



# Eelectron - Company and products

02-03-10

Eelectron - Via Magenta 77/22, I-20017 Rho (MI), Italia  
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info@eelectron.com www.eelectron.com



## Company profile

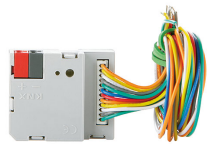
- Founded in 1996
- Active in the design, development and production of electronic devices and SW for home, building and hotel management
- Targeted firstly in OEM production for the account of leading international companies
- Quality certificated according ISO 9000\_2000

# Numbers

## INTERNATIONAL:

- 1 locally held company and 19 international specialised partners to serve the market on software installation, hotel start up, etc
- more then 15.000 Hotel Room in the world working with eelectron's hardware and software

# ACTUATORS - NEWS



IO44C02KNX  
IO22C02KNX

## IO44C02KNX / IO22C02KNX Main Characteristics

- Housing inside flush mounting boxes
  - 4 digital inputs (2 for IO22C02KNX version - for free potential contacts)
  - 4 digital outputs (2 for IO22C02KNX version - for led output)
- Digital inputs - main features:
  - ON / OFF / Toggle functions – Short or long press operation
  - ON / OFF sequence – 2 output
  - Dimming function
  - Roller shutter and blind management
  - Scene store / recall functions
  - Disable function via bus
- Digital outputs - main features:
  - ON / OFF / Blinking
  - Feedback function (led ON if “1”)
  - Localization function (led ON if “0”)

# ACTUATORS - NEWS

## IO88B01KNX



IO88B01KNX

- DIN rail mounting (4 modules)
- 8 inputs (for free potential contacts – configurable as led outputs)
- 8 outputs (8 NO 16 A relays with potential free contact)
- Inputs main features
  - ON / OFF / Toggle functions – Short or long press operation
  - Dimming function
  - Roller shutter and blind management
  - Scene store / recall functions
- Outputs main features
  - 4 relays with manual tab
  - NO / NC behaviour setting
  - ON / OFF and timing function
  - Logic function for each output (AND / OR / XOR)
  - Scene function
  - Feedback status object

# ACTUATORS - NEWS



SH42A01KNX

## SH42A01KNX Main Characteristics

- DIN rail mounting (4 modules)
- 4 inputs (for free potential contacts – configurable as led outputs) - main features:
  - ON / OFF / Toggle functions – Short or long press operation
  - Dimming function
  - Roller shutter and blind management
  - Scene store / recall functions
- 2 shutter driver (4 NO 10 A relays with potential free contact) - main features:
  - Hardware interlocking
  - Roller shutter and blind management
  - Direct positioning (%)
  - Wind / rain alarm function
  - Scene function
    - Feedback status object and percentage

# ACTUATORS - NEWS



IO88E01KNX

## IO88E01KNX Main Characteristics

- DIN rail mounting (4 modules)
- 8 inputs (for free potential contacts – configurable as led outputs) - main features:
  - ON / OFF / Toggle functions – Short or long press operation
  - Dimming function
  - Roller shutter and blind management
  - Scene store / recall functions
- 8 outputs (8 NO 16 A relays with potential free contact) configurable for:
  - generic load control (8 loads)
  - shutter control (4 shutter through 4 couples of relays with logic interlocking)
  - electro valves on / off control (8 valves)
  - control of electro valves 3 position or servomotors (4 valves through 4 couples of relays with logic interlocking)
  - Fan Coil Actuator (1 FCC - 2 pipes / 3 speed through 5 relays)
    - Mixing of these functions allowed, using maximum one function per relay

# ACTUATORS - NEWS

## IO88E01KNX



IO88E01KNX

- Outputs main features
  - SWITCHING
  - NO / NC behaviour setting
  - ON / OFF function
  - Timing with off prewarning function (stairway lights)
  - Selectable delay on activation / deactivation
  - Flashing function with selectable switching time
  - Block function
  - Logic function for each output (AND / OR / XOR)
  - Logic object with selectable value on power on
  - Scene function
  - Feedback status object
  - - SHUTTER -----
  - Roller shutter and blind management
  - Direct positioning (%)
  - Block function
  - Wind / rain alarm function
  - Scene function
  - Feedback status object and percentage
  - - ON / OFF VALVES -----
  - ON / OFF control
  - Continuous control with selectable PWM time
    - Block function



# ACTUATORS - NEWS

## IO88E01KNX

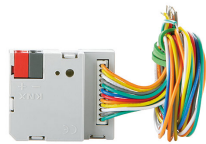


IO88E01KNX

- Outputs main features
  - - 3 POSITIONS VALVES -----
  - ON / OFF & Continuous control
  - Continuous control with selectable PWM time
  - Block function
  - Direct positioning (%)
  - Feedback status object and percentage
  - - FAN COIL ACTUATOR-----
  - Heating / cooling control with relay 1÷2 (with logic interlocking)
    - 3 speed control with relay 3÷5 (with logic interlocking)

RELAY	Generic Load	Fan Coil Actuator	Shutter	On / Off Valves	3 position valve / Drive Servomotor
1	R1	On / Off Heating	Shutter 1	V 1	DSM A
2	R2	On / Off Cooling		V 2	
3	R3	FC Speed 1	Shutter 2	V 3	DSM B
4	R4	FC Speed 2		V 4	
5	R5	FC Speed 3	Shutter 3	V 5	DSM C
6	R6	-		V 6	
7	R7	-	Shutter 4	V 7	DSM D
8	R8	-		V 8	

# ACTUATORS - NEWS

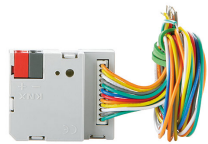


IO44E01KNX

## IO44E01KNX Main Characteristics

- DIN rail mounting (4 modules)
- 4 inputs (for free potential contacts – configurable as led outputs) - main features:
  - ON / OFF / Toggle functions – Short or long press operation
  - Dimming function
  - Roller shutter and blind management
  - Scene store / recall functions
- 4 outputs (4 NO 16 A relays with potential free contact) configurable for:
  - generic load control (4 loads)
  - shutter control (2 shutter through 2 couples of relays with logic interlocking)
  - electro valves on / off control (4 valves)
  - control of electro valves 3 position or servomotors (2 valves through 2 couples of relays with logic interlocking)
    - Mixing of these functions allowed, using maximum one function per relay

