol, which has become the international standard ANSI/EIA 709.1, and the LNS (LonWorks Network Services) software the technology ensures high reliability, flexibility and security.

Thanks to the directives issued by LonMark, the full interoperability between devices from different producers is guaranteed, too.

Main characteristics:

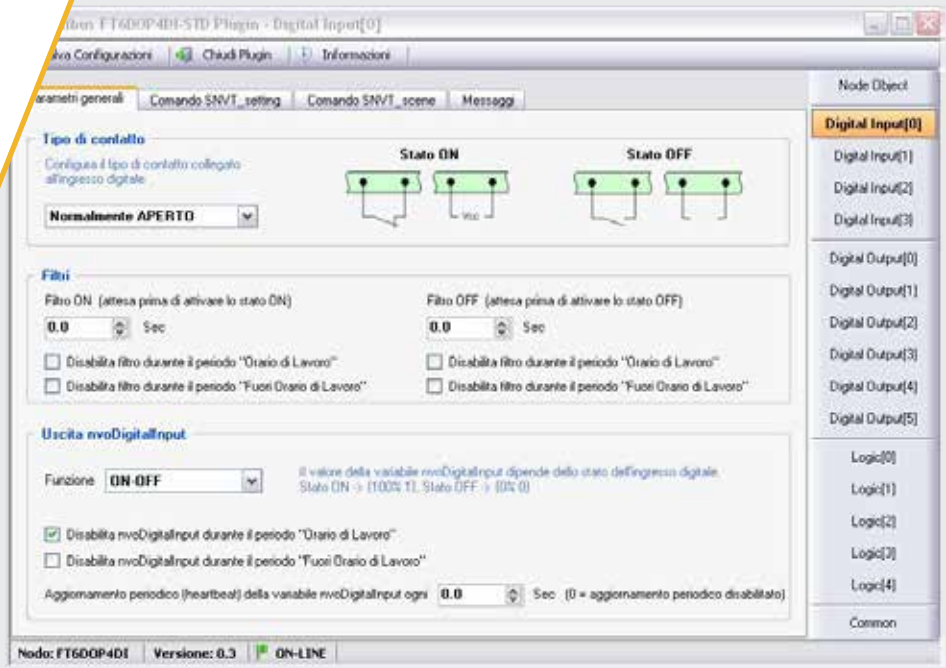
- LonTalk protocol independent from the transmission media (twisted pair, IP, fiber optics,..);
- Handling of errors and authentication;
- Almost unlimited extensibility of the system;
- Integration of products from different producers;
- Wide range of tools for configuration and diagnostics.

The OmniBAS products

All OmniBAS modules are designed by OmniBus.
The firmware and plug-ins programming is performed in-house and OmniBus has total control over this software.

- *LonWorks ® FTT-10 78Kbps 2 wires without polarity;*
- *CE mark;*
- *DIN rail mounting according to EN 50022;*
- *Dimension 6TE;*
- *Removable terminals;*
- *Operating Temperature: 0 ° .. +45 ° C; Humidity: 10-90%.*

