# Building And Home Automation Control System







HAVELLS

Frabtree STAMBARD

PRG Healthcare













The Crabtree Smart Living is a must-have Home Automation Solution for any modern residential property. It has been introduced by Havells India Ltd. for Home Owners & Developers in India, in collaboration with HDL Automation Co. Ltd. Our technology is designed to be conveniently hidden from view, while the control panels come in a variety of colours, styles, and finishes to fit any contemporary decor. The technology is designed to be completely unobtrusive, while complimenting the design and providing homeowners with convenience, security, and energy efficiency.

All of your systems can be controlled from elegant panels, or Android and iOS devices. This control can take place not only in the home, but from anywhere in the world.

We boast a large number of control modules allowing the ultimate flexibility in design, and can tailor our smart home solutions to your exact requirements.

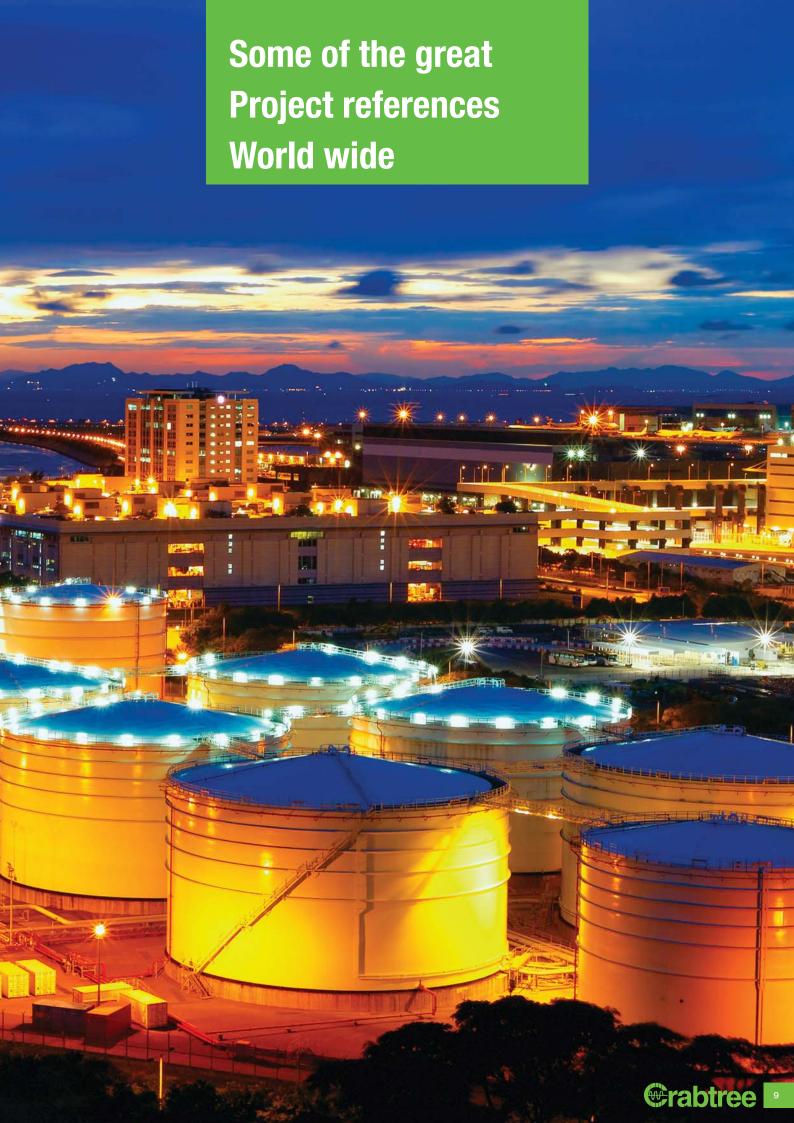












# **BEIJING GREAT HALL OF THE PEOPLE**

THEATER LIGHTING CONTROL PROJECT







# **BMW WORLD MUSEUM IN GERMANY**

DMX SHOW CONTROL PROJECT

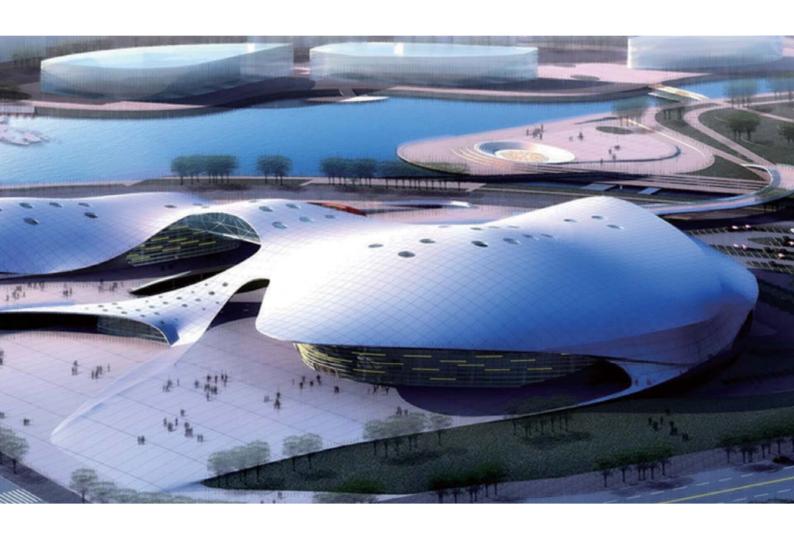






# **GUANGZHOU ASIAN GAMES PROJECT**

HOME AUTOMATION CONTROL PROJECT







# SHANGHAI WORLD EXPO CENTER

# BUILDING AUTOMATION CONTROL PROJECT







# VIETNAM GRAN HO TRAM STRIP CASINO HOTEL

LUXURY CASINO HOTEL AUTOMATION PROJECT







# SOFITEL CASABLANCA TOUR HOTEL

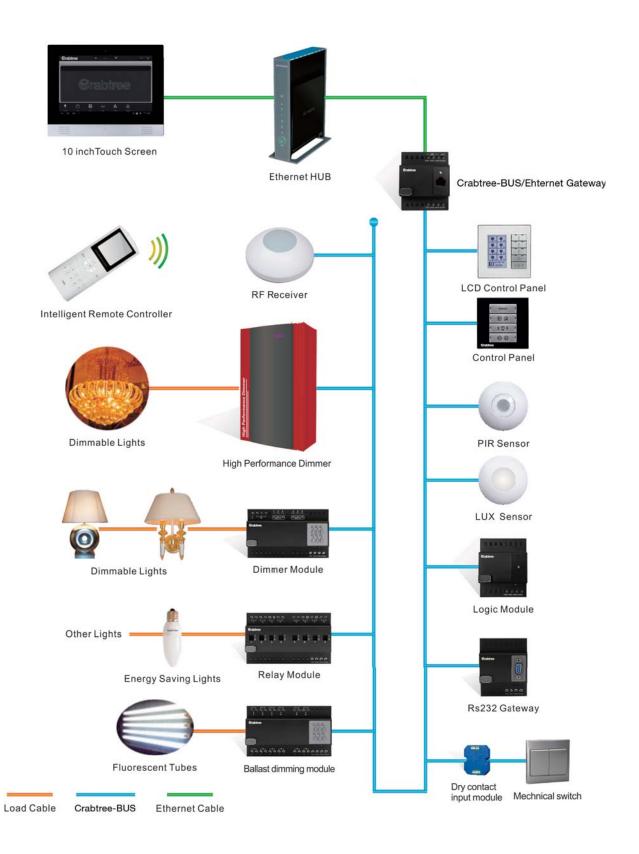
LUXURY RESORT HOTEL AUTOMATION PROJECT



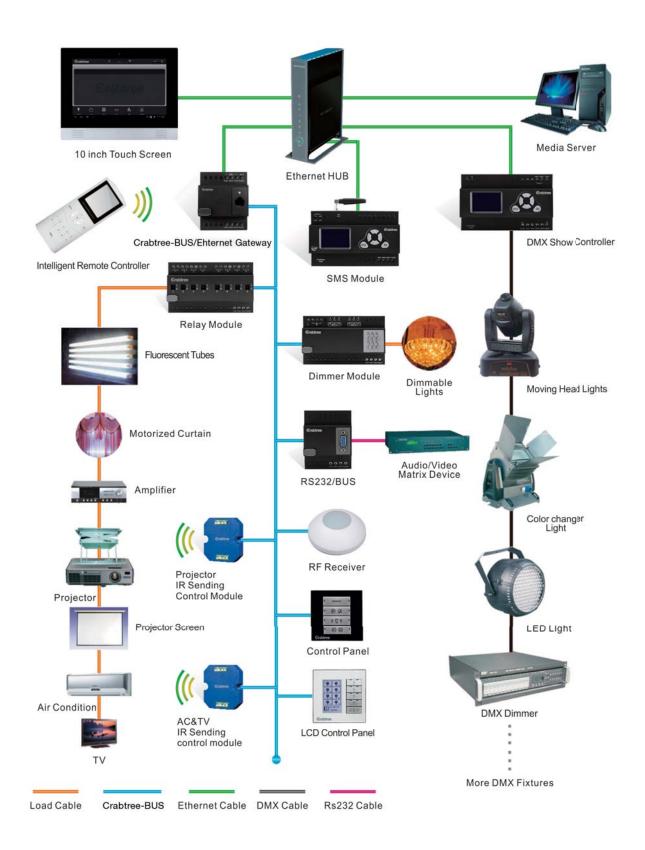


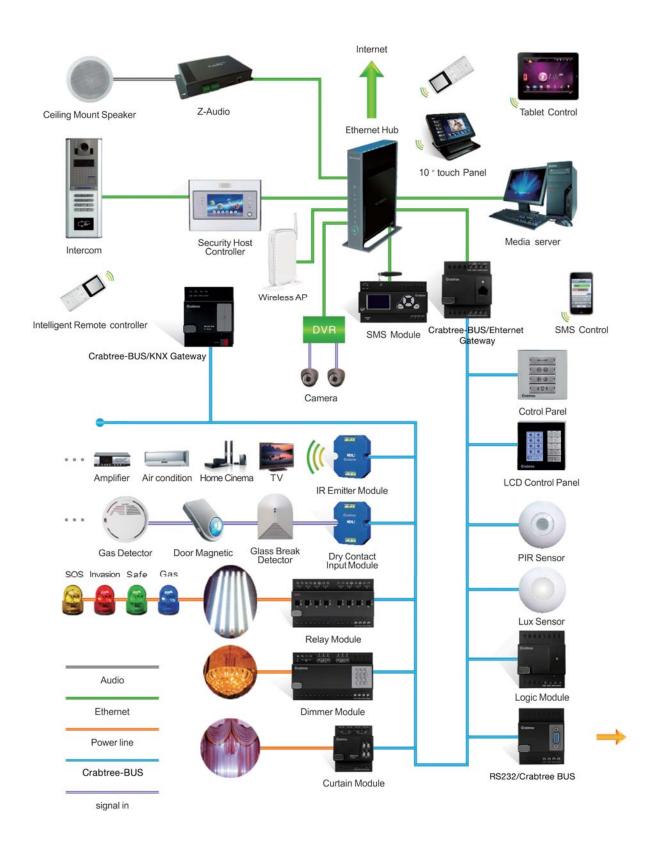


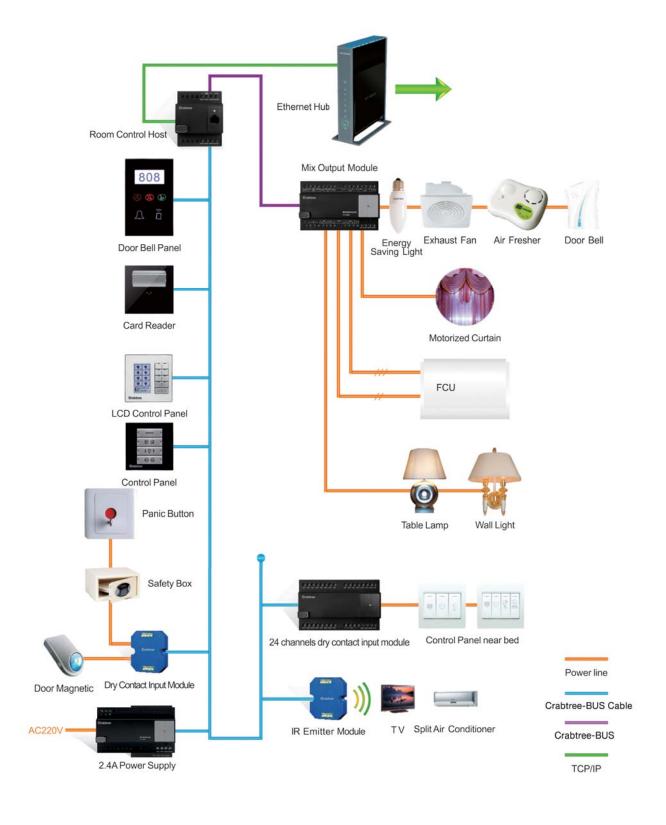
# **INTELLIGENT LIGHTING SOLUTIONS**



# **SMART PRESENTATION SOLUTIONS**







# Control everything from everywhere

Control all the functions of Crabtree Buspro from your smartphone and tablet









• Lighting

• DVD

• Curtain





















Lighting

Blind

Climate

Floor Heating

Background

Security

Multi Media Ventilation

Irrigation

And More...

Nowadays, consumers look for comfort and simplicity. This concept, extended into the home and building automation field, means the ability to have full control of Crabtree Buspro functions from the everyday devices that everybody has always on hand, like the smartphone or tablet.

i-Life is an app developed by Crabtree's engineers specially for Crabtree Buspro. With an attractive design and user-friendly interface, it is perfect for all kinds of people, whether or not they are familiar with the technology. Everybody will enjoy the power of controlling all the functionalities within their house or business with the flick of just a few buttons.



