ZBOX

Lighting Management
for Hotel Rooms

Light that gets remem-
bered. The hotel of the
future exploits the emo-
tional impact of light
in order to stand out
from its competitors.
Doing this requires
dynamism and colour
as well as invitingly
straightforward ope-
ration which tempts
guests to use lighting
to set the stage.

The lighting solution that delivers what its first impression promises: instead of a confusing variety of switches and dimmers, there are just a main switch or Key-Card switch and CIRCLE control points: in the entrance area to the room or alongside the writing desk, by the bed and in the bathroom. With its easily understandable icons, this multifunctional momentary-action switch smashes all language barriers.

Each of the three scene keys shows the room in an entirely new light. They enable the guest to operate several luminaires simultaneously and experience perfectly prepared lighting and room impressions at the push of a button. For every mood and activity, the CIRCLE control point provides the right light that can be dimmed acording to requirements.

"As soon as I arrived I felt like a pampered guest. The room was gorgeous, everything was simple and clear. It would be nice if home could be like this too."

Three keys for three lighting scenes:
• Ambient: the entire room is invitingly lit with bright light.
• Working: light that neither glares nor flickers helps guests concentrate
• TV: the area behind the visual task is discreetly lit for watching TV

It is light that allows a room to have that special effect. However, only rarely can a single luminaire provide impressive lighting scenes. More usually, an arrangement of two or more light sources makes it possible to show a room to its full effect. But who sets up this lighting configuration? Guests who only stay one night can easily be overwhelmed by too much technology in their room and will not use it. In rooms where there is a constant stream of different occupants, straightforward operation is a must.

Three different lighting scenes: an entirely new lighting scenario is provided at the push of a button.

Each key places the emphasis on a different lighting characteristic:
- Hygienic: a brightly lit bathroom offers extra reassurance that everything is spick and span.
- Flattering: looking into the mirror, good colour rendition and shadow-free illumination are what count.
- Relaxing: light of dynamically changing colour and intensity.

Hardly any other room is used in so many different ways as a bathroom. Hardly any other area is so critically examined as the corner behind the bath tub. Hygiene and cleanliness are an absolute must. Bright light proves to the guest that there is nothing to hide.

Perfect mirror lighting deserves a similar level of scrutiny. Every guest likes sympathetic light that flatters their skin tone. Light which illuminates facial features well and renders colours perfectly is preferred when fixing one's hair or makeup or when shaving.

Even the most pampered guests appreciate the plus points of changing, coloured light: ACTIVE LIGHT is fascinating and makes a lasting impression. Variations in light address the senses, they link seeing to feeling, and they influence our mood and our sense of well-being.

A small room with exacting lighting requirements: the gamut ranges from refreshing to relaxing, from precisely realistic to flattering.

Plug & Play

The all-inclusive package that sets the stage perfectly for a hotel room

Like an all-inclusive holiday package, the ZBOX hotel room package by Zumtobel, complete with controller and four CIRCLE control points, offers a large number of conveniences and benefits.

The package includes four control points, enough for a typical hotel room. The standard package can be supplemented with additional control modules and control points for larger rooms or different types of application areas.

ZBOX is supplied in a compact cardboard box. The box contains everything needed for control and operation.

Everything is then plain sailing: use the hole-drilling template at the top of the pack to mark the mounting points.
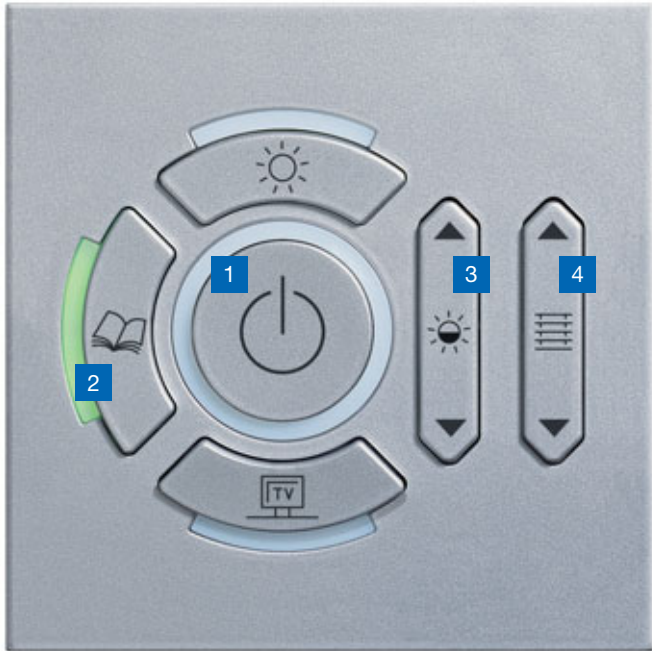
Then install the controller and make the necessary electrical connections.

Finally, plug in the individually packed control points and, when all building work has been completed, clip on the covers.

CIRCLE control point
Innovative form and function

Original size

The CIRCLE control point provides three lighting scenes at the push of a button. Roughly the same size as a normal standard on/off switch, it fulfils all the basic functions of a sophisticated control panel or various controllers and momentary-action switches in the room. The central CIRCLE control point key switches all the luminaires in the room on or off.

1

On/Off
Central momentary-action switch to switch entire room lighting on or off. A red illuminated ring makes the switch easier to find in the dark.

2

Three lighting scene keys per control point
One or more luminaires can be switched on or off or dimmed simultaneously at the push of a button. A green circle segment is lit alongside the active key to identify which scene is active.
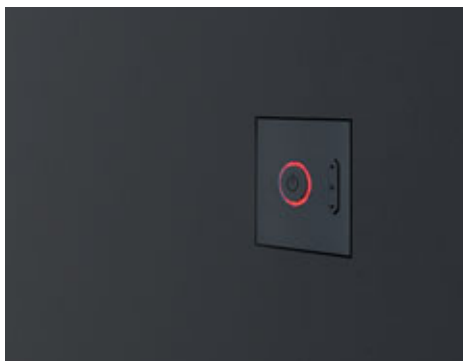
3

Manual adjustment of intensity of light
Every lighting scene can be individually dimmed by using the adjust key.

4

Variable use of right-hand adjust key
This key can be used to change the light colour of Active Light luminaires, for blinds control or separate control of a second group of luminaires.

When all the luminaires are switched off, the control point becomes a lighting object in its own right.
A discreetly lit red ring identifies the master switch of the CIRCLE control point and makes it easy to identify in the dark. This function can be disabled on request or via the ZBOX web tool.

Version for corridors, toilets or simple lighting solutions in bathrooms: CIRCLE control point with two keys, adaptable in design. A mounting kit for installation flush with the surface is available as an accessory.

Shapes and colours

Zumtobel's standard product line includes the four most popular colours: every CIR-CLE control point is available in white, silver, anthracite and brass.

Control points also differ in terms of styling. The surface-mounted version with rounded edges shows its gentle side. The straight line, square-edged version can be surface-mounted or flush-mounted. Appropriate mounting accessories are also available from Zumtobel.

Customized solutions for special finishes or RAL-colours are possible on request.

Addressing and pictographs

All four control points contained in a ZBOX package are pre-configured to suit their respective positioning in the room and lighting need; they come complete with appropriate pictographs and are fully pre-addressed.

ZBOX lighting management
An emotive highlight for any hotel room

Active Light
Feel-good lighting

Light and its intensity, colour and direction are not only perceived by the eye. People seem to "breathe in" the lighting atmosphere. Every lighting scene, every colour is closely associated with certain feelings and emotions. The Active Light concepts was developed on the basis of this observation. Dynamic lighting solutions are replacing static lighting.

The Active Light principle is based on changes in three dimensions: intensity of light, direction of light and colour of light.

The Buddha icon on the third scene key and the right-hand adjust key on the CIRCLE control point offer a total of six colour scenes. The technology behind this is DALI control on channel 9 which makes it possible to control four groups – one for each of the colours white, red, green and blue. This makes it possible to achieve any colour hue required using RGB fluorescent lamps or innovative LED technology.

