

KNX Design Panels



Stainless Steel and Aluminium
Design Panels for Upscale Room Ambiance

Switching as experience

Since 1996 IPAS has specialized in customer specific manufacturing of push-button panels for decentralized intelligent building systems. All aspects of the design, the synthetic material and metal workmanship, the electronics and the software are implemented by highly qualified professionals. Thus we ensure the high quality of our products.

As material we use 2mm thick aluminium and stainless steel, which is refined on request with different surface treatments.

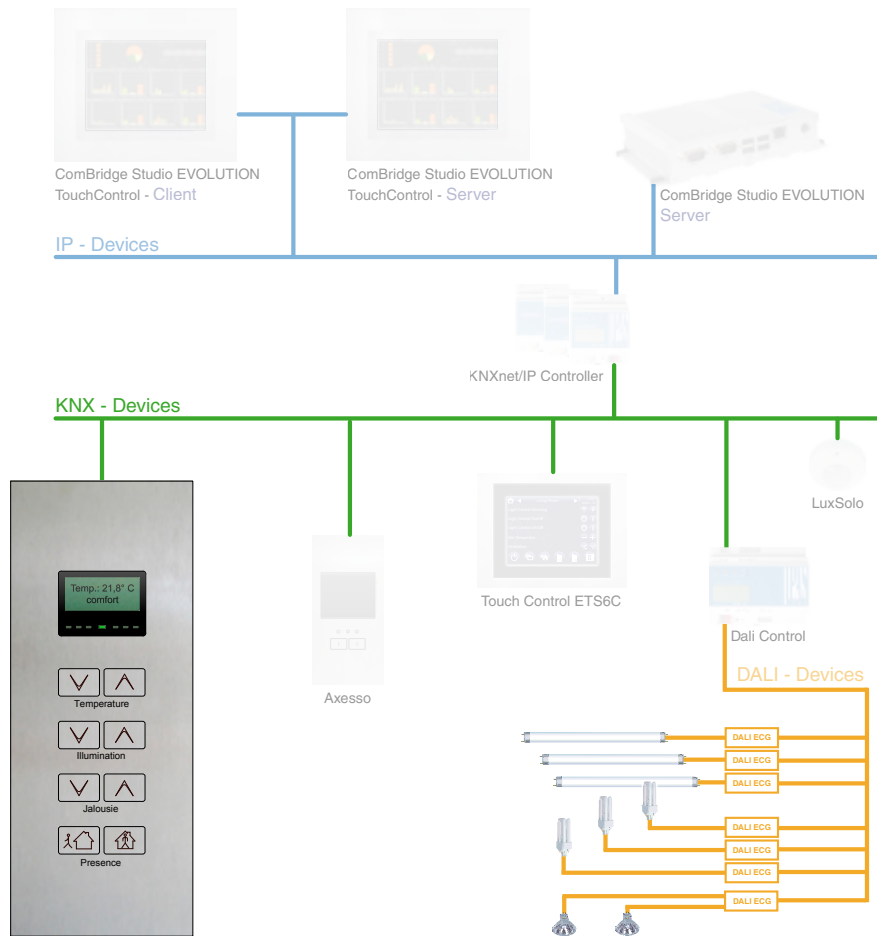
Stainless steel surfaces for example can be shine polished, brushed or matt, blasted with glass particles. On stainless steel, inscription and symbols are added into the material by using the electrochemically etching process so that the font remains permanently visible.

With aluminium the material is closed by anodising. Thereby, colour pigments can also be embedded. The inscription is engraved and supplied with colour.

The keys can be attached flush with or slightly raised above the surface. With the short-travel capacity and the perceptible point of pressure they give certainty of the performed function. Thus the IPAS surfaces fulfil the greatest demands on haptic. KNX bus coupling unit already integrated.

The design makes the push-button panel disappear in the wall with its whole electronics, so that only the operator surface is lying on the wall or panelling. This means that no fixing elements are visible.

From existing installation situations IPAS has derived adjusted product lines that can cover a broad spectrum of demands.



Discover on the following pages the push-button lines Largho, Contratempo, Barchetto, as well as inspiration for individual manufacture.