### **Universal Visualization & Control Software**

Control software for Crabtree Buspro

Powered by















"Control your entire home automation system and audio/video equipment from a user-friendly interface"



Install iRidium Transfer and iRidium GUI Editor on your computer



Setup the iRidium App on your control device



Create your interface or adjust a ready GUI template using iRidium GUI Editor



Upload your interface onto the target device using iRidium Transfer

Metro interface



Neon interface



V2.1



Black Interface







# 10" Color Home Control Touch Screen

#### MTS10A.2WB

- 4 channels relay output, each channel is 1A, max. DC30V
- Supports 6 channels dry contact input
- Supports iLife control
- RJ45 communication
- Supports POE IEEE 802.3af
- Built-in RTC
- Buzzer control
- Scene control
- Supports SIP
- Supports Android appsParameters

#### **Parameters**

- Power supply: 12~30VDC POE IEEE 802.3af
- Power: Max. 15W
- CPU:Samsung Exynos 4412 1.4GHz ARM Cortex-A9 quad-core
- DDR: 2GB DDR3
- Flash: 8GB iNand
- Communication protocol:Buspro
- Touch screen: Capacitive screen
- Screen dimensions: 10.1 inch Screen resolution: 1280\*800
- Screen ratio: 16:9
- Operation system : Android 4.0.4
- Ethernet port: RJ45 10/100 M
- SD card: Max. 32GB
- Camera: 5.0 megapixel, 2592x1944
- Dimensions: 269.2×209.2×39(mm)
- Installation: Wall box



MTS10A.2WB



• Main interface









• TV Control















Curtain



Background Music



Media



PΑ



Monitoring

Lighting

Air Conditioning

Scene













Security

Blue-ray

Projector

Matrix

Geothermal System

Smart Meter Voice Control

Home Theater

Power Setting



- Working power:12~30VDC
- DC Current:45mA/24VDC
- Bus Terminal: 0.75-0.85mm Diameter Single Core
- Housing Material:Glass , ABS, PC
- Installation:GI Wall-Box
- Dimensions:86×116.5×10.5 (mm)



MPTL14.46





#### Points For The 'touch' DLP Panel

### 7 Different Pages

With 7 separate and easy to navigate pages, a user can take complete control over their lighting, air conditioning, back ground music, floor heating, and security. Each of the pages has 8 buttons providing effortlessly smooth control, and 2 dedicated scrolling buttons. In addition to this located on the bottom of the panel are four customizable shortcut keys, giving you fast and intuitive system navigation.

#### Customizable

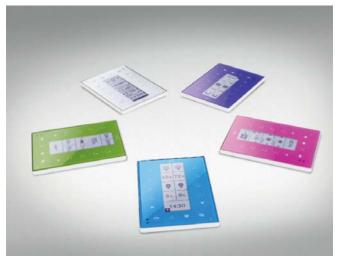
Every aspect of the DLP can be customised, from the on screen icons to the fascia colour, allowing the touch panel to be tailored to any environment or situation. A personalised logo or engraving can even be added to the screen to give you a truly unique solution.

#### Flush Mount

When the DLP touch panel is coupled with the flush mount system, the panel projects a mere 3mm from the wall. This seamless integration between panel and building has been designed to ensure that the panel is an organic element of the building, and does not intrude upon the aesthetics of a room.

#### Multi-functional

The DLP touch panel is able to do more than control every system and device in a building. With it's built in temperature sensor, data can be sent to the thermostat allowing each room to be monitored independently. This ensures that your heating and cooling solutions are optimized, and work as efficiently as possible.



Customize different plate and frame color







Curtain 30%





## What's your favorite color?

### Your Company's Logo In The Switches

Give an excellent branding for your company using customized front plates with the logo of your company or the corporate colors.

### Choose The Color That Defines Your Home's Personality

We provide the possibility to print out layout colors, picture or image texture on the front plate that suit your lifestyle or with your interior designer's project. colors.



#### New generation DLP

New design features such as metal buttons with four left/right keys (in total eight individual buttons) which you can merge together and configure their LEDs. The frame and plate are selectable with different materials and colours to fit in with your lifestyle.

With just one DLP you can control your whole house. Up to 32 buttons distributed through four pages, you can control up to 99 targets with each button, and in total more than 3000 targets like lighting, curtain, blinds, HVAC, heating system, background music, etc.

The new firmware supports 147 different languages, has a user-friendly interface, and provides easy programming functions as well. The DLP panel allows connections with dimmers, relays, curtains, etc. directly without software. All the buttons have the ability to record the state of the rest of buttons and create with them new scenes in the DLP panel. This special function makes creating and changing scenes easy for the end user



Control more than 3000 targets

147 Languages

Link to different pages

Easy Programming

MPL8.48





### Customise your DLP

Based on your personal favourites or your individual requeriments

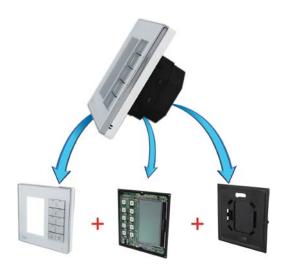
- Selectable Plate
- Selectable Frame

#### **Parameters**

- Power supply DC12-30V
- BUS power consumption 30mA/DC24V
- Installation: Wall mounting
- Dimensions 86×86×10.5(mm)

#### **Functions**

- Working with MPPI.48 panel power interface
- 8 control buttons, 2 page buttons, button combine function
- Multi Modes for button: Single on/ off single on single off combination on combination off combination on/off double click/ single on/ off double click/combination on/off, momentary clock timer short press/long press short press/long momentary "hyperlink" etc
- Multi control types for button: Scene, sequence, timer, universal switch, single channel control, curtain, GPRS, panel, broadcast scene, broadcast channel, security, music
- IR remote control, adjustable LCD back light
- Floor heating, air conditioning and music control
- Support Crabtree Buspro online upgrading





### **IR Remote Control**

Built-in IR receiver (You need to replace a plate with an IR receiving hole to enable the IR remote control function)



- Power supply DC12-30V
- BUS power consumption 0mA/DC24V
- Installation: Wall mounting
- Dimensions 86×116.5×10.5(mm)

#### **Functions**

- Working with MPPI.46 panel power interface
- 8 control buttons, 2 page buttons, button combine function
- Multi Modes for button: Single on/ off, single on, single off, combination
  on, combination off, combination on/off, double click/ single on/ off,
  double click/combination on/off, momentary, clock timer, short press/
  long press, short press/long momentary, "hyperlink" etc
- Multi control types for button: Scene, sequence, timer, universal switch, single channel control, curtain, GPRS, panel, broadcast scene, broadcast channel, security, music
- IR remote control, definable LCD back light
- Floor heating, air conditioning and music control
- · Support easy programming
- Support Crabtree Buspro online upgrading



MPL8.46



Air conditioning control interface

### Multiple Control Pages







Lighting Background Music

Floor Heating

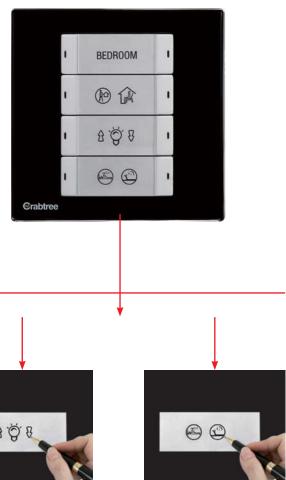
- Metal Buttons
- Electronic Labels
- Selectable Plate
- Selectable Frame

### DIY Concept Do It Yourself

Selectable plate and frame this is ideal in situations where you may need to regularly change or adjust the functionalities of different buttons.

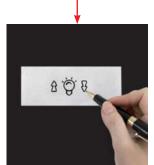
The text on the buttons is easily adjustable, removable, and replaceable to suit your individual and changing needs. You simply print what you want, fix it to the button and cover it with the plastic sleeve.

This also makes it a very economical option as opposed to committing yourself to ones with design at the outset.



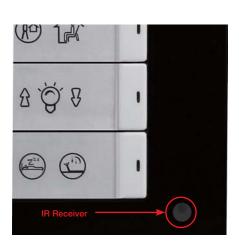








replace a plate with an IR receiving hole to enable the IR remote control function)



- Power supply DC12-30V
- BUS power consumption 15mA/DC24V
- Installation: Wall mounting
- Dimensions 86×86×10.5(mm)

#### **Functions**

- Working with MPPI.48 panel power interface
- 4/6/8 control buttons
- Multi modes for button: Single on/ off, single on, single off, combination
  on, combination off, combination on/off, double click/ single on/ off,
  double click/combination on/off, momentary, short press/long press,
  short press/long momentary etc.
- Multi control types for button: Scene, sequence, timer, universal switch, single channel control, curtain, GPRS, panel, broadcast scene, broadcast channel, security, music
- Customize button labels
- Key lock function
- Key led status can be adjustable
- Support easy programming
- Support Crabtree Buspro online upgrading



MP2B.48



MP4B.48

### Customize different plate and frame color



White glass 8 button switch



White glass 6 button switch



White glass 4 button switch



White glass 2 button switch



MP6B.48

- Power supply DC12-30V
- BUS power consumption 15mA/DC24V
- Installation: Wall mounting
- Dimensions 86×86×10.5(mm)

#### **Functions**

- Working with MPPI.48 panel power interface
- 4/6/8 control buttons
- Multi modes for button: Single on/ off, single on, single off, combination on, combination off, combination on/off, double click/ single on/ off, double click/combination on/off, momentary, short press/long press, short press/long momentary etc.
- Multi control types for button: Scene, sequence, timer, universal switch, single channel control, curtain, GPRS, panel, broadcast scene, broadcast channel, security, music
- Customize button labels
- Key lock function
- Key led status can be adjustable
- Support easy programming
- Support Crabtree Buspro online upgrading



MP4B.48



MP6B.48

### Color of plate and frame is selectable and customizable



2 button switch



White glass

4 button switch



White glass

6 button switch



White glass 8 button switch





MP8B.48

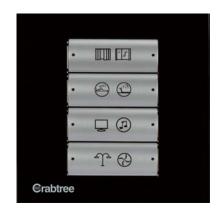
- Power supply DC12-30V
- BUS power consumption 15mA/DC24V
- Installation: Wall mounting
- Dimensions 86×116.5×10.5(mm)

#### **Functions**

- Working with MPPI.48 panel power interface
- 2/4 big button.total 8/4 control button
- Multi modes for button Single on/ off single on single off combination on combination off, combination on/off, momentary, double click/ single on/ off, double click/combination, on/off, short press/long press, etc
- Multi control types for Button: Sscene, sequence, timer, universal switch, single channel control, curtain, GPRS, panel, broadcast scene, broadcast channel, security module, music
- Key lock function
- Key led status can be adjustable
- Support easy programming
- Support Crabtree Buspro online upgrading



MP4A.48



MP8A.48

# Color of plate and frame is selectable and customizable

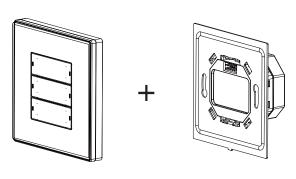


White glass/4 button switch



White glass/8 button switch

Note: Built-in IR receiver, need to replace a plate with IR receiving hole to achieve IR remote control function



Installation diagram

- Power supply DC12-30V
- BUS power consumption 15mA/DC24V
- Installation: Wall mounting
- Dimensions 86×116.5×10.5(mm)

#### **Functions**

- Working with MPPI.46 panel power interface
- 4/2 big button. total 8/4 control button
- Multi modes for button: Single on/ off, single on, single off, combination on, combination off, combination on/off, momentary, double click/ single on/ off, double click/combination, on/off, short press/long press, etc
- Multi control types for button: Scene, sequence, timer, universal switch, single channel control, curtain, GPRS, panel, broadcast scene, broadcast channel, security module, Music
- Key lock function
- Key led status can be adjustable
- · Support easy programming
- Support Crabtree Buspro online upgrading



MP4B.46



MP6B.46

### Customize different plate and frame color



White glass

2 button switch





White glass White glass 4 button switch 6 button switch

White glass 8 button switch

Built-in IR receiver, need to replace a plate with IR receiving hole to realize IR remote control function



MP8B.46

- Power supply DC12-30V
- BUS power consumption 15mA/DC24V
- Installation: Wall mounting
- Dimensions 86×116.5×10.5(mm)

#### **Functions**

- Working with MPPI.46 panel power interface
- 4/6/8 control buttons
- Multi modes for button: Single on/ off, single on, single off, combination
  on, combination off, combination on/off, double click/ single on/ off,
  double click/combination on/off, momentary, short press/long press,
  short press/long momentary etc.
- Multi control types for button: Scene, sequence, timer, universal switch, single channel control, curtain, GPRS, panel, broadcast scene, broadcast channel, security, music
- Customize button labels
- Key lock function
- Key led status can be adjustable
- Support easy programming
- Support Crabtree Buspro online upgrading



MP4B.46



MP6B.46

### Customize different plate and frame color



White glass 2 button switch



White glass 4 button switch



White glass 6 button switch



White glass 8 button switch



MP8B.46

- Power supply DC12-30V
- BUS power consumption 15mA/DC24V
- Installation: Wall mounting
- Dimensions 86×116.5×10.5(mm)

## **Functions**

- Working with MPPI.46 panel power interface
- 4/2 big button. total 8/4 control button
- Multi modes for button: Single on/ off, single on, single off, combination on, combination off, combination on/off, momentary, double click/ single on/ off, double click/combination, on/off, short press/long press, etc
- Multi control types for button: Scene, sequence, timer, universal switch, single channel control, curtain, GPRS, panel, broadcast scene, broadcast channel, security module, Music
- Key lock function
- Key led status can be adjustable
- Support easy programming
- Support Crabtree Buspro online upgrading



MP4B.46



MP6B.46

# Selectable face plate and frame

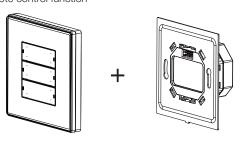




MP4A.46

MP8A.46

Note: Built-in IR receiver, need to replace a plate with IR receiving hole to achieve IR remote control function



Installation diagram

# The back-light button lights up when it is touched

Each touch button has two-colour custom status which can be infinitely adjusted via the RGB value. The Touch Panel technology adjusts automatically to the changing environmental conditions such as humidity and temperature. Also other parameters such as the back-light's brightness and saturation are adjustable.