ZBOX takes over control of colour and dynamism

The compact ZBOX can control luminaires with RGB fluorescent lamps or innovative LEDs. The example of the CIELOS luminous ceiling shows the really user-friendly way in which Active Light concept can be implemented using a ZBOX. Square CIELOS lighting modules make it possible to set individual coloured objects centre stage just as easily as large areas of walls, ceilings or buildings.
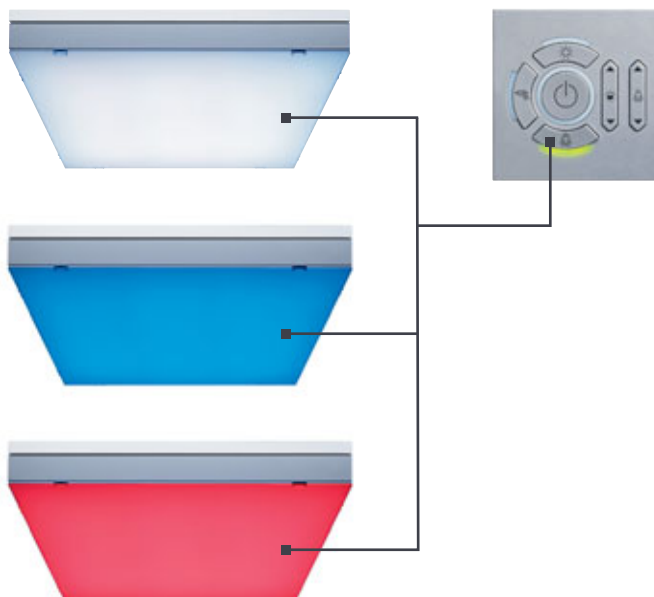
Pressing the lower scene key changes from one colour scene to the next automatically, while the right-hand adjust key can be used to alter the speed of the colour change.
Briefly pressing the dimmer rocker switch freezes the current colour or changes to the next colour.

www.zumtobel.com/cielos
www.zumtobel.com/phaos

Humanergy Balance

Lighting solutions for the balance between the environment, energy and the individual.

Zumtobel defines balanced lighting solutions as those which provide ultimate lighting quality and energy efficiency.

Lighting solutions which, on the one hand, meet people's physical and mental needs and also offer a high degree of convenience and emotionality.

On the other hand, these lighting solutions are also perfect for cutting energy consumption and for using environmental resources responsibly and sparingly.

The ZBOX meets all the exacting requirements of the Humanergy Balance concept in both qualitative as well as quantitative terms. Although energy must be saved, this does not mean that guests have to go without their comforts, for the ZBOX makes the man-machine interface simpler than it has ever been before.

• Perfect, well-balanced lighting scenes are ready at the push of a button. None of the luminaires exceeds a 70% limit in the pre-programmed lighting scenes.

• Light switches on as soon as the guest enters the room.

• The off key of the CIRCLE control point isolates all luminaires from the mains, only the ZBOX is on standby, with a minimum standby consumption of 4.5 W in OFF mode.

• In ON mode, the ZBOX gets by with a frugal 10 W*.

• When the luminaires are switched off, the ZBOX controller reduces electrosmog by isolating all outputs from the mains.

• Energy consumption can be cut by 25% compared with a non-dimmable lighting solution.
Dimming tungsten-halogen and incandescent lamps also extends their service life noticeably, hence reducing maintenance costs.

* Without a modular phase dimmer (0.7 W)
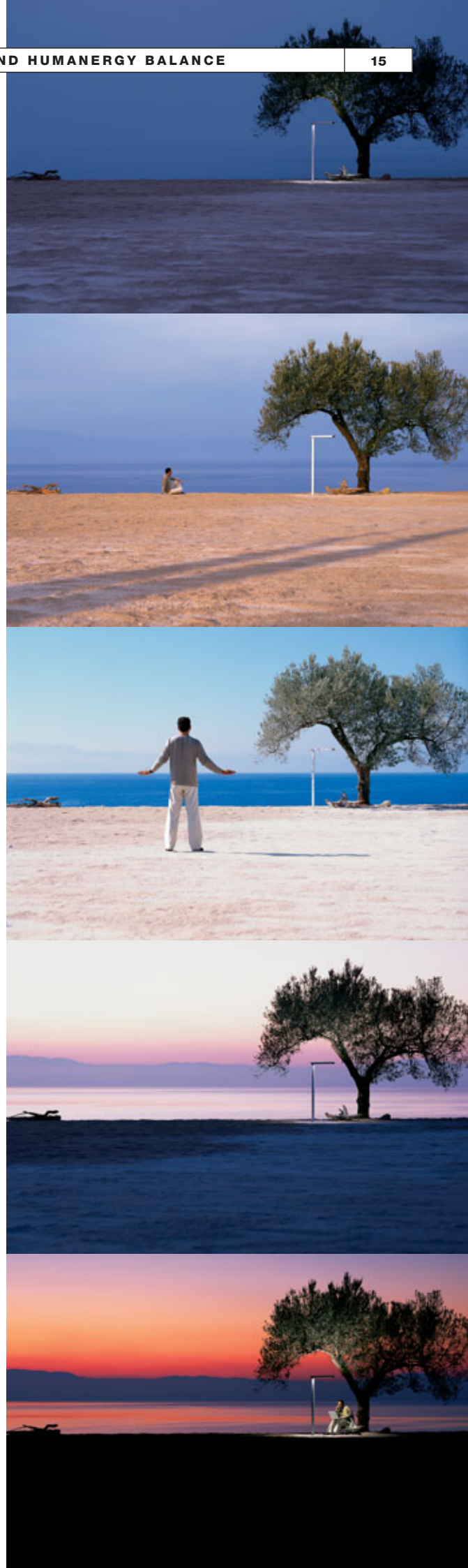
# A typical hotel room layout
Feel free to imitate!

Entrance area, bed, TV, writing desk, bathroom. That's the way a run-of-the-mill hotel room looks. The ZBOX stands out by transcending the usual lighting technology standards and packing complex lighting technology into a single system, using several luminaires, various dimming levels and pre-programmed lighting scenes. Even changing-colour luminaires for the bathroom or – as shown in the diagram on the right – in the passage into the room can be installed quickly. Integration is unimaginably straightforward, even in combination with key card systems. One thing is clear: costs can be precisely calculated in advance, from planning right through to operation.
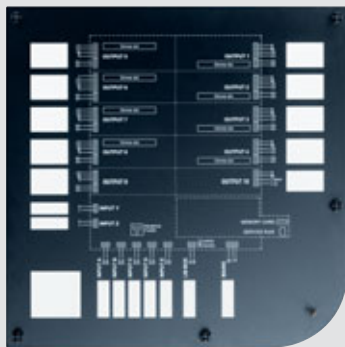
Unambiguous
The clearly and neatly arranged diagram of connections printed on the inside of the cover with corresponding labelling areas ensures clarity and certainty.