# ACTUATORS - NEWS



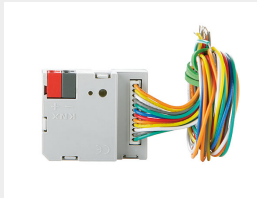
IO44E01KNX

## IO44E01KNX

### Outputs main features

- - SWITCHING -----
- NO / NC behaviour setting
- ON / OFF function
- Timing with off prewarning function (stairway lights)
- Selectable delay on activation / deactivation
- Flashing function with selectable switching time
- Block function
- Logic function for each output (AND / OR / XOR)
- Logic object with selectable value on power on
- Scene function
  - Feedback status object

# ACTUATORS - NEWS

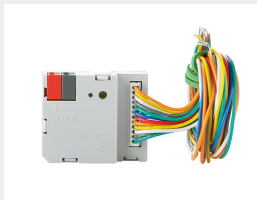


IO44E01KNX

## Outputs main features

- - SHUTTER -----
- Roller shutter and blind management
- Direct positioning (%)
- Block function
- Wind / rain alarm function
- Scene function
- Feedback status object and percentage
- - ON /OFF VALVES -----
- ON / OFF control
- Continuous control with selectable PWM time
- Block function
- - 3 POSITIONS VALVES -----
- ON / OFF & Continuous control
- Continuous control with selectable PWM time
- Block function
- Direct positioning (%)
  - Feedback status object and percentage

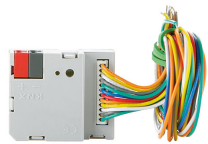
# ACTUATORS - NEWS



IO44E01KNX

RELAY	Generic Load	Shutter	On / Off Valves	3 position valve / Drive Servomotor
1	R1	Shutter 1	V 1	DSM A
2	R2		V 2	
3	R3	Shutter 2	V 3	DSM B
4	R4		V 4	

# ACTUATORS - NEWS

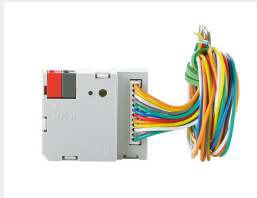


AD84A01KNX

## AD84A01KNX Main Characteristics

- Housing inside flush mounting boxes
- 12 channels configurable as:
  - [01 ÷ 04] 4 digital inputs (for free potential contacts)
  - [05 ÷ 08] 4 digital or analog inputs (for free potential contacts or temperature sensor)
  - [09 ÷ 12] 4 digital outputs (for led output)
- Digital inputs - main features:
  - 8 channels [01 ÷ 08]
  - ON / OFF / Toggle functions – Short or long press operation
  - Dimming function
  - Roller shutter and blind management
  - Scene store / recall functions
    - Pulse counter

# ACTUATORS - NEWS

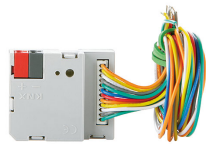


AD84A01KNX

## AD84A01KNX Main Characteristics

- Analog inputs - main features:
  - 4 channels [05 ÷ 08] configurable as temperature sensors:
    - Temperature cyclical sending with programmable time period
    - 2 threshold selectable per channel - both with warning telegram
  - 2 channels [05 ÷ 06] configurable as thermostats:
    - Heating / cooling mode setting
  - Acting as slave with HVAC MODE or SETPOINT MODE scheduler as a master
  - Maximum setpoint shifting programmable via bus
  - 2 points on / off or PWM control algorithm
  - 3 speed Fan Coil Control algorithm
  - OFF MODE trigger (window contact)
    - COMFORT MODE trigger (room occupied)

# ACTUATORS - NEWS



AD84A01KNX

**AD84A01KNX** Main Characteristics

Channel	Digital Input	Digital Output (led)	Thermostat	Temperature sensor
1	<b>x</b>	<i>not applicable</i>	<i>not applicable</i>	<i>not applicable</i>
2	<b>x</b>	<i>not applicable</i>	<i>not applicable</i>	<i>not applicable</i>
3	<b>x</b>	<i>not applicable</i>	<i>not applicable</i>	<i>not applicable</i>
4	<b>x</b>	<i>not applicable</i>	<i>not applicable</i>	<i>not applicable</i>
5	<b>x</b>	<i>not applicable</i>	<b>x</b>	<b>x</b>
6	<b>x</b>	<i>not applicable</i>	<b>x</b>	<b>x</b>
7	<b>x</b>	<i>not applicable</i>	<i>not applicable</i>	<b>x</b>
8	<b>x</b>	<i>not applicable</i>	<i>not applicable</i>	<b>X</b>
9	<i>not applicable</i>	<b>x</b>	<i>not applicable</i>	<i>not applicable</i>
10	<i>not applicable</i>	<b>x</b>	<i>not applicable</i>	<i>not applicable</i>
11	<i>not applicable</i>	<b>x</b>	<i>not applicable</i>	<i>not applicable</i>
12	<i>not applicable</i>	<b>x</b>	<i>not applicable</i>	<i>not applicable</i>



## System profile: *Synchronicity*

Overview on hardware

Software: structure and functions

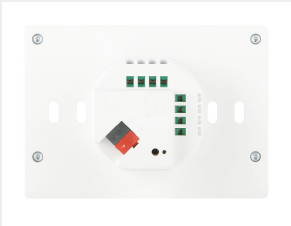




# Synchronicity

Highlights of our hotel solution

- Complete
- System designed to adapt to all KNX standard environments
- Great flexibility thanks to distributed control and intelligence
- One only configuration software
- A single technology for installers and planners
- Easy Maintenance
- Security through the use of low-voltage power supplies
- Open to various communication medias



# Synchronicity

- Synchronicity is a range of products characterised by the use of glasses in 10 different colours, that can be personalised on request with Hotel Logos, or Plexiglass in 3 different colours.
- The range suites to 2 or 3 modules inwall boxes, rounded or rectangular squared. All devices are KNX certified
- The logic and intelligence is distributed in all devices, that can work indipendently from the PC software of from other devices. No RCU is needed, cabling is free, the system can be designed on functions.