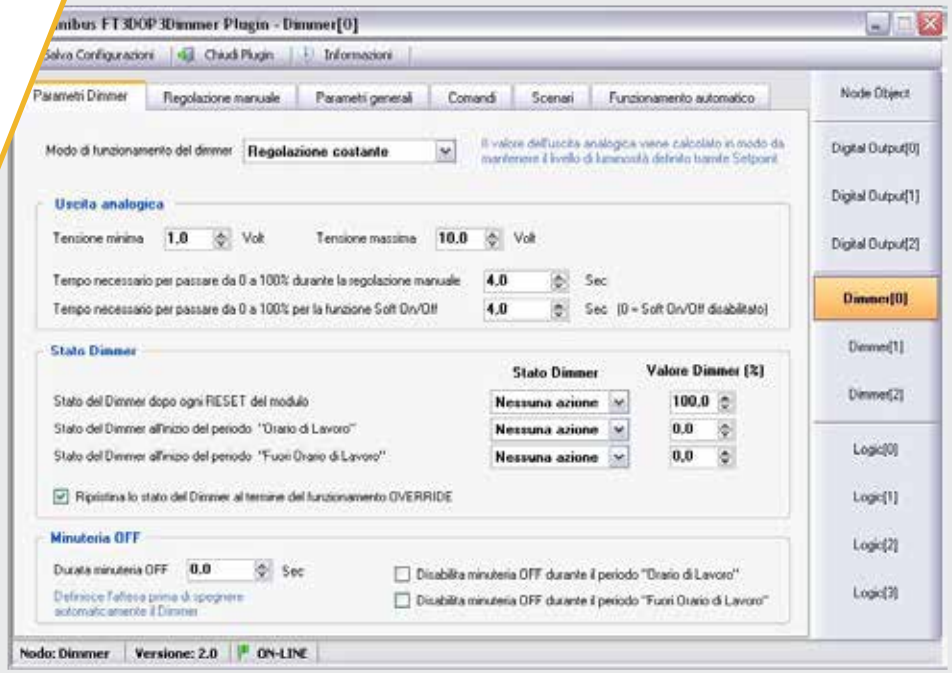
FT-6DOP-4I : Digital I/O



FT-6DOP-4I

- LonWorks ® module equipped with 4 digital inputs and 6 digital power outputs 15A.
- For each digital output there is a manual switch with 3 positions (0 - A - 1), which allows to toggle the state independently from the application.
- The status of the inputs and outputs is visually signaled via LEDs.
- Equipped with a very flexible application developed following the guidelines LonMark, this module can be used for various scopes.
- Using the configuration LNS-PlugIn the operation mode of each digital input and output may be defined.

