

by Schneider Electric

DIMMING SOLUTIONS

Professional

Architectural



CLIPSAL AND **LIGHTING CONTROL**

Clipsal® was founded in Adelaide, South Australia in 1920, based on a range of adjustable conduit fittings. Almost 90 years on, Clipsal is one of the leading producers of electrical products in its field.

In the 1990's Clipsal began development in automation products and this led to the formation of Clipsal Integrated Systems, specialising in the manufacture of electronic lighting and building automation products under the C-Bus® brand. Clipsal Integrated Systems has since grown rapidly, gaining widespread acceptance in major commercial markets around the world.

A broad product offering ensures Clipsal is able to provide a complete solution for any commercial space, from the most exclusive boardroom to the most robust factory environment.

Clipsal's latest addition to the C-Bus range includes their comprehensive new innovative high powered dimmers. The dimmers offer a user-friendly product with unrivalled flexibility, integration and energy management.

The primary objective at Clipsal is to understand our clients and their requirements, and then turn those goals and objectives into a reality. We have long and successful experience in working with installers, end users, lighting designers and consulting engineers, providing them with complete, reliable and innovative lighting control solutions.

As our history denotes we are here for the long run. Clipsal builds long-term mutually beneficial partnerships with our customers. We provide services from project concept and initial design, through the whole installation commissioning process, into the building occupation, use and eventual refit. Clipsal believes in the strength of these relationships founded on our customer support and market leading products.

The new range of C-Bus Infinity high powered dimmers are designed and built with Clipsal's customary care and attention to detail. With a focus on being flexible, efficient, easy to use and most importantly reliable, the product range is designed for long years of continuous service, and as with all our products, is fully backwards compatible. Your investment today is secure for tomorrow.

SEVERAL SOLUTIONS, ONE MANUFACTURER.

Clipsal supplies the broadest range of lighting control products for the commercial space, allowing customers to satisfy all their needs from a single source. Due to our depth of range, we are unique in being able to offer products to satisfy the widest variety of applications.

Consider the reality of a five star hotel. At one end of the scale there's the brutal industrial environment of the busy commercial kitchen and at the other the plush opulence that greets you at the front of house.



Whatever the application, Clipsal can supply a full range of products; enduring the harsh cleaning and chemicals of the kitchen and within the same system structure, grace the walls of the most fastidious hotel quest.

We want to allow designers freedom to create solutions, working with a single supplier and single control solution that fits seamlessly together. Clipsal provides the widest range of switch designs to meet user requirements, along with



coordinated on-wall products such as sockets, data outlets and light fittings. All with the intent to give the customer that consistent look and feel from a single manufacturer.

This concept of breadth-of-range and flexibility is further enhanced by the new comprehensive range of C-Bus Infinity high powered dimming products. Like all of Clipsal's control products, they are highly reliable and capable of handling all common load types, in load ratings, from just a few lamps to extensive circuits for entire ballrooms.











Product Solutions for Any Commercial Workspace

Our solutions are able to satisfy the unique needs of every kind of commercial workspace, from the busiest city pub and trendiest boutique to blue chip boardrooms, five star restaurants and world-renowned museums. Whatever the requirement, Clipsal provides a full toolkit that allows you to transform your lighting control in every space, and all from a single supplier.

We offer products to control all aspects of the internal environment. Including thermostats for control of fan coil units, multi room audio solutions, blinds and window treatment control and comprehensive solutions for integration with building management systems and other third party control systems.

Innovative and Customised Designs or Elegant and Intuitive Control

We put the user in control, with elegant and intuitive interfacing to our control network via innovative control panels, touch screens and remote controls. These devices are offered in many styles and finishes, and where possible are customisable, so they blend seamlessly with their surroundings.

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IMPACT AND **IMPRESSION**



Create a Lasting Impression

In the commercial world you need to use all means at your disposal to deliver your message. The space which you occupy or entertain your customers in, is crucial to this effect. Remember, first impressions are often the most important.

Of all the senses, sight, with the use of lighting is the subtlest, but most effective when it comes to creating a desired ambience. However, the impact of good lighting design is only truly enabled when backed by capable control solutions.







Reality dictates that commercial spaces today need to fulfil multiple functions. Therefore the transition of lighting must be able to suit many differing uses in any single space. Remembering this, it also needs to be easily managed so local staff can use the control system to make the transition from one lighting pattern to another without any embarrassing glitches.