# The color, icons and pattern of the plate can be customised









# Based on your personal favorites or your requirements



Orange Glass



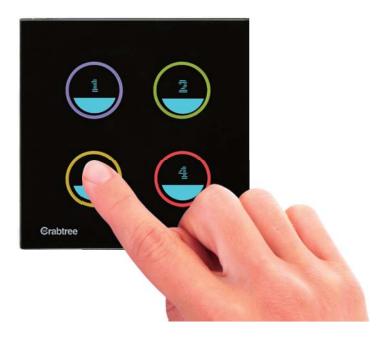


Light Green





All RGB color are selectable



Status without backlight color





- Power supply DC12-30V
- BUS power consumption 20mA/DC24V
- Installation: Wall mounting
- Dimensions 86×86×10.5(mm)

## **Functions**

- Working with MPPI.48 panel power interface
- 1/2/3/4 touch control buttons
- Multi modes for button: Single on/ off, single on, single off, combination on, combination off, combination on/off, double click/ single on/off, double click/combination on/off, momentary, short press/long press, short press/ long momentary etc.
- Multi control types for button: Scene, sequence, timer, universal switch, single channel control, curtain, GPRS, panel, broadcast scene, broadcast channel, security module, music
- Adjustable RGB backlight
- Combination function for : Single on off, combination on/off
- Support easy programming
- Support Crabtree Buspro online upgrading



## IR Remote Control

Built-in IR receiver (You need to replace a plate with an IR receiving hole to enable the IR remote control function)



MPT1.48



MPT2.48



MPT3.48



- Power supply DC12-30V
- BUS power consumption 20mA/DC24V
- Installation: Wall mounting
- Dimensions 86×116.5×10.5(mm)

## **Functions**

- Support Crabtree Buspro online upgrading
- Support easy programming
- Backlight value adjustable
- Color of Backlight (RGB) can be set
- Single on, single off, combination on, combination off can be set to key- relevancy. etc. single channel control, curtain, broadcast scene, broadcast channel,
- Multi control types for Button: Scene, sequence, timer, universal switch, single on/ off, double click/combination, on/off, etc on, combination off, combination on/off, momentary, double click/
- Multi modes for button: Single on/ off, single on, single off, combination
- 2/4/6 control button
- Working with MPPI.46 panel power interface



MPH101.48



MPH102.48

# Color of back board support RGB/ Selectable face plate and frame



white glass/2 button touch







white glass/6 button touch switch



white glass/4 button touch



MPH104.48



MP01R.48



MP03R.48



MP04R.48



MP02R.48

- Power supply DC12-30V
- BUS power consumption 20mA/DC24V
- Installation: Wall mounting
- Dimensions 86×86×10.5(mm)

- Working with MPPI.48 panel power interface
- 1/2/3/4 control buttons
- Multi modes for button: Single on/ off, single on, single off, combination
  on, combination off, combination on/off, double click/ single on/ off,
  double click/combination on/off, momentary, short press/long press,
  short press/long momentary etc.
- Multi control types for button: Scene, sequence, timer, universal switch, single channel control, curtain, GPRS, panel, broadcast scene, broadcast channel, security module, music
- Adjustable RGB backlight
- · Combination function for : Single on off, combination on/off
- Support easy programming
- Support Crabtree Buspro online upgrading

# Background

Switchers are elements very important when you design a new space. That's why we want to give the possibility to customize the plate and frame to find the style which suits you best Customize different plate and frame color



Pink Glass







Blue Glass

White Glass Golde





## **Buttons**

Small details are important because they give a distinguished touch of luxury and fashion to your home and business. To feel identified with these values, you can change the button's ring colors to adjust it with your house style or your color business. Choose the style of the buttons







Bronze

Aluminum

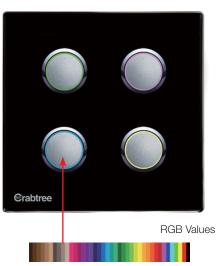
Aluminum+Bronze

## Selectable Plate Materials

The feeling of touch of Bronze and Glass are unique. If you are trying to avoid common materials, you can use the materials for your switchers which it matches better with your style.



# Two custom color status per button



The back-light button lights up when it is pressed. Each button has two custom color status which can be infinitely adjustable via the RGB value by software.

## **ENERGY MANAGMENT**

The crowning feature of the Enviro panel is its ability to monitor in real time the electrical and water resources being consumed. This is particularly useful if a user is trying to cut down on their energy usage, or if they simply wish to be notified of excessive energy use.

## 12 LISTING PAGES

With a massive 12 listing pages users can control hundreds of targets in their building. These listing pages use large easy to read fonts, are capable of displaying 147 languages, and use universally acknowledged icons.

## 4.3 CAPACITIVE LCD

Sporting a 4.3 inch capacitive touch LCD screen, the Enviro Panel allows a user to know at a glance exactly what systems are active. The screen also boasts a cool blue back lit display that is capable of being constantly active, allowing fast location detection in dim or unfamiliar conditions.

## **MUTIPLE TARGETS**

Users can take complete control over every feature of their building, with a single Enviro Panel. From lighting, curtains, music, scenes, sensors, timers, AC, floor heating, and even security solutions. This effortless control enables a user to know exactly what feature or appliance is being used and where.

Customize different plate and frame color





- Working voltage: DC12~30V (From Crabtree-MPPI.46)
- Power consumption: 85mA /DC24V
- Terminal:0.75-0.85mm Diameter Single Core
- Housing Material: Glass, PC, ABS
- Installation:GI Wall Box
- Dimensions:86×116.5×10.5 (mm) (Normal) 96×126.5×10.5 (mm) (XL)

## MPTLC43.46





# I Aluminum Series Panel - Style Switch US

MP2K.48 / MP4K.48 / MP6K.48 / MP8K.48

## **Parameters**

- Power supply DC12-30V
- BUS power consumption 15mA/DC24V
- Installation: Wall mounting
- Dimensions 73×120×9(mm)

## **Functions**

- Working with MPPI(K)48 panel power interface
- 2/4/6/8 control buttons
- Multi modes for button Single on/ off, single on, single off, combination on, combination off, combination on/off, momentary, double click/ single on/ off, double click/combination, on/off, short press/long press, etc
- Multi control types for button: Scene, sequence, timer, universal switch, single channel control, curtain, GPRS, panel, broadcast scene, broadcast channel, security module, music
- Support easy programming
- Support Crabtree Buspro online upgrading



MP2K.48

# Selectable QTY Button





8button / MP8K.48 6button / MP6K.48



MPH102.48

# Double up the functionalities in an elegant way

You can avoid a scattered, untidy look by having two panels next to each other, and at the same time bring all of your required functionalities into the one place.









# Easy and economic solution to extend your BUS

This is also a very cheap solution, as you only need to extend the bus cable by a few centimeters to reach the adjacent panel. It gives you the advantage of less construction work and ugly drilling and chasing for separately-placed panels



# Create a double panel combining two user interfaces

We can have the individual plates finished to whatever color or template you require.

The two panels can be color-coordinated to your individual requirements and aligned neatly for optimum esthetic appearance.

























Power supply: DC12-30V

BUS power consumption: 16mA/DC24V

Installation: Wall mounting Dimensions: 86×86×9(mm)

## **Functions**

- Working with MPPI.48 panel power interface
- 7/14 control button
- Multi modes for button: Single on/ off, single on, single off, combination on, combination off, combination on/off, double click/ single on/ off, double click/combination on/off, momentary, short press/long press, short press/long momentary etc.
- Multi control types for button: Scene, sequence, timer, universal switch, single channel control, curtain, GPRS, panel, broadcast scene, broadcast channel, security, music
- Customize button labels
- Key lock function
- Key led status can be adjustable
- Support Crabtree Buspro online upgrading



MP6CN.48



MP13CN.48

# Customize different plate and frame color









White glass/4 button switch

White glass/8 button switch

- Power supply DC12-30V
- BUS power consumption 15mA/DC24V
- Installation: Wall mounting
- Dimensions 86×86x23(mm)

- Multi Modes for Button: Single on/ off, single on, single off, combination on, combination off, combination on/off, Momentary, double click/ single on/ off, double click/combination, on/off, etc
- Multi control types for Button: Scene, sequence, timer, universal switch, single channel control, curtain, GPRS, panel, broadcast scene, broadcast channel, security module, Music, etc.



MPH101.48



MPH102.48



MPH108.48



MPH104.48

- Power supply DC12-30V
- BUS power consumption 20mA/DC24V
- Installation: Wall mounting
- Dimensions 86×86×9(mm)

- Working with MPPI.48 panel power interface
- 1/2/3 control button
- Multi modes for button: Single on/ off, single on, single off, combination on, combination off, combination on/off, double click/ single on/off, double click/combination on/off, momentary, short press/long press, short press/long momentary etc.
- Multi control types for button: Scene, sequence, timer, universal switch, single channel control, curtain, GPRS, panel, broadcast scene, broadcast channel, security, music
- Customize button labels
- Key lock function
- Key led status can be adjustable
- Support easy programming
- Support Crabtree Buspro online upgrading



MPH101.48



MPH102.48



MPH104.48

## MPPI.46 / MPPI(k).48





MPPI.46

MPPI(k).48

## **Parameters**

- Power supply DC12-30V
- Installation: Wall mounting
- Dimensions H83.5mm x W114.5mmx D 26.5mm(MPPI.46)
   H73mm x W120mm x D 26.5mm(MPPI(k).48)

## **Parameters**

- Power supply DC12-30V
- Installation: Wall mounting
- Installation:Standard GI and EU box
- Dimensions H83.5 x W83.5 x D 26.5(mm)

## **Functions**

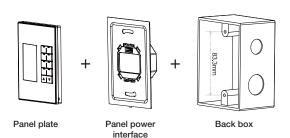
- Panel power interface, working with new panel plate US
- Crabtree Buspro interface, fast connector need to use Crabtree Buspro/KNX cable

## **Functions**

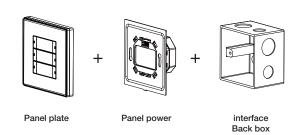
- Panel power interface, working with new panel plate EU
- Crabtree Buspro interface, fast connector need to use Crabtree Buspro/KNX cable

MPPI.48

## Installation diagram



## Installation diagram



- Power supply 3 phase (L1, L2,L3, N,PE)
- Power input: AC220V±10%
- Protection: Overload protection
- Installation Wall hanging

## **Functions**

- 10 bit dimming Accurate;
- Hardware bypass function;
- Up to 6/12 separate scenes
- Up to 99 scenes in each area, maximum runtime of scene is 60 minutes
- Up to 99 sequence, 99 steps in each sequence; each sequence has 60 minutes as interval time; there are four types of sequences: Forward/Backward/Ramdom/Forward&Backward
- Low, high or maximum threshold are available to suit the different loads in each channel;
- Emergency bypass in each channel;
- Remark information provided in each scene, area, channel and sequence;
- With fire emergency switch
- Can go back to previous scene or designated scene once the system restart

## SB-WL-D0610



- Output channel 6 channel dimming Dimensions 470x290x162(mm)
- Current in each channel: each channel 10A; total less than 60A
- Maximum 6 separate areas
- Can provide 200mA current to BUS

## SB-WL-D0620



- Output channel: 6 channel dimming Dimensions: 600 x290x162(mm)
- Current in each channel: each channel 20A, total less than 120A
- Maximum 6 separate areas
- can provide 200mA current to BUS

## SB-WL-D1210



- Output channel: 12 channel dimming Dimensions: 600 x290x162(mm)
- Current in each channel: each channel 10A, total less than 120A
- Maximum 12 separate areas
- Can provide 200mA current to BUS

# Leading / Trailing Edge MOSFET Dimmer

MDT0203.433 / MDT04015.433

## MPPI.46 / MPPI(k).48



- Output channel 2ch/3A
- Fuse: 10A aR type
- Maximum 2 separate areas, each area has 12 scenes
- Dimmer is based on the technology of MOSFET. It has
- 2 output channels and manual switch is available for each channel. Each channel can choose leading edge or trailing edge by software. This is very useful when user has different type of loads. And it has short circuit protection and over heat protection

MPPI.46 / MPPI(k).48



## Output channel 4ch/1.5A

- Fuse: 8A aR type
- Maximum 4 separate areas, each area has 12 scenes Dimensions 216×90×66(mm)

Dimmer is based on the technology of MOSFET. It has 4 output channels and manual switch is available for each channel. Each channel can choose leading edge or trailing edge by software. This is very useful when user has different type of loads. And it has short circuit protection and over heat protection

## **Parameters**

- Power supply AC110/240V
- BUS Working voltage DC12-30V
- BUS power consumption 25mA/DC24V
- Dimming curves: linear, x<sup>1.5</sup>,x<sup>2.0</sup>,x<sup>3.0</sup>
- Dimensions 216×90×66(mm)

- Maximum 2/4 separate areas, each area has 12 scenes
- Each output channel has LED indicator for status and manual switch
- Maximum 6 sequences, and 12 steps for each sequence
- Low Threshold, High Threshold, Maximum Threshold are all available for each channel
- Each channel can choose leading edge or trailing edge
- Can select specified scene or scene before power off when the device restarts
- Short circuit and over heat protection
- 4 dimming curves
- Supports online upgrading

# Leading / Trailing Edge MOSFET Dimmer

MDT0601.433 / MCR01.40

## MDT0601.433



#### TRIAC Constant Current LoadMCR01.40

@rabtree MCR01.40 Name: SCR Constant Current Module Input voltage :0-240VAC Frequency:50-60Hz Input Current: 15mA approximately

## **Parameters**

- Power supply AC110/240V
- BUS Working voltage DC12-30V
- BUS power consumption 25mA/DC24V
- Dimming curves: linear, x1.5, x2.0, x3.0
- Dimensions 216×90×66(mm)

## **Functions**

- Maximum 6 separate areas, each area has 12 scenes
- Each output channel has LED indicator for status and manual switch
- Maximum 6 sequences, and 12 steps for each sequence
- Low Threshold, High Threshold, Maximum Threshold are all available for each channel
- Each channel can choose leading edge or trailing edge
- Can select specified scene or scene before power off when the device restarts
- Short circuit and over heat protection
- 4 dimming curves
- Supports online upgrading

## **Parameters**

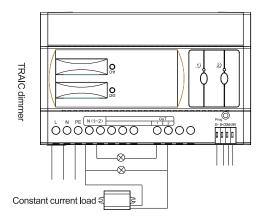
- Power supply DC 0-240V
- Load constant current < 15mA
- Working condition Working temp 0 ~45

Working relative humidity up to 90% Storage temperature -20 ~+60 Storage relative humidity up to 93%

• Dimensions 37.4×26.7×22.6(mm)

## **Functions**

- 1 load channel
- 15mA constant current
- Working with TRAIC dimmer
- Connected in parallel when working with the lamp



Note: above picture is set Crabtree TRAIC dimmer as an example, the module can supply minimum 15mA current for TRAIC, this module can solve the flicker problem when d imming the Lamps such as some LEDs and low voltage Halogen.

