



**Lighting Control System**

Smart G4 2021





# LIGHT IS THE 4TH DIMENTION.

with light we can emphasize things, change the look and shape of objects ...

with light we can create illusions also can make space look bigger, longer, narrower ...

with light can control feelings of warmth, safety, happiness, calmness, add beauty, motion ...

**DO YOU KNOW !**



# What Can we Change in Light elements !



Can On light, and can Off light or blink it

Can Dimm Light intensity Dynamically or constantly

Can Change its color as preset or dynamically

Can change its Direction and speed of motion

Can Create shapes of lights

Can Change light spread Dimension

Can Rotate and Mix

Can Mix all the above creating Que and show control

## DO YOU KNOW !

# Most Famous Types of Light Elements

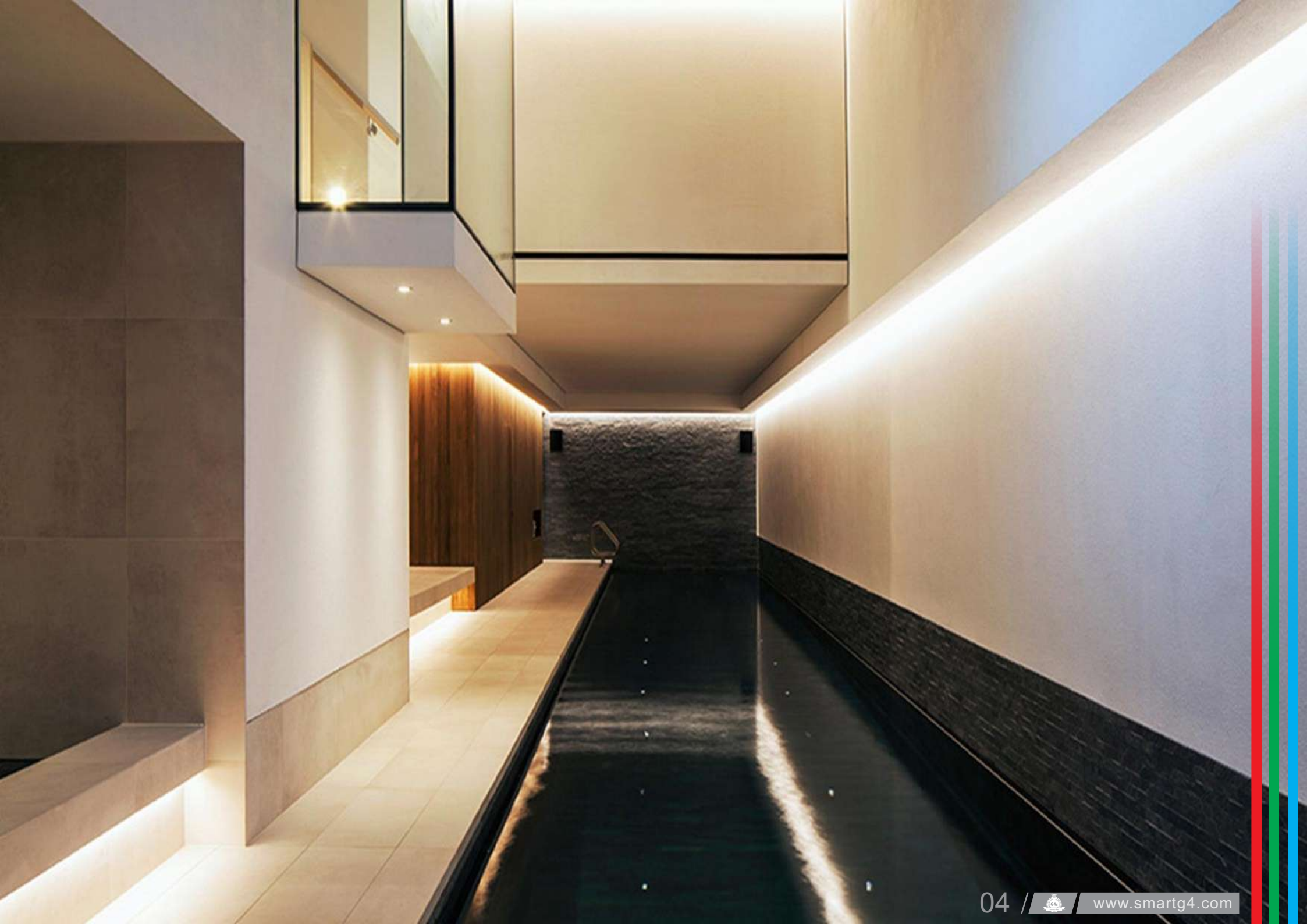
Incandicent (840 Lumens for 60Watts)  
Neon Lights (Average 40 Lumens for 1 Watt)  
Flourecent Tubes (1400 Lumens for 25Watts)  
Compact Flourecent Light - CFL (810 Lumens for 13 Watts)  
Halogen (900 Lumens for 50 Watts)  
Cold Cathode (200 Lumens for 5Watts)  
Mercury vapor lamps (Average 45 Lumens per watt)  
Metal halide (36,000Lumens for 400Watts)  
Light Emitting Diode - LED (450 Lumens for 6Watts)  
High Pressure Sodium (50,000 Lumens for 400Watts)  
Low pressure Sodium (7800 Lumens for 55 watts)  
Phosphor-Converted Amber (PCA) LED (140 Lumens for 1 Watt)  
Narrow-Band Amber (NBA) LED (1460 Lumens for 14Watts)

## Main Applications of light elements

Indoor Direct Lighting  
Indoor Indirect Lighting  
Stage lighting control  
Disco Lighting  
Underwater Lighting  
Outdoor Building and Structure Lighting  
Outdoor Street Lighting  
Outdoor Landscape Lighting  
and other...