Motor

Room

6

9

5

7

Bath-
room

5

5

8

7

5

7

Corridor

8

7

WC

ZBOX

Key card
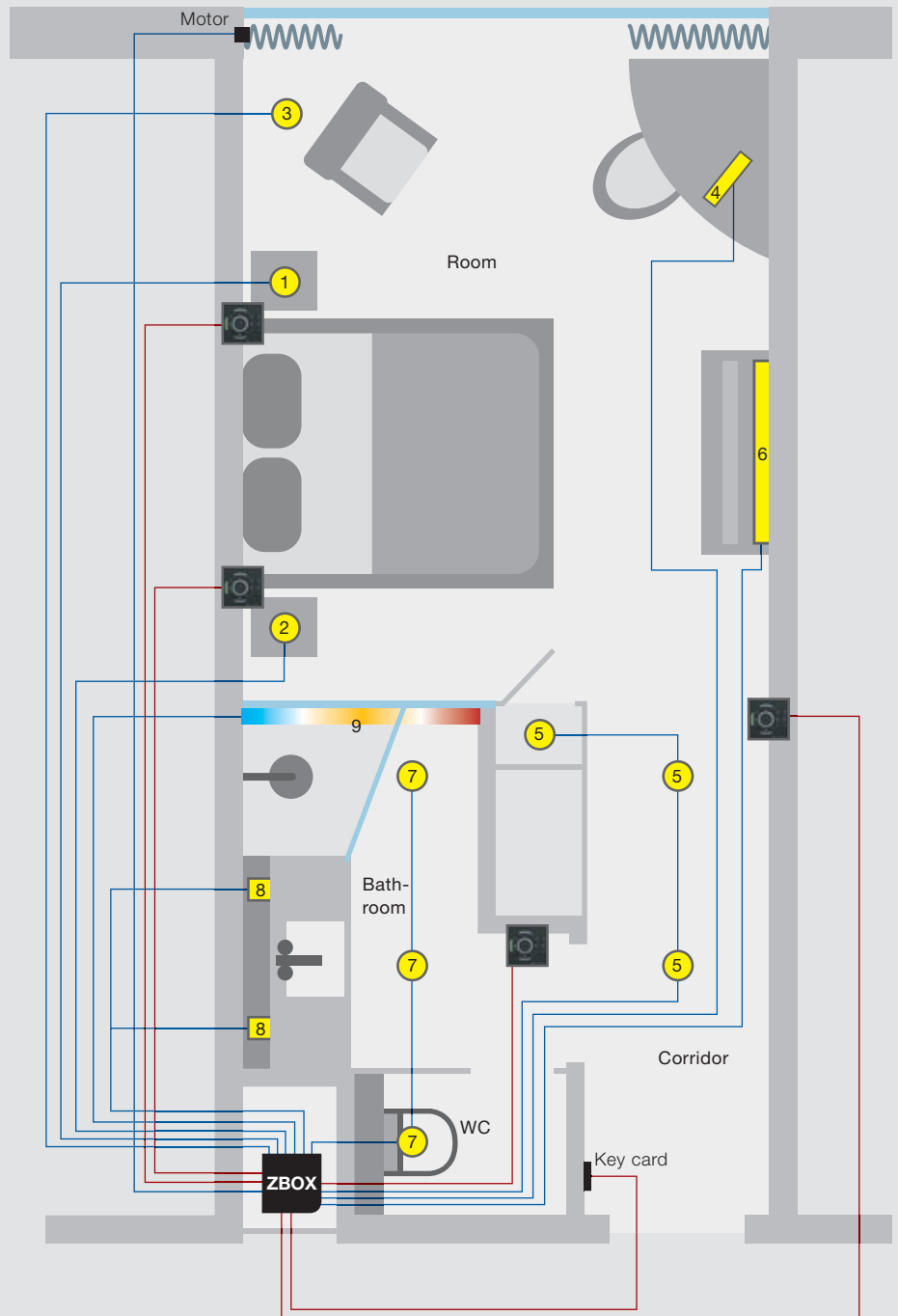
Colour luminaire

7 Luminaire/group

ZBOX ZBOX – Because of its compact housing, it can be installed both in the switch cabinet and in the wall or ceiling structure

ZBOX Technical highlights

Plug & Play
Once the electrical wiring has been installed on site, the luminaires and control points only need to be plugged in. Both stand-alone and networked operation is possible.

Universal
All nine outputs for luminaire groups have a DALI interface, eight of them can be combined as required with universal dimmers – even in retrospect.

Blinds control
A module for motor control is an integral part of the ZBOX. This module can be used to adjust blinds, curtains or a projection screen conveniently via the CIRCLE control point.

Atmospheric
Up to ten lighting scenes which can be individually adapted by guests can be stored conveniently – ZBOX Nightlogic also provides muted night lighting scenes – so that guests can retrieve "their" lighting scenarios as often as they like. The controller handles dynamic control of luminaires with four channels. Three of these channels are for colour effects and the fourth channel is for warm white light with extra brilliant colour rendition.

Safe
The emergency luminaire connected to the controller is tested and monitored from a central location. Central monitoring of lamp functions with automatic fault reporting requires networking.

Reduced programming effort
All inputs and outputs are pre-addressed and pre-configured at the factory. On-site project-specific programming is only necessary if rooms are to be networked with each other and connected to a central server.

Key card link
Possible linkage of the lighting solution to a door locking system is another advantage – guests are greeted by atmospheric lighting as soon as they enter the room.

Welcome light
Lighting welcomes the guest as soon as they insert their key card – in different shades of light, depending on whether it is day or night.

Goodbye light
A fond farewell: lighting is slowly dimmed down when key card is removed.
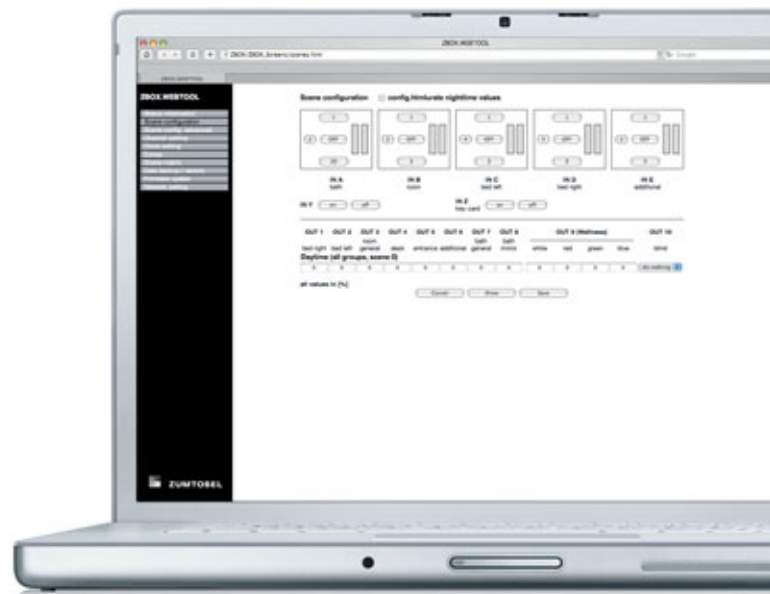
ZBOX web tool

Once the luminaires, control points and controllers have been installed on site, the ZBOX web tool can be used to work on the intelligent control system: simply connect the controller directly to a PC via TCP/IP (RJ45) and open it in a standard web browser. The configuration can then be adapted or reprogrammed without any additional software or licences whatsoever.

The ZBOX is connected directly to the computer via the TCP/IP interface.

Web tool parameters
- Lighting scenes and brightness for each channel
- Luminaire groups
- Assignment of luminaire groups and control points to rooms
- Addressing
- Colour changes
- Backup and restore

A demo version of the web tool is available at www.zumtobel.com/zbox

ZBOX Controller
High-tech has never looked so good
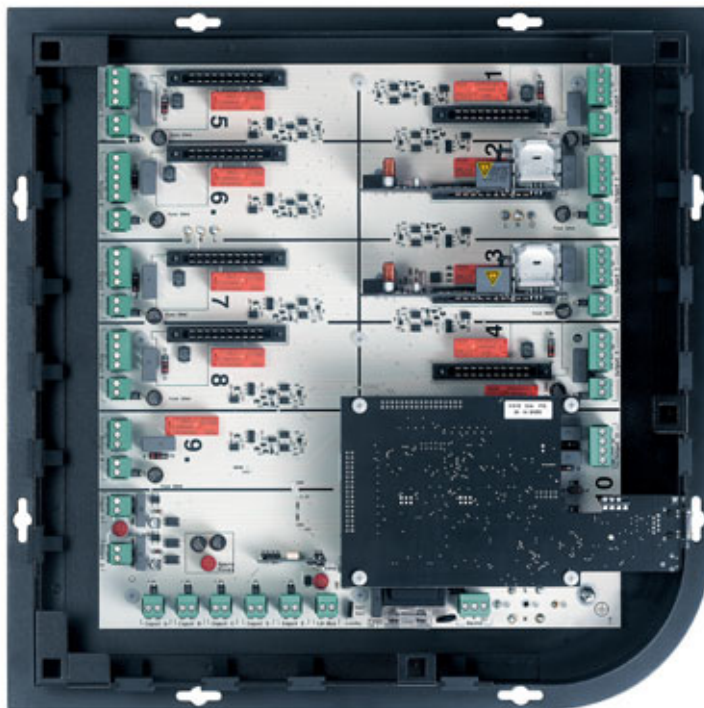
Illuminating insights

372 mm long, 372 mm wide and only 60 mm high: the rugged black painted sheet metal housing conceals a clearly structured, emergency-safe control system.

