

Applications in rest and nursing homes

Convenient for the residents, economical for the operator:
GAMMA instabus



GAMMA

Answers for infrastructure.

SIEMENS

Feel at ease as if you were in your own home. GAMMA *instabus* can also contribute in this environment by controlling lighting and shade.

With one touch of a button, you can set up different scenarios in event rooms, for example for presentations. Time is saved and even outside consultants will find it really simple.



Run rest and nursing homes economically

Older residents in need of care want to feel at ease and at home in their new surroundings. A high standard of care is needed round the clock and safety at the highest level in all areas must be taken as read.

These demanding requirements for rest and nursing homes are at odds with low rates for care and high operating costs.

In this environment, GAMMA *instabus* allows, through intelligent connection of all the electrical functions:

- reduction of operating costs
- a guarantee of safe and smooth operation
- in an emergency, protection of human life and minimizing of damage
- provision of modern comfort in use

This gains time for the carers to provide nursing services and means they can look after the residents better. Satisfied residents cause lower costs.



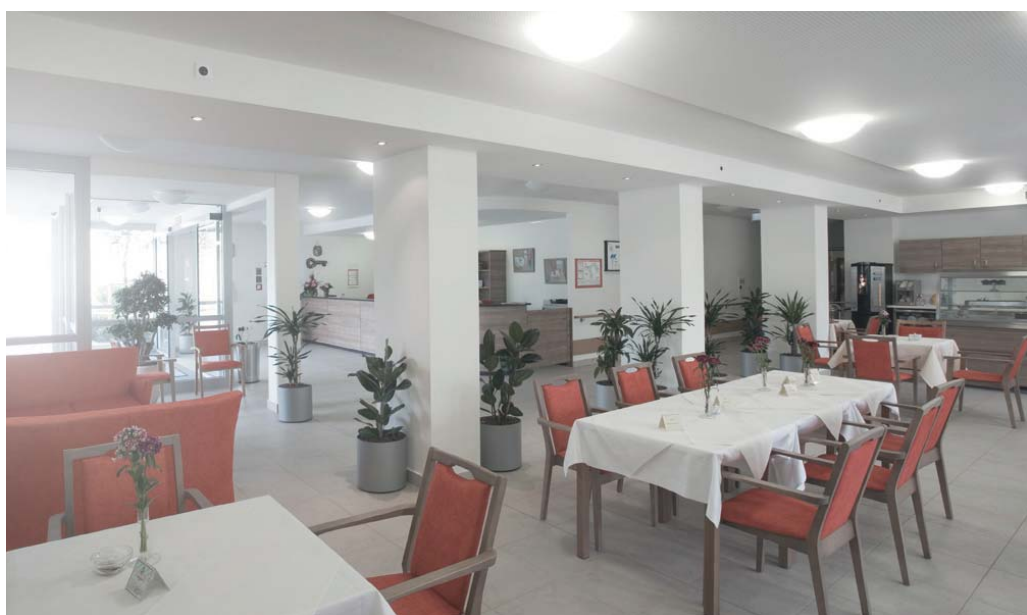
Turnkey installation solutions

As a complete service provider for building installations, we offer you a comprehensive solution from the energy supply

right up to the socket outlet in the living areas and the residents' rooms – tailored to the needs of your planned project.

If a resident opens the window, the heating is turned down automatically. This saves energy and costs. When the window is closed, the heating is turned up again automatically.

Constant light control ensures automatically that only the required artificial light is supplied. Energy consumption and costs will be reduced.



Healthy cost-effectiveness

The multi-faceted requirements of a rest and nursing home demand specially thought-through solutions. In order to save energy, simplify procedures and reduce overheads, Siemens offers with its GAMMA *instabus* building management system a comprehensive system which meets all these needs.

Room temperature according to use

Heating and cooling costs are a major factor in a building's operating costs. GAMMA *instabus* reduces these costs significantly.

- **As long as windows are open**, the **heating is lowered** automatically for frost protection and cooling and ventilation are reduced or switched off.
- Rooms or restrooms are only **heated, cooled or ventilated** fully if they are also **in use**. The room temperature can be controlled by presence detectors, according to times of use, according to occupancy plans or manually.

- **At night**, in areas of the building which are no longer in use, such as the dining hall, the **heating, cooling and ventilation** can be reduced automatically by **"central off"**.

Light and shade as needed

- **Solar protection** which tracks the sun's movement reduces direct or reflected glare for visual or reading tasks – **with ideal use of daylight**. As the angle of the sun increases, blinds are opened gradually and at the same time the proportion of artificial light is reduced. This produces appealing mood lighting and saves energy.
- The **automatic shade system** controls heat entry according to the time of year: Venetian blinds reduce solar radiation in summer and in winter, the sun's warmth is used to the maximum. Heating, cooling and ventilation costs will be reduced. And the staff are freed from the task of raising and lowering the blinds in every room.