ANODISING COLORS ALUMINIUM

Different coloring are possible after prior consultation



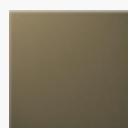
C0



C31



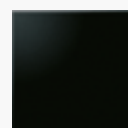
C32



C33



C34



C35



EV2



EV3



E.ON headquarter, Düsseldorf

Design guidelines professor Oswald Mathias Ungers

Surface stainless steel 200 μ – glass blasted,
Fitting flush with the surface in a powder gloss paint coated metal
light-weight wall. Light control, sun shade and anti-dazzle device
with slat control, heating and cooling regulation with operator setting,
comfortable energy saving by activating of the presence button.

Panels Serie Largo

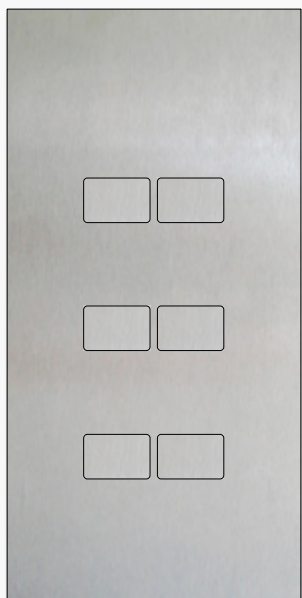
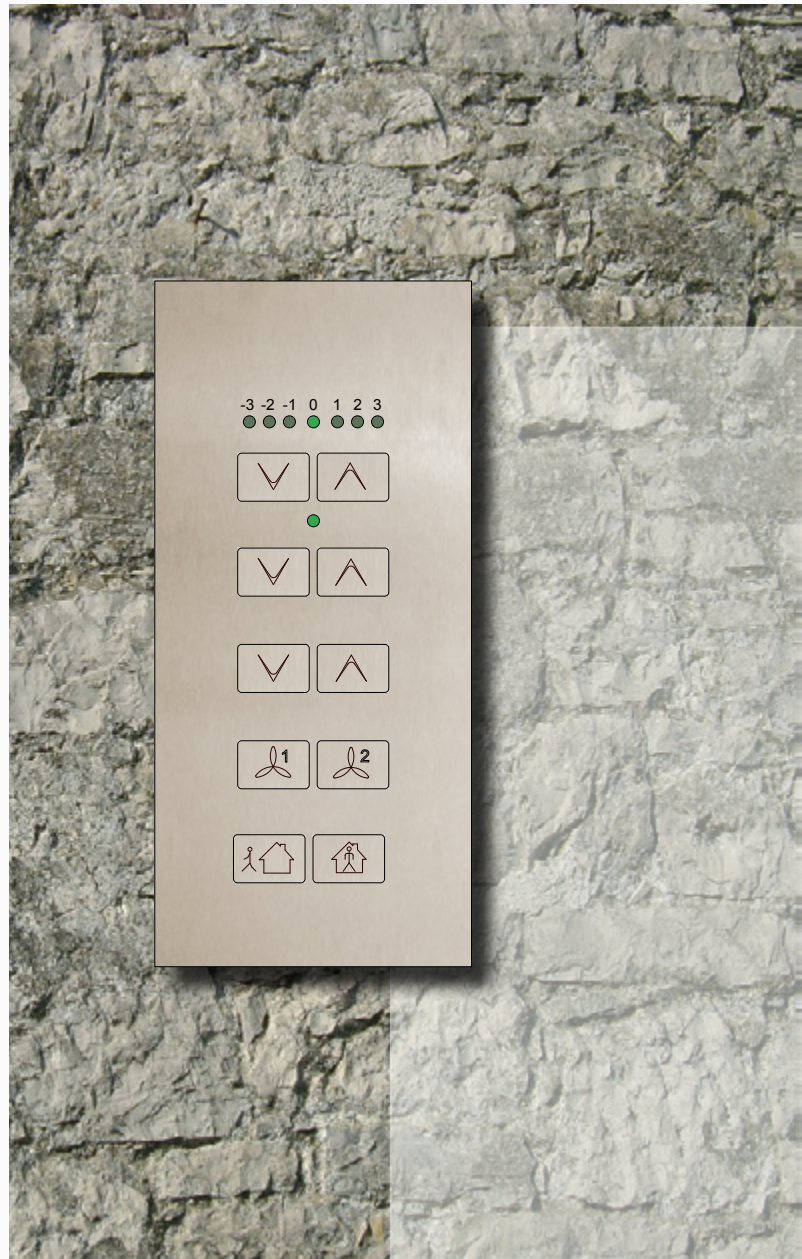
Push-button panels of this line are characterised by the width of the surface (80mm) as well as the slightly broader button (12x18mm). Available are the sizes 160mm and 200mm. For the Largo line with LCD and 10 and 12 keys respectively the model height is 212mm.