Original size

- Eight DALI channels can be upgraded with universal phase dimmers, the ninth channel controls up to four DALI groups.

- One of the channels provides the reference voltage for the emergency luminaire. Another channel automatically powers the room light if the controller fails.

- The controller has a total of nine outputs which are switchable when delivered. They can be used for all types of switchable equipment: luminaires, a TV or electric floor heating which are only intended to be switched on when the key card is inserted. Maximum load per channel is 300 W.

- Other technical highlights include an Aux input for door opener or fire-alarm call point

signals and possible integration of a presence detector or IR remote control.

- Used in conjunction with the web tool, the backup function allows straightforward "archiving" of lighting scenes and duplication in other hotel rooms as many times as required. An SD memory card will soon be available.

- The housing has practical keyholes and only three sides of the housing are occupied. One flank is therefore always free – a big advantage when installing in false ceilings or raised floors, behind furniture or in dado trunking.

- Every terminal is designed for two wires; there are two cable strain relief devices for each channel.

Universal phase dimmer
Eight of the nine channels can be upgraded with a universal phase dimmer at any time. A phase dimmer is required in order to dim incandescent lamps, for example.

iF product design award 2009
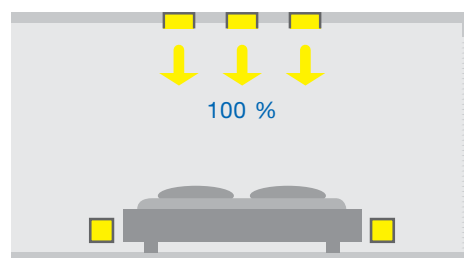
ZBOX Nightlogic
Add-on module for distinguishing day from night

A ZBOX equipped with Nightlogic automatically adapts the intensity of light to suit the time of day. When lighting is switched on during the night, for example, the intensity of the light is much less than during the day.

Adding a clock timer module from the standard LUXMATE product line enables the ZBOX to distinguish day from night. This ensures, for instance, that your partner is not woken up abruptly as soon as you switch on the light. On the contrary: thanks to a smart combination of presence- and time-dependent functions, the ZBOX caters for the different needs of guests during the day and at night. It also saves energy, for the intensity of night-time lighting scenes equals only an average of 5% of the daylight settings.
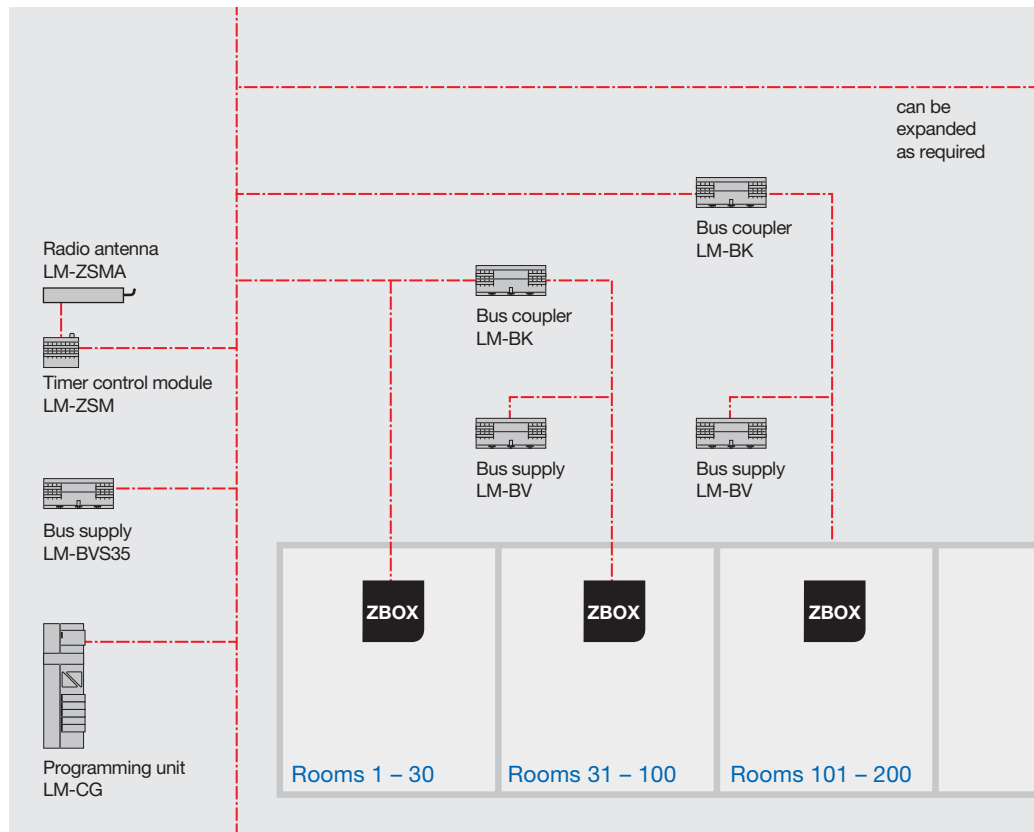
14:30

100 %

Nothing changes over the course of the day . . .

03:17

5 %
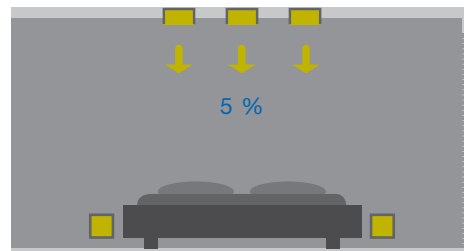
. . . but at night, the ZBOX makes its presence felt by pleasantly muted light levels. Manual intervention is possible at any time.

ZBOX with Nightlogic

Radio antenna
LM-ZSMA

Timer control module
LM-ZSM

Bus supply
LM-BVS35

Programming unit
LM-CG

Bus coupler
LM-BK

Bus coupler
LM-BK

Bus supply
LM-BV

Bus supply
LM-BV

can be
expanded
as required

ZBOX

ZBOX

ZBOX

Rooms 1 – 30

Rooms 31 – 100

Rooms 101 – 200

Intelligent timer module also functions without central building management system. In this case, investment is relatively small because standard LUXMATE components can be used.

One-stop shop
Luminaire, emergency lighting and control

Intelligence for buildings

Zumtobel's modular LUXMATE lighting management system offers the very latest custom-built bus technology for systems of any size. Lighting and blinds are controlled depending on the prevailing lighting and weather situation. Energy consumption is sustainably optimised in a manner which makes allowance for time of day, presence and room occupancy. If the LUXMATE LITENET system covers every area of the building, areas can be controlled and monitored from a central location: hotel spaces for a sense of well-being, transformable meeting and conference rooms, prestigious hotel lobbies, safe underground car parks, wellness and fitness areas for relaxation and recovery.

Use of TCP/IP communication creates a uniquely simple network of individual system modules via structured LAN cabling.