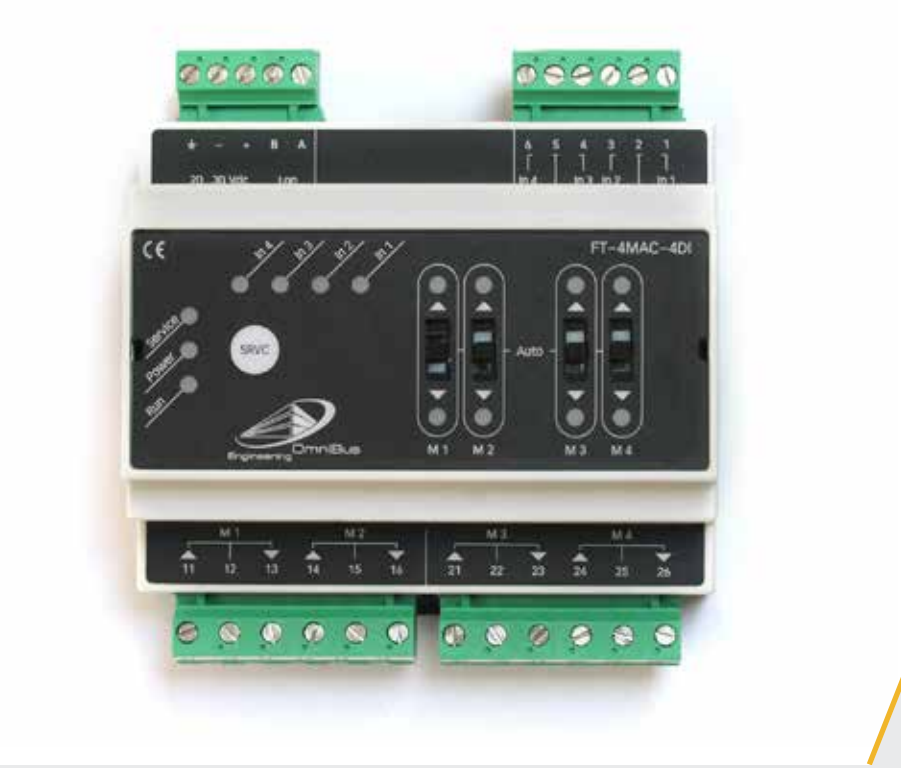
FT-3DOP-3AO : Dimmer

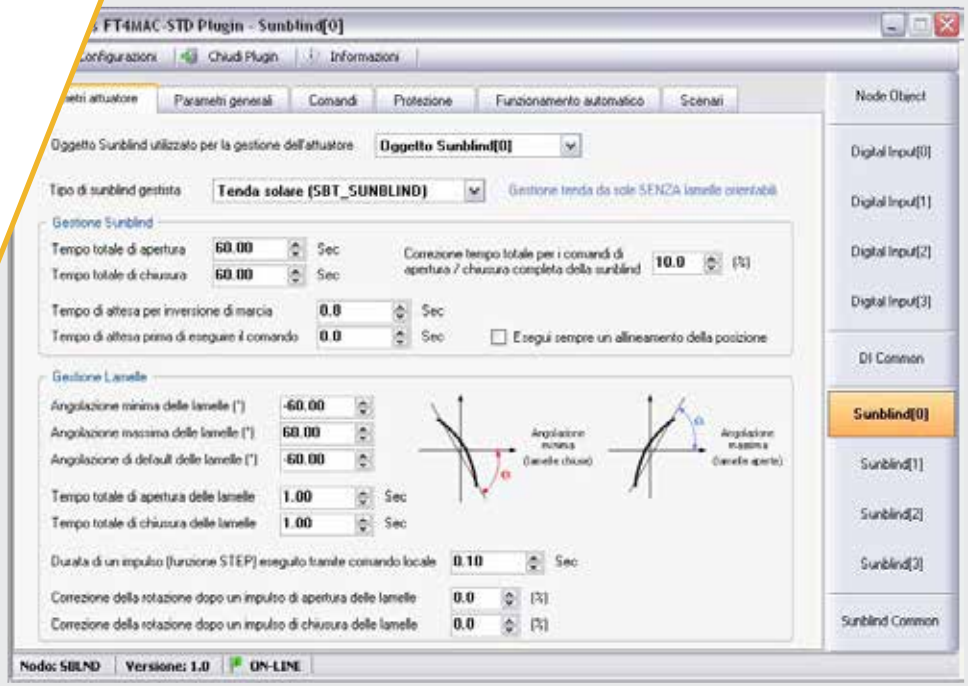


FT-3DOP-3AO

- LonWorks ® module equipped with 3 digital power outputs 15A and 3 analog outputs 0-10V.
- For each digital output there is a manual switch with 3 positions (0 - A - 1), which allows to toggle the state independently from the application.
- The status of the digital outputs and analog outputs is visually signaled by LEDs.
- Using the supplied 0..10V signals from the analog outputs, it is possible to adjust the light intensity (dimmer function).