DO YOU KNOW !





## Lighting Design is an art

Not every person can simply achieve a good lighting design without talent, experience, and study of effects, angles, lenses and more

## Lighting Design controls Feelings

With light alone, can change the mood and feel in the space.

like: making person tense or relaxed. enhance visual clarity, make space spacious, or enhance privacy or intimacy

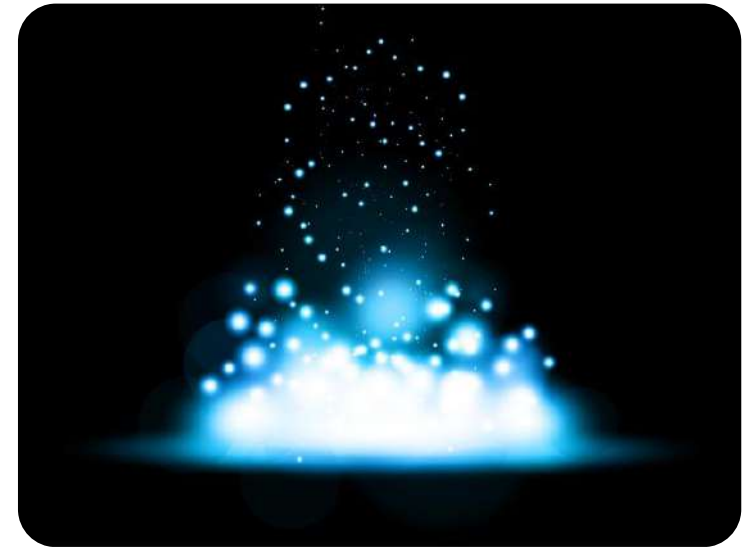


# How to control different types of light

lights have different drivers and technologies  
some uses communicable type of drivers/conytrrollers like:  
Dali and DMX.

Some uses variable control voltages and can be controlled using  
Leading and Trainling edge dimmers, 1-10V,

Some can be controlled by changing of current or by impulse  
and the rest can be always controlled by simple On/Off



**Smart G4 has those All and more**











# Wall Dimmer Cabinet



We have 2 Types of DIN Mount Dimmer Modules designed for heavy loads up to 20 Amp per fold

## Models and Loads:

SB-DIM2c20A-WL	2channel 20A Load
SB-DIM3c10A-WL	3channel 10A per channel Load

We still need this type of heavy dimmers to handle the huge chandeliers in Hotels, to replace old dimmers for maintenance upgrade for very long corridors and circuits with heavy dimmable light loads

From this wall model we have 2channel 20Amps per channel and we have 3 channel 10Amps per channel

These dimmers can be controlled by:

RS-232

S-BUS

DMX

Manual Dry input NO/NC

Groups, Ques, Scenes, Sequence

Channel Fold Circuit



SB-DIM3c10A-WL



## Dimmer Modules DIN Mount



SB-DIM8c1A-DN

**We have 2 Types of DIN Mount Dimmer Modules That Include Trailing and Leading Edge Types**

### Models and Loads:

SB-DIM1C9A-DN	1channel 9A Load (L.E.T)
SB-DIM2C6A-DN	2channel 6A per channel Load (LE)
SB-DIM4C3A-DN	4channel 3A per channel Load (LE)
SB-DIM6C2A-DN	6channel 2A per channel Load (LE)
SB-DIM8C1A-DN	8channel 1.2A per ch. Load (LE)
SB-UDIM4C2A-DN	4channel 2A per channel Load Universal Dimmer Dual Tech (LE+TE)

Dimmers are devices used to attenuate the intensity of the light fixture  
This product uses Leading and Trialing edge type of dimming technology  
such technology utilises mix of triac, and CMOS with sine-wave calculation.

The most affordable type is the Leading edge.

Leading edge type works perfect with incandescent and halogen fixtures  
also works with some types of LED damnable type fixtures.

This type might cause some flickering while its in off position due to some  
current leakage which requires supressors or change of one of bulbs to  
halogen or incandescent type to stop the leakage

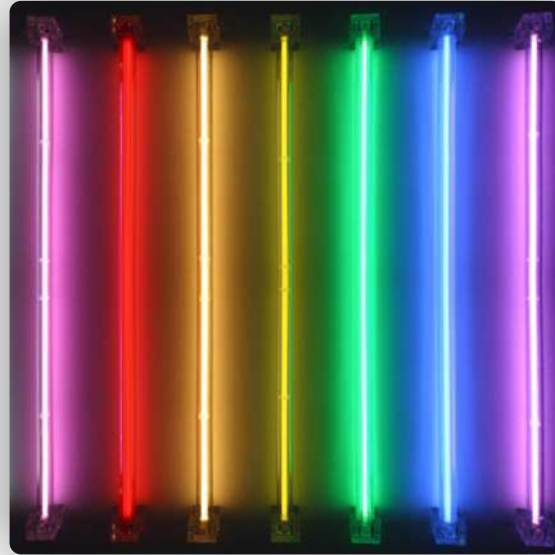
The Universal Type however fits to most LED technology and has no  
current leakage yet it is little more costly comparatively