Different EIB/KNX functions can be allocated to the buttons:

- Switching of lights
- dimming of lights
- value setting
- Blind control with slat adjustment
- Operator adjustment of the temperature set-point
- Present push button
- Control of the light scenes

Push-button panels of the line Largo Rx have an integrated temperature sensor, which measures temperature between 0..40°C with a resolution accuracy of 0.16K as well as a PI control algorithm for the control of heating and cooling valves, a fan-coil or a floor heating.

On push-button panels of the line Largo RxLCD temperature and operating mode information in plaintext is displayed. Within this line an option for room control with three-step fan coil air conditioners is also available.

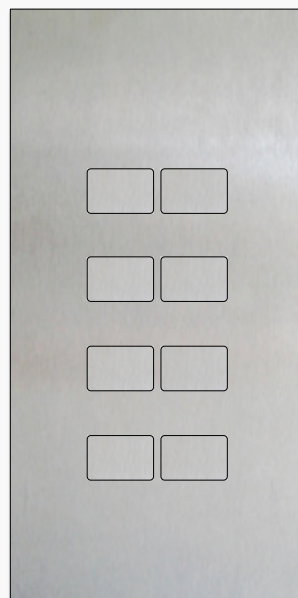


Largo 6

3 sets of buttons, per set as required:

- 1 x on/off
- 1 x dimming
- 1 x shutters/louvers
- 2 x switching
- 2 x value setting
- 2 x scene invoking

up to 3 LEDs, for display of status or as orientation light.



Largo 8

4 sets of buttons, per set as required:

- 1 x on/off
- 1 x dimming
- 1 x shutters/louvers
- 2 x switching
- 2 x value setting
- 2 x scene invoking

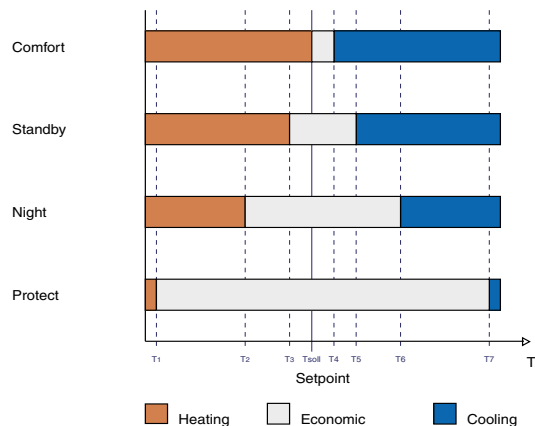
up to 4 LEDs, for display of status or as orientation light.

Energy saving without giving up comfort

Largho Panels with room temperature regulation system contains various functions and details for energy saving. They are using all energy save potential capacity without losing confidence and giving up any comfort.

Operating modes:

- Comfort** – as close as possible to the comfort temperature, small changes are being responded.
- Standby** – The room reaches comfort levels within the shortest period of time.
- Night** – The temperature is allowed to flow within a certain degree.
- Protect** – meant for building protection, especially so as to prevent water pipes from freezing.



Prolongation of comfort:

If the operating mode is changed to „night“ room users can prolong the comfort mode for their room for an adjustable time by means of the presence button. For example, the comfort mode after 6pm can always be extended in this room by 1 hour. All other rooms will be run on energy saving mode during this time.

