# **C-Bus** technical selection guide





# Contents

	Page
Introduction	4
Key Input Units	5
■ Input Units	21
System Units	38
Output Units	45
Software Packages	65



# Introduction

Clipsal, a brand of Schneider Electric, is dedicated to supplying end-to-end building management and integrated control with the products, solutions and programs to help meet customers expectations. Utilising the Schneider Electric product basket, complete end-to-end solutions are possible with products catering for any type or size of installation. With solutions ranging from power and lighting control, dimming, energy management, for home automation and commercial applications.

The Clipsal C-Bus® system is a microprocessor based wiring system to control lighting and other electrical services.

Whether on/off control of a lighting circuit or analogue type control such as dimming electronic fluorescent ballasts, C-Bus can be used to control and automate virtually any type of electrical load.

To ensure fast and reliable operation, each device has its own inbuilt microprocessor, which can be individually programmed via 'point and click' PC based software, or via 'learn mode' which doesn't require a PC.

C-Bus information is held within individual units rather than one central point. This ensures optimum communication speed and reliability.

Whilst a computer is not necessary for normal C-Bus operation, PC based control and management software is available and provides additional flexibility to clients requiring this type of control. Clipsal C-Bus is suitable for a wide range of applications, for example:

# **Commercial Lighting Control**

- Fluorescent lighting control for energy cost saving in high rise buildings
- High-bay control in warehouses for energy cost saving
- Mood lighting in restaurants and retail outlets
- Flexible and integrated control of lighting and audio visual equipment in board rooms
- Architectural lighting control for hotel foyers, ballrooms, art galleries and museums

# **Standalone Room Lighting Control**

- Integrated automation via touch screen user interfaces for conference rooms and home theatres
- Multiple scene / mood setting

### **Residential Automation**

- Home entertainment Integrated audio visual, lighting control, and other electrical services
- Security Integrated security, lighting and other electrical services
- Comfort Dimming and scene setting
- Convenience Multiple point control, central point control from touch screens, automated time based control, automated 'goodbye' and 'welcome home' moods

# **Key Input Units**



# Dynamic Labelling Technology, Saturn Series

# Square

The square Saturn series dynamic labelling technology switches are learn enabled surface switches designed to control lighting and other electrical services connected to a C-Bus network. The dynamic labelling technology allows the function of the key to be programmed and displayed onto an LCD display next to the switch button.

The display found on the DLT switch, supports multi language text and user defined bitmaps, such as sliders and bar graphs. The LCD display incorporates back lighting that can be enabled for night operation. In addition, the DLT switch features a page scroll button that permits the user to navigate between pages, to access all control options.

Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

The Saturn DLT switches feature a glass fascia and are available in a range of colour backgrounds, including white, black, mid brown and cream.

Key input units communicate with all other units and obtain power via a single twisted pair of connections to the C-Bus unit. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.



E5084DLGF

### TECHNICAL INFORMATION

C-Bus Supply Voltage	15-36V DC @ 22mA
Maximum Number of Units on	50
a Single C-Bus Network	
Button Indicator	Programmable, Blue
Timer Range	1 sec to 18 hrs
Timer Resolution	1 sec
Dimmer Control	255 possible levels
Number of Scenes	8
Standard Colours	White and Black
Operating Temperature Range	0°C to 45°C
Operating Humidity Range	10 - 95% RH

### PRODUCT FEATURES

- · Available with 4 buttons
- Features blue light indicator with night light function
- Supports text labels and user defined bitmaps
- Ignore first press option
- Fallback to page 1 and 2 option
- Programmable using learn mode or via the C-Bus configuration software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power
- CE (European Community) compliant

CATALOGUE NUMBER DESCRIPTION
Saturn Dynamic Labelling Technology
E5084DL 4 Gang Saturn DLT
Cover Selection: (GF) White, \*(380) Cream, (680) Black, \*(780) Mid-Brown

Saturn DLT Fascia
\*5084DF 4 Gang Saturn DLT fascia
Cover Selection: \*(GF) White, \*(38) Cream, \*(68) Black, \*(78) Mid-Brown

# Dynamic Labelling Technology, Saturn Series Rectangular

The rectangular Saturn series dynamic labelling technology switches are learn enabled surface switches designed to control lighting and other electrical services connected to a C-Bus network. The dynamic labelling technology allows the function of the key to be programmed and displayed onto an LCD display next to the switch button.

The display found on the DLT switch, supports multi language text and user defined bitmaps, such as sliders and bar graphs. The LCD display incorporates back lighting that can be enabled for night operation. In addition, the DLT switch features a page scroll button that permits the user to navigate between pages, to access all control options.

Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

The Saturn DLT switches feature a glass fascia and are available in a range of colour backgrounds, including white, black, mid brown and cream.

Key input units communicate with all other units and obtain power via a single twisted pair of connections to the C-Bus unit. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.