## MD0206.432



- Output channel: 2ch/6A
- Fuse:10 A aR type
- TRIAC: 25A bidirectional TRIAC . minimum load 40W
- Maximum 2 separate areas, each area has 12 scenes

#### MD0403.432



- Output channel: ch/ A
- Fuse: A aR type
- TRIAC: 25A bidirectional TRIAC, minimum load 40W
- Maximum 4 separate areas, each area has 12 scenes

## MD0403.432



• Output channel: 6ch/2A • Fuse: 4 A aR type TRIAC: 16A bidirectional TRIAC, minimum load 40W Maximum 6 separate areas, each area has 12 scenes

## **Parameters**

- Power supply: 110/240V±10%
- BUS Working voltage: DC12-30V
- BUS power consumption:28mA/DC 24V
- Dimming curves: linear, x,x,x
- Dimensions:144X90X66 (mm)

- Maximum 6/4/2 separate areas, each area has 12 scenes
- Maximum 6 sequences, each sequence has 12 steps
- 512 dimming step, 4 dimming curves
- Low, high or max threshold are available in each channel to suit the different loads;
- Manual buttons ON and OFF for each channel
- Can go back to previous scene or designated scene once the system restart
- Short circuit protection over temperature protection
- Support easy programming
- Support Crabtree Buspro online upgrading

# Leading Edge TRIAC Power Amplifier

SB-WL-B0120 / SB-WL-B0210

SB-WL-B0120



SB-WL-B0210



## **Parameters**

- Power supply AC 220V±10%
- Protection Need exterior protection switch
- Output channel: 1 channel dimming output
- Output current 20A
- Installation: wall hanging
- Dimensions 288x200x100(mm)

## **Functions**

- Dimmable power amplifier
- AC0-240v power input
- DC 0-10V control signal input

## **Parameters**

- Power supply AC 240V±10%
- Protection Need exterior protection switch
- Output channel: 2 channel dimming output
- Output current 10A
- Installation: Wall hanging
- Dimensions 288x200x100(mm)

- Dimmable power amplifier
- AC0-240v power input
- DC 0-10V Control signal input

#### MD0206.432



- Output channel: 4channel RelayDimensions 72×90×66(mm)
- 4 channel relay output
- Maximum 4 separate areas
- Each area has 8 scenes, maximum runtime of scene: 60 minutes

## MR1210.433



- Output channel: 12 channel Relay
- Dimensions 216×90×66(mm)
- 12 channel relay output
- Maximum 12 separate areas
- Each area has 24 scenes, maximum runtime of scene: 60 minutes

## MR1610.433



- Output channel: 16 channel Relay
- Dimensions 216×90×66(mm)
- 16 channel relay output
- Maximum 16 separate areas
- Each area has 32 scenes, maximum runtime of scene: 60 minutes

#### MD0206.432



Output channel: 8 channel RelayDimensions 144×90×66(mm) 8 channel relay output

Maximum 8 separate areas

Each area has 16 scenes, maximum runtime of scene: 60 minutes

## **Parameters**

- Power supply DC15-30V
- Static BUS power consumption 15mA/DC24V
- Dynamic BUS power consumption: 40mA/DC24V
- Current in each channel 10A
- life time for relay unit More than 60,000 times
- Protection : Need MCB for each channel
- Installation: Standard 35mm Din Rail
- Capacity load of Relay: < 150µF

- 4/8/12/16 channel relay output
- 4/8/12/16 separate areas
- Each area has 8/16/24/32 scenes, maximum runtime o scene: 60 minutes
- Each area has 2 sequences, each sequence has 12 steps
- Each channel has lights protection delay: 0-60 minutes
- Each channel has switch on delay time: 0-25 seconds
- Manual buttons ON and OFF for each channel
- Remote program and management are available
- Can go back to previous scene or designated scene once the system restart
- LED lights available for indicates of each channel
- Staircase lamps function and Mutual exclusion function
- Support easy programming
- Support Crabtree Buspro online upgrading

# Leading Edge TRIAC Power Amplifier

SB-WL-B0120 / SB-WL-B0210

## MR0416.431



- Output channel: 4channel RelayDimensions 72×90×66(mm)
- 4 channel relay output
- Maximum 4 separate areas
- Each area has 8 scenes, maximum runtime of scene: 60 minutes

## MR1216.433



- Output channel: 12 channel Relay
- Dimensions 216×90×66(mm)
- 12 channel relay output
- Maximum 12 separate areas
- Each area has 24 scenes, maximum runtime of scene: 60 minutes

## MR1616.434



- Output channel: 16 channel Relay
- Dimensions 216×90×66(mm)
- 16 channel relay output
- Maximum 16 separate areas
- Each area has 32 scenes, maximum runtime of scene: 60 minutes

## MR0816.432



Output channel: 8 channel RelayDimensions 144×90×66(mm) 8 channel relay output

Maximum 8 separate areas

Each area has 16 scenes, maximum runtime of scene: 60 minutes

## **Parameters**

- Power supply DC15-30V
- Power consumption: Static power consumption: 10mA/DC24V Dynamic power consumption: 35mA/DC24V
- Current in each channel 16A
- life time for relay unit More than 60,000 times
- Protection Need exterior protection switch
- Installation: Standard 35mm Din Rail
- Capacity load of Relay: < 300µF

- 4/8/12/16 channel relay output
- Maximum4/8/12/16 separate areas,
- Each area has 8/16/24/32 scenes, maximum runtime of scene: 60 minutes
- Each area has 2 sequences, each sequence has 8 steps
- Each channel has lights protection delay: 0-60 minutes
- Manual buttons ON and OFF for each channel
- Remote program and management are available
- Can go back to previous scene or designated scene once the system restart
- Each channel has switch on delay time: 0-25 seconds
- Each area has 2 sequence, the maximum step units of each sequence is same as channel units
- Staircase lamps function and Mutual exclusion function
- Support easy programming
- Support Crabtree Buspro online upgrading

## LED Driver/ LED Dimmer

## SB-WM-LED0304 / SB-LED650mA / MDLED0605.432

## MD0206.432



- Power supply AC 240V±10%
- Output channel 3 channel DC24V 4A)
- Dimensions 310×230×87(mm)

## MD0206.432



Output channel: 8 channel RelayDimensions 144×90×66(mm) 8 channel relay output

Maximum 8 separate areas

Each area has 16 scenes, maximum runtime of scene: 60 minutes

#### MR1210.433



- Power input DC10-30V
- Output 650mA
- Dimensions 96×58.5×22.5(mm)
- 3 output channel for LED Strip
- PWM constant voltage output for LED strip

# Parameters

- Signal interface DMX512 1990
- Installation: Wall hanging

## **Parameters**

- Power supply DC15-30V
- Static BUS power consumption 20mA/DC24V
- Dynamic BUS power consumption: 40mA/DC24V
- Output: 6CH/5A
- LED power input 12-30VDC
- Dimensions 144×90×66(mm)

- Maximum 6 separate areas, each area has 12 scenes
- Maximum 6 sequences, each sequence has 12 steps, each step has 60 minutes as interval time; there are four types of sequence: Forward/Backward/Random/Forward& Backward;
- Low, high or max threshold are available in each channel to suit the different loads;
- Can go back to previous scene or designated scene once the system restart
- Manual buttons ON and OFF for each channel
- · Short circuit protection, over load protection
- 5A output current in each channel
- PWM constant voltage output for LED Lamp and LED strip
- Support easy programming
- Support Crabtree Buspro online upgrading

# **Ballast Dimmer, 0-10V Output**

MRDA0610.432

## **Parameters**

- Power supply DC 15-30V
- Power consumption 30mA/DC24V
- Installation: Standard 35mm Din Rail
- Dimensions: 144×90×66(mm)

## **Functions**

- 6 channel relay output
- Manual buttons ON and OFF for each channel
- LED lights available for indicates of each channel
- Maximum 6 separate areas, each area has 12 scenes
- Maximum 6 sequences, each sequence has 12 steps, each step has 60 minutes as interval time; there are four types of sequence: Forward/ Backward/Random/Forward& Backward;
- Low, high or max threshold are available in each channel to suit the different loads;
- Can go back to previous scene or designated scene once the system restart
- Support easy programming
- Support Crabtree Buspro online upgrading

## MRDA0610.432



- Current in each relay channel 10A
- Capacity load <150µF
- Support input DC24V
- Sink/output 100mA current for each 0-10v channel, 6 channel total no less than 300mA
- Suitable for 0-10V Fluorescent dimming control
- Suitable for 0-10V LED dimming control

# Ballast Dimmer, 0-10V Output

MRDA0610.432

## **Parameters**

- AC input: 230VAC±10%
- BUS power consumption: 200mA/DC24V
- Interface: 128x64 dot matrix graphic LCD 6 manual buttons
- Installation: Standard 35mm Din Rail
- Dimensions: 144x90x66(mm)
- Built-In Ethernet port

## **Functions**

- Gateway: DMX(DXM512/1990 or ArtNet) to Crabtree Buspro (one way)
- DMX decode: ArtNet to DMX512/1990
- MAX receivable DMX channel: 48
- Each DMX channel support 16 targets

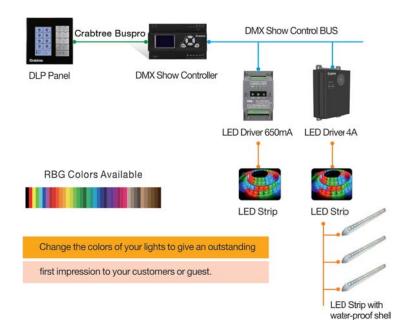
## MBUS-DMX.232



Introducing DMX Gateway, a gateway unit which integrates Crabtree-Buspro system with DMX Lighting Control system, enabling control all range of Buspro features as dimmers, relays, etc. from professional lighting desks

# How to combine Crabtree Buspro + DMX Technology + LED Driver

**EXAMPLE OF USE** 





# DMX Scene Recorder SB-DN-Recorde



Introducing DMX Gateway, a gateway unit which integrates Crabtree-Buspro system with DMX Lighting Control system, enabling control all range of Buspro features as dimmers, relays, etc. from professional lighting desks

## **Parameters**

• Power supply: AC220±10%

BUS power consumption: 200mA/DC24V
Interface: 128x64 dot matrix graphic LCD

6 manual buttons

• Installation: Standard 35mm Din Rail

• Dimension: 144x90x66(mm)

• Built in Ethernet port

## **Functions**

• Total capacity: 256Mbyte

 PC remote operation, download programs, play programs, delete programs

• Signal Interface: Crabtree Buspro, Rj45

Support ArtNet DMX

• has two play modes single or loop playback

• Wall panel playback

• Up to 4 hours records for programs

# 48 Channel DMX Controller / 512 channel DMX Show Controller

SB-DN-48DMX / SB-DN-512DMX

## SB-DN-48DMX



## SB-DN-512DMX



## **Parameters**

Power supply: DC12-30V

BUS power consumption: 40mA/DC24V

Installation: Standard 35mm Din Rail

Dimension: 72x90x66(mm)

Built in ethernet port

## **Functions**

- Up to 48 areas
- Each area has 99 scenes, maximum scene run time:60 minutes
- Up to 99 sequences, each sequence has 99 steps, maximum step run time: 60 minutes, 4 modes for the sequences "Forward", "Backward", and "Back and forth", "Random".
- DMX512 signal output (1990 version) and Crabtree-NET DMX output
- Supports self-program and test functions
- Supports remote program and manage functions
- Low, high, max threshold for each channel
- Crabtree Buspro and Ethernet double way data communication
- Intelligent data exchange, reducing data traffic
- Device can be restored to previous scene or designated scenes

## **Parameters**

- Power supply: DC12-30V
- BUS power consumption: 200mA/DC24V
- Interface: 128x64 dot matrix graphic LCD 6 manual buttons
- Installation: Standard 35mm Din Rail
- Dimension: 144×90×66 (mm)
- Built in Ethernet port

- Can be pre-set up to 500 scenes, scene running time from 0.1 second to 60 minutes
- Crabtree-NET DMX signal output
- Each channel has gradual and abrupt change properties
- Crabtree Buspro and ethernet double way data communication
- Up to 99 sequences, each sequence has 255 steps, step running time from 0.1 second to 60 minutes, 4 modes for the sequences "Forward", "Backward", and "Back and forth", "Random".
- Soft reset with power on
- DMX512 signal output (1990 version)

# 2 Channel Curtain Module / HVAC Module

SB-DN-2Motor / MAC01.331

SB-DN-2Motor



MAC01.331



## **Parameters**

Power supply: DC15-30V

BUS power consumption: 35mA/DC24V

Controllable curtain: 2 curtains

Motor type: Capacitive single phase

Channel max output current: 5A

Lifetime for relay unit: 60,000 times

Installation: Standard 35mm Din Rail

Dimension: 72x90x66(mm)

## **Parameters**

• Power supply: DC15-30V

• BUS power consumption: 95mA/DC24V

Max relay current load: 2A

• Installation: Standard 35mm Din Rail

• Dimension: 72x90x64(mm)