FT-4MAC-4DI : Motors

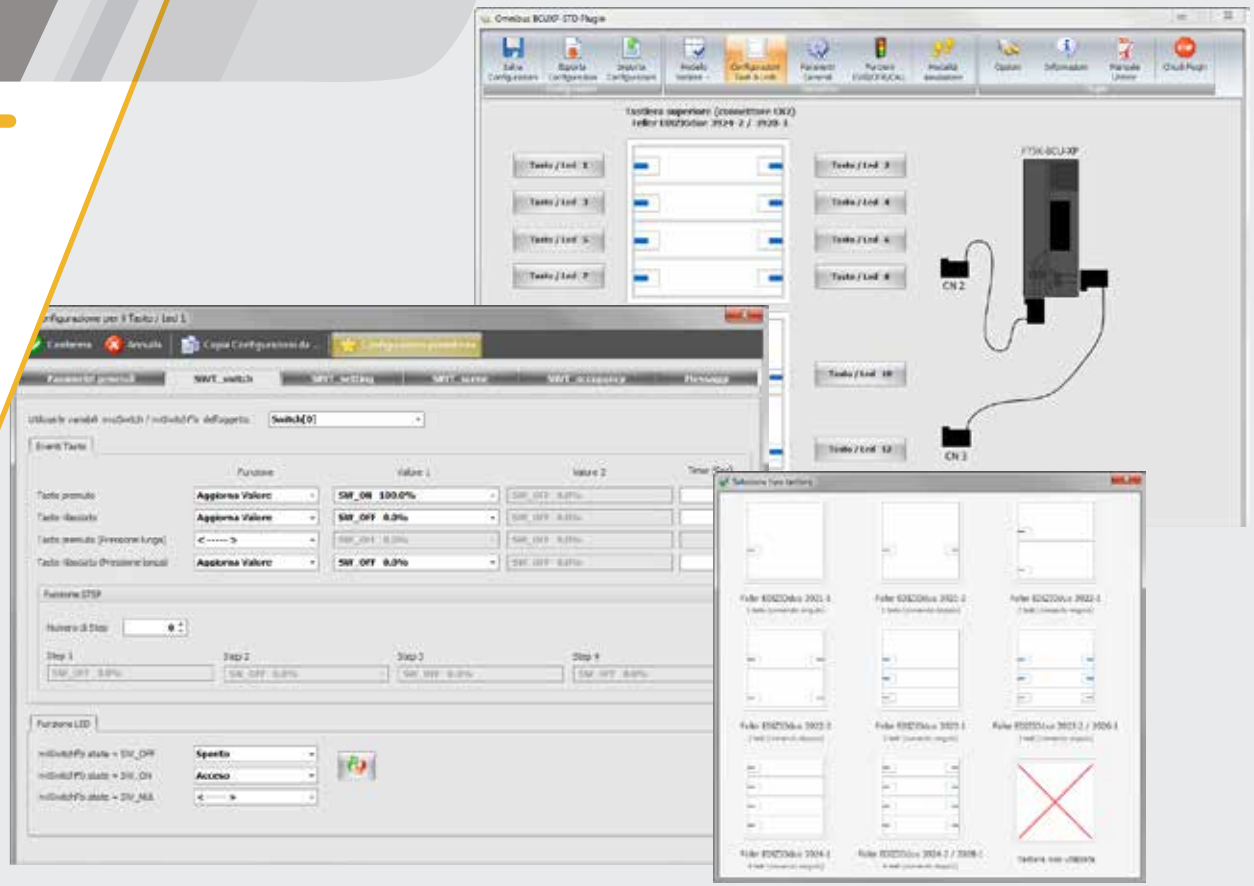




FT-4MAC-4DI

- LonWorks ® module equipped with 4 digital inputs and 4 outputs for the management of AC motors.
- For each motor output there is a manual switch with 3 positions (Up - Auto -DOWN) that allows operations independently from the application.
- The status of the inputs and engine controls is visually signaled via LEDs.
- The module can be used for the management of blinds, lamella, projection screens, etc..
- Various types of commands with different priorities are managed such as local and remote commands, automatisms depending on light intensity, weather station signals, window contacts, etc.

FT5K-BCU-XP: Key management



FT5K-BCU-XP

- The coupler LonWorks® FT5K-BCU-XP allows simultaneous management of two keyboards of the Feller EDIZIOdue series with serial communication protocol or with I/O interface.
- Via the LNS PlugIn configuration module it is possible to assign the desired function to each key and each led individually.
- The device is also equipped with a buzzer and can therefore be used as door bell system and free/occupied indication in the management of offices and meeting rooms.
- The coupler can be placed freely in standard boxes mounted in or off the wall (Gr. 1 or Gr. 1 + 1).

Gateway

1. Omni LMG

Gateway Interface LAN/LonWorks®.
Access to LON variables of the system.

2. Omni DMX

Integration of lighting products.

3. Omni Weather

The device OmniMETEO allows to manage the weather stations Thies Clima GmbH
using an RS-485 connection.

4. Omni DALI

The gateway OmniDALI allows to integrate in LonWorks® systems lighting products based on the DALI technology.

5. Multimedia

OmniLMG can be integrated with interfacing functionality towards multimedia systems.

Gateway

1. Omni LMG

Gateway Interface LAN/LonWorks®.
Using a proprietary protocol LAN TCP/IP allows to access the LON variables of the installation.
The module allows to manage up to 1200 data points.
OmniLMG integrates a scheduler with weekly schedules and calendars that permit modifying one or more data points automatically.

2. Omni DMX

The gateway OmniDMX allows to integrate in a LonWorks® system lighting products based on the technology DMX512/1990. Each gateway OmniDMX is able to control a maximum of 12 monochromatic groups and 12 colored groups (RGB). For each group, it is possible to execute on/off commands, to adjust the intensity and color, and to store and retrieve static and dynamic scenarios (changing the intensity or color over time).

3. Omni Weather

The device OmniMETEO allows to manage Thies Clima GmbH weather stations using an RS-485 connection.
Converts in format LonWorks® the data concerning brightness, twilight, wind speed and direction, external temperature, global radiation, atmospheric pressure, humidity, sun position, location, and date-time from GPS.

4. Omni DALI

5. Multimedia

1. Omni LMG
2. Omni DMX
3. Omni Weather

4. Omni DALI

The gateway OmniDALI allows integrating in a LonWorks® system lighting products based on the DALI technology.
OmniDALI acts as a master controller converting the commands from the LonWorks network in the appropriate commands for the DALI bus. Each gateway OmniDALI is able to control a maximum of 64 DALI devices that can be divided into 16 groups. For each group, it is possible to execute on/off commands, to adjust the intensity and color, and to store and retrieve scenarios.