Groups, Ques, Scenes, Sequence

Small Size Powerful



## Dimming of Cold cathode Fixture Using Leading Edge Dimmers



## Dimming of Halogen/Incandescent/DIM-LED

Halogen DC



Incandescent



Halogen



Dimmable LED



Note: Fast Burning Fuses are recommended per circuit /channel

Groups, Ques, Scenes, Sequence  
Wide range



S-BUS Control 







# S-bus LED driver and Booster



SB-4LED-DCV



SS-LEDBOOST-DC

This is RGBW Driver for Constant voltage LED  
Also Amplifier 10A per channel Cascadable

The LED Driver can be used for color mixing of  
millions of color combinations and can record presets

Also, It can be used for 4 Channel LED control of one color  
or one CDC LED light circuit





# Office lighting Addressable Control

Using affordable 0-10V instead of Dali or DSI



SB-1B0-10V-TC

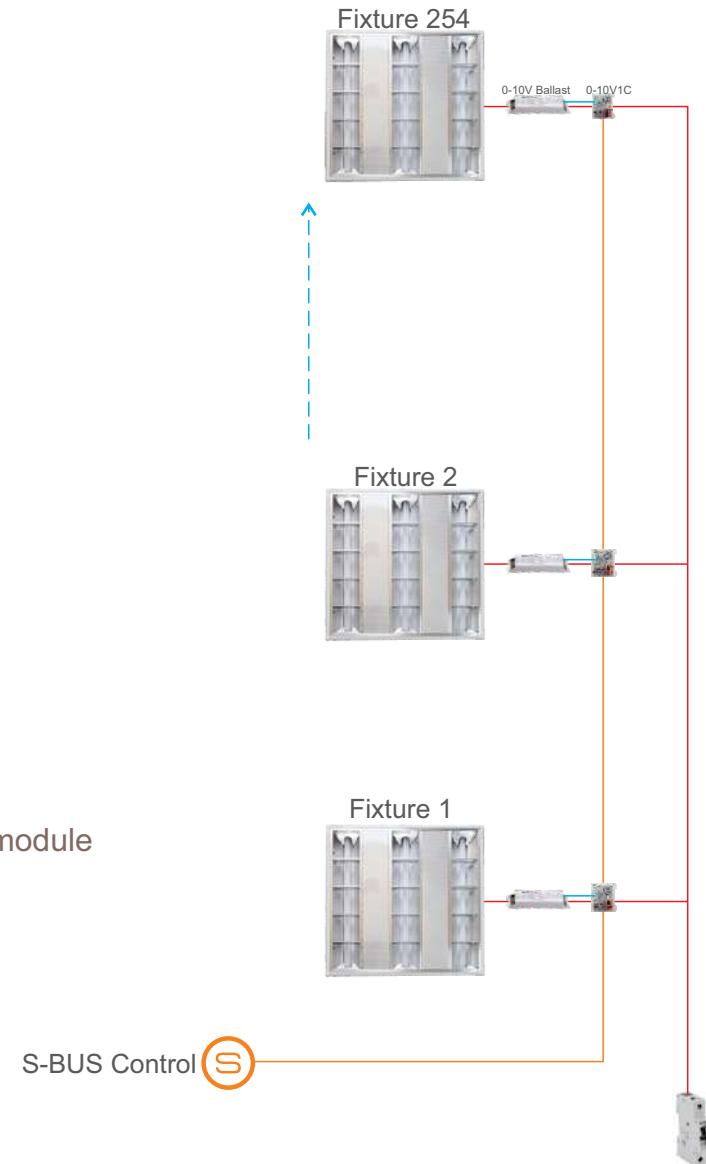
Works like DALI. Can control up to 64000 of 0-10V devices Looping  
Affordable, Easy, Native direct control. 1-10V and 16Amp Relay in each module for total cutoff. and full addressing ability

Each Device is the Size of a small Matches box  
Easy to install, 254 Devices, 254 subnets per Loop  
affordable with 0-10V ballasts or light fixtures  
one electric wire and one control cable looping is all  
you need for full addressable control

Works with LUX light intensity and daylight harvesting as well as occupancy

Groups, Ques, Scenes, Sequence

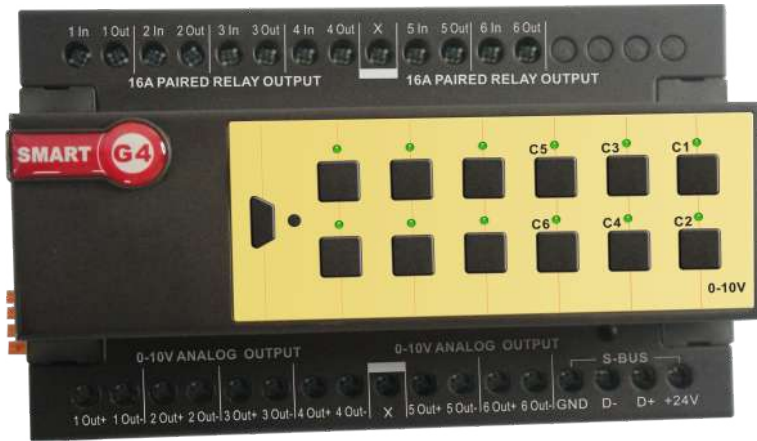
64000 Addressable Lights in one Network and 254 Networks