# Synchronicity

Management of:

- Room control :
  - Access control
  - Temperature control
  - Energy saving
- Common areas:
  - Illumination
  - Temperature control
  - Supervision
- HVAC and BMS systems
- Air conditioning system
- Interface to
  - Management systems (Fidelio, etc)
  - Payment systems
  - Firealarm



# Synchronicity

All devices has freely configurable Inputs and Outputs, to save money and optimize the installation.

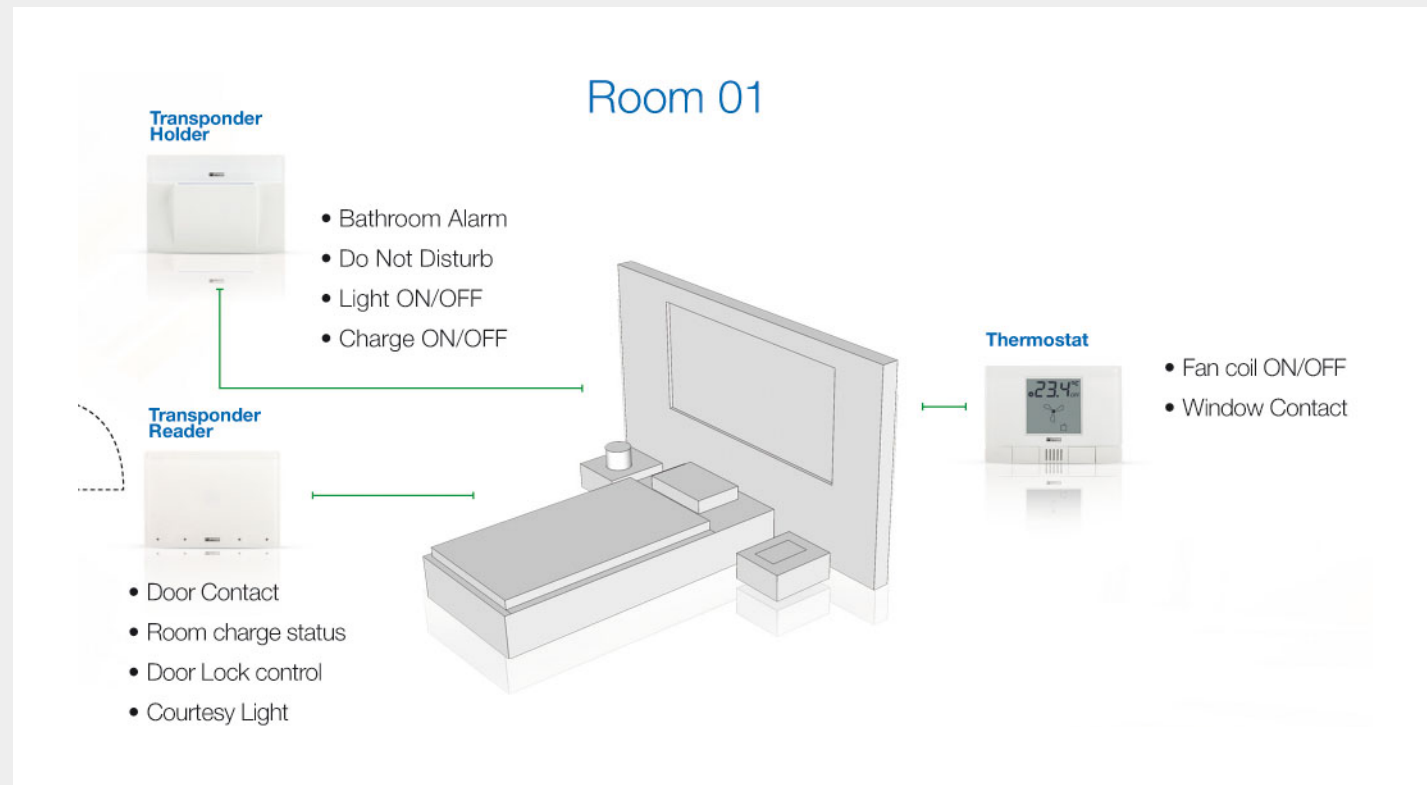
Transponder reader and holder have signalling led to communicate:

- Valid/invalid card
- Client presence
- Do not disturb/busy room
- Service to do/Alarm