Intelligent evaluation of window and door contacts:

A brief letting in of air or a short opening of the door does not have to change the operating mode. Only after expiry of an adjustable timer will the device assume that the windows remain open. The regulator will change to protection mode.

Flexibility when choosing the valve actuator:

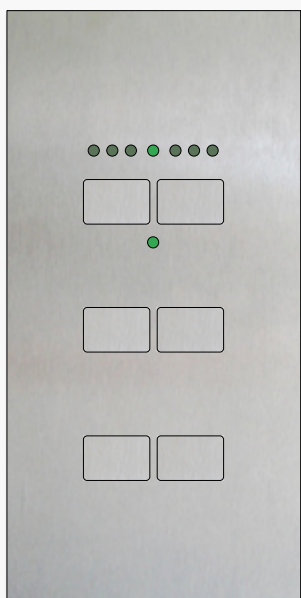
The PI regulator can regulate both constant motorized EIB valve actuators as well as conventional thermo electrical valves via a corresponding EIB switch actuator. The signal is sent simultaneously as a 0 .. 100% value communication object as well as a pulse-length-modulated binary signal. If a constant valve is opened by 40%, that means in case of the binary signal the switching actuator is opened for 4 minutes and closed for 6 minutes, if the modulation period was set to 10 minutes.

Largho R6

Operator adjustment of the temperature set point + 2 sets of buttons per set, as required:

- 1 x on/off
- 1 x dimming
- 1 x shutters/louvers
- 2 x switching
- 2 x value setting
- 2 x scene invoking

PI-Regulator heating/cooling,
1 LED for display of status or as
orientation light.

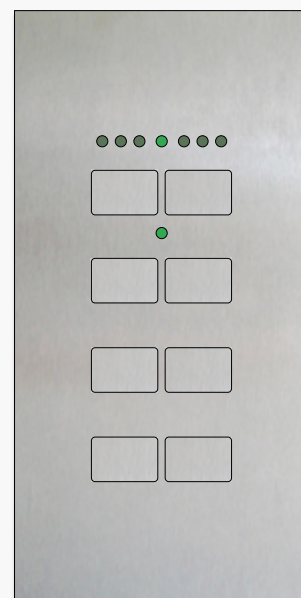


Largho R8

Operator adjustment of the temperature set point + 2 sets of buttons per set, as required:

- 1 x on/off
- 1 x dimming
- 1 x shutters/louvers
- 2 x switching
- 2 x value setting
- 2 x scene invoking

PI-Regulator heating/cooling,
1 LED for display of status or as
orientation light.



Design Panels with LCD Display

The design panels in the Largo LCD series offer 6 to 12 pushbuttons depending on specification. The upper two pushbuttons are used to change the set-point value of the integrated room temperature regulator. The other pushbutton pairs can be used for any KNX functions and the functions can be configured freely.

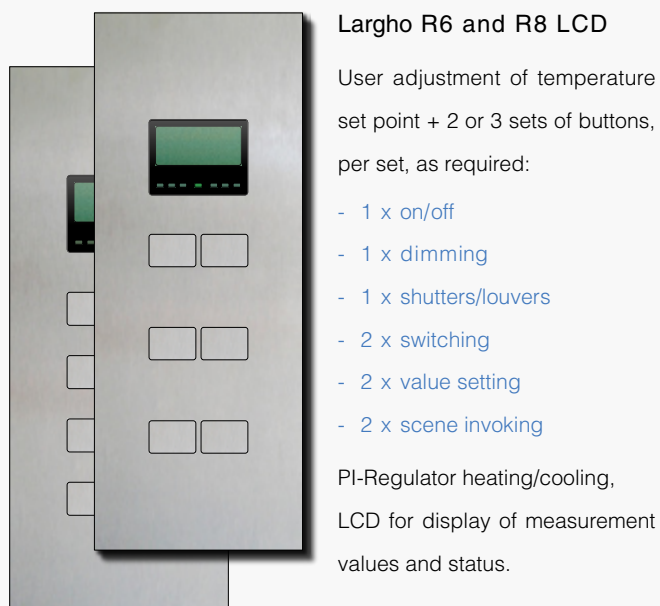
The panel contains a complete room temperature regulation system. By comparing the temperature set-point and the actual temperature, the application program calculates the corresponding control variables for both steady-state and switching control valves. Both the heating mode and the mixed heating/cooling mode are regulated via two different controllers.