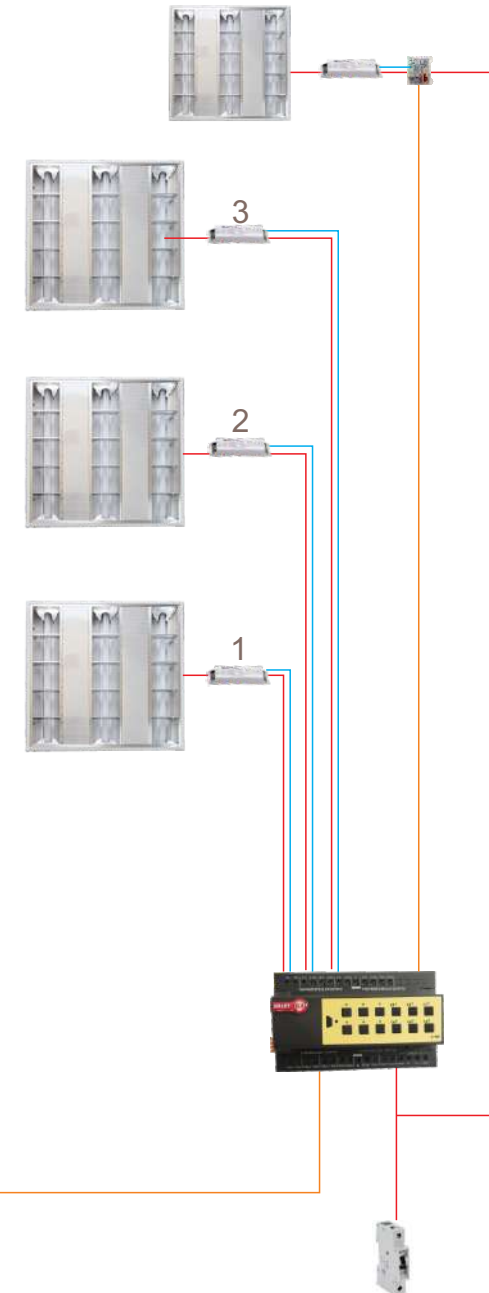
# Office lighting Standard centralized Control