Thermostats has function to signal cleaned room and Co2 management features

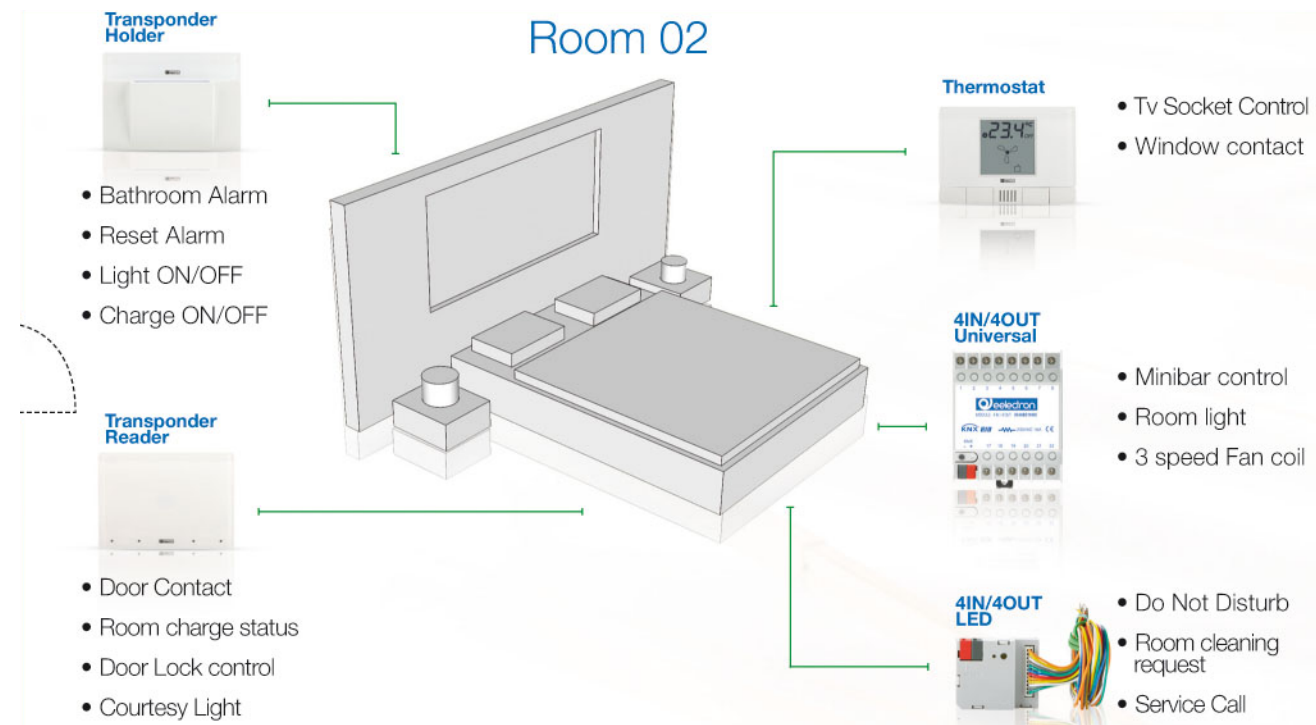


# Typical configuration



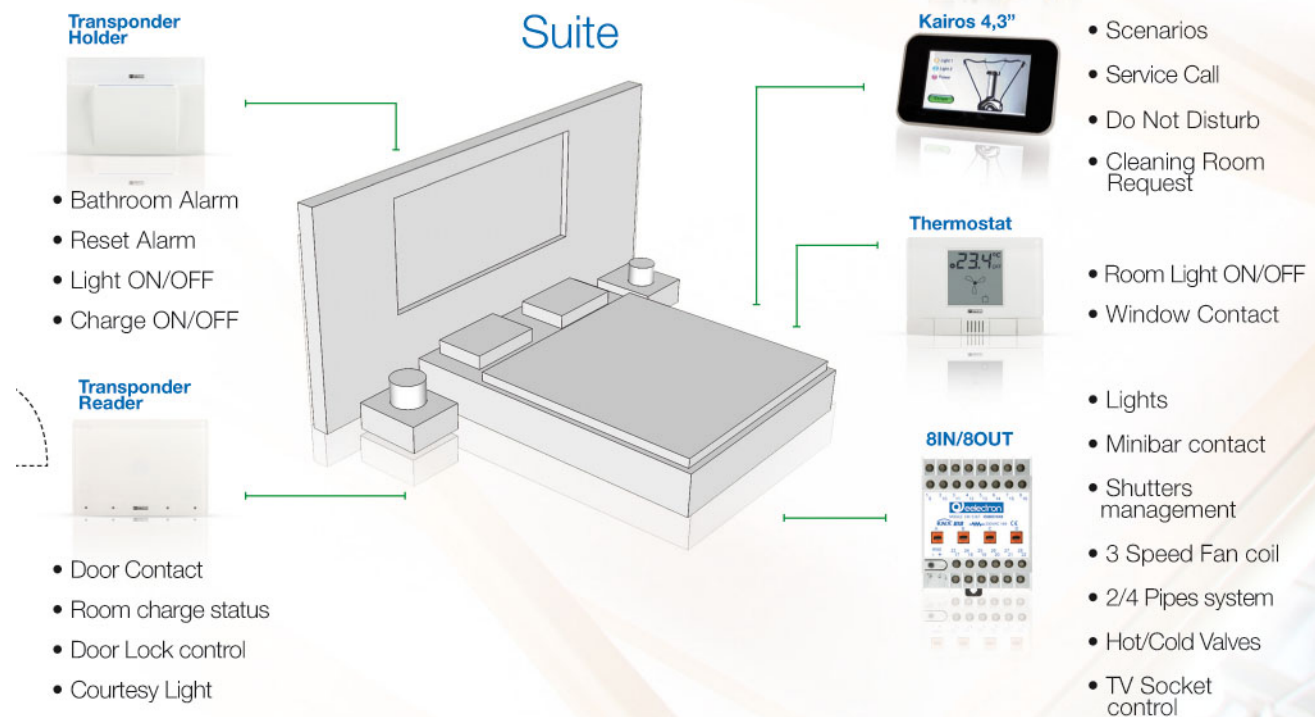


# Typical configuration





# Typical configuration





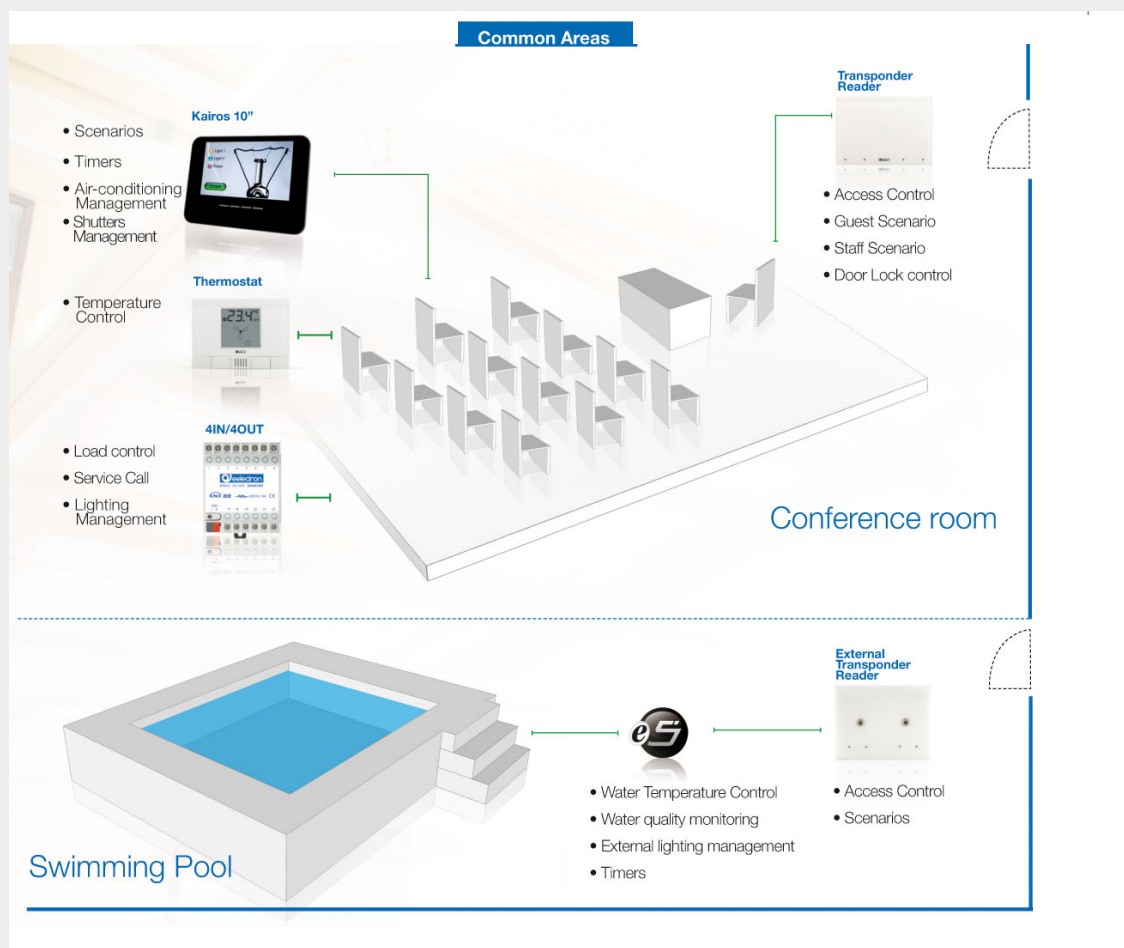


# Typical configuration





# Typical configuration





## Software – eHotel, eAccess, eSuite

Tools dedicated to building automation, hotel management and access control, developed to manage standard Konnex devices.

Client-Server Software Tools, with Internet or Ethernet remote control.

In a unique system, they allow the manager to control all the main functions of a building:

- Internal and external access
- Heating, ventilation, air conditioning
- Illumination and control functions
- Alarms and services



Our Products are dedicated to

Mixed function



Hotel Automation



 *otel Standard*

 *otel Professional*

 *otel Advanced*

 *otel Client*

Access Control or Building Automation



 *ccess Standard*

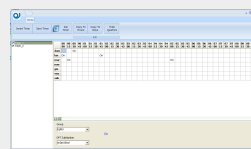
 *ccess Advanced*

 *ccess Client*





# Structure



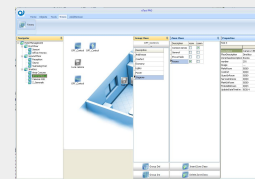
Configuration Tool

Interfaces

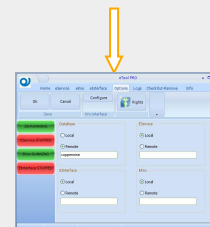
To Other  
Systems

Data Base

Customizable user interface