The room temperature is regulated via a PI algorithm. The characteristics of the controllers are determined by the proportional range and the reset time. The two variables can be entered separately as parameters for both heating and cooling. The Largo series also includes a model for regulating 3-step Fan-Coil air-conditioning devices.

On Largo RxLCD design panels, status-dependent information is displayed in plain language. A four-line display with 18 characters per line provides information about the operating mode. The current temperature and the operating mode chosen by the user are displayed (comfort, night, standby and protection).



If the temperature set-point is changed, the new value is displayed for 5 seconds before the display returns to standard mode. However, the change can be easily checked at any time via the LED display.



Design Panels Serie Barchetto

The panels of the Barchetto production line are ideal for all situations in which only little space is available such as for example in furniture or in door frames.

So as to be able to incorporate as many functions as possible within the surface, one-button dimming can be parameterized for every set of buttons.

Multifunctional buttons

Short pressing of the button:

Switching (On -> Off or Off -> On)

Long pressing of the button:

Dimming in one direction

Renewed long pressing of the button:

Dimming with change of direction

Other functions per pair of buttons are:

- 2 x switching
- 2 x value setting
- 2 x scene invoking
- 1 x dimming (multifunctional)
- 1 x shutters/louvers

An LED is available optionally either as orientation-LED or as status notification.

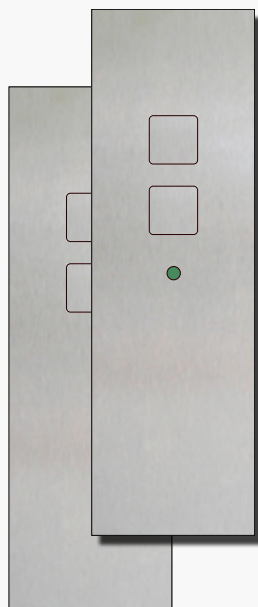


Barchetto 2

Per set, as required:

- 1 x on/off
- 1 x dimming
- 1 x shutters/louvers
- 2 x switching
- 2 x value setting
- 2 x scene invoking