## **Functions**

2 channel curtain control

Hardware and software interlock for forward or backward

Forward and backward delay

## **Functions**

• 4/8/12/16 channel relay output

4/8/12/16 separate areas

 Each area has 8/16/24/32 scenes, maximum runtime of scene: 60 minutes

• Each area has 2 sequences, each sequence has 12 steps

Each channel has lights protection delay: 0-60 minutes

Each channel has switch on delay time: 0-25 seconds

Manual buttons ON and OFF for each channel

Remote program and management are available

Can go back to previous scene or designated scene once the system restart

LED lights available for indicates of each channel

Staircase lamps function and Mutual exclusion function

Support easy programming

• Support Crabtree Buspro online upgrading

# Floor Heating Controller / Logic Controller

MFH06.432 / SB-DN-Logic960

MFH06.432



SB-DN-Logic960



## **Parameters**

Power supply: DC15-30V

Dynamic power consumption: 150mA/DC24V

Static power consumption: 30mA/DC24V

Output channel: 6

Maximum channel current: 10mA/DC24V (0-10V output)

1A/220VAC (Relay output)

Lifetime for relay unit: 5,000,000 times

Protection: External breaker Dimension: 144x90x66(mm)

## **Functions**

- 6 channels floor heating or cooling control
- 2 output ways in each channel: relay output and 0-10V output
- Temperature adjustment range:5 ~40 (0.5 accuracy)
- Timing or manually floor heating system flush function by timer or manually
- Support controlling external high power relay modules
- Auto protect from error temperature collection
- Support Crabtree Buspro online upgrading

## **Parameters**

Power supply: DC12-30V

BUS power consumption: 15mA/DC24V

Installation: Standard 35mm Din Rail

Dimension: 72x90x66(mm)

- Editable daily events
- Maximum 12 logic blocks, each block has 20 logic tables, tables can be connected with each other
- Maximum 4 input conditions and 20 output targets in each logic table
- Logic table input conditions: Time, status of channel, external inputs, universal switch etc
- Logic relations: and, or, nand, nor
- Support Crabtree Buspro online upgrading

# 64 Channel DALI / GPRS SMS Controller

## MC64-DALI.431 / Crabtree-MGSM.431

#### MC64-DALI.431





## **Parameters**

Power supply: DC12-30V

BUS power consumption: 15mA/DC24V
 DALI independent power supply: AC110/220V

 Interface: Crabtree Buspro And DALI

Installation: Standard 35mm Din Rail

Dimension: 72x90x66(mm)

## **Functions**

- Transform Crabtree signal into DALI signal
- Up to 64 DALI channels
- Scene controller
- Support maximum 16 independent areas
- Available function for each channel: Low and high threshold, system failure, DALI component electrify restore
- Fire emergency function
- After device reboot, there is a option to run the designated scene or return back to the last 20 seconds scene before power off
- Support Crabtree Buspro online upgrading

## **Parameters**

Working power: 12~30VDC

• Power consumption: 60mA/DC24V

Communication system: 4 frequency GSM

• Dimensions: 72x90x60(mm)

Installation: 35mm DIN rail installation

• Protection: IP20

- SMS control (99x48 targets)
- Send and receive of SMS
- Status view
- Soft reset
- SMS feedback
- Gateway between Crabtree Buspro and Ethernet

# 1&3 Phase Digital Power Meter / Crabtree HUB 6 Lines

SB-DN-PM3P01 / SB-DN-PM1P03 / MBC06.431

## SB-DN-PM1P03





## MBC06.431



## **Parameters**

Power supply: DC12-30V

Measuring voltage: 0-250VAC

Maximum access to current (each channel): Three-phase 10A / 16A single phase

BUS power consumption: 60mA/DC24V Built-in relay: 2A/250VAC (single phase)

Installation: Standard 35mm Din Rail

Dimension: 72x90x66(mm)

## **Functions**

- You can view real time phase voltage, current, power, active power, reactive power, apparent power, power factor, active power, reactive power, and other values
- Logic function phase voltage, phase current, time, electrical values of each phase at a certain time, universal switching, all can be logical trigger conditions
- Logical relationships: AND, OR, and trigger delay time can be set
- Data records can be retained for one year

## **Parameters**

Interface: 6 fast connections for Crabtree Buspro

Installation: Standard 35mm Din Rail

Dimension: 72mm x 90mm x 66mm

Protection: Ip20

- Simple method to interconnect 6 different Crabtree Buspro Lines.
- Easy installation and maintenance

# **DC24V Power Supply**

# SB-DN-PS750 / SB-DN-PS2.4A

## MC64-DALI.431



## SB-DN-PS2.4A



## **Parameters**

• Power supply: AC240V±10%

Frequency: 50-60HZOutput current: 750mAOutput voltage: DC24V

• Installation: Standard 35mm Din Rail

• Dimension: 72x90x66(mm)

# **Functions**

• Power supply: AC110/220V±10%

Frequency: 50-60HZOutput current: 2.4AOutput voltage: DC24V

• Installation: Standard 35mm Din Rail

• Dimension: 144x90x66(mm)



#### SB-DN-SEC250K



## **Parameters**

- Working Voltage: DC15-30CV
- Power Consumption: 15mA/DC24V
- Dimmensions: 72mm x 90mm x 66mm
- Installation: Standard 35mm DIN Rail
- Interface: Crabtree Buspro

- 8 Separate zones for different security purposes
- Multiple security modes: Away, Holiday, Daytime, Nighttime, Timing, Etc.
- Multiple alarm modes: Invasion, Gas, Fire, Temperature, Emergency, Etc.
- Multilevel security protection
- Can set up security protection for 8 zones simultaneously
- Availability to check the alarm log
- Send commands to the GPRS SMS Controller or Dial-Out to send SMS messages or call to the emergency contact to ask for help or alarm's notifier in case of security problem
- Online upgrading is available



## MSPU05.48



## **Parameters**

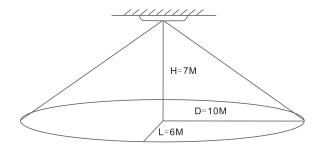
- Power supply: DC12-30V
- BUS power consumption 40mA/DC24V
- Ultrasonic sensing range: 6m (diameter)
- Static and dynamic sensing range: 6m (diameter)
- Dimensions 86X86X31 (mm)

- Working with MPPI.48 panel
- Built-in temperature sensor, PIR sensor, LUX sensor, dry contact, ultrasonic sensor, universal switch, logic, total 8 logical conditions
- With 24 logic blocks function, can set 8 input conditions, each logic block can be set 20 targets output
- With 2 optional logical relations: OR AND
- PIR sensitivity can be adjusted, the sensitivity range is 1-100
- Ultrasonic sensor sensitivity can be adjusted, the sensitivity range is 1-100
- UV switch no. in Logical condition is assigned to 201-248, each logical has 2 UV switch no
- Each logical has time delay 1-3600s
- Support Crabtree Buspro online upgrading

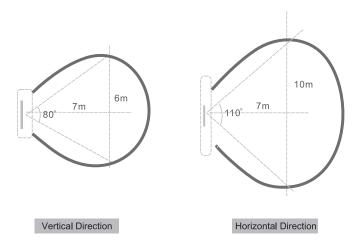








## Microwave Detection



## **Parameters**

Working voltage: DC12-30V

Power consumption: 31mA/DC24V

Temperature detection range: -40°C~60°C

Illumination detection range: 0~15000LUX

Humidity detection range: 20~95 RH

Microwave detection range: H:7m D:10m L:6m

Housing material: ABS: stainless steel

Installation: Screw fixation Dimensions: 126X78X42 (mm)

- Built-in LUX sensor, microwave sensor, humidity sensor, temperature sensor, dry contact, universal switch
- Two logical relations: OR, AND
- It has 24 logic blocks. Both true logic and false logiccan trigger the targets respectively. Each logic can set 20 targets
- Adjustable microwave sensitivity, range is 1-100
- Each logic supports trigger delay time from 0 to 3600s
- The range of universal switch number in logic is 201-248, each logic has 2 universal switch numbers, universal switch can close automatically, the time range is1-3600s
- Tamper-proof function.
- Supports security function
- Sensor has heating function. It can make sure that the circuits can work normally while the temperature is below -5°C
- Supports online upgrading

# Temperature, Humidity / Wide Field PIR Sensor

SB-CMS-THL / SB-WMS-PIR

#### SB-CMS-THL



#### SB-WMS-PIR



## **Parameters**

Power supply: DC12-30V

Bus power consumption: 25mA/DC24V

Temperature detection range: -20~36

Illumination detection range: 0~500Lux

Humidity detection range: 20-95

Installation: Ceiling mount

• Dimension: 80(diameter)x32(mm)

## **Parameters**

Power supply: 20mA/DC24V

• Bus power consumption: 15mA/DC24V

Detection range: 8m

Detection angle: 110 degrees

Detection distance adjustment: Software adjustable

Installation: Wall mount

Dimension: 106x60.2x60(mm)

## **Functions**

 Equipped with brightness sensor, temperature sensor, humidity sensor, two dry contact inputs, two universal switches, logic state etc which can be used as input conditions

Two logic relations: Or, And

 With up to 24 logic block functions, max eight logic input conditions, up to 20 target outputs for logic conditions

• Security warning function, need to be used with the security module

# **Functions**

Departure delay time from 0 to 36000 seconds

Master or slave mode

• Security function, to be used with the security module

# 12 in 1 Multi-Function / Air Quality Sensor

## SB-CMS-12in1 / SB-CMS-LA





**Parameters** 

• Power supply: DC12-30V

• Bus power consumption: 25mA/DC24V

• Signal interface: Crabtree Buspro signal

• Temperature detection range: 0 ~45

• Illumination detection range: 0-300 Lux

• Air quality detection: cigarettes, cooking odors, hydrogen, carbon monoxide, ethanol, methane, isobutane, alcohol:

• Installation: Ceiling mount

• Dimension: 80(diameter)x32(mm)

## **Parameters**

Power supply: DC12-30V

Static power consumption: 40mA/DC24V (Relay off)

Dynamic power consumption: 90mA/DC24V (Relay on)

Signal output: Crabtree Buspro signal

Temperature detection range: 0 ~45

Illumination detection range: 0-300 Lux

PIR sensing range in diameter 6m (install height-3m)

Ultrasonic sensor in diameter 8m

Installation: Ceiling mount

Dimension: 110(diameter)x35(mm)

## **Functions**

- Equipped with a temperature sensor, brightness sensor, infrared motion sensor, ultrasonic sensor, two dry contact inputs, two external input conditions
- With infrared receiver function, can receive eight infrared remote control codes
- With infrared transmitter function, capable of sending 99 infrared remote control codes
- With four logic relations: OR, AND, NOR, NAND
- With up to 32 logic block functions, can be set nine input conditions, each logic block can be set 10 output targets
- 2 relay outputs
- Security function, to be used with the security module
- Support Crabtree Buspro online upgrading

- Equipped with brightness sensor, air quality sensor, two dry contact inputs, two universal switches, logic state etc which can be used as input conditions
- Two logic relations: Or, And
- With up to 24 logic block functions, max seven logic input conditions, up to 20 target outputs for logic conditions
- Security function, to be used with the security module
- Support Crabtree Buspro online upgrading



# Ceiling Mount Ultrasonic / Ceiling Mount PIR Sensor

MSPU03.4 / MSP02.4C



# MSP02.4C

## **Parameters**

- Power supply: DC18-30V
- Bus power consumption: 30mA/DC24V
- Detection range in diameter: 8m(Installation height: 3m)
- Temperature detection range: 0 ~45
- Illumination detection range: 0-500Lux
- Dimension: 63x63x38(mm)
- Cutting Size: 45mm(Diameter)

## **Parameters**

- Power supply: DC18-30V
- Bus power consumption: 20mA/DC24V
- Detection range in diameter: 10m(Installation height: 3m)
- Illumination detection range: 0-300 Lux
- Dimension: 63×63×46.6(mm)
- Cutting Size: 45mm(Diameter)

## **Functions**

- Equipped with temperature sensor, brightness sensor, ultrasonic sensor and universal switch which can be used as logic conditions.
- 24 logic blocks, 20 output targets can be set in each logic block.
- Two logic relations: Or, And
- Sensitivity adjustable, range from 1-10
- Universal switch numbers were assigned to 201-248 in the logic conditions, 2 switch numbers for each logic, universal switch has auto-off function(from 1 to 3600 seconds)
- Logic can trigger the control target no matter it's valid or not
- Security function, to be used with the security module
- Support Crabtree Buspro online upgrading

- Equipped with brightness sensor, PIR sensor and universal switch which can be used as logic conditions.
- 24 logic blocks, 20 output targets can be set in each logic block.
- Two logic relations: Or, And
- Sensitivity adjustable, range from 1-10
- Universal switch numbers were assigned to 201-248 in the logic conditions, 2 switch numbers for each logic, universal switch has auto-off function(from 1 to 3600 seconds)
- Logic can trigger the control target no matter it's valid or not
- Security function, to be used with the security module
- Support Crabtree Buspro online upgrading

### Crabtree 7 IN 1 Sensor / Crabtree 8 IN 1 Sensor

#### MSP07M.4C / MSP08M.4C

#### MSP07M.4C



#### **Parameters**

- Power supply: DC18-30V
- Bus power consumption: 25mA/DC24V
- Detection range in diameter: 8m(Installation height: 3m)
- Temperature detection range: -20 ~60
- Illumination detection range: 0-500 Lux
- Dimension: 84mm(diameter)×37.5mm

#### MSP08M.4C



#### **Parameters**

- Power supply: DC12-30V
- Bus power consumption: 30mA/DC24V
- IR transmit frequency
- Detection range in diameter: 8m(Installation height: 3m)
- Illumination detection range: 0-500 Lux
- Dimension: 84mm diameter ×37.5mm

#### **Functions**

- Built-in infrared motion sensor, LUX sensor, dry contact, temperature sensor and universal switch control
- Seven logics for brightness sensor, temperature sensor, PIR sensor, two dry contact inputs and logical condition
- Two logic relations: OR, AND
- Adjustable infrared motion sensitivity, range from 1-10
- It has 24 logic blocks. The range of universal switch number in logic function is 201-248 each logic has 2 universal switch number. The universal switch has Auto-Off function, delay time is 1-3600s
- Logic can trigger the control target no matter it's valid or not. Up to 10 logic block functions to trigger the control target
- Supports upgrade from Crabtree Buspro
- Constant illuminance function