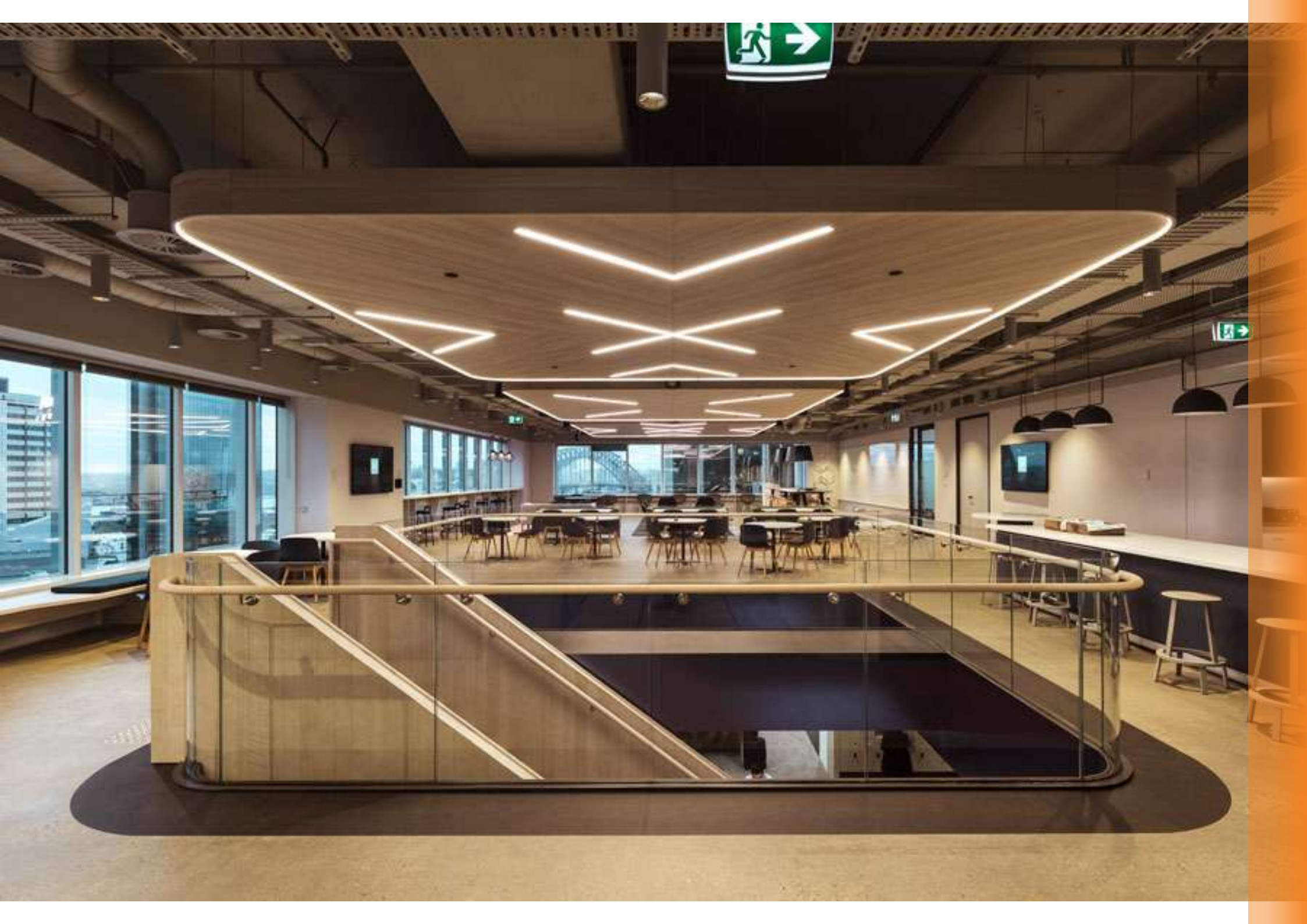
SB-6B0-10V-DN

In the standard Ballast Control method requires separate wiring for each addressable channel from central DB where the Controllers are located

This Device has 6 addressable 0-10V channels and 6 relays each is 16A it is cascable and can mix with the SB-1B0-1v-TC as to be needed.



Groups, Ques, Scenes, Sequence  
Manual Override







# Dali Light/Dimming Control

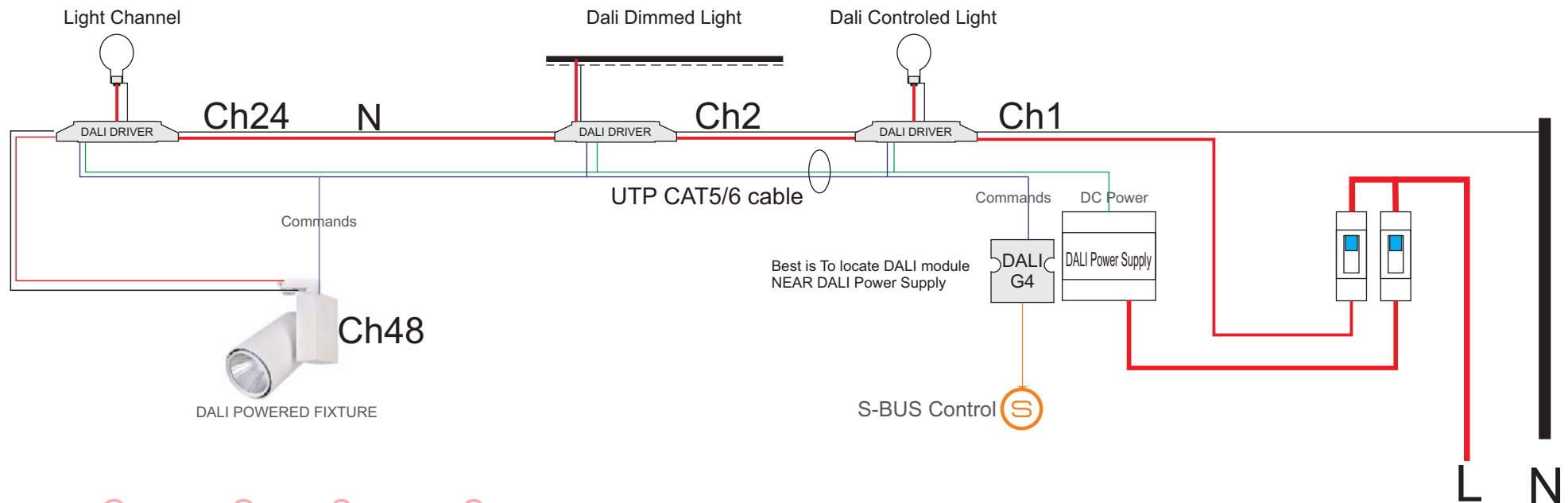
With LED technology today, DALI Ready Light fixtures became the best option for dimming and light element control

Smart G4 Dali Bridge with 48 Channels per module became the optimum solution for today's lighting control needs.

Dali48 By Smart G4 is affordable powerful and very small in size



SB-Dali48-DN



Groups, Ques, Scenes, Sequence

Mini Size, 48 Channels Ready per module





# UPB PCS X10 Bridge

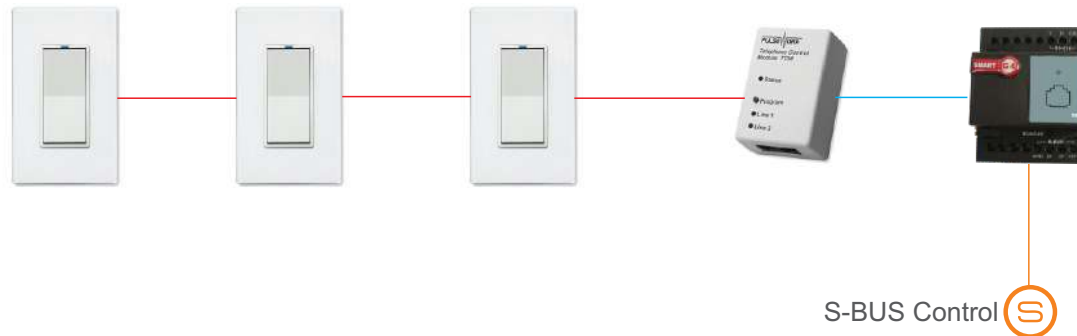
Using our RS-232 UPB/PCS Bridge you can mix wishfully between S-BUS ability and the flexibility of UPB/PCS/X10 in USA and Canada regions