Integrating ONLITE emergency lighting

General-purpose lighting and emergency lighting form a single functional unit. Every luminaire is also a potential emergency luminaire. Additional emergency luminaires, which can often look out of place and disrupt visual consistency, become superfluous. When integrated in LUXMATE LITENET, general-purpose lighting and emergency lighting can be individually switched and dimmed. Function tests are run and logged automatically at regular intervals. Records are kept in accordance with regulations in a test log and are backed up to a central location. This improves both safety and cost-effectiveness.
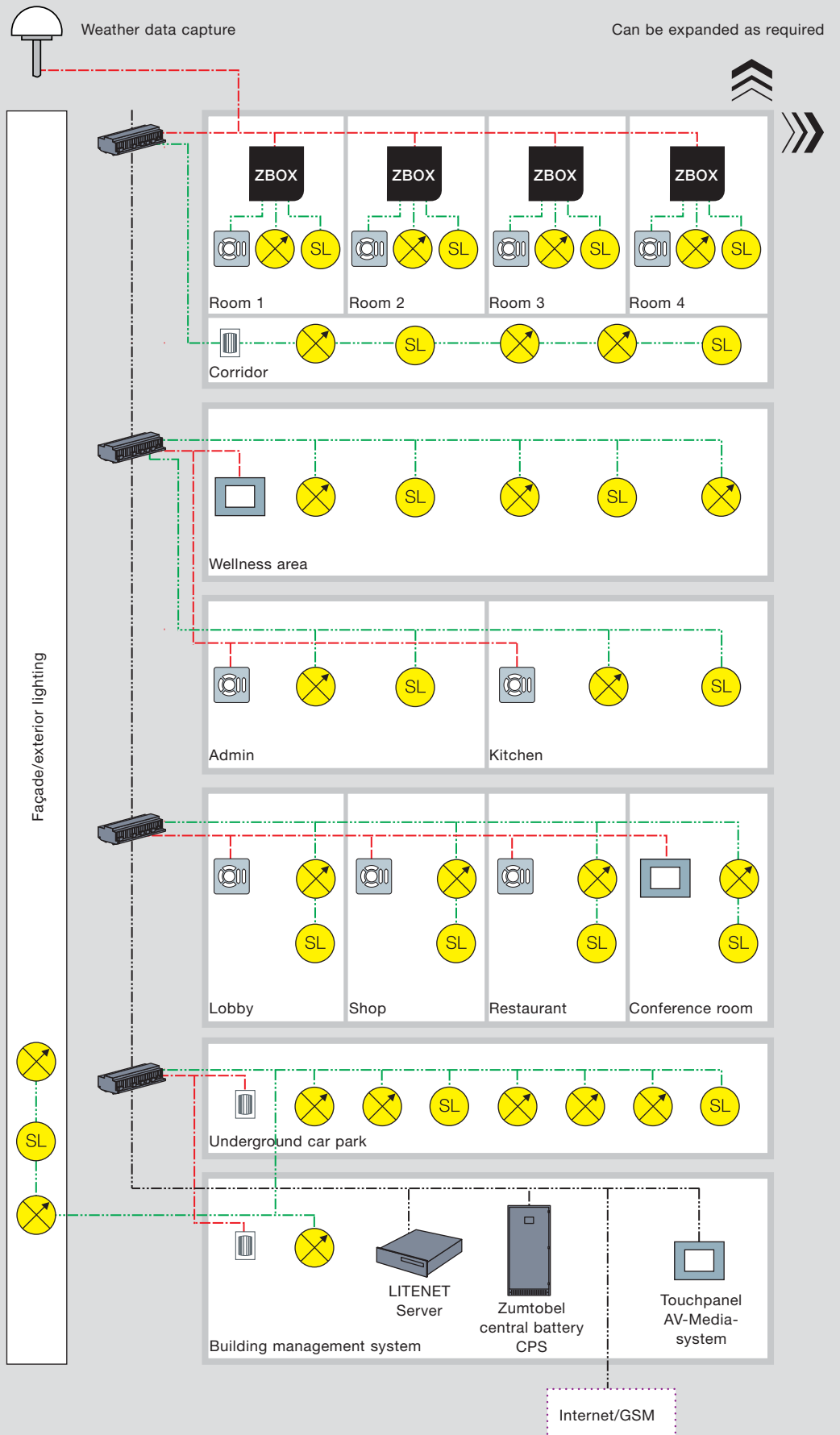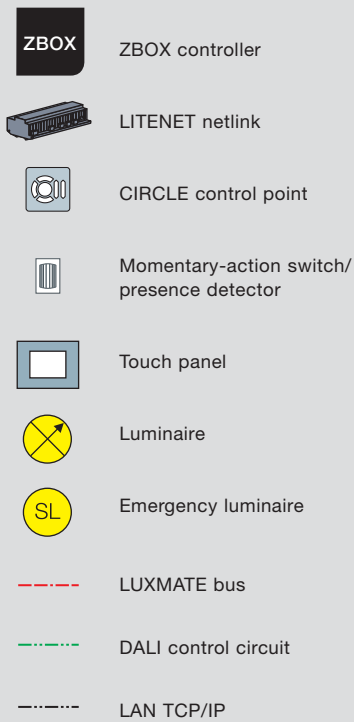
Communicating with higher-level systems

There are basically two ways of linking all the systems in a building such as heating, ventilation, air conditioning, access control, security system, lifts and lighting in an effective, trouble-free manner: either provide everything through a single system or use the most functional solution for each service. Zumtobel relies on the best detailed solution and offers optimum interfaces with other services and higher-level building management systems in the form of BACnet* and OPC** interfaces.

* Data Communication Protocol for Building Automation and Control Networks
** OLE for Process Control

**LUXMATE
LITENET**
System diagram

Weather data capture

Can be expanded as required

ZBOX | ZBOX | ZBOX | ZBOX

SL | SL | SL | SL

Room 1 | Room 2 | Room 3 | Room 4

Corridor

SL | SL | SL

Wellness area

SL | SL

Admin | Kitchen

SL | SL | SL | SL

Lobby | Shop | Restaurant | Conference room

Underground car park

SL

Façade/exterior lighting

SL

LITENET
Server

Zumtobel
central battery
CPS

Touchpanel
AV-Media-
system

Building management system

Internet/GSM

Legend

ZBOX — ZBOX controller

LITENET netlink

CIRCLE control point

Momentary-action switch/
presence detector

Touch panel

Luminaire

SL — Emergency luminaire

–·–·– LUXMATE bus

–··–··– DALI control circuit

–···–··· LAN TCP/IP

A highlight in many application areas
Compact control system for easily manageable units

Hospitality and wellness

Plug in – job done! Features which ensure differentiation and convenience in hotel rooms also make general-purpose areas such as lounges attractive in terms of lighting. Sophisticated lighting solutions are becoming simple to operate. And functional. The ZBOX takes over control of the perfectly coordinated individual luminaires, and multifunctional control points replace a bewilderingly large number of switches and dimmers.

Presentation and retail

London, Paris, Dubai – the same principle applies the world over: install the luminaires and the ZBOX, plug in the control points and let the shopping begin! Lighting scenes for product presentations that boost sales can be created without the need for any commissioning. This compact system cannot only exploit the emotionality of coloured, dynamic light shows, it also has many other advantages such as the central main switch.

Health and care

Greater convenience but less visible technology. Using the ZBOX as a central supply unit for all luminaires in the room and bathroom is one of those innovations which makes a patient's room very similar to a hotel room. When resting or when visitors arrive, when reading a book or watching a film just for a change, colour-coordinated gentle lighting assists the convalescence process. When it is time for doctor's visits or treatments, the ZBOX provides appropriately intensive, neutral coloured examination light at the push of a button.

Private dwellings

Homely lighting scenes, a high level of convenience. The less leisure time we have, the more demanding we become within the privacy of our own home. With the possibility of integrating several luminaires, even colour luminaires, into a lighting composition, the convenience of a central system is gaining acceptance. What other features does the ZBOX bring into the private domain? The possibility of applying personalised icons to the control unit and reaping the benefits of the convenience of a mains cut-off device and a main switch.

ZBOX: Plug & Play system for hotel rooms, domestic areas and shops

Soothing lighting scenes at the push of a button
Sleeping – Feeling at ease – Safety – Mirror – Shower – Hygiene. Concentration – Working – Internet – Relaxing – Feeling at home – Reading – TV – Packing and unpacking.