- **Constant light regulation** ensures automatically that only the artificial light needed is supplied as artificial light, e. g. dimmed to 30 % instead of being switched fully on. This means that the lighting is always adequate. Naturally, if need be, the constant light regulation can be overridden manually at any time and adjusted to the current situation (e. g. turning the lights down for a presentation).
- In **corridors or restrooms**, the **lighting** can be switched off outside main usage times **depending on presence**. During main usage times, the lighting is turned down to a variable minimum brightness. In this way, optimum energy saving is achieved, with longer average life of the lighting.

Color-coded switches simplify operation for the elderly. This eases the workload on the carers, because they are not called on so often for help.

Mood lighting affects the elderly residents' daily program and thus adds to their wellbeing. The residents are thus taken to their rooms at the right time in the evening.



More efficiency in building management

- With its **central visualization**, GAMMA *instabus* permits an up-to-date picture of the whole building and the operation of all building functions. This supports **efficient building management** in rest and nursing homes.
- Energy readings and consumption data can be recorded and routed to the central visualization. In this way, **energy shortfalls can be detected and corrected**.
- By connecting to the available data networks (LAN and Internet) or a building control system, the **building management** can cover several parts of the building or buildings. Even **distributed rest and nursing homes** can be managed ideally using the current status information.

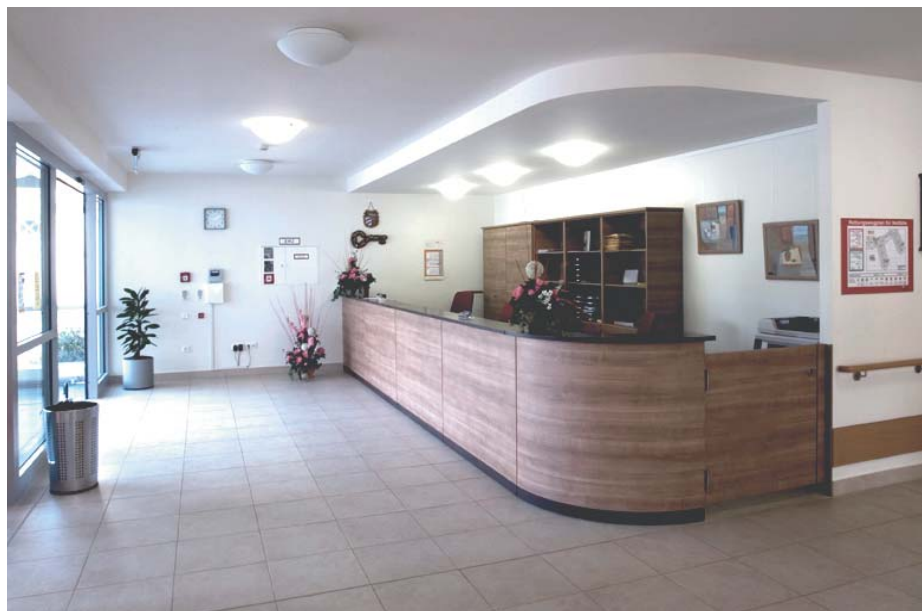
- With **central monitoring and control** of several rest and nursing homes or buildings, staff costs can be reduced.
- GAMMA *instabus* does **not cause any additional costs for special monitoring systems**. Any light switch or motion sensor operated in a temporarily unused area can, for example, trigger an alarm message.
- To reduce energy costs, **consumption data** can be **recorded** for analysis, load peaks capped and **currently unneeded consumers switched off**. For example, in peak periods, the output from the air conditioning system can be reduced temporarily, in some areas.
- Operating costs can be reduced prioritizing **maintenance and repair according to need**. This is made possible by counting operating hours and switching cycles, as well as lighting failure reports.

Process support

- **Daytime-dependent mood lighting** affects the natural day cycle for the residents and thus contributes to their wellbeing. They will be taken to their rooms in the evening at the right time. In the morning, the residents can be woken gently by automatic opening of the blinds and slow turning up of the lighting. This takes a load off the staff.
- **Color-coded switches** also **simplify operation** for the residents. This saves the carers time, because faulty operation is less frequent.

Presence detectors in the bathroom control the lighting and the extractor fan unit. This is particularly convenient for relatively handicapped elderly residents. And a forgotten light is a thing of the past.

The reception maintains, through central visualization, constant oversight of all building functions. A quick and correct response can be given as required.



Elderly persons sheltered in safety

In particular for elderly persons who are no longer fully mobile, safety has absolute priority. To protect persons and property, to avoid accidents and to limit the consequential costs, GAMMA *instabus* is active twenty-four hours a day.

- To avoid accidents due to unsupervised electrical equipment, e. g. in restrooms, these or the corresponding socket outlets are **switched off centrally in the event of absence** with a press of a button.

reducing the danger of panic. Blinds will be raised to allow escape as necessary through windows and doors will be unlocked. Roof hatches and skylights will be closed to prevent the fire spreading.

Prevention is better than cure

- Accidents due to inadequate lighting can be avoided easily. If the **corridor lighting** is **presence-dependent**, then it always provides the right lighting whenever it is needed.
- **Exterior and walkways lighting** will be switched depending on brightness, motion or time and are accordingly always **switched on at the right time**.
- **Windows, roof hatches or doors left open** can cause significant damage in the building if there is a storm, rain or frost. The **indication "Open window" or "Open door"** makes sure you can close these in time by hand or automatically.