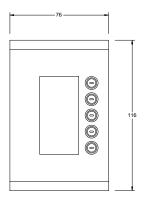
5085DL680

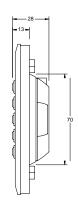
### TECHNICAL INFORMATION

C-Bus Supply Voltage	15-36V DC @ 22mA
Maximum Number of Units on	50
a Single C-Bus Network	
Button Indicator	Programmable, Blue
Timer Range	1 sec to 18 hrs
Timer Resolution	1 sec
Dimmer Control	255 possible levels
Number of Scenes	8
Standard Colours	White and Black
Operating Temperature Range	0°C to 45°C
Operating Humidity Range	10 - 95% RH

### PRODUCT FEATURES

- 5 button
- · Features blue light indicator with night light function
- Supports text labels and user defined bitmaps
- · Ignore first press option
- · Fallback to page 1 option
- Programmable using learn mode or via the C-Bus configuration software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power
- CE (European Community) compliant







5085DL illustrated

# CATALOGUE NUMBER DESCRIPTION Saturn Dynamic Labelling Technology

**5085DL** 5 Gang Saturn DLT

Cover Selection: (GF) White, \*(380) Cream, (680) Black, \*(780) Mid-Brown

**Saturn DLT Fascia** 

\*5085DF 5 Gang Saturn DLT fascia

Cover Selection: \*(GF) White, \*(30) Cream, \*(60) Black, \*(70) Mid-Brown

\*Ask for availability

# Saturn Input Switches

# Square

The square Saturn series key input units are learn enabled surface switches designed to control lighting and other electrical services connected to a C-Bus network.

Suitable for exclusive interiors, the Saturn series features an impact resistant glass fascia with white, mid brown, black or cream backing. The round silver finish push buttons feature a dual coloured light indicator, providing a visual indication of the switch state

Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

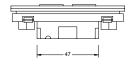
Key input units communicate with all other units and obtain power via a single twisted pair connection to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.



E5084NLGF

### TECHNICAL INFORMATION

C–Bus Supply Voltage	15-36VDC @ 22mA
Maximum Number of Units on a Single C-Bus Network	50
Status Indicator	Programmable, Dual, Orange and Blue
Timer Range	1 sec to 18 hrs
Timer Resolution	1 sec
Dimmer Control	255 possible levels
Mounting Centres	84mm
Standard Colours	White and Black
Operating Temperature Range	0°C to 45°C
Operating Humidity Range	0 - 95% RH, non-condensing



E5084NL illustrated

- Available as 2, 4 or 6 key configuration
- Features bi-colour light indicator with night light
- Programmable using learn mode or via the C-Bus Toolkit Software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power
- Features, 60.3mm mounting centres
- Available in glass finish with white, black, cream or mid-brown background
- CE (European Community) compliant

Saturn Input Uni	ts
E5082NL	2 Gang Saturn input square
E5084NL	4 Gang Saturn input square
E5086NL	6 Gang Saturn input square
Cover Selection: (GF) White, *(380) Cream, (680) Black, *(780) Mid-Brown	

# Saturn Input Switches

# Rectangular

The rectangular Saturn series key input units are learn enabled surface switches designed to control lighting and other electrical services connected to a C-Bus Network.

Suitable for exclusive interiors, the Saturn series features an impact resistant glass fascia with white, mid brown, black or cream backing. The round silver finish push buttons feature a dual coloured light indicator, providing a visual indication of the switch state

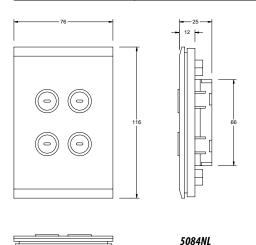
Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

Key input units communicate with all other units and obtain power via a single twisted pair connection to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.



### TECHNICAL INFORMATION

C-Bus Supply Voltage	15-36VDC @ 22mA
Maximum Number of Units on a Single C-Bus Network	50
Status Indicator	Programmable, Dual, Orange and Blue
Timer Range	1 sec to 18 hrs
Timer Resolution	1 sec
Dimmer Control	255 possible levels
Mounting Centres	84mm
Standard Colours	White and Black
Operating Temperature Range	0°C to 45°C
Operating Humidity Range	0 - 95% RH, non-condensing



- Available as 2, 4 or 6 key configuration
- Features bi-colour light indicator with night light
- Programmable using learn mode or via the C-Bus Toolkit Software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power
- Features, 84mm mounting centres, compatible with Clipsal Mounting Boxes
- Available in glass finish with white, black, cream or mid-brown background
- CE (European Community) compliant

CATALOGUE NUMBER	DESCRIPTION
Saturn Input Units	
5082NL	2 Gang Saturn input square
5084NL	4 Gang Saturn input square
5086NL	6 Gang Saturn input square
Cover Selection: (GF) White, *(380) Cream, (680) Black, *(780) Mid-Brown	
*Ask for availability	