- Built-in infrared motion sensor, LUX sensor, IR in/out, dry contact, temperature sensor and external conditions.
- Six logics for brightness sensor, temperature sensor, PIR sensor, two dry contact inputs.
- Two logic relations: OR, AND.
- Adjustable infrared motion sensitivity, range from 1-10.
- It has 20 logic blocks. The range of universal switch number in logic function is 201-240 each logic has 2 universal switch number. The universal switch has Auto-Off function, delay time is 1-3600s.
- Logic can trigger the control target no matter it's valid or not. Up to 10 logic block functions to trigger the control target.
- Up to 240 IR sending control target, the universal switch number is 1-240.It can upload multiple IR code
- Supports upgrade from Crabtree Buspro
- Constant illuminance function

### Ceiling Mount Ultrasonic / Ceiling Mount PIR Sensor

MSPU03.4 / MSP02.4C

#### MRF16.4C



# Parameters

Battery: Lithium (3.7V, 1050mA)

Working current : 45mAStandby current: 1mA

Frequency of IR: 38KHZ

Frequency of RF: 433.1580MHZ/433.92MHZ

IR Sending Distance: 5mRF Sending Distance: 50m

Dimension: 155×60×24.2 (mm)

USB Interface: Software Upgrade, Charging

#### **Parameters**

Power supply: DC12-30V

• Frequency of carrier wave: 433.1580MHZ/433.92MHZ

Bus Power Consumption: 56mA/DC24V

Receiving distance 50M
Dimension: 63 x63x 52(mm)
Installation: Ceiling Mount

#### **Functions**

- Wireless function Connect to at most 4 wireless controllers with different addresses, and read the current remote address
- Key mode single on/off, single on, single off, combined on combined off
- Maximum 99 objects for each key, 2×8 control keys for each controller (except combine function)
- Control objects Scene, series, timer, general switch, single channel adjust
- Can set up to 8 different buttons programs
- Support Crabtree Buspro online upgrading



- Frequency of carrier wave: 433.92MHZ
- Dimension: 83 x83x 15.4(mm)

No battery switch, working with the receiver module for remote control

### Features

- LCD display, menu-type operation, easy to use
- Built-in Li battery, can be recharged via USB
- Icon can be changed via PC-based tool software
- Support IR and RF emitting, and IR learning.
- Support all Crabtree button panels
- Support multiple pages, can hide/display page
- Support English and Chinese language
- Support key tone





### Crabtree 7 IN 1 Sensor / Crabtree 8 IN 1 Sensor

MSP07M.4C / MSP08M.4C

#### SB-IR-Learn.01



# Parameters

- Parameters
- Frequency of IR: 38K Hz ± 20%
- Installation: USB 2.0 Interface
- Dimension: 98x70x38(mm)
- For Learning IR codes, sending learned IR codes for test
- USB Interface, no drive for use
- Indicator LED flashing when learning code

### Functions

- Current detecting function for identify device On/Off status
- Maximum 200 IR Codes can be stored
- To send the IR codes by using a IR LED
- Supports upgrade from Crabtree Buspro

#### SB-IR-EM



**Parameters** 

Power supply: DC12-30V

Dimension: 45x40x13(mm)

BUS power consumption: 15mA/DC24V

IR Transmit carrier frequency: 38KHz

IR remote control signal transmitter

Detecting state of controlled equipment

Remote controller code storage: Maximum 200 IR codes

- USB Interface, no driver and easy to use
- Infrared Code learning

- Infrared Code sending test
- Indicator will flash when the device is learning the IR Code

# 1 Port IP Interface / Crabtree-BUS EIB Gateway

#### Crabtree-MBUS01IP.431 / SB-DN-EIB

#### Crabtree-MBUS01IP.431



#### SB-DN-EIB



#### **Parameters**

- Power supply: DC15-30V
- BUS power consumption: 40mA/DC24V
- Crabtree Buspro subnet numbers: 1 Crabtree Buspro subnet
- Signal interface: Crabtree Buspro, RJ-45
- Installation: Standard 35mm Din Rail
- Dimension: 72x90x66(mm)

#### **Functions**

- Crabtree Buspro and Ethernet double way data communication
- support internet remote access connection
- Intelligent data exchange, reducing data traffic

#### **Parameters**

- KNX Power supply: DC15-30V
- KNX power consumption: 5mA/DC24V
- Interface: Crabtree Buspro
   Interface: Crabtree Buspro

EIB-BUS (KNX)

- Programming software: Crabtree Buspro setup tool
- Installation: Standard 35mm Din Rail
- Dimension: 72x90x66(mm)

- Crabtree Buspro and KNX two ways data converting
- Supports multiple types of data points
- Can be set up to 254 goals in two-way conversion control

### Crabtree-BUS / RS232 Converter

SB-DN-RS232N

#### **Parameters**

Parameters

Frequency of IR: 38K Hz ± 20% Installation: USB 2.0 Interface Dimension: 98x70x38(mm)

- For Learning IR codes, sending learned IR codes for test
- USB Interface, no drive for use
- Indicator LED flashing when learning code

#### SB-DN-RS232N



## Professional Rs232 module

SB-DN-232IP-Pro

### **Functions**

Power supply: DC12-30V

BUS power consumption: 85mA/DC24V

Installation: Standard 35mm Din Rail

Signal interface: RS232/RS485 Crabtree Buspro

Dimension: 72x90x66(mm)

Gateway between Crabtree Buspro and Ethernet

SB-DN-232IP-Pro



Crabtree-MBUS01IP.431

MSD08.40





#### **Parameters**

Power supply: DC12-30V

BUS power consumption: 10mA/DC24V

Installation: Screw fix installation

• Dimension: 45x45x16(mm)

#### **Functions**

- 4 channels dry contact input
- 4 channels state indicator output
- Dimming function
- Tamper alarm
- Security function, to be used with the security module
- Switch type: Mechanical switch, Single-On, Single-Off, Single-On/Off, Combination-On, Combination-Off, Combinations, Multi-functional, Parallel switch
- Control target type: Scenes, sequences, universal switches, single channel adjustment, broadcast scene, broadcast channel, curtain control, panel control, GPRS function, fire alarm control and music play functions
- Support Crabtree Buspro online upgrading

### Parameters

Power supply: DC12-30V

• BUS power consumption: 10mA/DC24V

• Installation: Screw fix installation

• Dimension: 45x45x16(mm)

- 8 channels dry contact input
- Dimming function
- Tamper alarm
- Security function, to be used with the security module
- Switch type: Mechanical switch, Single-On, Single-Off, Single-On/Off, Combination-On, Combination-Off, Combinations, Multi-functional, Parallel switch
- Control target type: Scenes, sequences, universal switches, single channel adjustment, broadcast scene, broadcast channel, curtain control, panel control, GPRS function, fire alarm control and music play functions
- Support Crabtree Buspro online upgrading

### 4 Channel Temperature Sensor

SB-MTS04.20

#### **Parameters**

- Power supply: DC12-30V
- BUS power consumption: 9mA/DC24V
- Thermister operating temperature range: -30 ~ 100
- Installation: Standard 86x86(mm) installation
- Dimension: 45x40x13(mm)

#### **Functions**

- 4 channels temperature detection
- Each thermistor channel has 3 setting modes:By default, predetermined resistance, custom indexing table

#### SB-MTS04.20



### Crabtree Music Player

MZDN.432A

#### **Parameters**

- Power supply: DC±24V
- Static power consumption: 1.6w
- Communication protocol: Crabtree Buspro, FTP,UDP
- Signal interface RJ45, SD card, Crabtree Buspro, FM RCA Audio, Audio output
- Audio input voltage 0.7vpp
- Input impedance  $50 \text{K}\Omega$
- Output impedance  $RL = 8 \Omega$   $RR = 8 \Omega$
- Output power 25W x 2
- Total Harmonic distortion 0.05%
- Signal to Noise Ratio 97dB
- Frequency response 22Hz-20KHz
- Length of file name ≤25 byte
- Music file format Mp3
- Volume of SD Card ≤ 32 G
- Dimensions 180.2×90.03×64(mm)

#### MZDN.432A



Crabtree -MZDN.432 is a digital background music player. It has FM Radio, External input, FTP Audio stream, CD card. User can listen to the music from DLP panel and iPad, iPhone. This audio system supports songs from SD card, so it can be used for alarm system and voice service for home automation.

- External input
- Internal SD card
- FM radio
- FTP Server
- Voice prompts

#### Crabtree MUSIC PLAY BOX

#### MZBOX.20 / MZAP.20

Crabtree music play box is an elegant device to manage your music and playlists from many different sources. The client can create a personalised environment in which to enjoy their favorite music.

Crabtree Audio Amplifier provides an excellent solution for you in those places where you need to use more power to supply your music equipment.

#### **Parameters**

- Power Supply DC24-48V
- Static Power 1.6W
- Audio input Voltage 0.7VPP
- Input Resistance 50KΩ
- Output Resistance 32Ω
- Output Power 20mW x 2
- Harmonic distortion 0.05%
- SNR 97dB
- Frequency Range 22Hz 20KHz
- File name length ≤25 bytes
- Music Format:MP3
- SD Card Capacity: ≤ 32 G
- Dimension 180mm×180mm×37mm
- Communication: FTP, UDP

#### **Functions**

- External Input: Availability to connect any external input through Mini Jack
   Port, Audio IN port/Audio OUT port
- Internal SD Card: Up to 32 GB
- FTP Server: Availability to use FTP/UDP remote server through Ethernet
- FM Radio: Possibility to use external FM antenna in order to improve the signal
- Bluetooth input: Supports Bluetooth 2.0
- S/PDIF Optical Fiber Input: Supports S/PDIF Optical Fiber Input
- Capacitive touch buttons: Easy to control music play box locally
- Dry contact to control audio amplifiers
- Availability to use IR emitter to control devices such as DVD, third part audio amplifier
- The Touch Panel technology adjusts automatically to the changing environmental conditions such as humidity and temperature.
- Supports online upgrading.

#### **Parameters**

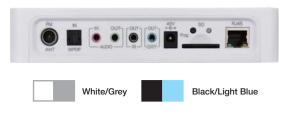
- Power Supply DC24-48V
- Audio input Voltage 0.7VPP
- Audio output Resistance  $32\Omega$
- Output Resistance RL =  $4\Omega$

 $RR = 4\Omega$ 

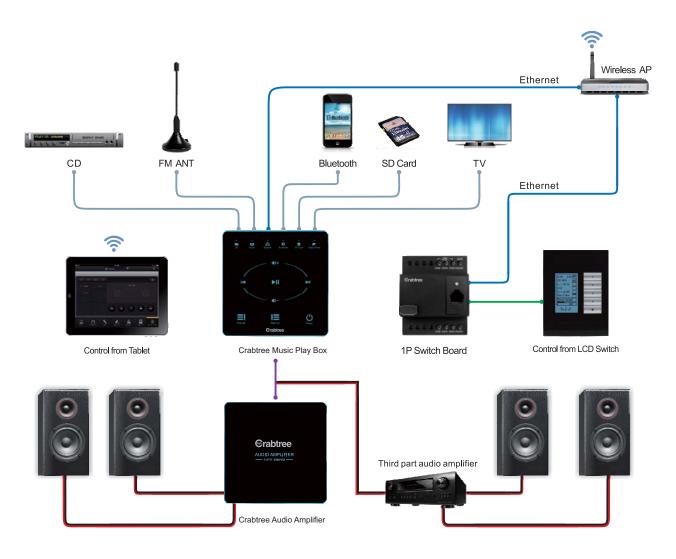
- Output Power=50W × 2
- Harmonic distortion 0.05%
- SNR=97dB
- 4 class Gain control,: 25.6dB, 31.6dB, 35.6dB, 37.6dB

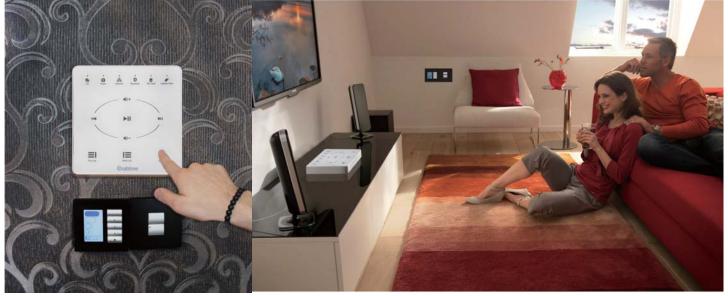


MZBOX.20









#### Common Parameters

Power Supply: DC16~30V

Static direct-current power: 0.7W Dynamic direct-current power: 1.2W

Working voltage range: AC190~235V

Working current: 0.6A Rated power: 140W Rated torque: 10N.m Rated speed: 17r/min Terminal: Crabtree Buspro

dB: 42dB

Insulation class: E

IP class: IP41

#### **Functions**

- Can control to open, close, stop and percentage control
- Communication: Crabtree Buspro
- AC motor is power source, provide enough power, it can make the torque of tubular motor big enough
- Overheat protection
- Supports online upgrading
- Supports easy programming













MVSM45B.12

The MVSM45B.12 is a tubular blind controller, which has been designed to automated all common roller blinds. the unit can output 10 Nm of torque giving an effortlessly smooth action, and operates at a barely audible 42 db.

## High torque

Using single phase AC motor the unit can effortlessly control blinds via its 10 Nm of torque. To provide user with ultimate in blind control, the unit has percentage control; stop, up and down control.



To increase reliablity and service life, the MVSM45B.12 utilize overheat protection. This safeguard not only the unit itself, but the system it is integrated into.