Server Interface



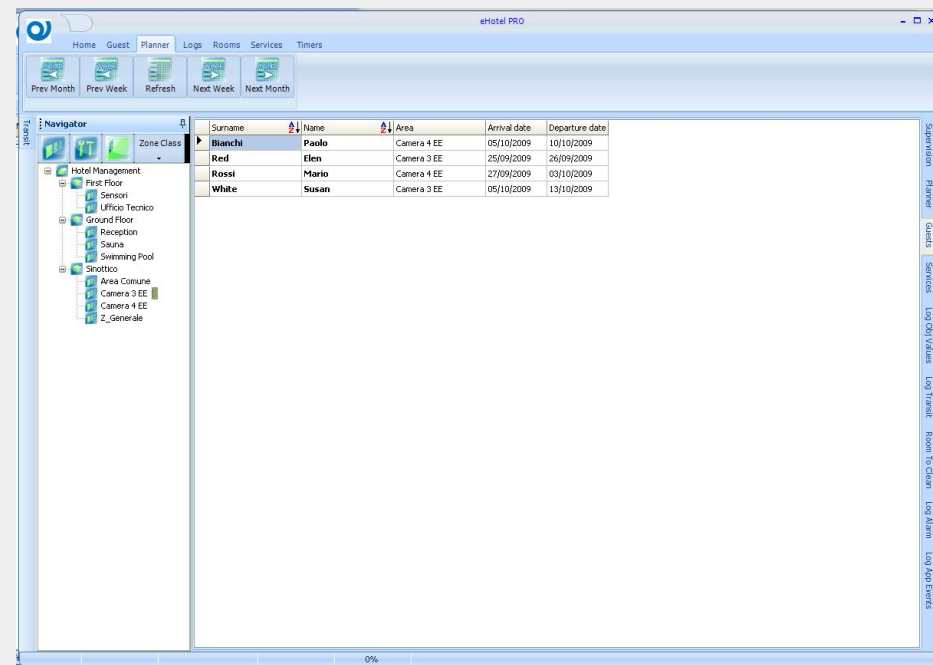
eHotel Client

eAccess Client

Communication Module  
To Other Protocols

# Structure

- Hardware key software protection
- Authentication required for login
- Web update
- ETS direct import
- Automatic programmable backup



The screenshot shows the eHotel PRO software interface. At the top, there are tabs for Home, Guest, Planner, Logs, Rooms, Services, and Timers. Below these are buttons for Prev Month, Prev Week, Refresh, Next Week, and Next Month. On the left, a Navigator tree shows the system structure: Hotel Management, First Floor, Sensori, Ufficio Tecnico, Ground Floor, Reception, Sauna, Swimming Pool, Sinottico, Area Comune, Camera 3 EE, Camera 4 EE, and Z\_Generale. The main area displays a table of guest information.

Surname	Name	Area	Arrival date	Departure date
Bianchi	Paolo	Camera 4 EE	05/10/2009	10/10/2009
Red	Elen	Camera 3 EE	25/09/2009	26/09/2009
Rossi	Mario	Camera 4 EE	27/09/2009	03/10/2009
White	Susan	Camera 3 EE	05/10/2009	13/10/2009

On the right side of the interface, there is a vertical menu with links: Supervision, Planner, Guest, Services, Log On Values, Log Transit, Room To Clean, Log Alarm, and Log App Events. The status bar at the bottom shows 0%.