# Saturn Accessories Saturn Fascia



E5086F30



E5086F60



E5086F70



5086F30



5086F60



5086F70

CATALOGUE NUMBER	DESCRIPTION
*E5082F	2 Gang Saturn Fascia Square
*E5084F	4 Gang Saturn Fascia Square
*E5086F	6 Gang Saturn Fascia Square
Cover Selection: *Whit	e (GF), *Cream (30), *Black (60), *Mid-Brown (70)
*5082F	2 Gang Saturn Fascia Rectangular
*5084F	4 Gang Saturn Fascia Rectangular
*5086F	6 Gang Saturn Fascia Rectangular
Cover Selection: *White	e (GF), *Cream (30), *Black (60), *Mid-Brown (70)
*Ask for availability	

# Pre-labelled Button Caps



CATALOGUE NUMBER	DESCRIPTION
5080LC	Pre-labelled Button Caps

# Neo Dynamic Labelling Technology

# Square

The square Neo series dynamic labelling technology switches are learn enabled surface switches designed to control lighting and other electrical services connected to a C-Bus network. The dynamic labelling technology allows the function of the key to be programmed and displayed onto a LCD display next to the switch button.

The display found on the DLT switch, supports multi language text and user defined bitmaps, such as sliders and bar graphs. The LCD display incorporates back lighting that can be enabled for night operation. In addition, the DLT switch features a page scroll button that permits the user to navigate between pages, to access all control options.

Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

Key input units communicate with all other units and obtain power via a single twisted pair of connections to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.



E5054DLGB

### TECHNICAL INFORMATION

C-Bus Supply Voltage	15-36V DC @ 22mA	
Maximum Number of Units on	50	
a Single C-Bus Network		
Button Indicator	Programmable, Blue	
Timer Range	1 sec to 18 hrs	
Timer Resolution	1 sec	
Dimmer Control	255 possible levels	
Number of Scenes	8	
Standard Colours	Grey/Silver	
Operating Temperature Range	0°C to 45°C	
Operating Humidity Range	10 - 95% RH	

- · Available with 4 buttons
- Features blue light indicator with night light function
- Supports text labels and user defined bitmaps
- Ignore first press option
- Fallback to page 1 and 2 option
- Programmable using learn mode or via the C-Bus configuration software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power
- CE (European Community) compliant

# Neo Dynamic Labelling Technology Rectangular

The rectangular Neo series dynamic labelling technology switches are learn enabled, surface switches designed to control lighting and other electrical services connected to a C-Bus network. The dynamic labelling technology allows the function of the key to be programmed and displayed onto a LCD display next to the switch button.

The display found on the DLT switch, supports multi language text and user defined bitmaps, such as sliders and bar graphs. The LCD display incorporates back lighting that can be enabled for night operation. In addition, the DLT switch features a page scroll button that permits the user to navigate between pages, to access all control options.

Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

Key input units communicate with all other units and obtain power via a single twisted pair of connections to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

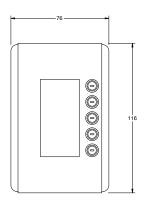


5055DLGB

### TECHNICAL INFORMATION

C-Bus Supply Voltage	15-36V DC @ 22mA
Maximum Number of Units on	50
a Single C-Bus Network	
Button Indicator	Programmable, Blue
Timer Range	1 sec to 18 hrs
Timer Resolution	1 sec
Dimmer Control	255 possible levels
Number of Scenes	8
Standard Colours	Grey/Silver
Operating Temperature Range	0°C to 45°C
Operating Humidity Range	10 - 95% RH

- 5 huttons
- Features blue light indicator with night light function
- Supports text labels and user defined bitmaps
- · Ignore first press option
- · Fallback to page 1 option
- Programmable using learn mode or via the C-Bus configuration software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power
- CE (European Community) compliant







5055DL illustrated

# Neo Input Switches

# Square

The Neo key input units are learn enabled surface switches designed to control lighting and other electrical services connected to a C-Bus network.

Suitable for exclusive interiors, the Neo features large, flat, tactile rocker action switches that have been designed to blend in with the fascia. The Neo switches feature a bi-colour light indicator that provides a visual indication of switch status.

The Neo switches feature a night light function, and incorporate an infrared receiver in the body of the unit, so the switch may be used with a remote control.

Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

Key input units communicate with all other units and obtain power via a single twisted pair connection to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

The Neo switches are available in a wide range of finishes.