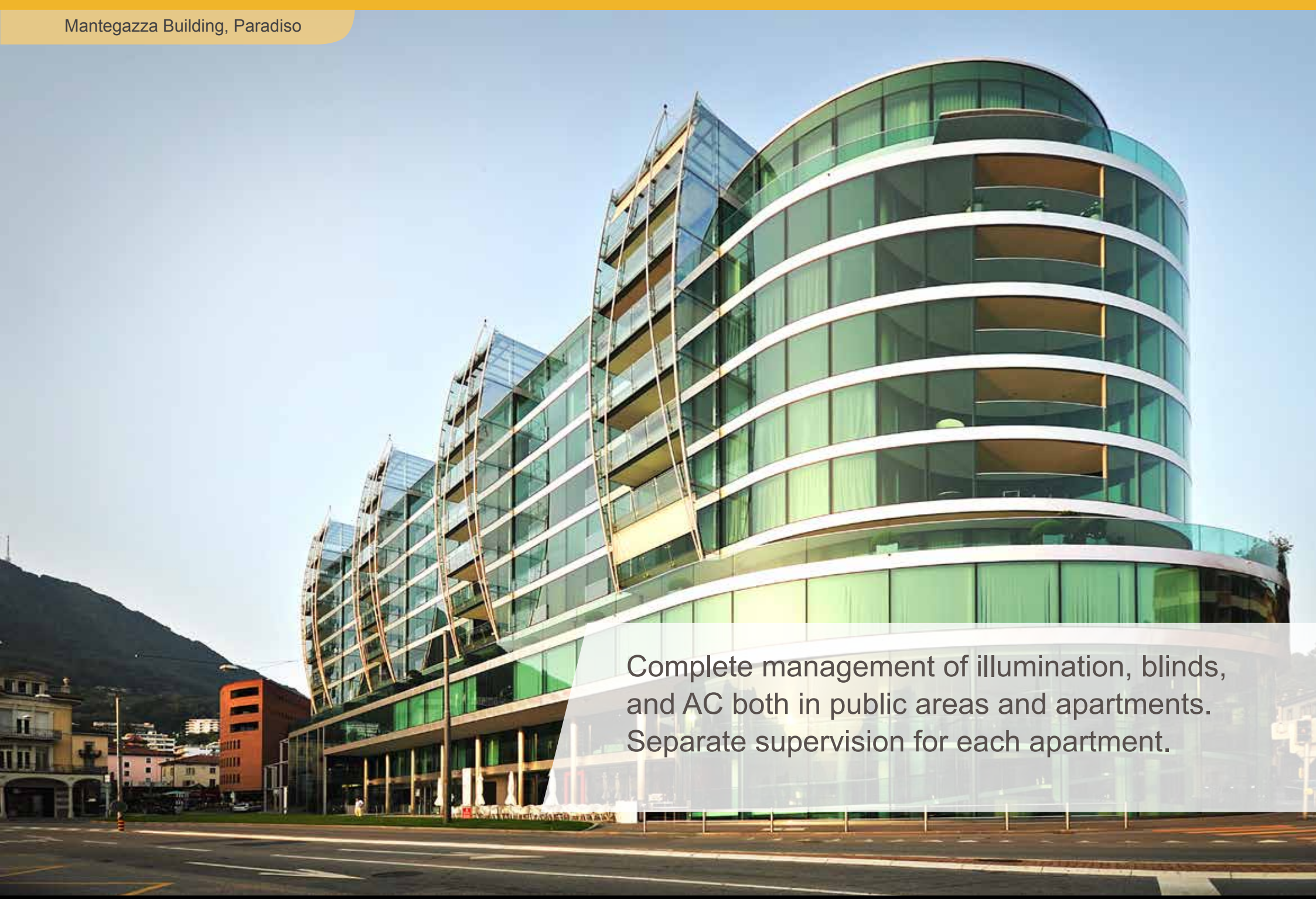
5. Multimedia

OmniLMG can be integrated with interfacing functionality towards multimedia systems.
A gateway is available to the MasterLink system of Bang & Olufsen, which allows to execute home automation scenarios using the multimedia keys or use the B&O remote control to execute commands and home automation scenarios.
A similar interface is also available for the Tutondo systems to execute multimedia scenarios using the home automation keys.