Plug & Play
– Pre-addressed and pre-programmed
– Plug-in connectors
– Locally as stand-alone system, or interlinked
– Web tool for fine-adjustment: no licence required, works with standard web browser

– Direct connection via TCP-IP
– Transparency of costs
– can be upgraded
– 4 control points included
– DALI Broadcast (no addressing of loads, except for RGB/W)
– Day and night modes possible

ZBOX wiring diagram

Every luminaire optionally connected to phase dimmer, DALI and/or relay
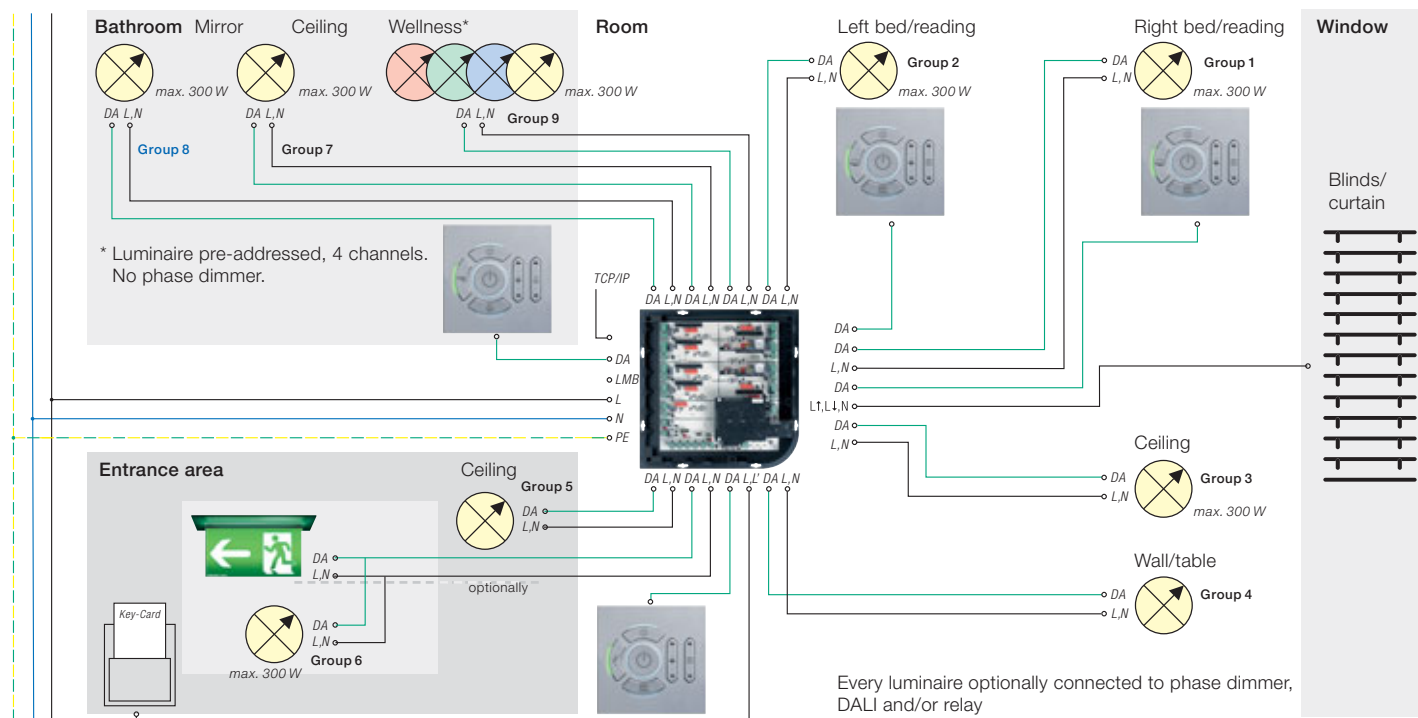
ZBOX package with Circle control point, square-edged design

Order no.

- Light contoller for hotel rooms; includes Circle control point in square-edge design
- 8 lighting groups for switching by means of relay contact and dimming via DALI as well as slot for dimmer module
- 1 lighting group with RGB colour sequence via DALI
- 5 inputs for ZBOX Circle control points
- 1 motor channel for blinds
- 2 inputs for key card and access system
- Includes 4 control points with symbol set for 1 x room, 2 x bed, 1 x bathroom
- Plug & Play with preset scenes
- ZBOX Webtool for scene customisation via web access
- ZBOX.Nightlogic for timed scene settings (when networked with Luxmate Professional)
- Data uploaded/downloaded using SD memory card
- Stand-alone or linked to network via LUXMATE Bus

Includes 4 dimmer modules and 4 control points

ZBOX 4/300 CCB anthracite	22 161 628
ZBOX 4/300 CCM brass	22 154 524
ZBOX 4/300 CCS silver	22 161 627
ZBOX 4/300 CCW white	22 161 626

Includes 4 control points

ZBOX CCB anthracite	22 161 620
ZBOX CCM brass	22 161 621
ZBOX CCS silver	22 161 619
ZBOX CCW white	22 161 618

Accessories

|	
INTO-1CCX mounting frame for 25mm plasterboard wall	22 161 751
INTO-CCX TOOL Extraction tool	22 161 893
PC-RJ 45 crossed network cable	22 154 194
SD-Speicherkarte 64MB	22 161 512
ZBOX-DIMMER300	22 154 526
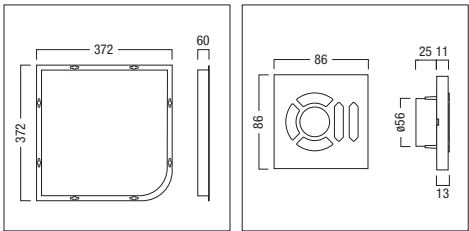
ZBOX lighting control unit

Order no.

- Multifunction base unit
- 8 lighting groups for switching by means of relay contact and dimming via DALI as well as slot for dimmer module
- 1 lighting group with RGB colour sequence via DALI
- 5 inputs for ZBOX Circle control points
- 1 motor channel for blinds
- 2 inputs for key card and access system
- Plug & Play
- ZBOX Webtool for scene customisation via web access
- ZBOX.Nightlogic for timed scene settings (when networked with Luxmate Professional)
- Stand-alone or linked to network via LUXMATE Bus

ZBOX-CONTROLLER	22 154 525
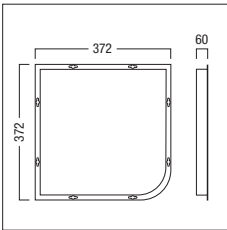
ZBOX phase dimmer

Order no.

- Electrical accessories
- Can be plugged into slot 1 to 8 of ZBOX Controller
- Automatic load recognition (leading/trailing edge control)
- Max. output 300 VA
- Automatic overload protection in event of lamp fault

ZBOX-DIMMER300	22 154 526

ZBOX Circle control point, square-edge design, hotel, wall-recessed

- Control point in square-edge design for connecting to ZBOX controller
- Three scene buttons and presence/absence scene button
- Individual buttons for control of brightness and blinds

	L/W/H	Order no.
Symbol set for room		
ZBOX-CCB ROOM anthracite	87/87/13	22 161 643
ZBOX-CCM ROOM brass	87/87/13	22 154 527
ZBOX-CCS ROOM silver	87/87/13	22 161 639
ZBOX-CCW ROOM white	87/87/13	22 161 652
Symbol set for bedroom		
ZBOX-CCB BED anthracite	87/87/13	22 161 644
ZBOX-CCM BED brass	87/87/13	22 154 528
ZBOX-CCS BED silver	87/87/13	22 161 640
ZBOX-CCW BED white	87/87/13	22 161 653
Symbol set for bathroom		
ZBOX-CCB BATH anthracite	87/87/13	22 161 645
ZBOX-CCM BATH brass	87/87/13	22 154 529
ZBOX-CCS BATH silver	87/87/13	22 161 641
ZBOX-CCW BATH white	87/87/13	22 161 654

ZBOX Circle control point, square-edge design, corridor, wall-recessed

- Control point in square-edge design for connecting to ZBOX controller
- Button for presence/absence scene
- Individual button for brightness control

	L/W/H	Order no.
Symbol set for corridor		
ZBOX-CCB GO anthracite	87/87/13	22 161 646
ZBOX-CCM GO brass	87/87/13	22 161 647
ZBOX-CCS GO silver	87/87/13	22 161 642
ZBOX-CCW GO white	87/87/13	22 161 638