# Access Control

- Card Encryption
- Service and Maintainer management
- Access control rights
- Transit Logs



eHotel PRO

Home Guest Planner Logs Rooms Services Timers

Prev Month Prev Week Refresh Next Week Next Month

Navigator

Zone Class

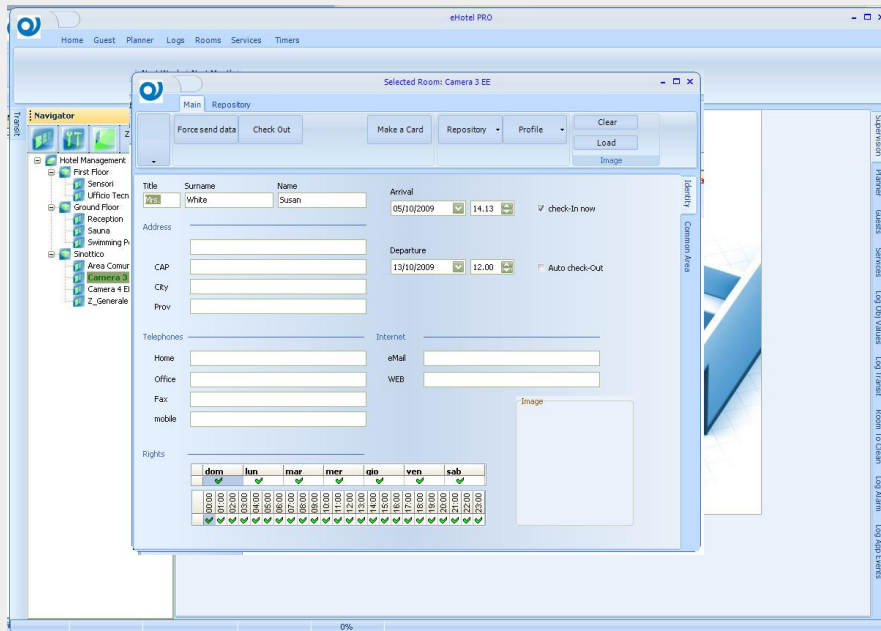
Surname	Name	Area	Arrival date	Departure date
Bianchi	Paolo	Camera 4 EE	05/10/2009	10/10/2009
Red	Elen	Camera 3 EE	25/09/2009	26/09/2009
Rossi	Mario	Camera 4 EE	27/09/2009	03/10/2009
White	Susan	Camera 3 EE	05/10/2009	13/10/2009

Supervision Planner Guest Services Log On Values Log Transit Room to Clean Log Alarm Log App Events

0%

## Check In / Check Out and Reservations management

- Planner with drag&drop functions
- Client's Check-In with data memory
- Automatic Check-Out



Selected Room: Camera 3 EE

Main Repository

Force send data Check Out Make a Card Repository Profile Clear Load Image

Title Surname Name Arrival Departure

Mr White Susan 05/10/2009 14.13 13/10/2009 12.00

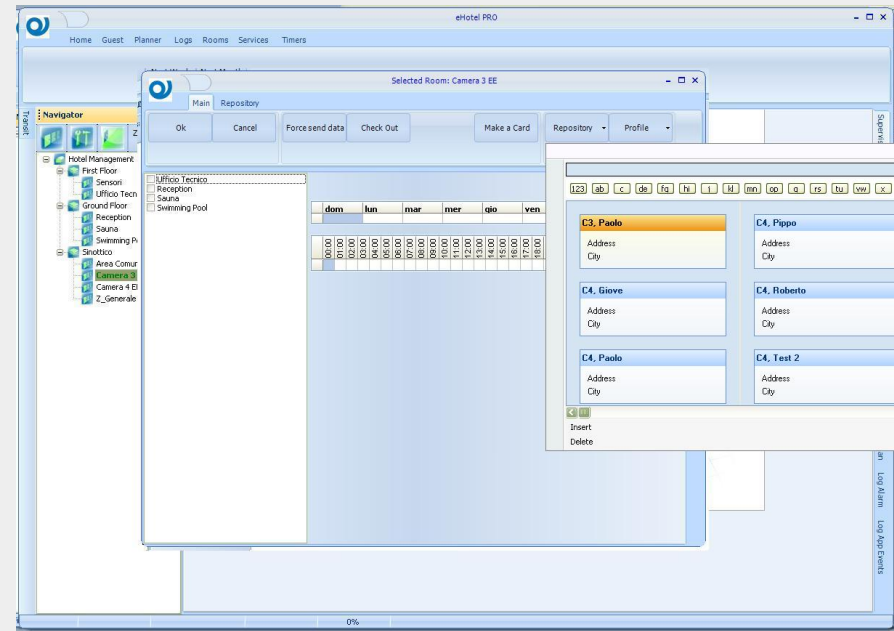
V check-In now Auto check-Out

Address CAP City Prov

Telephones Home Office Fax mobile Internet eMail WEB

Rights

dom	mon	tue	wed	thu	fri	sab
05/10	06/10	07/10	08/10	09/10	10/10	11/10
06/10	07/10	08/10	09/10	10/10	11/10	12/10
07/10	08/10	09/10	10/10	11/10	12/10	
08/10	09/10	10/10	11/10	12/10		
09/10	10/10	11/10	12/10			
10/10	11/10	12/10				
11/10	12/10					
12/10						



Selected Room: Camera 3 EE

Main Repository

Ok Cancel Force send data Check Out Make a Card Repository Profile

Navigation: Hotel Management, First Floor, Sensori, Ufficio Tecn, Reception, Sauna, Swimming Ph, Sinottico, Area Comur, Camera 4 B, Camera 4 B, Z\_Generale

dom	mon	tue	wed	thu	fri	sab
05/10	06/10	07/10	08/10	09/10	10/10	11/10
06/10	07/10	08/10	09/10	10/10	11/10	12/10
07/10	08/10	09/10	10/10	11/10	12/10	
08/10	09/10	10/10	11/10	12/10		
09/10	10/10	11/10	12/10			
10/10	11/10	12/10				
11/10	12/10					
12/10						