From the cleaning schedule to a business meeting and then an intimate setting for dinner, stay in control with C-Bus and use either the simplest of switches to the most intuitive of colour touch screen panels.



Reynella Mazda, SA



Icebergs Dining Room and Bar, Sydney (Image courtesy of Lazzarini Pickering Architetti)







Victorian County Court, Melbourne





WORKPLACE SOLUTIONS

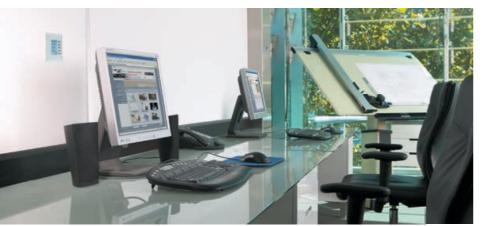


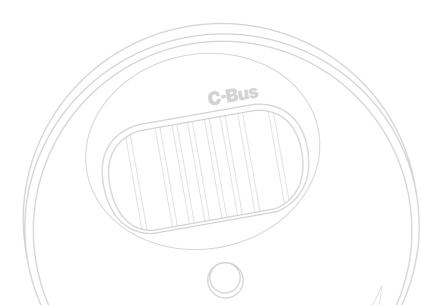
Create the Perfect Environment

For hospitals, universities and other educational establishments, offices and factories, the use of natural light (whilst maintaining correct lighting levels) can help ensure productivity levels are maintained. Integrating sensors and detectors into control systems to regulate the lighting load ensures that not only are the optimal effects for health and wellbeing achieved, but also that energy consumption is minimised. For example, light level sensors can automatically dim lighting to suit localised ambient conditions. Whereas occupancy sensors can be used to ensure unoccupied spaces are not lit needlessly, but always provided with safe illumination when required.

CLIPSAL

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COMPLETELY INTEGRATED SOLUTIONS

Designed for Today, Built for the Future

Traditionally within a building, different control disciplines were managed separately from each other. Differing system requirements meant integration between them was expensive and cumbersome at best, and often with limited success. This resulted in unstable systems.

In today's world any quality building system must offer multiple solutions for integration. These should be built around open protocols that allow the customer the confidence of good functionality today, and with ongoing sustained support and operation into the future. C-Bus provides multiple paths for integration using open solutions.

Fully Backwards Compatible.

Clipsal's commitment to backwards compatibility also provides stability to integrated designs, ensuring continued operation to meet customers' needs as systems are upgraded.

We have our own OPC server that leverages the well-known automation standard, originally developed for the process control industry, but increasingly used by many aspects of building management solutions.

C-Bus also has in-house solutions for BACnet connectivity that allow the seamless integration of C-Bus and BACnet enabled building management systems.

We also have a C-Bus enabled programme where third party vendors with an extensive array of products make use of Clipsal's' own open-source connectivity solutions.





INĘINITŲ

PERSONALISED CONTROL

Highlight Your Best Features

For retail spaces, good lighting control enhances a business's style, atmosphere and presence. With the aid of a good lighting designer (who can make use of the capability of our functions and controls) you can highlight the best features within your space and set the perfect mood.

This will work to enhance the experience of your customers allowing you to amplify the areas of the room you are proud of and in some instances, even help to disguise the room's features that you're not too fond of.

Enhance Your Customer's Experience

Ambience is the word often used by customers to describe their reaction to a space, especially in a location used for dining. The key to successfully employing spaces to their maximum advantage is to have sufficient flexibility. For example, you may want to create an intimate dinner setting for two. Perhaps a party for the local rugby team? Whatever the scene, one thing is certain, the right mood will enhance the customer's experience of your facility. The system provides easy to use interfaces that empower local staff with the ability to define, create and manage their environment.

Features can be manually selected or fully automated, driven by the lighting control system itself or through integration with building management systems.



LIGHTING AND ENVIRONMENT

For many buildings lighting is a key factor in delivering the architect's vision. Exterior lighting and feature lighting for entrances and lobbies plays a key role in the final visual presentation of the building as a complete entity. This lighting can extend to landscape and other ornamental features surrounding the building.

Additionally lighting for public spaces is crucial to the provision by authorities of a safe environment for everyone.