Mounting frame for Circle control point
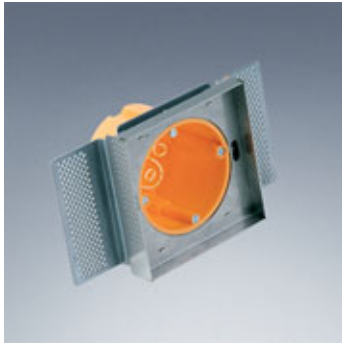
- Installation accessory for flush-fitting one square-edge Circle control point
- For 25mm plasterboard wall
- Constant shadow gap between control point and wall cut-out
- With adjusting screws for precise horizonal alignment after installing in unfinished wall structure
- Stainless steel mounting surround
- Standard 68 mm Ø cavity wall socket included
- Cutout size 92 x 92 mm
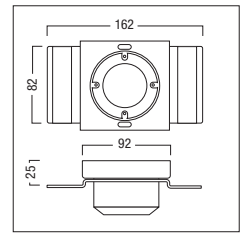- Extraction tool (please order separately) for removing the control point without scratching it

INTO-1CCX mounting frame for 25mm plasterboard wall	22 161 751
Accessories	
INTO-CCX TOOL Extraction tool	22 161 893

ZBOX Circle control point, rounded-edge design, hotel, wall-recessed

- Control point in rounded-edge design for connecting to ZBOX controller
- Three scene buttons and presence/absence scene button
- Individual buttons for control of brightness and blinds

Symbol set for room

ZBOX-CSB ROOM anthracite	22 161 632
ZBOX-CSM ROOM brass	22 161 635
ZBOX-CSS ROOM silver	22 154 538
ZBOX-CSW ROOM white	22 161 629

Symbol set for bedroom

ZBOX-CSB BED anthracite	22 161 633
ZBOX-CSM BED brass	22 161 636
ZBOX-CSS BED silver	22 154 537
ZBOX-CSW BED white	22 161 630

Symbol set for bathroom

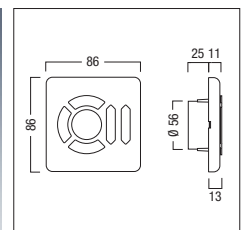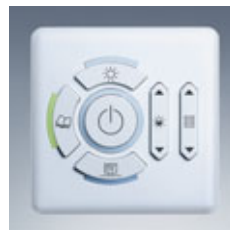|	
ZBOX-CSB BATH anthracite	22 161 634
ZBOX-CSM BATH brass	22 161 637
ZBOX-CSS BATH silver	22 154 536
ZBOX-CSW BATH white	22 161 631

ZBOX Circle control point, Variant

- 3 lighting scenes
- Operation of 2 luminaire groups or blind groups
- Intuitive symbols for convenient operation
- Variant (V): customised combination of key sets from the intuitive LUXMATE icon collection (see below)
- Installed in single Euro socket, dimensions acc. to DIN 0606 (Ø 60 mm, depth 42 mm), or UK metal backbox (not included in supply)

	Order no.
ZBOX-CCB (V) anthracite	22 154 712
ZBOX-CCM (V) brass	22 154 714
ZBOX-CCS (V) silver	22 154 711
ZBOX-CCW (V) white	22 154 713
ZBOX-CSB (V) anthracite	22 154 726
ZBOX-CSM (V) brass	22 154 728
ZBOX-CSS (V) silver	22 154 725
ZBOX-CSW (V) white	22 154 727
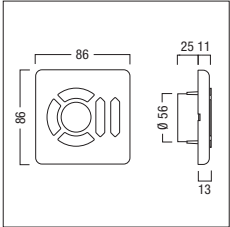
Circle button combinations

Please specify the short name for the required symbol combination with your order:
e.g. ZBOX-CCB(V) 22 154 712, variant 03 (= conference room), on/off rocker switch (= brightness I, anti-glare protection).
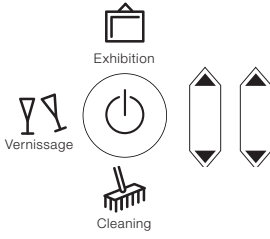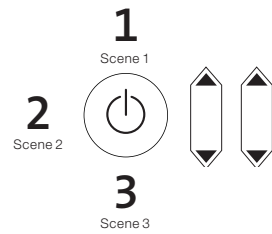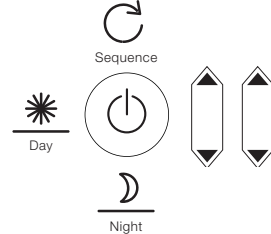
Scene buttons

02: Office 2

VDT
Desk
Welcome

03: Conference room

Conferencing
Presentation
Overhead

08: Museum

Exhibition
Vernissage
Cleaning

09: Standard

1 — Scene 1
2 — Scene 2
3 — Scene 3

10: Shop window

Sequence
Day
Night
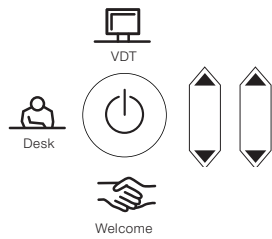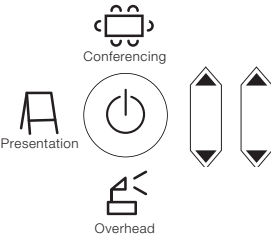
15: Hotel bed, flipped horizontal

Brightness
Reading
Watching TV
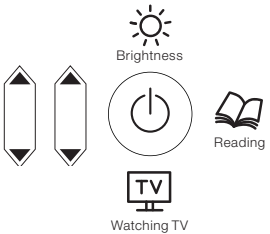
Rocker control switches

A: Brightness I
B: Brightness group 1
C: Brightness group 2
J: Brightness group 3
K: Brightness group 4
D: Lighting balancing
H: Brightness II

E: Blinds
L: Blinds group 1
M: Blinds group 2
N: Blinds group 3
O: Blinds group 4
F: Window
G: Screen
P: Curtain

I: Relaxation
Q: Reading
R: Writing
F: Make-up
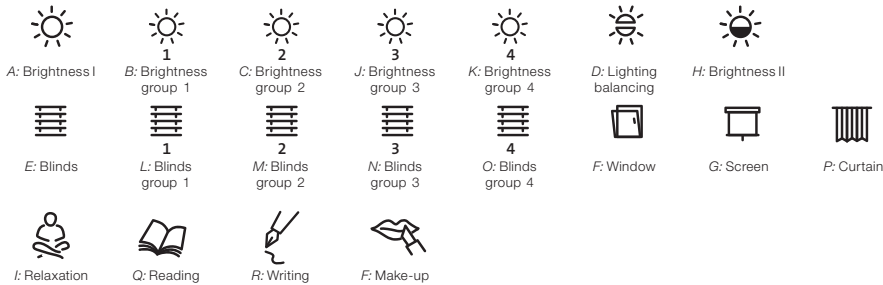
Phase dimmer (DALI/DSI/momentary-action switch), installed in luminaire/ceiling
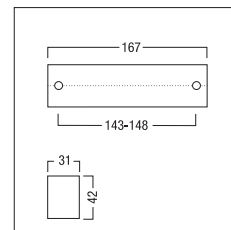
Order no.

- Phase dimmer up to 500 VA max.
- Control via DALI/DSI signal or momentary action switch
- Automatic load recognition (leading/trailing edge control)
- Installation: in luminaire/in the ceiling void

APDX-500 phase/reverse phase	22 154 224

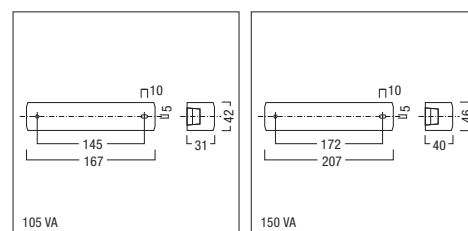## Dimmable electronic transformer (DALI/DSI), installed in luminaire/ceiling

Order no.

