Living Space

A new dimension of building control

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We live in a society where online access to all kinds of information has become the norm. Mobile phones, for example, combine a broad range of functions, ranging from "simply" making phone calls through taking photographs, recording videos and playing music in a very high quality to surfing the Internet and writing e-mails. A similarly universal platform has now become available for the first time in an area of huge practical importance: the control of buildings. With the Busch-Jaeger's Living Space® concept, ABB has developed a new generation of building-system technology that allows a high level of flexibility, combining comfort with energy efficiency and security. Living Space not only fulfill, the need for comprehensive information, it also enables the much needed optimization of the energy consumption in buildings.

Modern building-system technology plays a key role when it comes to reducing the energy consumption of buildings. According to current studies, the use of comprehensive control schemes covering the illumination as well as the climate control of a building enables an energy saving potential of almost 60 percent.

Although this potential has been identified and the implementation of corresponding measures is urgently needed, universal control systems are far from ubiquitous. Why? Even in highly industrialized countries, many people are afraid of using allegedly "complicated" technology. Negative experiences imprinted by exposure to non-ergonomic video recorders, television sets or even PCs, which typically demanded the extensive study of a thick manual to permit use of even the most basic functions, linger on with many users. The consumer industry has recognized this inhibition threshold and is striving to develop "fool-proof" controls for complicated devices.

To be more attractive for the user, energy-saving building-system technology must therefore adequately present the options to the user, or integrate them into an intuitive user interface.

Another prerequisite for a widespread adoption of this technology is a sophisticated design. As the intuitive user interface forms the only visible part of the underlying technology, it is particularly important for the user's acceptance that the feeling of doing something sensible for the environment is enhanced by elegance and style.

The use of comprehensive control schemes covering the illumination as well as the climate control of a building enables an energy saving potential of almost 60 percent.

For most people, the stylish presentation of hidden intelligence within a building underlines a positive attitude towards life and should not be underestimated as "door opener" for innovative technology.

ABB has recognized this need and taken its building technology products and systems onto a new level in terms of user friendliness and elegance. The innovative solutions Bush-priON and Bush-ComfortTouch from Busch-Jaeger will play a pioneering role in the broad introduction of more energy efficiency and security in all kinds of buildings.

In this offering, it is the supposedly small details that make the difference. An example is the consistent color coding of particular functions such as illumination, blinds, heating or light scenes. All illumination functions are identified by the color yellow (symbolizing the sun and brightness), heating functions are marked amber (for warmth and comfort), and the blind control is labeled in blue (symbolizing coolness and the color of the sky). Magenta, symbolizing extravagance, theatre and staging, is used for light scenes 1. These codes are language-independent and can be internationally understood.

The user-control concept forms the basis of the new Busch-Jaeger product range and offers various solutions for modern building control, from a distributed-control unit to a central multimedia panel.

The stylish presentation of hidden intelligence within a building underlines a positive attitude towards life.

1 Example of a light scene atmosphere which can be switched on at the touch of a button

A single control unit for all rooms

The new distributed room control unit, Busch-priOn, bridges the gap between the company's classical switch program and modern panel solutions. It provides clear and intuitive control of building-system technology components such as illumination, heating/air conditioning or blinds. A central aspect of its comfortable use is the color-oriented control concept. And thanks to its modular structure, Busch-priOn can be individually adapted to the users' needs 2.

The variety of available functions opens up much room for individual freedom. Light, blinds, and consumer electronics can be controlled individually or integrated into complete "living scenes". This allows the desired back-

drop to be created at the touch of a button: The light is dimmed, blinds are closed, and the favorite music is played.

During the development of Bush-priOn, simplicity and ease of use were accorded top priority. The system is controlled via touch-sensitive or rotary control elements. The central module consists of a thin-film transistor (TFT) graphic display combined with a rotary control element. The fine-tuned rotary knob with colored backlighting and the clearly structured display allow intuitive and safe control of all functions 3.

Each function can be selected and controlled quickly and comfortably. Individual lamps can be controlled and dimmed directly. Shutters and blinds can also be controlled with the rotary control element, and the climate in the building can be set for each room individually using the single-room temperature control function.

The rotary control element represents a very distinctive and even style-forming design feature which will be familiar to many users from other applications (eg, in cars) or from the iPod.