Colour and contrast defined by light can be used to enhance or promote architectural structures to their very best potential.







Edith Cowan University WA







Edith Cowan University, WA

The ability of C-Bus control systems to provide varieties of effect, colour and features add to the public experience of architecture, landscape and the locality in which they are contained.



Rundle Mall. Adelaide SA

CONSISTENCY IN STYLE

Look within any meeting room in a modern commercial building and you often see a very cluttered and busy environment, with numerous user interface devices scattered wherever space can be found on the wall.

This clutter is the result of two things:

- Limitations in the range of products, from the supplier forcing the selection of different none matching components.
- A lack of integration capabilities between different manufacturers subsystems, including: lighting control, multi room audio, environmental controls, security systems, etc.

Another factor apparent on many walls is the inconsistency between the style of the control system user interfaces, power outlets, data points, light switches, detectors and sensors etc. This inconsistency creates a feeling of incoherency and gives the space a disjointed feel.

Clipsal is alone in providing a full suite of products that encompass all aspects of control within a single system. This allows the use of common user interfaces across disciplines, but also matches consistently with other on wall devices such as sockets, data outlets and more.





Zurich Financial Services, Svdnev

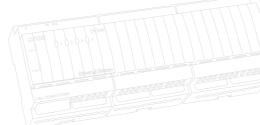


INTELLIGENT CONTROLLERS

The Clipsal C-Bus system has an unrivalled selection of intelligent controllers within its range. It offers comprehensive solutions for a wide variety of control requirements, coupled with the largest collection of intelligent user interfaces on the market today.

With a Clipsal C-Bus solution you can be confident that whatever your application we have the control solution for you.

We provide both DIN rail and wall mounted units depending upon application with a wide range of flexibility within the devices themselves.



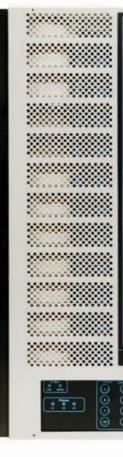
Clipsal's new C-Bus Infinity high powered dimmer products encompass two different ranges. Both product ranges share an innovative modular design and support a wide variety of compatible load types. The high powered dimmer range works seamlessly with all other C-Bus products providing a building wide or corporate wide solution for our customers.

Professional high powered dimmer

C-Bus Professional high powered dimmers have been designed by Clipsal especially for the commercial segment that is best represented by pubs, clubs, and smaller commercial buildings.

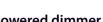
C-Bus Infinity range dimmers provide numerous options, with modular interchangeable channel cards allowing the comprehensive control of;

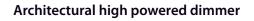
- Leading edge loads up to 20 Amps per channel.
- No requirement for de-rating for electronic transformers.
- Inbuilt soft starting.
- Cold cathode and neon lighting catered for.











Clipsal's new C-Bus Architectural high powered dimmers serve the needs for those customers requiring higher end functionality such as complex cross fading, user definable dimming curves or integration with a broader range of inbuilt external control solutions such as DMX, DSI, DALI and 0-10V.

- 0-10 Volt, DALI high powered broadcast and DSI outputs.
- To control the majority of dimmable fluorescent ballasts.
- Providing simple reliable control of LED lighting loads.
- Switched loads up to 20 Amps per channel, for discharge lighting, curtains and blinds.
- Universal channel cards, self select between leading and trailing edge loads.
- Cold cathode and neon lighting catered for.
- In built soft starting.
- DMX control for integration with theatre lighting control panels and devices.



INTELLIGENT SOFTWARE

C-Bus software applications provide a wide range of enhanced functionality.

C-Bus Schedule Plus

Schedule Plus application software provides a powerful and easy to use interface to C-Bus[®] via a standard PC. Schedule Plus has been developed specifically for commercial and industrial applications. It provides scheduling, manual control and monitoring of a C-Bus[®] system from a PC.

C-Bus OPC Server

The Clipsal C-Bus OPC Server is a software package that enables communication between C-Bus networks and systems containing an OPC client, such as building management systems, process control SCADA systems and the like. As part of the Schneider group, Citect facilities SCADA solutions contain OPC clients which can automatically be connected to a C-Bus system through the C-Bus OPC server.

C-Bus BACnet Gateway

The C-Bus BACnet gateway is an embedded device designed to provide a field bridge between Clipsal C-Bus lighting control systems and building management systems which support the BACnet open protocol.