a single bridge can link all devices connected to the UPB/PCS Powerline Loop. That includes Sockets, Bulbs, Switches, motor controllers and Other.

Simple bridge for direct and simple installation



SB-PCSBridge-DN



S-BUS Control 





# DMX Stage Lighting Control



SB-DMX48-DN

## DMX is best for

Musical fountains,  
Facade Lighting,  
Structural Lighting,  
Intelligent Building Lighting,  
Indoor complex Lighting,  
Disco Lighting,  
Stage and Ball Room Lighting,  
and more

Groups, Ques, Scenes, Sequence  
Show Control



Smart G4 DMX Bridge is a state of art solution to enable the best of both DMX fixtures and G4 control abilities.

Adding Smart-BUS Show control Software, they sky is the limit in creating breath taking show



S-BUS Control 



## Relay Modules DIN Mount



SB-RLY12c10A-DN

These relay actuator modules are very powerful and flexible.  
Each channel is fully isolated and universal

Can work as momentary, toggle, group, switchover, etc.

One module can accept:

- 12VDC on any channel (Example channel 1)
- 24VDC on any channel (Example channel 2)
- 48VAC on any channel (Example channel 3)
- 110VAC on any channel (Example channel 4)
- 220VAC on any channel (Example channel 5)
- 3Phase any 3 channels (Example channel 6+7+8)
- Switch over on 2 channels (Example channel 9 and 10)

**We have several configurations of Relays for DIN Mount Type Actuator Modules**

### Models and Loads:

SB-RLY4c20A-DN	4channel 20A Load per channel
SB-RLY6c16A-DN	6channel 16A Load per channel
SB-RLY8c16A-DN	8channel 16A Load per channel
SB-RLY12c10A-DN	12channel 10A Load per channel

Flexible      Powerful      Multiusage





## I/O Actuator Modules DIN Mount



SB-ESR16p+DN

These I/O actuator modules are very powerful and flexible.  
Each channel is fully isolated and universal

Can work as momentary, toggle, group, switch-over, etc.

Each ESR Module has built in 24 Dry contact ports which  
can be used with any normal dumb switch, Magnetic reed,  
Motion sensors, or other NO/NC device.

Smart Group also Created Harness of 2 types to compliment  
and organize the dry contact cabling as elegant option that  
can be added on



SB-ESR10-DN



SB-ESR24-DN

**We have several configurations of I/O Actuators  
DIN Mount Type with built in Dry Contact ports**

### Powerful Models and Loads:

SB-ESR8P+DN	8channel 10A Load per channel
SB-ESR16P+DN	16channel 10A Load per channel

### Control I/O Models and Loads (require contactors):

SB-ESR10-DN	10channel 1A Load per channel
SB-ESR24-DN	24channel 1A Load per channel

Every module of the above has 24Z dry input ports

Compact Size   Loaded   Multi-usage





# Gladiator Modules DIN Mount

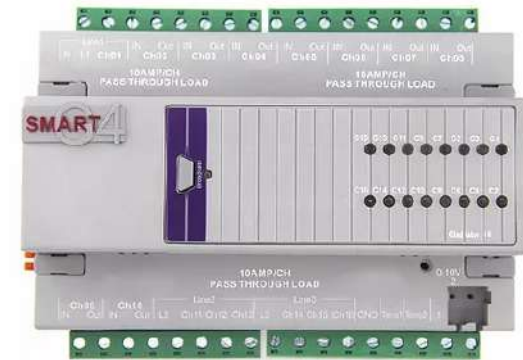


SD-Harness-DN



SBW-PHarness-DN  
SBW-WI-Harness-DN

This gladiator module comes in 2 configuration  
half module size = 8channels  
full module size = 16channels  
It is perfect for lighting of full apartment with HVAC  
it has also Built in 0-10V and ttemperature sensors, logic  
and timeclock with 24 universal dry contact input ports  
makes it the complete solution for full apartment or even  
townhouse floor



SB-Gladiator16+DN

SB-Gladiator8+DN	8channel 10A Load per channel
SB-Gladiator16+DN	16channel 10A Load per channel

Every module of the above has 24Z dry input ports  
Gladiator Models have also Logic and Time clock inside

All in one complete solution







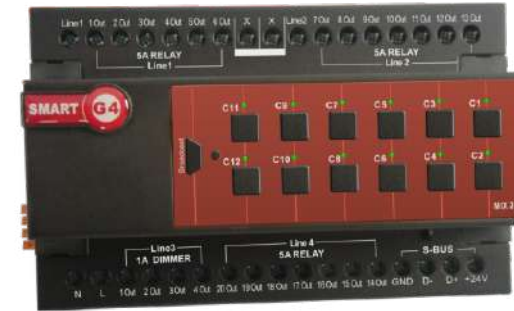
# MIX Modules DIN Mount



One Module is all you need for your full suite of master bedroom or even for small apartment