In the event of danger

- A rapid and correct response in the event of danger is possible through a **visualization** which **shows the location of danger**.
- **Building areas** that are unused by night, such as restrooms, stores, laundry or kitchen, can be **monitored through the network from a different location**.
- If the **fire alarm system is connected with GAMMA *instabus***, you can **respond** to a risk situation in a targeted manner **automatically**. Electrical consumers will be switched off before they become an additional risk. The complete lighting system can be switched on, thus

Thoughtful solutions throughout



Just how intelligent the solution is for a rest and nursing home is illustrated particularly by the fact that all the relevant requirements are fulfilled. With its modularity and flexibility, GAMMA *instabus* is ideally suited to all a rest and nursing home's interests.

Resident's rooms

- The **residents' activities** can be **reported** via presence and motion detectors or key sensors.
- **Access control systems** simplify operation of the doors and report unauthorized attempts to open them. Lost cards can be replaced more cost-effectively than keys.
- If a person is absent, **unnneeded consumers**, such as lighting, cookers and irons, can be **automatically switched off via the access control system**.
- Room functions can also be set **with a hand-held remote control**. This is particularly helpful for elderly persons with restricted mobility and thus saves on care expenditure.
- Room functions are operated by means of an **illuminated pushbutton, clearly labeled or provided with symbols**. They are accordingly ideally suited also

for elderly persons with reduced visual acuity.

- The **timed air delivery and extraction control** guarantees high air quality and saves energy costs.
- If a resident **opens the window, the heating is turned down automatically**. Windows that are left open for an extended period can also be reported to the care station.
- Individuals who need help in the bathroom or in their room can use **pull cord buttons to raise the alarm** quickly and easily.
- **Motion detectors** installed in the floor **switch on orientation lighting at night** if one of the residents gets up.

Restrooms

- The **lighting and extraction system** can be **presence-dependent** – without pushbutton operation. This is particularly convenient for residents with reduced mobility and saves energy costs.
- **Water sensors give early warning** of pipe fractures and flooding.

Nurses' room/base

- The **nurses' room is equipped with a control panel for the distribution center**, in order to control building functions centrally at the ward. Functions in the residents' rooms can be indicated and controlled. Alarms will be reported.

Social/Communal/Event rooms/Chapel

- With **one touch of a button**, you can set up the entire room for the **current use at the time (scenario control)**. For example in the chapel, all lights can be set appropriately with a single touch of a button. In event rooms, while giving a presentation, you can lower the blinds, switch on the beamer/digital projector, roll out the projection screen, switch off the lights in the area surrounding the screen and lower the lights in the rest of the room to 10% – all at the touch of a button.
- The presenter can also **control** these scenes **completely mobile with the remote control**.

... and the right control for every task

- The best technology is useless if it is difficult to operate. GAMMA *instabus* was therefore designed to be so user-friendly that even the elderly can use these functions on first encountering them: with ease and conveniently from the familiar **switches, remote controls, operating displays, touch panels** or via a central **visualization PC**.
- In rest and nursing homes, there are high hygiene criteria even for the **push-buttons**. Stable, environmentally friendly thermoplasts are **particularly hygienic**, because they are easy to clean.

The functions at a glance

Economy	Specifically
Reduction of heating in case of open window	... in residents' rooms
Heating, cooling, ventilation according to need	Reporting residents' activities
"Central off" for the heating, cooling and ventilation	Access control systems
Using daylight without glare	Switching off consumers via access control systems
Automatic shade systems	Hand-held remote controls
Constant light regulation	Illuminated, easily legible buttons
Lighting according to presence	Timed air delivery and extraction control
Efficient building management with visualization	Reduction of heating in case of open window
Detect and correct energy gaps	Alarm via buttons with pull cord
Building management of distributed properties	Motion detectors switch on orientation lighting
Central monitoring and control of several buildings	... in restrooms
Monitoring without special monitoring systems	Presence-dependent lighting and extraction system
Switching off unneeded energy consumers/devices	Water sensors give early warning
Maintenance according to need	... in nurses' room/base
Daytime-dependent mood lighting	Control panel as distribution centre
Simple operation with color-coded switches	... in social/communal/event rooms/chapel
Safety	Scenario control at the touch of a button
Presence-dependent corridor lighting	Remote control of functions
Exterior and walkway lighting	... and the right control for every task
Indication of windows, roof hatches or doors left open	Appropriate user interfaces for every requirement
"Central off" in the event of a absence	Pushbuttons particularly hygienic
Visualization shows location of danger	
External building monitoring	
Automatic reaction in the event of fire alarm	



With the GAMMA building management system, your rest and nursing home will fulfill every need with regard to economy, safety and convenience, together with satisfied residents.

Would you like a meeting?

Are the examples we've described of interest for your rest and nursing home project? Then please turn to your Siemens partner. He will gladly support you and provide you with further information.

For further information,
please contact your local Siemens sales partner.

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