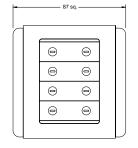


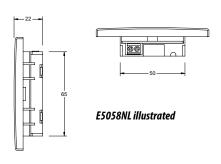
E5058NLGB

### TECHNICAL INFORMATION

C-Bus Supply Voltage	15-36VDC @ 22mA
Maximum Number of Units on a Single C-Bus Network	50
Status Indicator	Programmable, Dual, Orange and Blue
Timer Range	1 sec to 18 hrs
Timer Resolution	1 sec
Dimmer Control	255 possible levels
Mounting Centres	60.3mm
Standard Colours	Grey/Silver
Standard Colours (Inner Surround)	Grey/Silver
Operating Temperature Range	0°C to 45°C
Operating Humidity Range	0 - 95% RH, non-condensing

- Available as 2, 4 or 8 key configuration
- Features bi-colour light indicator with night light function
- · Built in infrared receiver
- Programmable using learn mode or via the C-Bus Toolkit
   Software.
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power
- Features 60.3mm mounting centres
- CE (European Community) compliant





CATALOGUE NUMBER	DESCRIPTION
E5052NLGB	2 Gang Neo Input Square Grey/Silver
E5054NLGB	4 Gang Neo Input Square Grey/Silver
E5058NLGB	8 Gang Neo Input Square Grey/Silver

# Neo Input Switches

# Rectangular

The rectangular Neo key input units are learn enabled surface switches designed to control lighting and other electrical services connected to a C-Bus network.

Suitable for exclusive interiors, the Neo features large, flat, tactile rocker action switches that have been designed to blend in with the fascia. The Neo switches feature a bi-colour light indicator that provides a visual indication of switch status.

The Neo switches feature a night light function, and incorporate an infrared receiver in the body of the unit, so the switch may be used with a remote control.

Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

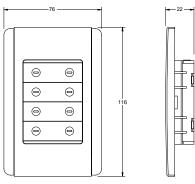
Key input units communicate with all other units and obtain power via a single twisted pair connection to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's

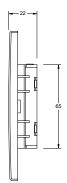
The Neo switches are available in a wide range of colours and finishes.

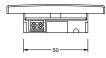


### TECHNICAL INFORMATION

C-Bus Supply Voltage	15-36VDC @ 22mA
Maximum Number of Units on a Single C-Bus Network	50
Status Indicator	Programmable, Dual, Orange and Blue
Timer Range	1 sec to 18 hrs
Timer Resolution	1 sec
Dimmer Control	255 possible levels
Mounting Centres	60.3mm
Standard Colours	Grey/Silver
Standard Colours (Inner Surround)	Grey/Silver
Operating Temperature Range	0°C to 45°C
Operating Humidity Range	0 - 95% RH non-condensing







5058NL illustrated

- Available as 2, 4 or 8 key configuration
- Features bi-colour light indicator with night light function
- · Built in infrared receiver
- Programmable using learn mode or via the C-Bus Toolkit Software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power
- Features 84mm mounting centres, compatible with Clipsal Mounting Boxes
- CE (European Community) compliant

CATALOGUE NUMBER	DESCRIPTION
5052NLGB	2 Gang Neo Input Rectangular Grey/Silver
5054NLGB	4 Gang Neo Input Rectangular Grey/Silver
5058NLGB	8 Gang Neo Input Rectangular Grey/Silver

# Neo Accessories















CATALOGUE NUMBER	DESCRIPTION
*E5050IS †	Square inner surround – pack of 5
*5050IS†	Rectangular inner surround – pack of 5
† Available in *Grey/Sil	ver (GB), *White (WE), *Cream (CR), *Desert Sand (DS), *Soft Grey (SG), *Black (BK), *Brown (BR)
*E5050ISBA	Square inner surround – brushed aluminium – pack of 5
*5050ISBA	Rectangular inner surround - brushed aluminium - pack of 5
*E5050ISGD	Square inner surround – gold – pack of 5
*5050ISGD	Rectangular inner surround - gold - pack of 5
*E50500S†	Square outer surround – pack of 5
*50500S†	Rectangular outer surround - pack of 5
† Available in *Grey/Sil	ver (GB), *White (WE), *Cream (CR), *Desert Sand (DS), *Soft Grey (SG), *Black (BK), *Brown (BR)
*5052NRP †	Rocker Switch Covers and Spacers for 2 Gang input unit
*5054NRP †	Rocker Switch Covers and Spacers for 4 Gang input unit
*5058NRP †	Rocker Switch Covers and Spacers for 8 Gang input unit
† Available in *Grey/Sil	ver (GB), *White (WE), *Cream (CR), *Desert Sand (DS), *Soft Grey (SG), *Black (BK), *Brown (BR)
*5052NRI †	Rocker Switch with ID Window - pack of 10
† Available in *Grey/Sil	ver (GB), *White (WE), *Cream (CR), *Black (BK)
*Ask for availability	
non ioi aranability	

# Moulding Frames









5850FCM

**CATALOGUE NUMBER** DESCRIPTION **Moulding Frames** \*5850FBK Moulding frame rectangular - Black 5pk \*5850FBR Moulding frame rectangular - Brown 5pk \*5850FCM Moulding frame rectangular - Cream 5pk \*5850FWE Moulding frame rectangular - White 5pk Wall boxes 1571 Wall box J type metal 1571P Wall box J type plastic \*E5050MF Mounting flange \*Ask for availability

# E-Series Range Input Switches

The E-Series key input units are learn enabled surface switches designed to control lighting and other electrical services connected to a C-Bus network.