The Mix 24 has 4 channels of dimmers and 20 Relay actuators  
The Mix Z-Beast23 has 3 Dimmers and 11 Actuators with HVAC and Temperature sensor, as well as heavy relay for Boiler/WH

Adding 24Z Dry input module to this mix module makes it a complete flexible solution with dimming and easy switches



SB-MIX24-DN



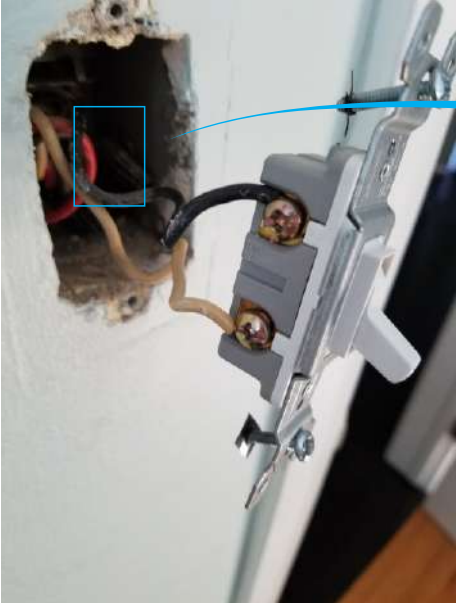
SB-MIX23-DN  
SB-ZoneBeast23-DN

Affordable Luxury









## MIX mini Modules fits in Back Box

### Semi DIY Series

I want it stable

The smart G4 Trail Click modules has selective variety of Relays, dimmers and mix between all this is to fit retro-needs as stable semi-DIY

Just pull control cable within the electrical conduits without rewiring anything in the apartment

Simply insert this module inside the back box and enjoy easy stable automation.

### Trail Click Series 2A

- SB-1D2R-TC 1Dimmer+2 Relays
- SB-2D1R-TC 2Dimmers+1 Relay
- SB-1D1R1F-TC 1Dimmer+1 Relay+1 Fan
- SB-2R-TC 2 Relays
- SB-3R-TC 3 Relays