C3, Paolo  
Address  
City

C4, Pippo  
Address  
City

C4, Giove  
Address  
City

C4, Roberto  
Address  
City

C4, Paolo  
Address  
City

C4, Test 2  
Address  
City

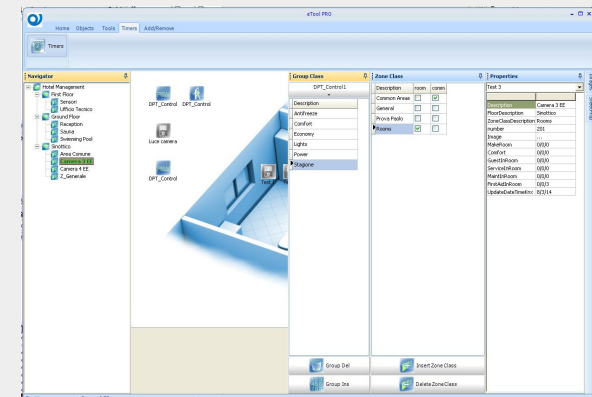
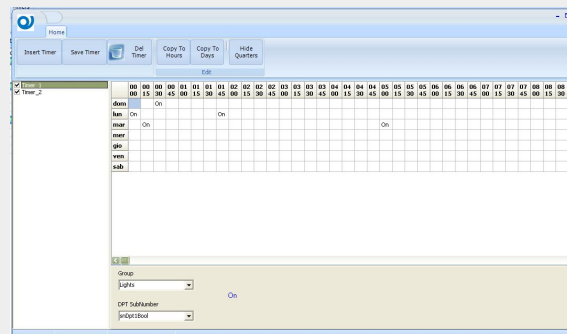
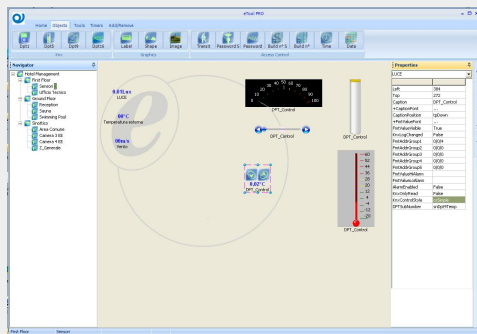
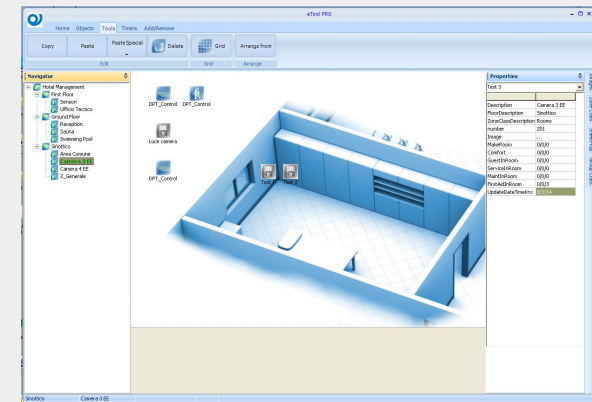
Insert Delete



# Supervision

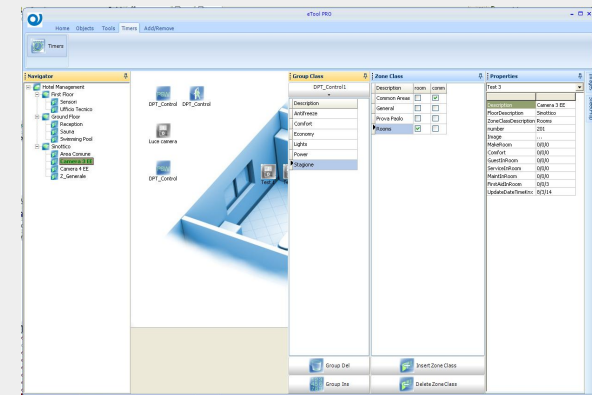
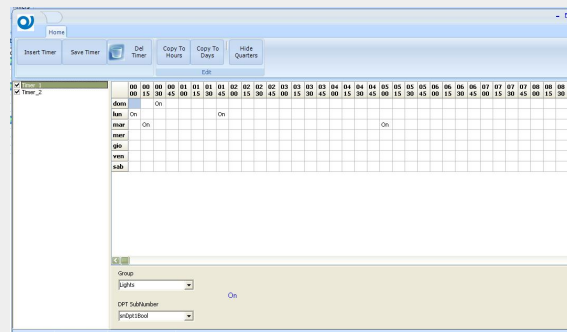
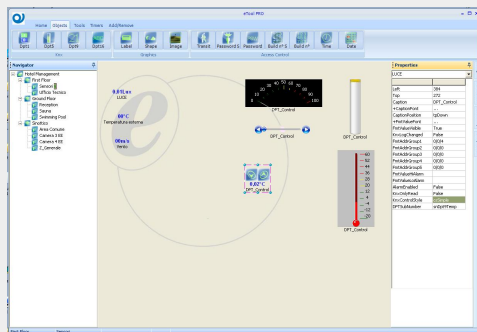
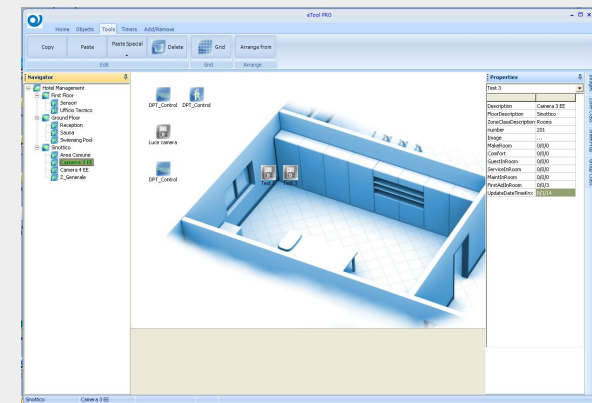
## Real-time data Room Supervisor and Actuator

- Lighting control
- Temperature control
- Programmable timer & group functions
- Common areas management
- Graphical overview