Key input units are fully programmable and may be configured as toggle, dimmer, type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

Key input units communicate with all other units and obtain power via a single twisted pair connection to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

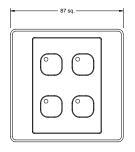


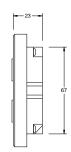
E5034NLWE

# TECHNICAL INFORMATION

C-Bus Supply Voltage	15-36VDC @ 18mA
Maximum Number of Units on a Single C-Bus Network	100
Status Indicator	Programmable, Orange LED
Timer Range	1 sec to 18 hrs
Timer Resolution	1 sec
Dimmer Control	255 possible levels
Mounting Centres	60.3mm
Standard Colours	White
Operating Temperature Range	0°C to 45°C
Operating Humidity Range	0 - 95% RH, non-condensing

- Available as 1, 2 or 4 key configuration
- Programmable using learn mode or via the C-Bus Toolkit Software
- Features 60.3mm mounting centres
- CE (European Community) compliant







E5034NL illustrated

CATALOGUE NUMBER	DESCRIPTION
*E5031NLWE	1 Gang key vertical
*E5032NLWE	2 Gang key horizontal
*E5032VNLWE	2 Gang key vertical
*E5034NLWE	4 Gang key vertical
*Ask for availability	

# Reflection Range Input Switches

The Reflections series key input units are learn enabled, ultra flat, surface switches designed to control lighting and other electrical services connected to a C-Bus network.

Suitable for exclusive interiors, the Reflection switches feature a screwless, high grade, stainless steel metal cover. The screwless design means that the aesthetics and architectural finish of the product provides a clean, stylish appearance.

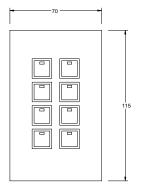
The Reflection series also feature square, backlit, metal finish switches to maintain the aesthetics of the switch plate.

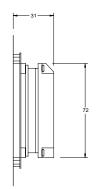
Key input units are fully programmable and may be configured as toggle, dimmer, timer or scene control type functions. With C-Bus switches it is possible to realise multi-way, multi-function switching or dimming control.

Key input units communicate with all other units and obtain power via a single twisted pair connection to the C-Bus. In the event of C-Bus power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

### TECHNICAL INFORMATION

C-Bus Supply Voltage	15-36VDC @ 20mA
Maximum Number of Units on a Single C-Bus Network	50
Status Indicator	Programmable, Blue LED
Timer Range	1 sec to 18 hrs
Timer Resolution	1 sec
Dimmer Control	255 possible levels
Mounting Centres	84mm
Operating Temperature Range	0°C to 45°C
Operating Humidity Range	0 - 95% RH, non-condensing







R5068NL illustrated



R5068NL



R5050WB

- Available as 1, 2, 3, 4, 6 and 8 key configuration
- Features blue light indicator with night light
- Programmable using learn mode or via the C-Bus Toolkit Software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power
- Features 84mm mounting centres (requires special wallbox for mounting)
- CE (European Community) compliant

CATALOGUE NUMBER	DESCRIPTION
*R5061NL	1 Gang input reflection range
*R5062VNL	2 Gang input reflection range
*R5063NL	3 Gang input reflection range
*R5064VNL	4 Gang input reflection range
*R5066NL	6 Gang input reflection range
*R5068NL	8 Gang input reflection range
R5050WB	Back box for reflection range

# **Input Units**



# Black & White Touch Screen

The Black and White Touch Screen builds on the success of the Monochrome Touch Screen, with many enhancements made in this innovative product developed by Clipsal engineers.

Designed to be quicker, easier and more flexible to install and commission, the new unit has significant enhancements to its predecessor. Compatible with Version 4 of Clipsal's Windows® based drag and drop programming software (PICED), commissioning is now possible through a standard USB port located underneath the fascia that can be utilised as a PC interface. A separate RS-232 port is included within the logic versions to allow integration to third party devices.

The touch screen requires a custom wall box, which is supplied separately but does not require an external power supply.