1 LED is available for display of status or as orientation light.

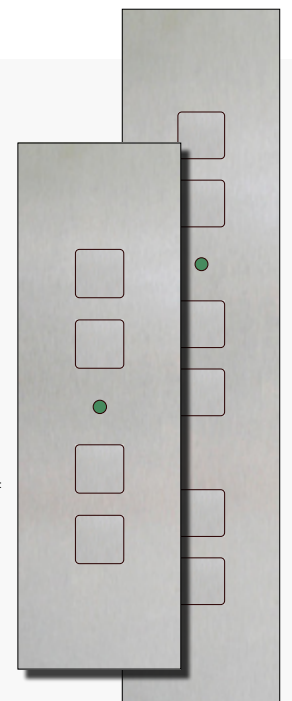


Barchetto 4 and 6

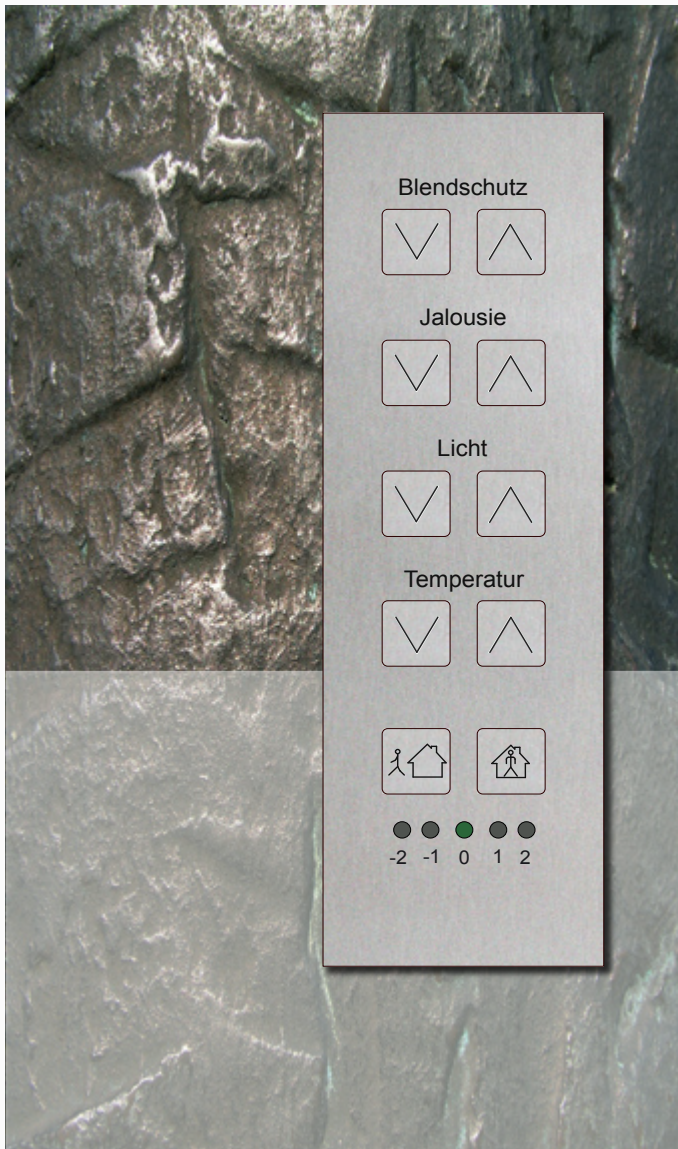
Per set, as required:

- 1 x on/off
- 1 x dimming
- 1 x shutters/louvers
- 2 x switching
- 2 x value setting
- 2 x scene invoking

1 LED is available for display of status or as orientation light.



Design Panel Serie Contratempo



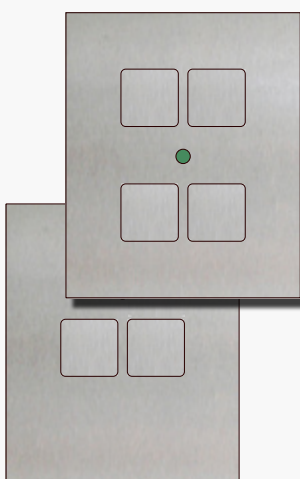
The Contratempo series is characterised by smaller, square-shaped switches which allow for greater function density and thereby make the whole look of the control panel filigree and lively.

With a size of 12x12mm the push buttons can be easily operated even with the finger tips of a large hand. In the slightly raised version the button margins from user can be easily felt.

Up to 6 status-LEDs can be mounted on the panel. As usual, different functions can be allocated to the set of buttons:

- Switching
- Dimming of lights
- Value setting
- Blind control with slat adjustment
- Operator adjustment of the temperature set-point
- Present push button
- Control of the light scenes

The aluminium version allows a choice between flat and slightly raised buttons (0,5mm).

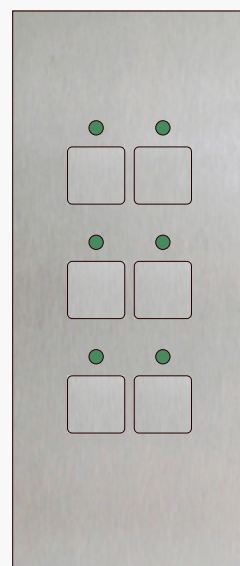


Contratempo 2 and 4

Per set, as required:

- 1 x on/off
- 1 x dimming
- 1 x shutters/louvers
- 2 x switching
- 2 x value setting
- 2 x scene invoking

1 LED is available for display of status or as orientation light.



Contratempo 6

Per set, as required:

- 1 x on/off
- 1 x dimming
- 1 x shutters/louvers
- 2 x switching
- 2 x value setting
- 2 x scene invoking