#### 1 CHANNEL MOTORIZED CURTAIN

MWM70B. 12 / MWM70S. 12



#### Common Parameters

Power Supply: AC220V±20% 50HZ

Rated power: 70W Rated torque: 1.0Nm Rated speed: 112rmp Line speed: 16cm/s Insulation class: E IP class: IP41

### Technical Specification

- Direct-powered by 220 AC, Maximum pulling force 8Kg (one motor), maximum curtain weight 50Kg (one motor), 80Kg (2 Motors)
- Suitable for all small to medium-scale curtain applications, liner and arched, one-and two-side opening
- recommended maximum track length 12m; refer to load curves below



- Bus working voltage: DC15-24V
- Bus power consumption 40mA/DC 24V
- Communication interface: Crabtree-Buspro
- Master interface: RJ11(6P6C)network port

### Special parameters for SLAVE

- Bus working voltage: DC12V
- BUS Power Consumption 33mA/DC 12V
- Power supply: Provide from master
- Slave interface: RJ11(6P6C)network port







MWM70B.12

- Overload protection and overhead protection
- Support forward, reverse, stop and percentage control
- 40dB extremely silence working mode with built-in new generation clutch, precise planetary reducer
- Optional function of automation calibration when power on
- Supports manual mode when the power off
- Pulse coding for position control
- Supported Master and Slave mode
- Trigger manually the open and close of the curtain
- Integrated with multiple user interfaces, Crabtree panel, iLife on iPad, Touchlife on Android pad, Touchlife on 7 inch touch screen



### Common Parameters

Voltage range : AC220V+20%

Rated power: 70W Rated torque: 1.0Nm IP class: IP41

Rated speed: 112rmp Line speed: 16cm/s

Dimensions: 284×70×50(mm)

Insulation class: E

#### **Functions**

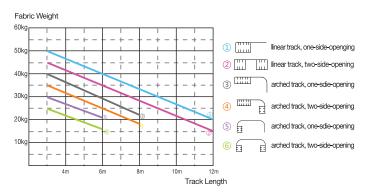
- Built-in new generation clutch, precise planetary reduce, noise level 40dB
- Suitable for all small to medium-scale curtain applications, linear and arched, one-and two-side -opening
- The motor has three modes; they are forward, reverse, and stop
- the interval between activating and deactivating the curtain is less than 100ms



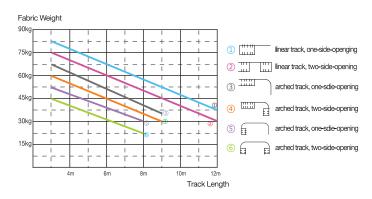


This module serves as new motorized curtain controller, need to work with Crabtree Channel Curtain module (SB-DN-2Motor.)

#### Load curves(one-motor type)



#### Load curves(two-motor type)



#### Crabtree-MBR06.431



#### **Parameters**

Working voltage: DC 12-30VPower consumption: 10mA/24VDC

• Ports: 6

Devices for each port: 0-63

Communication: Crabtree Buspro

Housing material: Nylon, PC

Installation: 35mm Din rail installation

• Dimension: 72x90x66(mm)

### **Functions**

Filter data

Check the data

• Supports 6 bus cables, each bus cable can connect up to 63 devices

Communication: Crabtree Buspro

Supports online upgrading



- Power supply DC12-30V
- BUS power consumption 25mA/DC24V
- Installation Wall mounting
- Dimensions 86×86×22.2(mm)

#### MPB03.48



### **Functions**

- Visiting function, time setup
- Backlight brightness adjustable
- Do not disturb
- Support Crabtree Buspro upgrading
- Please clean

### Keep improving

Laser engraving Highlight the metal chrome material Working state display









MPH101.48

MPH102.48

MPH104.48

MPH108.48



MPB01.48



- Power supply DC12-30V
- BUS power consumption 24mA/DC24V
- Installation Wall mounting
- Dimensions 86×86x22.2 (mm)

#### **Functions**

- PRIVACY status display;
- Visiting function;
- Support Crabtree Buspro online upgrading

MPAC01.48



### **Parameters**

- Power supply DC12-30V
- BUS power consumption 25mA/DC24V
- Installation Standard GI box
- Dimensions 86×86×22.2(mm)

- Control temperature, speed, mode, on/off
- Air conditioning mode: cooling, heating
- Speed: high, low, medium
- Display indoor temperature and air condition status etc
- Support Crabtree Buspro online upgrading

MPC01.48



- Power supply DC12-30V
- BUS power consumption 24mA/DC24V
- Card type MIFARE ONE S50 13.56MHZ
- Installation Wall mounting
- Dimensions 86×86×32(mm)

#### **Functions**

- Insert key for power
- Identification, insert a different card, run the corresponding scene card types: Guest card, service card, cleaner card, maintainer card, administrator card etc
- Can be set mechanical switch when plug the card, the switch can be set 1 to 49 targets.
- Other key mode can be set 1 to 99 targets
- Support Crabtree Buspro online upgrading

#### MHIC.48



### **Parameters**

- Power supply DC12-30V
- BUS power consumption 24mA/DC24V
- Card type MIFARE ONE S50 13.56MHZ
- Installation Standard GI and EU box
- Dimensions 86×86×20.5(mm)

- Working with MPPI.48 panel power interface
- Insert key for power
- Identification, insert a different card, run the corresponding scene
- Card types: guest card, servicing card, cleaner card, maintainer card, administrator card etc
- Can be set mechanical switch when Plug the card, the switch can be set 1 to 49 targets. other key mode can be set 1 to 99 targets
- Support Crabtree Buspro online upgrading

SB-3S-Bell-XS



#### **Parameters**

- Power supply: DC15-30V
- Bus Power consumption: 45mA/DC24V
- Dimension: 105 x 170 x 40mm
- Installation: Back Box for Crabtree

#### **Functions**

- Show different Number of Room, DND, Clean Room, and Laundry
- Open the Door by RF card & history record function
- Support Crabtree Buspro online upgrading

SB-3S-Bell



#### **Parameters**

- Power supply: DC15-30V
- Bus Power consumption: 45mA/DC24V
- Dimension: 105 x 170 x 40mm
- Installation: Back Box for Crabtree

- Show different Number of Room, DND, Clean Room, and Laundry
- Support Crabtree Buspro online upgrading

## Hotel Room Switch / Hotel Room Multimedia Panel

### Classic Switch / Multi Media Connector

MPHAC01.48



#### SB-MS-Black



Power Socket/ Telephone Outlet/ Data Outlet/S-VIDEO / AUDIO /VGA USB /HDMI

MPH201BN.48



SB-MS-Black-S



Power Socket/ Telephone Outlet/ Data Outlet/S-VIDEO / AUDIO /VGA USB /HDMI

MPH202BN.48



SB-MS-Black-S



Power Socket/ Telephone Outlet/ Data Outlet/S-VIDEO / AUDIO /VGA USB /HDMI

MPHS05.48



SB-MS-White-S



Power Socket/ Telephone Outlet/ Data Outlet/S-VIDEO / AUDIO /VGA USB /HDMI

### Hotel IO Module / RCU Hotel Guest Room Control Unit

MHIOU.432 / MHRCU.433

#### MHIOU.432



#### MHRCU.433



#### **Parameters**

- Power supply: DC15-30V
- BUS power consumption: 40mA/DC24V
- Dynamic power consumption: 90mA/DC24V
- Communication: Crabtree Buspro
- Buspro terminal:0.75-0.85mm diameter single-core cable
- Dimension: 144×90×56.3 mm

#### **OUTPUTS:**

- Channel 1 and 2 are dimming outputs, total current no more than 2A
- Channel 3 to 10 are switch outputs, each channel 5A
- Channel 11 and 12 are curtain switch control

#### **INPUTS:**

- 14-channel dry contact input
- 3-channel indoor doorbell control and 3-channel status indicator output
- 1-channel outdoor door bell control and 3-channel states indicator output
- 1-channel door bell switch control

#### **Parameters**

- Power supply: DC20-30V
- Static power consumption: 60mA/DC24V
- Dynamic power consumption: 300mA/DC24V
- Signalinterface: Crabtree Buspro, RJ45, INNERBuspro Rj45 interface: UDP/ IP network interface
- STRIAC:16A TRIAC, minimum load is 30w
- Buspro terminal: 0.75-0.85mm single-core cable
- Dimension: 216×90×56 mm

#### **Functions**

- The host control functions:
- 48 Channel control
- Total 99 scenes, each scene's running time is (0-250second)
- Can run the scene according to the status of card master
- Hotel host have RJ45 port for connectivity with another room and reception or manager center, with hotel manage software this module can integrate with third part property manager software

#### Mix control function:

- Channel NO.1~13 are Relay output ,each channel 5A.
- Channel NO. 14-17, are relay output, each channel 10A
- NO.18 21 channels for dimming ,each channel 1A

#### Dry contract:

• 24 channels dry contract input

#### Door bell function:

- 5 channels state indicator output LED output function
- 6channels normal switch state indicator output

#### SB-DN-48HNET



#### **Parameters**

Power supply: DC12-30V

Bus Power Consumption: 40mA/DC24V

Installation: Standard 35mm Din Rail

Dimension: 72 x 90 x 66mm

- 48 Channel control
- Total 99 scenes, each scene's running time is (0-250second)
- Switch function: Crabtree-Buspro and Ethernet exchange
- Receive the doorbell for touch control signals, control the doorbell status display
- Can identify Insert card module status and set scene and target
- Control the various states of A/C and upload the statue to the monitor software.
- Control the various states of curtain and upload the statue to the monitor software
- Receive various of panel's control signal, deal with channel and module's
- High Scalability: add corresponding control component on the master control module when need expand new functions. And the system can work perfect with any exist systems. Such as:BA system,the central control system and security systems. the master control module when need expand new functions. And the system can work perfect with any exist systems. Such as:BA system,the central control system and security systems.



### 24CH Hotel Room Relay Module / 24 Zone Dry Contact Input Module

MHR2402.232 / SB-DN-DRY-24Z

#### MHIOU.432



Notes: To be used together with Hotel Room Control Host (SB-DN-48HNET)

#### **Parameters**

Power supply: DC24V

BUS current: Dynamic current: 480mA

Static current: 30mA

Current in each channel: 2A
Dimension: 144 x 90 x 66mm
Installation: Standard 35 mm Din Rail

#### Functions:

24 channels relay output

#### MHRCU.433



#### **Parameters**

Power supply: DC24V

• BUS power consumption: 12mA/DC24V

• Dimension: 144 x 90 x 66mm

• Installation: Standard 35 mm Din Rail

- 24 channels dry contact input
- Switch types include: Mechanical switches, Single-on, Single-Off, Single-On/Off, Combination on, Combination off, Combination On/Off, Invalid Switch, Both mechanical switches and combination switches can set 49 control targets
- Control target type: Scene, Sequence, Universal, Switch, Single Channel, Broadcast scene, Broadcast channel, curtain control, panel control, GPRS and so on.
- Security alerts feature need to be used together with Security Command Module

#### **Hotel Guest Room MIX Controller**

#### SB-DN-HMIX12 / Crabtree-MHD02R18U.232

#### SB-DN-48HNET



#### Crabtree-MHD02R18U.232



Notes: To be used together with Hotel Room Control Host (SB-DN-48HNET) 6-13ch fluorescent lamp or LED light load less than 100W

#### **Parameters**

Power supply: DC12-30V

Bus Power Consumption: 40mA/DC24V

Installation: Standard 35mm Din Rail

Dimension: 72 x 90 x 66mm

#### **Parameters**

Power supply: DC24V

BUS current: Dynamic current: 350mm Static current: 30mA

Dimension: 144 x 90 x 66mm

Installation: Standard 35 mm Din Rail

#### **Functions**

- Channel No.10 and 11 are dimming outputs
- Max 12 areas, each area has 48 scenes
- Channel No. 1 to 8 are switch outputs, each channel 5A.
- Channel No.12 is DC0-10V control signal output for 0-10V fluorescent and LED light control
- Channel No.9 is curtain switch control
- Support Crabtree Buspro online upgrading

- 1-3 channel, it control the low, medium and high levels for air -conditioning
- 4-5channel, it control the heating, refrigeration solenoidvalve for air-conditioning
- 6-13 channel, it control the lamps (Current less than 1A)
- 14-15 channel, it control the lamps (Current less than 5A)
- 16-18 channel control the lamps for silicon control (Current less than 2A)
- 19-20 channel control the lamps for controllable silicon dimming (Current less than 2A)
- Relay lifetime Up to 60000





- Power supply: DC5V (from wireless power interface)
- Power consumption: 55mA/DC5V
- Wireless transmit power:+10dbm
- Wireless receive sensitivity:-90dbm
- Installation Wall mounting
- Dimensions 86×86×10.5(mm)

#### **Functions**

- Built-in temperature sensor.
- Specified pad pages for AC, floor heating, music, etc.
- Multi key mode: Single on-off, Single on single off, combination on-off, Combination on, Combination off, Double click/single switch, Double click/combination switch, Momentary, Clock, Short/Longpress, Short Press/Long jog.
- Multi key control modess: Scene, Sequence, Timer switch, Universal switch single channel lighting control, Broadcast scene, Broadcast channel, curtain switch, GPRS control, Panel control, Security Module, Z-audio control
- Supports online upgrading.



MPI 8-RF.18

The Crabtree-MPL8-RF is a wireless panel which is able to work in conjunction with the wireless power interface. Featuring an improved and customizable LCD display, the Crabtree-MPL8-RF enables users to find information effortlessly.



The new Crabtree-MPL8-RF has an improved LCD screen that is capable to displaying multiple icons, which can then be customized via an extensive up datable icon library. Messages, Device status, and percentage information can all be displayed, enabling a user to find information effortlessly.





In a single Crabtree-MPL8-RF panel there are seven different pages dedicated to the control of common automation systems. The following systems are included, four pages dedicated to lighting, one page dedicated to HVAC, one page for floor heating, and one page for background music. Each page can hold multiple targets enabling the user to take complete control over all aspects of their automation solutions, with one unifying Crabtree-MPL8-RF panel.





The Crabtree-MPL8-RF panel is completely customizable, and has an extensive range of fascia colours, and materials available. this tailoring even extends to the LED button status indicators which have adjustable light intensity levels. The module can also be incorporated into a double panel installation, of can be flush mouned. These customization options allow a user to have their exact requirements not only met, but exceeded.