# Scornes (of on ) In ording (ording ording ordina o

5080CT26



BS5000CT2

# TECHNICAL INFORMATION

DI ACV AND WHITE TOHCH CODEEN

C-Bus Supply Voltage	15-36VDC @ 65mA
Control Functions	Load switching & dimming
	Scene control
	Logic (Logic engine versions only)
	Scheduling
Screen Type	Black & White, Backlit
Resolution	Screen size, QVGA 320 x 240 pixels
Screen Size viewing area	100mm x 75mm (119mm Diagonal)
Real Time Clock	365 day
Backlighting	Yes, programmable
Network Burden	Software selectable
System Clock	Software selectable
C-Bus Connection	Screw terminals
Programming Port	USB Type B
Surround Colours	Saturn, Neo, Stainless Steel, Plastic
Operating Temperature Range	10°C to 45°C
Operating Humidity Range	10 – 95% RH
Maximum number of controller loads	255 Group Addresses on each of the 10 C-Bus Applications
Maximum number of C-Touch	10
Units on a single C-Bus Network	
Third Party interface	RS-232 port (supported by Logic Engine versions only)

- Larger screen than monochrome model with enhanced contrast and superior backlighting
- Compatible with Version 4 of Clipsal's Windows® based drag and drop programming software (PICED)
- Available with or without C-Bus Logic Engine features
- A separate RS-232 port is included on the rear of the unit for third party device integration (supported by Logic Engine versions only)
- Programmed via a standard USB port on the unit
- USB programming port accessible from the front of the unit
- Does not require additional power supply
- CE (European Community) compliant

CATALOGUE NUMBE	
Saturn Touch Scree	en w/o Logic Engine
5080CT2GF	Black & White Touch Screen White
*5080CT23	Black & White Touch Screen Cream
*5080CT27	Black & White Touch Screen Mid-Brown
5080CT26	Black & White Touch Screen Black
Neo Touch Screen v	
5050CT2GB	Black & White Touch Screen Neo Grey/Silver
*5050CT2WE	Black & White Touch Screen Neo White
*5050CT228	Black & White Touch Screen Neo White Brushed Aluminium
*5050CT2BK	Black & White Touch Screen Neo Black
Flat Plate Series w	/o Logic Engine
*BS5000CT2	Black & White Touch Screen Stainless Steel
Plastic Series w/o I	ogic Engine
Plastic Series w/o I SC5000CT2WE	Logic Engine Black & White Touch Screen Plastic White
Plastic Series w/o I SC5000CT2WE *SC5000CT2CM	