INTELLIGENT USER INTERFACES

C-Bus provides a wide range of user interfaces. We believe in making the use and interaction with control systems as easy and user friendly as possible.

We supply C-Bus enabled switches in virtually every conceivable combination. For instance, our bus coupler enables even the simplest of switches to become an intelligent device. By providing the widest range on the market, we can supply switches for the most luxurious board room to the most arduous industrial space. For more complex needs, we have a variety of scalable solutions; from the market leading user programmable display switch with dynamic labelling technology through to black and white touch screens, right up to highly featured colour touch screens.















INFINITY

FEATURES AND BENEFITS OF CLIPSAL C-BUS INFINITY DIMMERS

Feature: The C-Bus control system and the wide range of controllers and on wall devices, especially dimmers, provide installers with the ability to set wide ranging moods and effects in lighting systems for commercial spaces.

Benefit: For hotels the use of down lights, case lights and effect lights in lobbies is designed to impress as much as welcome. In ballrooms, lighting has to be capable of providing sufficient light for a business function one day and intimate dimming for a party the next. Meanwhile in hotel rooms, guests are looking to retreat and relax in comfort.

Feature: A wide range of load types are supported by the C-Bus Infinity dimmer.

Benefit: With commercial lighting, it is often hard to determine what load types may be required within a design and changes and additions are commonplace. With the Infinity dimmer range virtually all load types can be accommodated and reconfiguration is always possible due to the flexible modular design.



C-Bus can meet all those lighting needs by offering exacting levels of control. Pre-set dimming can achieve precisely the light levels you require to set the exact mood you wish to create.

Creating the right ambience within commercial properties provides many benefits. In retail and entertainment spaces lighting has a strong impact on mood and the interaction between light level and effects, and use of the space is key to its successful use.

Spaces today often have to accommodate several widely different functions which will require multiple light settings. These are easily achieved with the combination of a C-Bus control system and the new Infinity dimmer range. **Feature:** C-Bus Integration with building management systems.

Benefit: With integration to building management systems, security systems or simply using its own time scheduling software C-Bus can automatically turn lights off at preset times. It sounds simple but effective time control of lighting is a significant contributor to total cost savings.

With centralised control, variation in demand and adjustment to schedules can easily be accommodated. Local overrides and occupancy detectors can be used to ensure lighting is provided whenever necessary. C-Bus also assists building services staff to monitor and easily identify faults. By integration with other services such as security and air conditioning. Operators for these systems can be presented with essential lighting control information when integrated with C-Bus.

Feature: C-Bus Integration with touch screens and other intuitive user controls.

Benefit: In many large venues like stadiums, arenas and auditoriums, the issue of operator training and turnover is a major issue. Lighting controls need to be simple, intuitive and safe but provide control of complex configurations and large lighting loads. C-Bus specialises in energy efficient lighting control with management systems that provide the operator user friendly control.

Feature: C-Bus centralised programming adaptability.

Benefit: Building layouts constantly change in today's world. C-Bus offers you the flexibility to reprogram lighting groups, alter schedules to accommodate any future addition to the office space such as new office structures, partitions, and new open plan desk configurations. With the new Infinity C-Bus Dimmer the ability to reconfigure channel load capacity and load type ensure adaptability in programming is not limited by hardware constraints.

C-Bus can control all internal lighting, including common areas, banquet rooms, offices, toilets, stairways or even arena floodlighting. All of this can be controlled from simple, easily understood user interfaces. **Feature:** C-Bus localised control of wide area lighting systems.

Benefit: In large areas and auditoriums, C-Bus can provide superior lighting control over conventional wiring systems. Lights can be dimmed across large areas with control from a single button if required. Additional controls are easily added and features such as touch screens further add to the ease of use.

Feature: C-Bus products will report error conditions and highlight operational problems.

Benefit: In commercial buildings fast problem resolution is essential. C-Bus can provide total master control from a central point such as a service room. The Service Manager can monitor the entire lighting circuitry at a glance and troubleshoot any potential problems quickly and efficiently.













Feature: C-Bus integration with light level sensors.

Benefit: With light level sensors attached to the C-Bus system the dimmer can be programmed to take advantage of natural light levels and utilise only the minimum necessary amount of artificial lighting, saving energy and therefore money.





by Schneider Electric

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