- Digital transformer for dimming LV halogen incandescent lamps
- Installed load: 20–70 / 105 VA
- Dimming range 1–100 %
- Each transformer occupies 1 DALI load
- Installation: in luminaire/in the ceiling void

TE 0105 one4all sc	86 457 873
TE 0150 one4all sc	86 457 874

105 VA

150 VA

LED converter K210 (DALI), installed in luminaire/ceiling

Order no.

- Electronically dimmable LED converter
- 1 addressable PWM output channel, 25 W
- 1 DALI LED converter is assigned to 1 DALI load
- Installation: in ceiling void/dado trunking
- 1–15 LEDOS M/B/KAVA IP54 LED 24 V
- 1–8 LEDOS LED 24 V
- 1–20 KAVA LED 24 V
- 1–12 SYSTEM LED 207 mm
- 1–20 Ledos II D80

LED 0025 K210 24 V One4all	86 455 937

Examples of available LED luminaires

LEDOS M

LEDOS B

LEDOS II D80

SYSTEM LED

Kava LED

KAVA IP54

LED converter K211 (DALI), installed in luminaire/ceiling

Order no.

- Electronically dimmable LED converter
- 3 addressable output channels, 8 W each
- 1 DALI LED converter is assigned to 1 DALI load
- Installation: in ceiling void/dado trunking
- 1–5 LEDOS M/B/KAVA IP54 LED 24 V (data per channel)
- 1–3 LEDOS LED 24 V* (data per channel)
- 1–6 KAVA LED 24 V* (data per channel)
- 1 system LED RGB 207 mm (3 channels required)
- 1–6 LEDOS RGB L (3 channels required)
- PHAOS lighting tile available on request

LED 0025 K211 24 V DALI	86 455 066

Examples of available LED luminaires

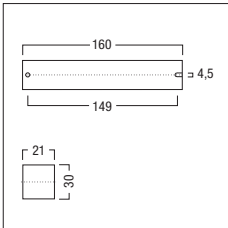LEDOS RG

SYSTEM LED RGB

PHAOS LED-LK Basic

Light actuators

DSI converter (DALI), installed in luminaire/ceiling

- For controlling 2 luminaire groups, each with a max. of 25 DSI-compatibel control gear
- 1 DALI-2DSI occupies 1 DALI load
- Installation: in luminaire/in the ceiling void
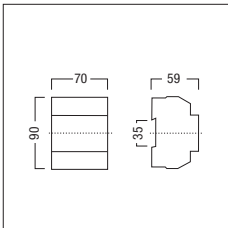
DALI-2DSI 2 outputs	22 154 419

Motor extension module, switch cabinet

- For joint control of a number of AC drives using the LM-2JSE, LM-2FSE, LM-2LSE control units
- 1 input, 4 outputs
- Installed on EN rail 35 mm
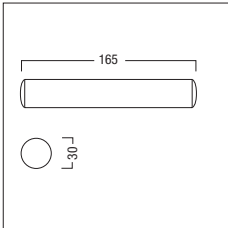
JSW	20 975 106

Nightlogic

Radio aerial

- For LM-ZSM time control or LM-ZSQ sequencer control module
- Installation: outside the switch cabinet using 2 metal catches

ZSMA	20 975 225

Comfort device, wall-recessed

- For easy commissioning, configuration and control of a LUXMATE room
- 20 scenes can be configured and called up
- Control of 10 (groups of) luminaires, 3 (groups of) blinds, 1 (group of) screen(s)
- Plastic housing, halogen-free, white (RAL 9003) or grey (RAL 7012)
- Includes mounting plate for 2 x or 3 x Euro socket
- Printed with pictographs and properties that can be specified (LM-CGi (V)

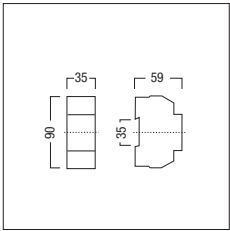|	
LM-CG04 unprinted, white white (RAL 9003)	22 154 270
LM-CGi (V) printed white or grey	22 154 273
Variant	
LM-CG04 unprinted, grey	22 154 271
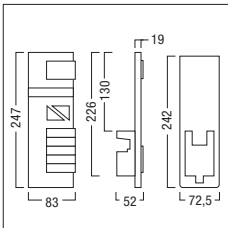
Bus supply, room, switch cabinet

- For voltage supply to a bus domain with a maximum of 35 terminal points
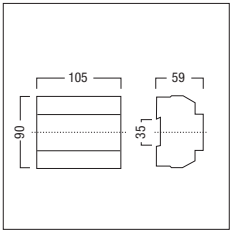- Installed on EN rail 35 mm

LM-BVS35	22 115 026

Bus supply, building, switch cabinet

- For voltage supply to a bus domain with a maximum of 100 terminal points
- Installed on EN rail 35 mm

LM-BV	20 975 247

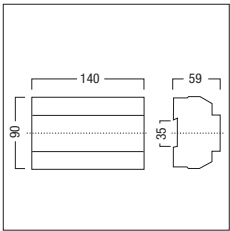## Bus coupler, switch cabinet

- For linking of bus domains
- Achieves electrical isolation of bus domains without data filtering
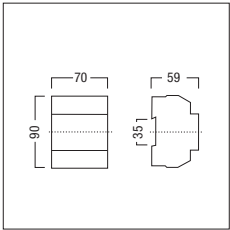- Installed on EN rail 35 mm

LM-BK	20 735 369

Time control module, switch cabinet

- For time-based control of the LUXMATE system
- Adjustable date and time
- An antenna for receiving a DCF77 radio signal can be connected
- Installed on EN rail 35 mm

LM-ZSM	20 735 510

**INDUSTRY
AND ENGINEERING**

**SPORT
AND LEISURE**

**TRANSIT AREAS
AND PARKING**
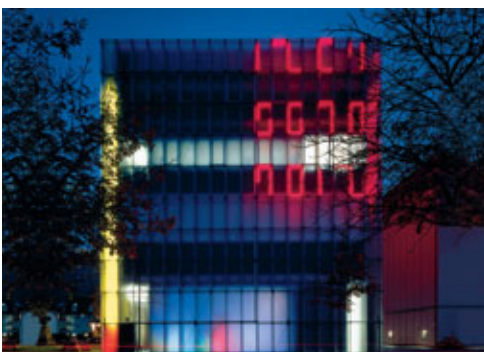
**OFFICES
AND COMMUNICATION**
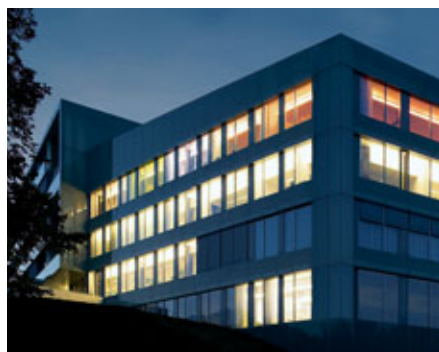
**PRESENTATION
AND RETAIL**

**HOTEL
AND WELLNESS**

**ART
AND CULTURE**

**HEALTH
AND CARE**

Zumtobel is the internationally leading supplier of integral lighting solutions for a wide variety of applications in professional interior lighting:

Industry and engineering
Offices and communication
Education and science
Presentation and retail
Hotel and wellness
Art and culture
Health and care
Sport and leisure
Transit areas and parking
Orientation and safety

We provide unique customer benefit by integrating technology, design, emotion and energy efficiency. Under the Humanergy Balance concept, we combine the best possible ergonomic lighting quality for people's well-being with the responsible use of energy resources.

The company's own sales organisations in twenty countries as well as commercial agencies in fifty other countries form an international network of experts and design partners providing professional lighting consulting, design assistance and comprehensive services.

Corporate goal: We want to use light to create worlds of experience, make work easier and improve communications and safety while remaining fully aware of our responsibility to the environment.

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Recessed luminaires

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LED, task, wall and uplights

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High-bay luminaires

Luminaires with extra protection

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ZUMTOBEL

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Lighting Management
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Light that gets remem-
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in order to stand out
from its competitors.
Doing this requires
dynamism and colour
as well as invitingly
straightforward ope-
ration which tempts
guests to use lighting
to set the stage.

ZUMTOBEL