# Black & White Touch Screen







5080CTL2GF 5080CTL27 5080CTL23

Saturn Touch Screen with Logic Engine  5080CTL2GF Black & White Touch Screen Logic Saturn White  *5080CTL23 Black & White Touch Screen Logic Saturn Gream  *5080CTL27 Black & White Touch Screen Logic Saturn Black  *5080CTL26 Black & White Touch Screen Logic Saturn Black  Neo Touch Screen with Logic Engine  5050CTL2GB Black & White Touch Screen Logic Neo Grey/Silver  *5050CTL2WE Black & White Touch Screen Logic Neo White  *5050CTL28 Black & White Touch Screen Logic Neo White Brushed Aluminium  *5050CTL2BK Black & White Touch Screen Logic Neo Black	
### Store   Black & White Touch Screen Logic Saturn White  #\$5080CTL23	
*5080CTL27 Black & White Touch Screen Logic Saturn Mid-brown 5080CTL26 Black & White Touch Screen Logic Saturn Black  Neo Touch Screen with Logic Engine 5050CTL2GB Black & White Touch Screen Logic Neo Grey/Silver  *5050CTL2WE Black & White Touch Screen Logic Neo White  *5050CTL28 Black & White Touch Screen Logic Neo White Brushed Aluminium  *5050CTL28K Black & White Touch Screen Logic Neo Black	
SOBOCTL26 Black & White Touch Screen Logic Saturn Black  Neo Touch Screen with Logic Engine  5050CTL2GB Black & White Touch Screen Logic Neo Grey/Silver  *5050CTL2WE Black & White Touch Screen Logic Neo White  *5050CTL28 Black & White Touch Screen Logic Neo White Brushed Aluminium  *5050CTL2BK Black & White Touch Screen Logic Neo Black	
Neo Touch Screen with Logic Engine  5050CTL2GB Black & White Touch Screen Logic Neo Grey/Silver  *5050CTL2WE Black & White Touch Screen Logic Neo White  *5050CTL228 Black & White Touch Screen Logic Neo White Brushed Aluminium  *5050CTL2BK Black & White Touch Screen Logic Neo Black	
### Black & White Touch Screen Logic Neo Grey/Silver  #### Black & White Touch Screen Logic Neo White  ###################################	
### Black & White Touch Screen Logic Neo Grey/Silver  ###################################	
*5050CTL2WE Black & White Touch Screen Logic Neo White  *5050CTL228 Black & White Touch Screen Logic Neo White Brushed Aluminium  *5050CTL2BK Black & White Touch Screen Logic Neo Black	
*5050CTL228 Black & White Touch Screen Logic Neo White Brushed Aluminium  *5050CTL2BK Black & White Touch Screen Logic Neo Black	
*5050CTL2BK Black & White Touch Screen Logic Neo Black	
flat Diato Touch Sevon with Logic Engina	
Flat Plate Touch Screen with Logic Engine *BS5000CTL2 Black & White Touch Screen Logic S/Steel	
Plastic Series Touch Screen with Logic Engine	
SC5000CTL2WE Black & White Touch Screen Logic Plastic White	
SC5000CTL2CM Black & White Touch Screen Logic Plastic Cream	
*SC5000CTL2BK Black & White Touch Screen Logic Plastic Black	
ACCESSORIES FOR BLACK & WHITE TOUCH SCREEN	
CATALOGUE NUMBER DESCRIPTION	
CATALOGUE NUMBER DESCRIPTION Wall box	
CATALOGUE NUMBER DESCRIPTION  Wall box  5000CT2WB Black & White Touch Screen Wall Box	
CATALOGUE NUMBER DESCRIPTION Wall box	
CATALOGUE NUMBER DESCRIPTION Wall box 5000CT2WB Black & White Touch Screen Wall Box	
CATALOGUE NUMBER DESCRIPTION  Wall box 5000CT2WB Black & White Touch Screen Wall Box  Third Party Interface Lead 5000CT2R5232 Black & White Touch Screen RS232 Lead	
CATALOGUE NUMBER DESCRIPTION  Wall box 5000CT2WB Black & White Touch Screen Wall Box  Third Party Interface Lead 5000CT2R5232 Black & White Touch Screen RS232 Lead  Fascia	
CATALOGUE NUMBER DESCRIPTION  Wall box  5000CT2WB Black & White Touch Screen Wall Box  Third Party Interface Lead  5000CT2R5232 Black & White Touch Screen RS232 Lead  Fascia  *5080CT2F Saturn glass fascia	
CATALOGUE NUMBER DESCRIPTION  Wall box 5000CT2WB Black & White Touch Screen Wall Box  Third Party Interface Lead 5000CT2R5232 Black & White Touch Screen RS232 Lead  Fascia *5080CT2F Saturn glass fascia Cover Selection: (GF) White, (3) Cream, (6) Black, (7) Mid-Brown	
CATALOGUE NUMBER DESCRIPTION  Wall box 5000CT2WB Black & White Touch Screen Wall Box  Third Party Interface Lead 5000CT2R5232 Black & White Touch Screen RS232 Lead  Fascia *5080CT2F Saturn glass fascia Cover Selection: (GF) White, (3) Cream, (6) Black, (7) Mid-Brown  *5050CT2F Neo fascia	
CATALOGUE NUMBER DESCRIPTION  Wall box 5000CT2WB Black & White Touch Screen Wall Box  Third Party Interface Lead 5000CT2R5232 Black & White Touch Screen RS232 Lead  Fascia *5080CT2F Saturn glass fascia Cover Selection: (GF) White, (3) Cream, (6) Black, (7) Mid-Brown  *5050CT2F Neo fascia	
CATALOGUE NUMBER DESCRIPTION  Wall box 5000CT2WB Black & White Touch Screen Wall Box  Third Party Interface Lead 5000CT2RS232 Black & White Touch Screen RS232 Lead  Fascia  *5080CT2F Saturn glass fascia  Cover Selection: (GF) White, (3) Cream, (6) Black, (7) Mid-Brown  *5050CT2F Neo fascia  Cover Selection: (28) White & Brushed Aluminium, (BK) Black, (GB) Grey/Silver, (WE) White	
CATALOGUE NUMBER DESCRIPTION  Wall box 5000CT2WB Black & White Touch Screen Wall Box  Third Party Interface Lead 5000CT2RS232 Black & White Touch Screen RS232 Lead  Fascia *5080CT2F Saturn glass fascia Cover Selection: (GF) White, (3) Cream, (6) Black, (7) Mid-Brown	
CATALOGUE NUMBER DESCRIPTION Wall box 5000CT2WB Black & White Touch Screen Wall Box  Third Party Interface Lead 5000CT2RS232 Black & White Touch Screen RS232 Lead  Fascia *5080CT2F Saturn glass fascia Cover Selection: (GF) White, (3) Cream, (6) Black, (7) Mid-Brown  *5050CT2F Neo fascia Cover Selection: (28) White & Brushed Aluminium, (BK) Black, (GB) Grey/Silver, (WE) White  Flat Plate *BS5000CT2F Black & White Touch Screen Metal Fascia Stainless Steel	
CATALOGUE NUMBER DESCRIPTION  Wall box 5000CT2WB Black & White Touch Screen Wall Box  Third Party Interface Lead 5000CT2R5232 Black & White Touch Screen RS232 Lead  *5080CT2F Saturn glass fascia Cover Selection: (GF) White, (3) Cream, (6) Black, (7) Mid-Brown  *5050CT2F Neo fascia Cover Selection: (28) White & Brushed Aluminium, (BK) Black, (GB) Grey/Silver, (WE) White  *B55000CT2F Black & White Touch Screen Metal Fascia Stainless Steel  Plastic Series	
CATALOGUE NUMBER DESCRIPTION  Wall box 5000CT2WB Black & White Touch Screen Wall Box  Third Party Interface Lead 5000CT2RS232 Black & White Touch Screen RS232 Lead  Fascia  *5080CT2F Saturn glass fascia  Cover Selection: (GF) White, (3) Cream, (6) Black, (7) Mid-Brown  *5050CT2F Neo fascia  Cover Selection: (28) White & Brushed Aluminium, (BK) Black, (GB) Grey/Silver, (WE) White	

21

# Colour Touch Screens

The colour touch screen provides a simple, elegant and functional interface to a C-Bus management and control system. The touch screen provides a focal point to control and monitor a building's electrical systems, such as lighting, irrigation and entertainment services.