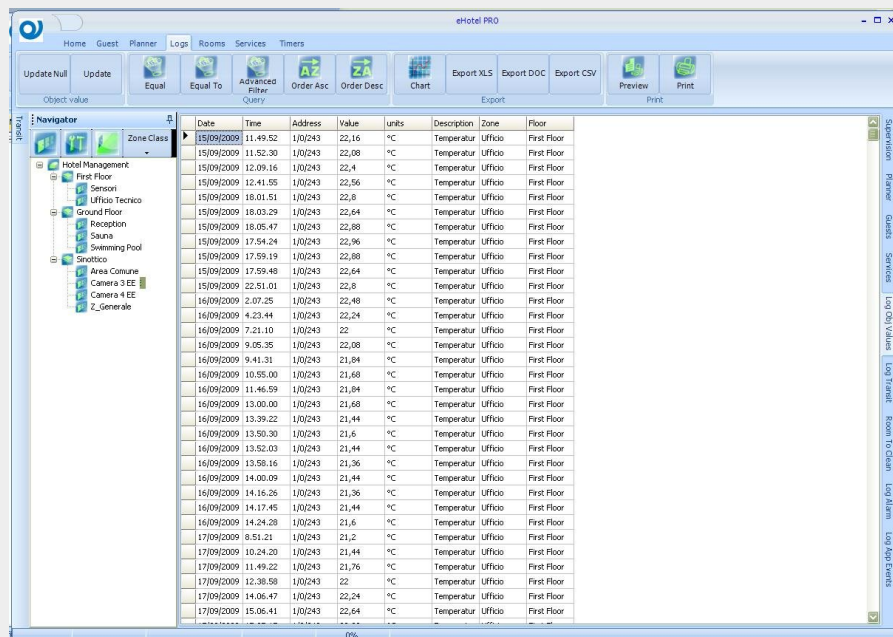
# Supervision

- Automatic management of Cleaned room and Make up room with dedicated group objects
- Data and hour automatic sending



# Supervision

- Alert for Bus disconnection
- Alarm and Technical Logs
- Search and filter functions
- Charts



## *Other Features*

- Hotel management systems interface  
Developed for: Micros Fidelio, Leonardo, Hotel 2000/Nice, Hotel Cube, Fly Hotel, Nice, Protel...



## : main adds

- Icons on the user interface to signal room to clean, room occupied, service call, etc.
- Optimized graphical interface: coolest design, suitable for touch screen interfaces
- New graphical objects (Label, Shape, Image), with more properties
- Automatic format and reshape of some knx objects (Es. Temp °C, Temp °F, Wsp, Lux, etc)
- Animated gif managed for binary objects



## : main adds

- Some functions (bus monitor, timers...) have been modified to behave as a Windows service: always on, with no login
- New filter and timer functions
- More monitor function and possibility to create charts/graphical objects based on logs
- Arrange function to inherit object properties from a “Master” zone
- Faster and easiest functioning

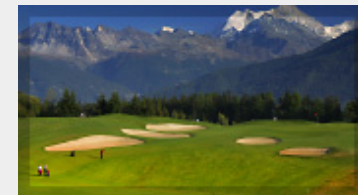
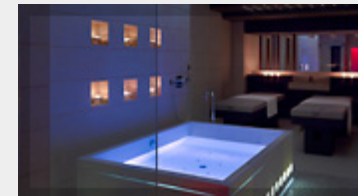
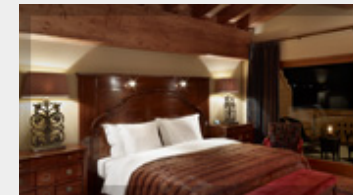
DEMO TO DOWNLOAD ON:

[www.eelectron.com](http://www.eelectron.com)

## 2010 – Latest references

### Hotel Guarda Golf – Crans Montana Switzerland \*\*\*\*\*35r

- Project: Domotech Consulting  
Mr Rossier, Christian Metrailler  
Salins (CH)
- Installation: Eddy Tapparel  
Salins (CH)



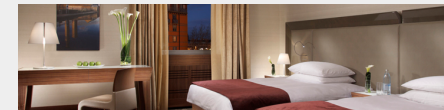
[www.hotelguardagolf.com](http://www.hotelguardagolf.com)

Luxury Hotel located in Crans Montana. Fully equipped with eelectron access control and software management.

## 2010 – Latest references

### Grand Hotel Europa - Innsbruck Austria \*\*\*\*\* 150r

- Project: Architetto Mario Geat
- Start up: Eelectron SpA



[www.grandhoteleuropa.at](http://www.grandhoteleuropa.at)

Luxury Hotel located in Innsbruck. Equipped with eelectron access control and software management, interfacing BMS.



## 2010 – Latest references

### Fine Arts Hotel Brera – Milano Italy \*\*\*\*\* 250r

- Project: Elepas srl
- Start up: Avant Factory Automation

<http://www.classimmobili.it/index2.htm>

250 Room of Luxury Hotel located in Milan.

Equipped with eelectron access control and software management,  
lighting management, interfaces.

## 2010 – Latest references

### Conrad Hilton – Dubai\*\*\*\*\* 500r

- Project: Mediatech, Dubai
- Start up: Mibbco, Dubai



[conradhotels1.hilton.com/en/ch/brand/newHotels.do#dubai](http://conradhotels1.hilton.com/en/ch/brand/newHotels.do#dubai)

500 Room of Luxury Hotel located in the center of Dubai. Moke up rooms equipped with eelectron access control and software management.

## 2010 – Latest references

### Devero Hotel – Agrate Brianza Italy \*\*\*\* 76r

- Project: Elco Sas
- Start-up: Avant Factory Automation

<http://www.deverohotel.it/>

Luxury Hotel located in north of Italy.

Equipped with eelectron access control, temperature control and software management.



## *Latest references*

### Soller Jumeirah Hotel – Palma de Mallorca Spain \*\*\*\*\* 120 r

- Project: Albendas
- Start up: Nordarbona Piza

<http://www.jumeirah.com/en/>



120 Room of Luxury Hotel located in Palma de Mallorca. First 7 star Jumeirah hotel in europe. Moke up rooms equipped with eelectron access control, actuators and software management.

## *Latest references*

### Hotel Chalet – Madonna di Campiglio Italy \*\*\*\* 55r

- Project: Schneider electric
- Installation: Intac srl

<http://www.hotelchaletdelbrenta.com>



Luxury Hotel located in Italian Mountains. Equipped with eelectron access control and software management.

## 2010 – Latest references

### Casa dello studente – L'Aquila Italy

- Installation: Grisenti SpA
- Start-up: Eelectron Spa



Built after L'Aquila earthquake, Casa dello Studente is a symbol of cooperation and rebirth.

## *Latest references*

### Hotel Accor Mercure – Siracusa Italy \*\*\*\* 93r

- Project: Siemens SpA
- Start-up: Elio Esposito srl

<http://www.hotelmercuresiracusa.com>

Luxury Hotel located in south of Italy. Equipped with eelectron access control and software management.