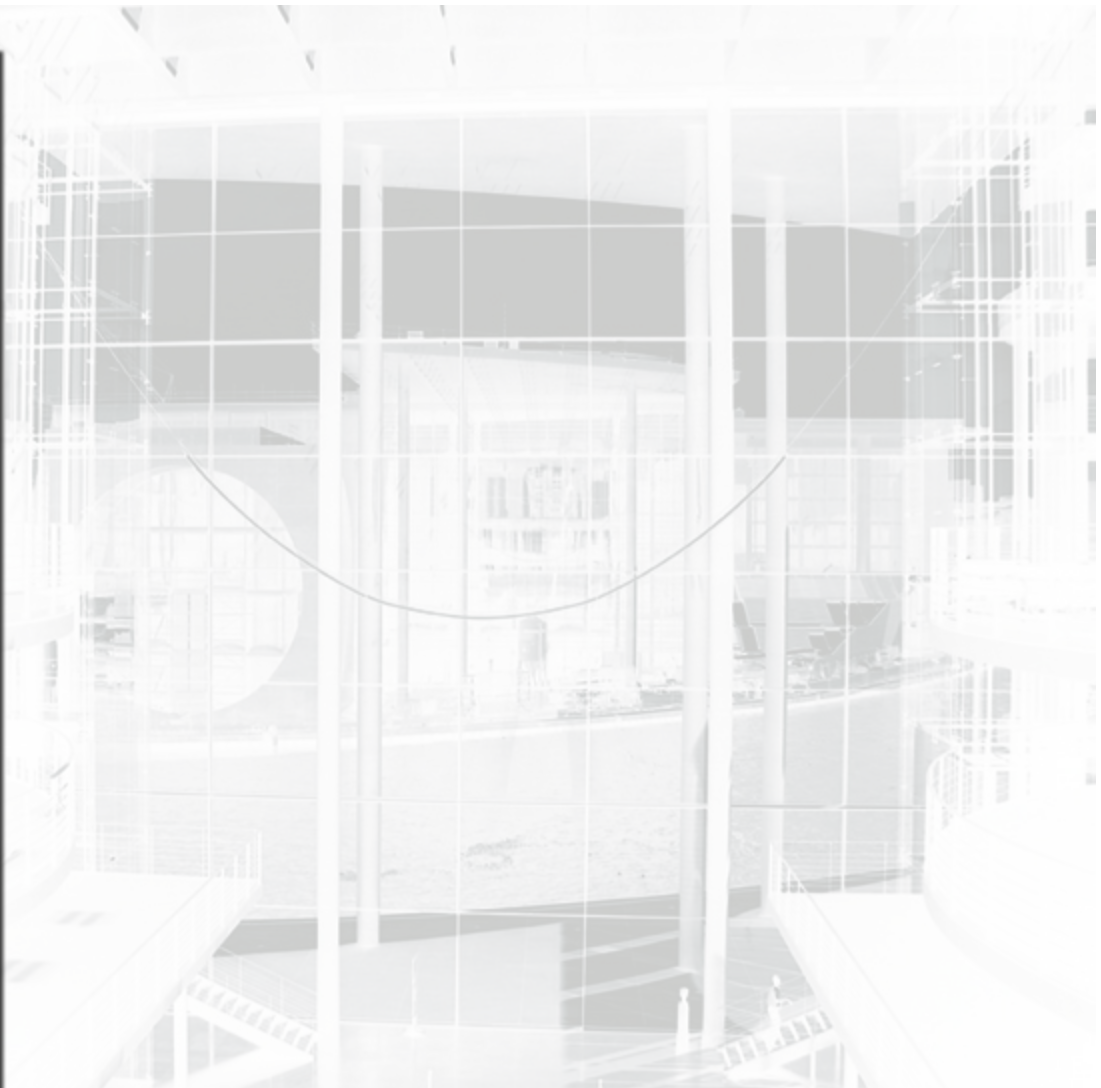
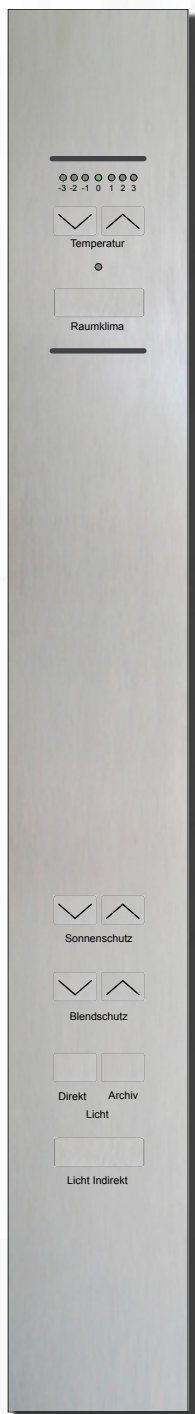
Up to 6 LED are available for display of status or as orientation light.