The rotary control element can be combined or extended with different modules. All control elements of the system, including the TFT display, feature a switch-selectable day and night illumination allowing the level of brightness to be adapted accordingly.

Extra comfort and energy efficiency is provided by an optional infrared receiver and proximity sensor on the upper border strip of the Bush-priON. This combines design and function in an intelligent way: When an occupant comes close, it automatically activates the background illumination of the room control unit. Similarly, the lower cover strip can be combined with a temperature sensor and a room-temperature controller.

A window to the world

With the new Busch-ComfortTouch, Busch-Jaeger extends its range of control panels by an exceptionally innovative variant. With its design and choice of material based on the award-winning Busch control panels, the Busch-ComfortTouch offers considerably more functions and a larger display, virtually dissolving the boundaries between building-system technology, home entertainment and IP-based communication.

All control elements of the system, including the TFT display, feature a switch-selectable day and night illumination allowing the level of brightness to be adapted accordingly.

The possibility to display and control IP- and LAN- or WLAN-based applications from the fields of home entertainment and IP-based communication, which has been implemented for the first time, makes the Busch-ComfortTouch panel an intelligent supplement to the private Internet PC, which it can even partially replace 4. The Busch-ComfortTouch panel not only provides the occupants with a central control element for the entire building system technology, it also represents an intuitively controllable communication center. Checking the current weather report or the stock ticker on the Internet, receiving e-mails, playing music, watching video clips – all this is possible with the Busch-ComfortTouch panel.

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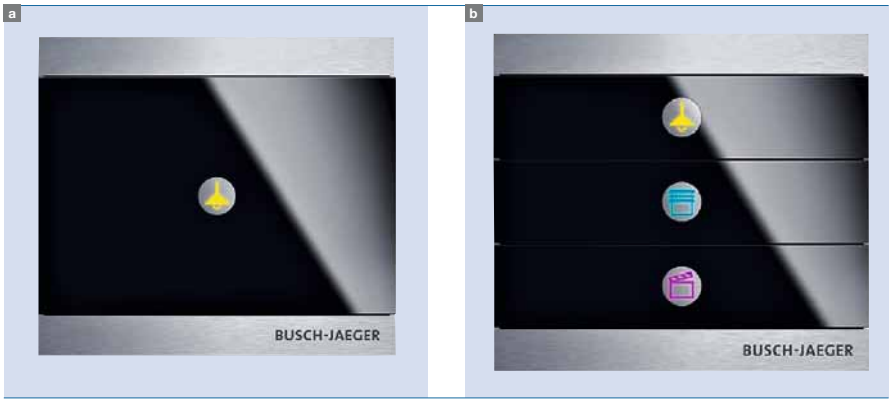
It goes without saying that the new Busch-ComfortTouch panel offers all possibilities that permit a comfortable control of the technical equipment in

2 Single a and triple b control element with intuitive color coding and symbols



3 Busch-priOn three gang combination in "glass black"

4 Busch-ComfortTouch panel with integrated networking of building system technology, IP-based communication, and home entertainment.

5 Representation of the energy consumption data on the Busch-ComfortTouch panel

a building, with clearly structured screens for different switching and control functions. The functions can be individually defined and cover all areas of "intelligent living" from heating and air-conditioning through lighting control and sun protection to disturbance and alarm messages. Even video signals from external monitoring systems such as exterior surveillance cameras can be transferred to the panel's display.

The different applications are presented on a high-resolution color screen in 16:9 format. Among others, the touch screen shows the room structure of a house in the form of ground plans and background pictures of the rooms with integrated controls or classic buttons. All control elements are part of the intuitive control concept allowing the user to immediately find his or her way in any environment.

Monitoring consumption saves energy

There are many possibilities to optimize the energy consumption of a building and thus positively influence the environment as well as the resident's budget. Such an optimization, however, requires appropriate measurement of the actual consumption in order to be able to evaluate the success of the actions taken. The Busch-ComfortTouch panel provides such a function, visualizing consumption data (eg, the current power consumption) in clear diagrams on the display 5.

Thus the new generation of ABB Busch-Jaeger building technology provides the prerequisites for relieving the environment and saving energy costs in any building equipped with it. These innovations by ABB offer a high level of energy efficiency without compromising on living comfort.

The Busch-ComfortTouch and Busch-priOn will be available from January 2009.

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