### Mini Series (contact your installer strictly)

- SB-3R-UN
- SB-2R-UN



SB-2R-UN

SB-2D1R-TC



SB-1D2R-TC



SB-1D1R1F-TC



SB-1D1R-TC



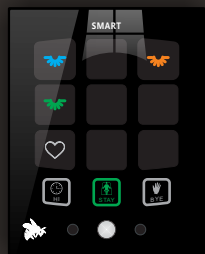
SB-2R-TC



SB-3R-TC



SB-3R-UN

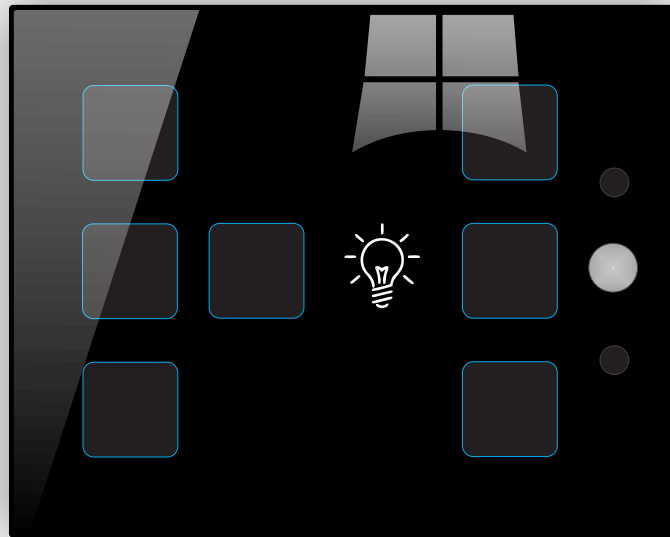




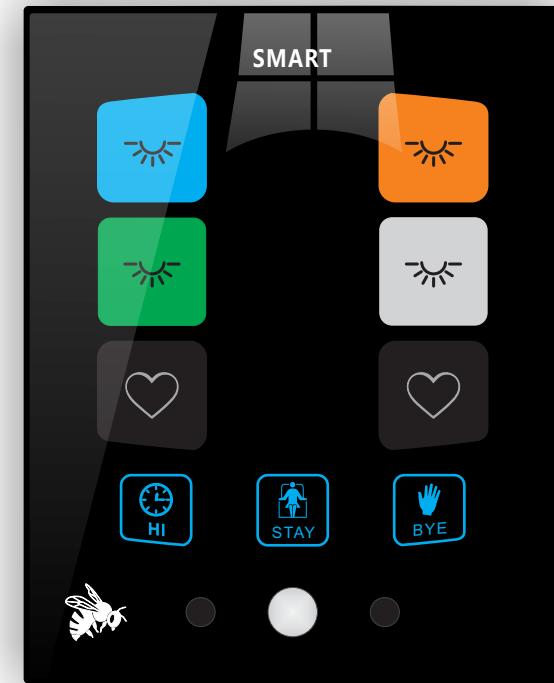
# Mini-Hornet Universal Panels

## Semi DIY Series

I want it stable  
I want it Luxurious



SB-Hornet-3R7T-UN

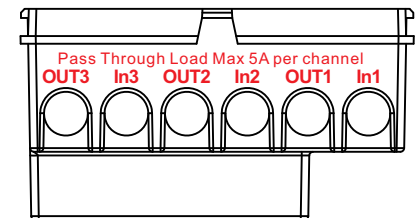
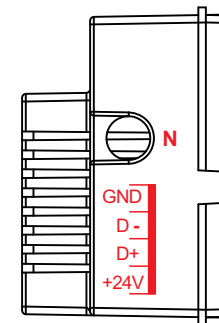


SB-Hornet-3R9T-UN

This Mini-Hornet Touch panel fits any wall-back-box universally

It comes ready with 3 channels for lighting, built in Occupancy Sensor, IR receiver and emitter and many more

This is the perfect stable, safe no-radiation, solution for semi DIY where no need to rewire any electrical again. Just pull a control cable within the same electrical conduit. As easy as that.





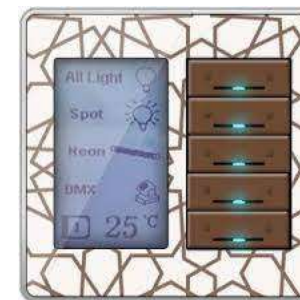






# Multiple Lighting Control Ways

With Smart G4 System Lights can be controlled in many ways:  
 By Wall Switches and Panels (See our user Interface Catalogue)  
 By IR hand held Remotes  
 BY SMS messaging  
 By Telegram Chatting  
 By Software on PC  
 By apps on Tablets and smart-Phones  
 By Motion trigger  
 By Scheduling  
 Triggered by events Logically  
 By third party hardware  
 Based on Temperature  
 By Biometric recognition  
 and many More





CUTTING EDGE

ELEGANT

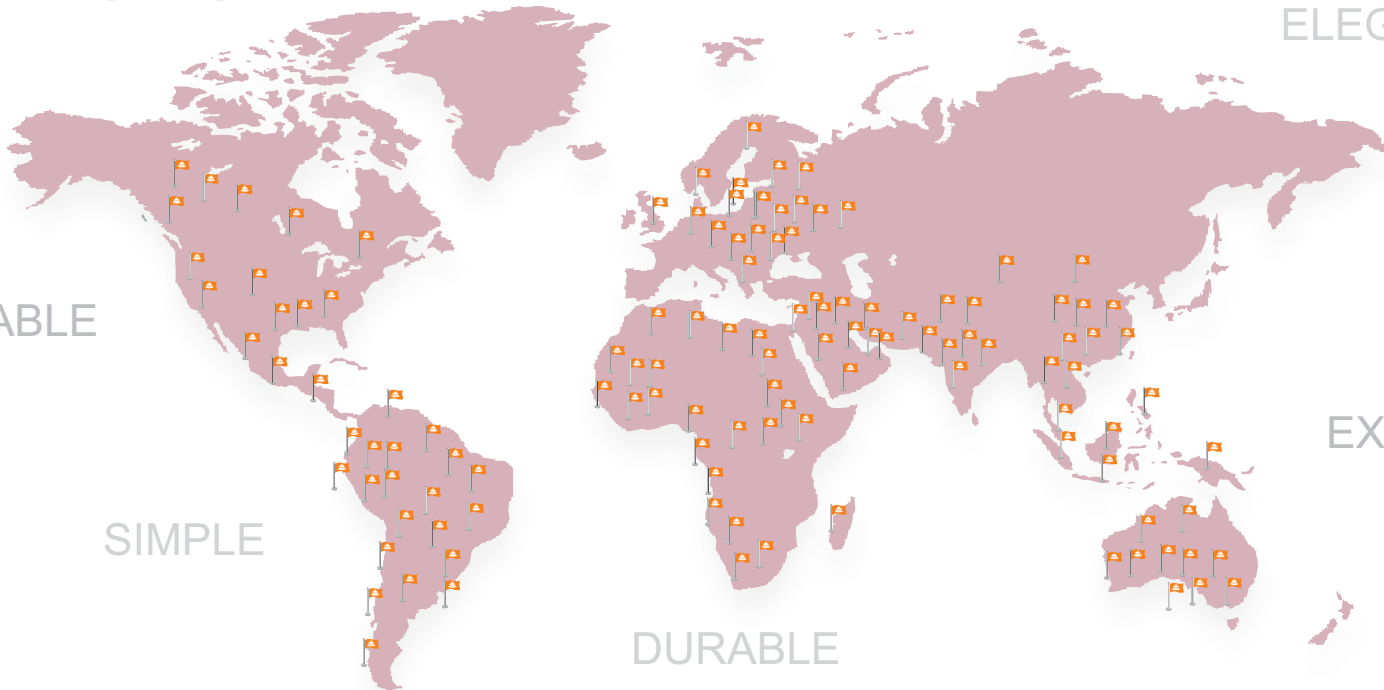
AFFORDABLE

EXPANDABLE

SIMPLE

DURABLE

SMART



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