Head quarters of the Deutschen Post, Bonn

Design guidelines Murphy/Jahn

Surface aluminium brushed naturally anodised in fitting aluminium box mounted on a stele



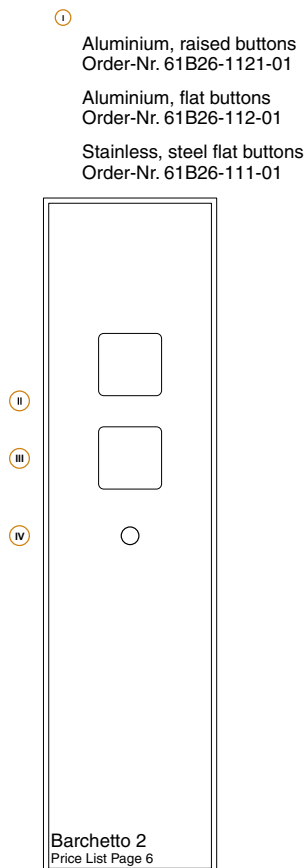
Paul-Löbe-House and Elisabeth-Lüders-House of the German Parliament

Design guidelines Stephan Braunfels Architekten

Surface aluminum naturally anodised,
 Fitting flush with surface in wood paneling,
 Lightning direct and indirect, sun-shade and anti-dazzle device,
 Temperature measuring with operator setting,
 Energy saving through release of comfort adjustment only after
 pressing the presence push button.

Order and inscription

An inscription form is available in pdf format for each type of control panel. The form is available in our Customer Center on the IPAS Website at www.ipas-products.com.



Date Purchase Order-Nr.

Quantity

Project Name Project Manager

Comments

Instruction to fill out the inscription form

- I enter purchase order details
- II type in text for engraving or leave empty
standard font is: Arial 3mm (12pt)
- III type the symbol number
or leave empty
- IV checkmark LEDs (availability depends on type)

For special graving and characters please contact us

The process is as follows:

- Please specify whether the surface should be made of stainless steel or aluminum. The aluminum version allows a choice between flat and slightly raised buttons (0.5mm)
- Following from this a number of details regarding the project need to be given so that the inscription can be allocated to the order. Please note down in this section all special requirements or arrangements.
- If any symbols are required, please enter the respective number on each push button. Pairs of buttons can be given an inscription line. A separate field is available for this.
- Put checkmark to LED's (availability depends on model).

The details can be send directly from the form to IPAS

IPAS – for buildings of the future

Since its establishment in 1996, IPAS stands for innovative products and solutions in building automation. Based on the global KNX standard, IPAS develops and manufactures devices and software for buildings of the future.

Every day our highly-qualified IPAS team rises to the challenge of developing the best technological and economical solutions for our clients. Knowledge, experience and creativity direct everything we do from development to production and distribution.

Informed by our project management experience and the global use of our products, IPAS today stands for sustainable values. It is our company policy to create and sustain employment, to assume responsibility for the community and to train young people.

Our relationship with our clients is based on fairness, cooperation and integrity.

In the manufacture of our products, we strive for the upmost quality taking into consideration resource saving technologies and manufacturing processes. Sustainability and environmental awareness are integral to our work. Our certified quality management system in accordance with DIN/ISO 9001, guarantees that all our processes meet these requirements.

It is our aim to always realise the individual wishes of our clients and to offer the best-possible solutions for your requirements, true to our maxim:

„A satisfied client is the best reference“.

The information in this brochure contains details and features that may differ from those described in individual cases or may be subject to technical changes.

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