Projects

Mantegazza Building, Paradiso

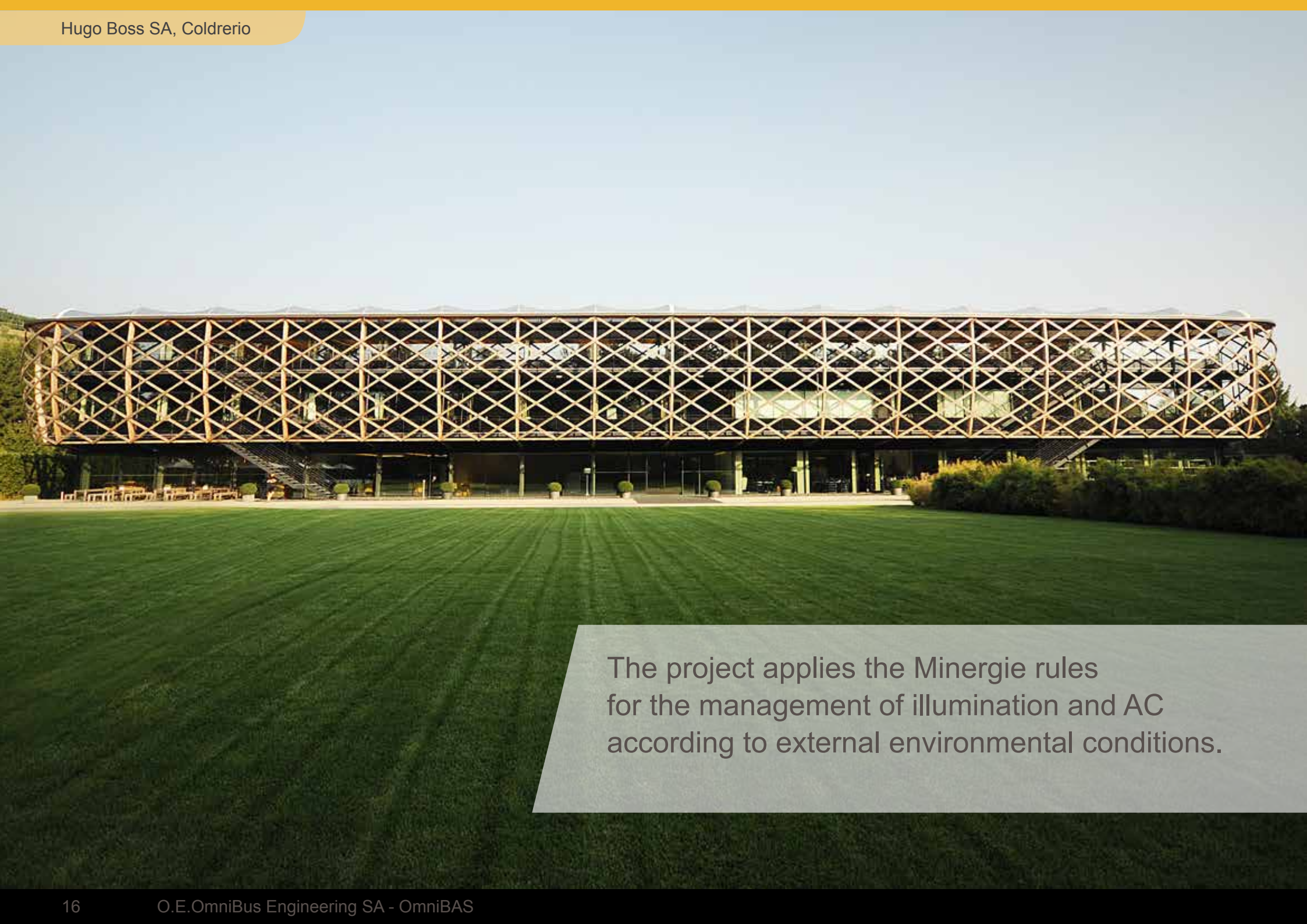
Hugo Boss



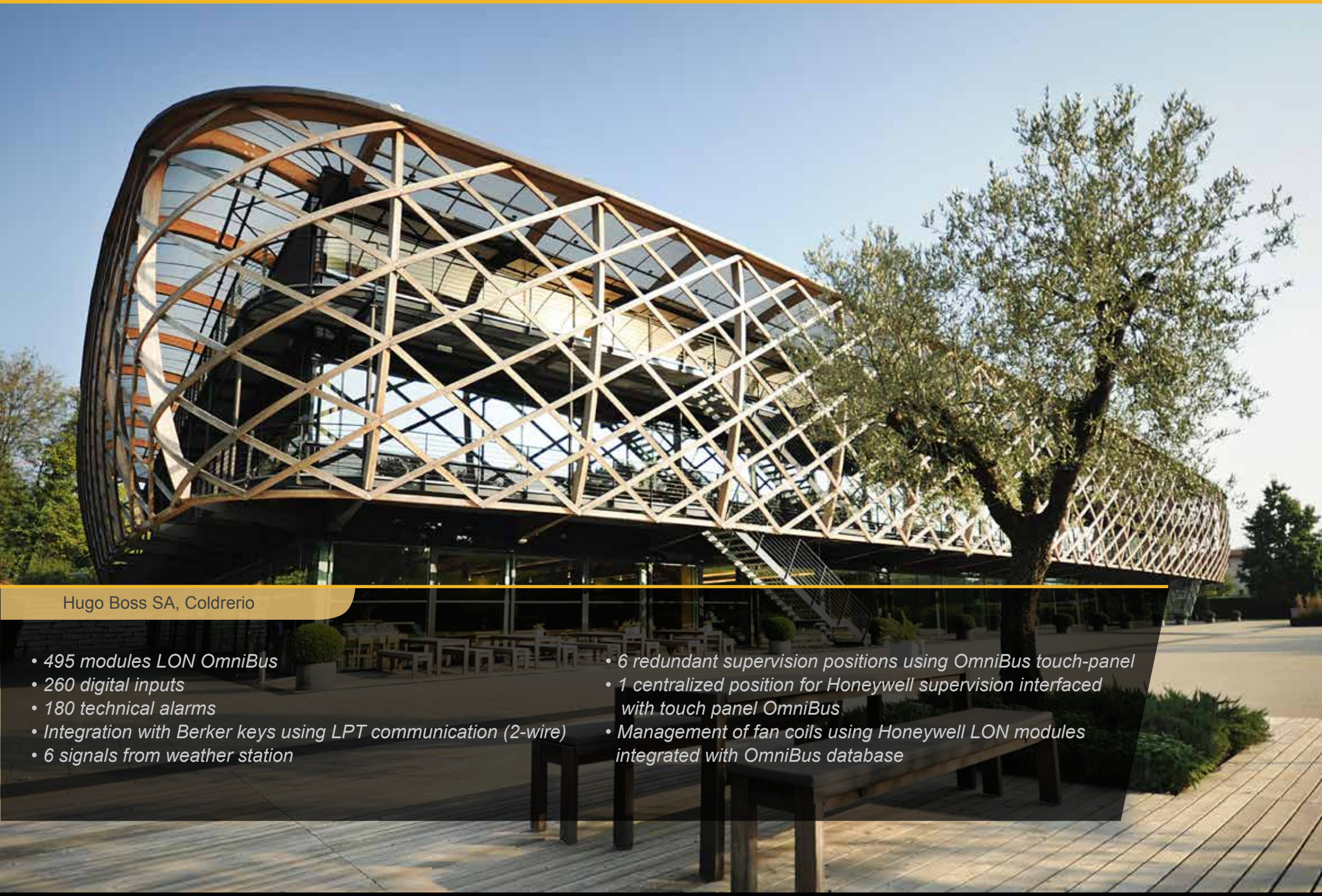
Complete management of illumination, blinds, and AC both in public areas and apartments. Separate supervision for each apartment.

Mantegazza Building, Paradiso

- *40 apartments*
- *Commercial areas, event spaces, business center, ...*
- *2380 LON modules (I/O modules, routers, BCU, sensors, ..)*
- *Integration of DALI and DMX512 lighting management for apartments and commercial areas*
- *Integrated motor controls Warema (Building facades)*
- *Integration with Siemens AC systems*
- *Management alarms and weather information*



The project applies the Minergie rules
for the management of illumination and AC
according to external environmental conditions.



Hugo Boss SA, Coldrerio

- *495 modules LON OmniBus*
- *260 digital inputs*
- *180 technical alarms*
- *Integration with Berker keys using LPT communication (2-wire)*
- *6 signals from weather station*
- *6 redundant supervision positions using OmniBus touch-panel*
- *1 centralized position for Honeywell supervision interfaced with touch panel OmniBus*
- *Management of fan coils using Honeywell LON modules integrated with OmniBus database*

Contacts

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