- Power Supply: DC5V (from wireless Power interface)
- Power Consumption: 45mA/DC5V
- Wireless transmit power: +10dbm
- Wireless receive sensitivity: 90dbm
- installation: Wall mounting
- Dimension: 86x86x10.5(mm)

#### **Functions**

- Multi key mode: Single on, Single off, single on/ off, combination on, Combination off, Combination on/off, Double click/single switch, Double click/combination switch, Momentary, Clock, Short/Longpress, Short Press/Long jog.
- Multi key control Tyope: Scene, Sequence, Timer switch, Universal Switch, Single channel lighting control, Curtain switch, GPRS control, Panel control,
- Adjustable backlight color and intensity
- Supports online upgrading



MPL8-RF.18

### RGB LED backlight

RGB Each button is illuminated by and RGB LED back light which can change colour of intensity when used for different applications, based on the preference of the user. This customisable button back light ensured that the unit can blend ito any situation or environment.

### The color, icons and pattern of the plate can be customised









### Based on your personal favorites or your requirements





Black Glass



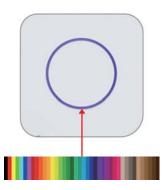
Pink Glass







Status without backlight color



All RGB color are selectable

The Crabtree-MP04R-RF wireless panel has a scamless glass finish, and a backing plate specifically designed based on European standard. The module can control multiple targets via its distinguished buttons, which have a customizable RGB LED back light.

#### **Parameters**

- Power supply: DC5V (from wireless power interface)
- Power consumption: 45mA/DC5V
- Wireless transmit power:+10dbm
- Wireless receive sensitivity:-90dbm
- Installation Wall mounting
- Dimensions 86×86×10.5(mm)

#### **Functions**

- Multi Key Modes: Single on, Single off, Single on/off, Combination on, Combination off, Combination on/off, double click/single switch, double click/Combination switch, Momentary, Short/Long Press, Short Press/ Long Jog.
- Multi Key control Types: Scene, Sequence, Timer switch, Universal witch, Single channel lighting control, Curtain switch, GPRS Control, Panel control, broadcast control, broadcast channel, Security module, Z-audio control
- Adjustable backlight color and intensity
- · Supports online upgrading.

### Background

Switches are elements very important when you design a new space. That's why we want to give the possible to customize the plate and frame to find the style which suits you best

### Customize different plate and frame color



Pink Glass



Blue Glass



White Glass



Golden Glass



MP04R-RF.18

Each button is illuminated by a RGB LED back light which can change colour or intensity when used for different applications, based on the preferednce of the user.

#### Two custom color status per button



Each button is illuminated by a RGB LED back light which can change colour or intensity when used for different applications, based on the preferednce of the user.

#### **Buttons**

Small details are important because they give a distinguished touch of luxury and fashion to your home

and business. To feel identified with these values, you can change the button's ring colors to adjust it with you

house style or your color business.

### Choose the style of the buttons



Bronze



Aluminum



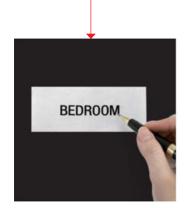
Aluminum+Bronze

The Crabtree-MP04R-RF wireless panel has a scamless glass finish, and a backing plate specifically designed based on European standard. The module can control multiple targets via its distinguished buttons, which have a customizable RGB LED back light.

### DIY customization

The Crabtree MP (2/4/6/8)-RF series offers users the ability to replace the button names or icons, by simply removing the plastic sleeve and placing one of their own designs under it. This enables rapid changes without the need for computers, engraving, or etching. As long as a user has access to a piece of paper, and a pen or pencil, the customization can be accomplished. coupled with this, a range of fascia are available, make the unit suitable for any environment of situation.











### Mireless communication

The unit support wireless communication to control multiple targets 4wireless power interfaces can be controlled by single Crabtree MP (2/4/6/8)-RF Module.



### Customizable

The Crabtree MP ((2/4/6/8)-RF has a completely customizable fascia. A user is able to specify both the fascia colour and the material is to be made out of. This tailoring enables the module to fit semlessly into any room

### Customize different plate and frame color









White glass 2 button switch

White glass 4 button switch

White glass 6 button switch

White glass 8 button switch

- Power supply: DC5/V (from wireless power interface)
- Power consuption: 57mA/DC5V
- Wireless transmit power:+10dbm
- Wireless receive sensitivity:-90dbm
- Installation Wall mounting
- Dimensions 86×86×10.5(mm)

- Key Mode: Single on/off, Single off Combination on, Combination Off, combination on off, Double click Single on/off, Double click combination on/off, Inching, short/long press, Short pres/long inching.
- Key Control Type: Scene, Sequence, Timer Switch, Universal Switch, Single channel lighting control, Broadcast scene, Broadcast channel Curtain Control, GPRS Control, Panel Control, Security Module, Z-audio Control
- Built-in temperature sensor.
- It has Key lock, mutually exclusive and key linkage.
- Customize button labels and plate can be replaced.
- Indicator intensity is adjustable.
- Supports online upgrading.



MP4B-RF.18



MP2B-RF.18



MP6B-RF.18

The wireless power interface supplies wireless panels with 5v DC. Dimming is possible through 2 TRIAC dimming channels, and 1 MOSFET trailing edge dimming channel. The module also has short circuit protection, and over-heat protection.

## - Without neutral line

The Crabtree-MPW03.18 is specifically designed to supply power to wireless panels without neutral line. This is an optimised supply that is best suited to the panels, it enhances device stability, and enables peak panel performance.

## Without neutral line

The Crabtree-MPW03.18 is specifically designed to supply power to wireless panels without neutral line. This is an optimised supply that is best suited to the panels, it enhances device stability, and enables peak panel performance.

## 😽 Triple channels

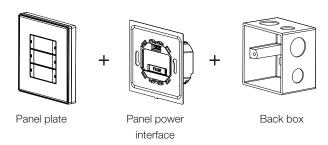
With 1 MOSFET dimming channel, and 2 Triac dimming channels, users are able to dimming, and switching, making them suitable for a wide range of applications.

#### **Parameters**

- Working power: AC85-270V
- Frequency: 50/60Hz
- Wireless transmit power:+10dbm
- Wireless receive sensitivity:-90dbm
- Output: 3 channels
- Output current: 1A/CH, total current should not exceed 2A
- Fuse: 4A aR type • Terminal: Wago 236 • Dimension: 84\*84\*39(mm)

- Supplies DC5V power for wireless panels
- 1 CH MOSRET Dimmer Dimming/Switch
- 2 CH TRIAC Dimming / Switch
- Short circuit protection
- Over heating protection









Working power: AC220V

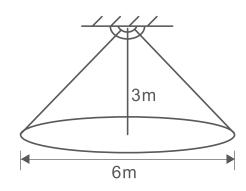
• Detection range: 6m (Installation height: 3m)

Communication: Wireless
 Installation: Ceiling mount
 Dimension: Ø95\*37(mm)

- Built-in Temperature sensor, PIR sensor, LUX sensor, Ultrasonic sensor, as well as universal switch, Dry contact and logic control totally 8 logic input condition
- with 24 logic blocks, each logic block have 8 input and 20 output commands; Each logic block has two universal switch inputs, can totally set 48 universal switches
- Variety Control includes scene switch, sequence switch, universal switch, signal channel adjust, audio, curtain, GPRS panel control, background music control, etc
- Two logic relationship: AND
- Adjustable infrared sensitivity range: 1-100
- Adjustable ultrasonic sensitivity, sensitivity range: 1-100
- Security function, to be used with the security module.
- Supports wireless online upgrading.



MSPU05-RF.1C



Detection range



- Working power: 12~30VDC
- Communication: RJ45, Crabtree Busporo, Wireless
- Wireless transmit power:+10dbm
- Wireless receive sensitivity:-90dbm
- Communication distance indoor: 50m (barrier free)
- Work mode: Mesh mode, bridge mode
- BUS Terminal: 0.75-0 85mm Diameter Single Core
- Additional function: RF433MHz receiving

As a wireless gateway module the MCIP-RF02.10 can support RJ45, Crabtree-Buspro, and RF, and create a meshed network using standard IEEE 802.15.4. The frequency can then be selected from between 768, 868, and 900 MHz. the module is also able to create the FR scope. Via the on board buttons RR parameter setting is enabled.

### Wireless Central Frequency

- Wireless Central Frequency
- (China WPAN: 780MHz-786MHz
- (Europe) SRD: 864MHz-870MHz
- (North America) ISM: 904MHz-928MHz

### Triple communication interfaces

With 1 MOSFET dimming channel, and 2 Triac dimming channels, users are able to dimming, and switching, making them suitable for a wide range of applications.



MCIP-RF02.10







RJ45

Crabtree- BUS

Wireless

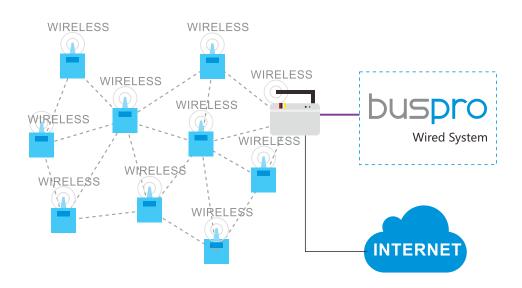


# Dual Working Modes

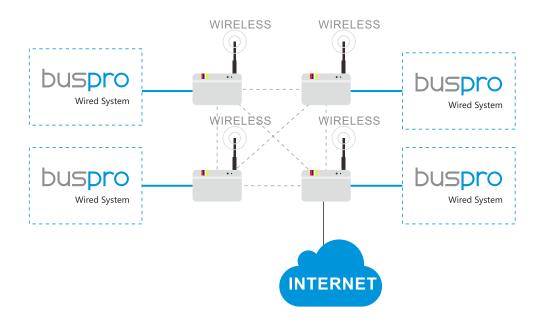
With two working modes the gateway is suitable for any automation solution. the first mode is the mesh network mode; this mode enables all the wireless devices active on the network to connect to each other. The mesh also supports wired system integration through the RJ45 and Crabtree Buspro ports.

The second mode is bridge mode; the function of this mode is to act as a transmission bridge. This enables multiple gateways and their associated wired devices wired devices to communicated with each other wirelessly. The scope of the system can be further extended via RF.

### Mesh Network working mode



### Bridge working mode







#### Common Parameters

Voltage range: AC220V+20% 50HzSlave interface: 6P network interface

Rated power: 70W
Rated torque: 1.0Nm
Rated speed: 112rmp
Line speed: 16cm/s
Communication wireless
Insulation class: E

IP class: IP41

### Special parameters for MASTER

Power supply: AC220VCommunication: Wireless

Master interface: RJ11(6P6C) network port

### Special parameters for SLAVE

Bus working voltage: DC12V

BUS Power Consumption : 33mA/DC 12VPower supply: Provide from master

Slave interface: Rj11 (6P6C) network port

#### **Functions**

- Over LOAD protection. The curtain will stop in case of external disturbance
- Supports the following control commands: Open, Close, Stop and Percentage
- Included additional pieces to adjust the curtains to the supports
- Easy programming for control panels and switches
- Supports manual mode when the power off
- Motor running mode: forward or reverse
- Pulse coding for position control





MWM70-RF.12

MWM70S.12

master and slave modules. the unit utilizes standard IEEE 802.15.4 wireless communication protocols, with frequencies of 768, 868,and 900 MHZ. The new generation clutch and planetary reducer gears, enable the controller to operate at a barely audible 40db.

The module is a wireless motorized curtain controller, which supports both

- Over HEAT protection. In case of high temperature, the motor will switch off temporarily
- The position of the curtain can be measured and displayed in user interfaces
- Optional function of automatic calibration when power on
- Trigger manually the Open and Close of the curtain
- · Solid and robust structure with modern style
- Supported Master and Slave mode
- Extremely silence working mode





### **Technical Specifications**

- Direct-powered by 220V AC, Maximum pulling force 8Kg (one motor), maximum curtain weight 50Kg (one motor), 80Kg (2 motors).
- Built-in new generation clutch, precise planetary reducer, noise level 40dB.
- Percentage control enabled.
- Drag and run enabled, can be disabled.
- Integrated with multiple user interfaces, Crabtree panel, iLife on iPad, Touchlife on Android pad, Touchlife on 7-inch touch screen.
- Suitable for all small to medium-scale curtain applications, linear and arched, one- and two-side opening.
- Recommended maximum track length 12m; refer to load curves below







Fabric Weight







Load curves(one-motor type)

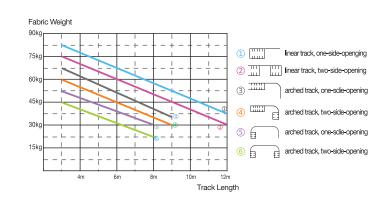
Inear track, one-side-openging 2 Inear track, two-side-opening arched track, one-sdie-opening arched track, two-side-opening arched track, one-sdie-opening

6

Track Length

arched track, two-side-opening

Load curves(two-motor type)







MPR02-RF.18

Input voltage: AC85-265V

Output current: 16A (COS=0.4)

Power consumption:Max. 0.41W

• Wireless transmit power:+10dbm

Wireless receiving sensitivity:-90dbm

• Communication distance indoor:<=30m (barrier free)

Installation: Wall box

• Dimensions: 44x36x17(mm)

### Parameters

Input Voltage: AC85-265V

• Output current: 8A (COSØ=0.4)

• Power consumption: 0.45W max.

• Wireless transmit power: +10dbm

• Wireless receiving sensitivity: -90dbm

• Communication distance indoor: <=30m (barrier free)

• Installation: Wall box

• Dimensions: 44x36x17(mm)



### 1 CH Trailing Dimmer/4 CH Dry Contact Input

MPD01-RF. 18/MPS04-RF.18







MPS04-RF.18

### **Parameters**

Input Voltage: AC85-265V

Output current: 1.5A

Power consumption: Max. 0.58W

Wireless transmit power:+10dbm

Wireless receiving sensitivity:-90dbm

Communication distance indoor:<=30m (barrier free)

Installation: Wall box

Dimensions: 44x36x20.2(mm)

### **Parameters**

Input Voltage: AC85-265V

Power consumption:Max. 0.44W

Wireless transmit power:+10dbm

Wireless receiving sensitivity:-90dbm

Communication distance indoor:<=30m (barrier free)

Installation: Wall box

Dimensions: 44x36x17(mm)



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