The touch screen is a wall mounted, touch sensitive, high resolution LCD screen that supports user defined graphics such as sliders, bitmaps and images and text characters, including English, Chinese, Arabic and other languages. The menus are fully customised at the time of installation, and may be changed at any time thereafter.

The touch screen incorporates an astronomical, real time clock for event scheduling and calendar functions, based on time of day, week, month or year. The colour touch screen features a logic engine module, that facilitates the development of logic based routines and scenarios, providing additional functionality of the installed system.

In addition, the colour touch screen is supplied with powerful configuration software that allows the installer to develop custom pages and menus to suit any installation of any size.

Available in either Neo or Saturn style, to complement the existing C-Bus wall switches. In addition, the touch screen features backlighting, that is controlled from a light level sensor located on the unit. The touch screen requires a custom wall box and power supply, which are supplied separately.



BS5000CTC2



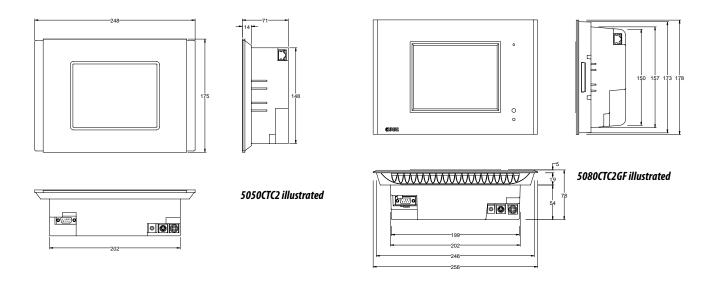
5050CTC2

### TECHNICAL INFORMATION

C-Bus Supply Voltage	15 - 36VDC @ 22mA
External Power Supply	5VDC @ 10A (supplied)
Control Functions	Switching, dimming, scene control, event scheduling or logic module
Screen Type	LCD active matrix, backlit
Touch Overlay Type	Resistive membrane
Resolution	VGA, 640 x 480 pixels
Screen Size	16.25cm (diagonal)
Screen Viewing Area	130mm(W) x 97mm(H)
Horizontal Viewing Angles	+/- <b>70</b> °
Vertical Viewing Angles	40° up and 70° down
Luminance	300 cd/m <sup>2</sup>
Backlight	Cold cathode with light sensor
Memory	256MB compact flash
Real Time Clock	365 day
Network Burden	Software selectable
System Clock	Software selectable
C-Bus Connection	2 x RJ45 sockets
Ethernet Connection	2 x RJ45 sockets, 10/100MHz
Serial Connection	DB9 plug
Composite Video	RCA socket
Styles	NEO (ABS), SATURN (Glass), Brass and Stainless Steel
Dimensions	248mm(W) x 175mm(H) x 60mm(D)
Operating Temperature Range	0°C to 30°C
Operating Humidity Range	10 - 95% RH, non-condensing

- Programmable using the C-Bus touch screen configuration software, via the serial or Ethernet connection
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power
- Controls and monitors devices connected to the C-Bus, Ethernet or serial connections
- Functions include; scheduling, scene control, irrigation control, logic and scenario management
- Astronomical clock for scheduling and time management of events
- Graphical user based drag and drop configuration software, plus free form logic programming language
- Software interface design supports 101 levels of alpha blending
- Animated buttons with up to 256 animation frames supported
- Fully customized graphics, including bar graphs, sliders, percentage indicators, images, gauges and clocks, with any border and background style
- Supports embedded web pages
- · Supports audio WAV files
- · Password access control
- External power supply included
- CE (European Community) compliant

# Colour Touch Screens



CATALOGUE NUMBER	DESCRIPTION
Saturn Touch Screen	
5080CTC2GF	Colour touch screen with white saturn
Neo Touch Screen	
5050CTC2	Colour touch screen with white neo
Flat Plate Series	
BS5000CTC2	Colour touch screen with stainless steel

# Accessories for Colour Touch Screen

CATALOGUE NUMBER	DESCRIPTION
Wallbox	
5000CTCWB	Colour Touch screen wall box
Power Supply	
5000CTCPS2	Colour Touch screen Power Supply

# Thermostats

Enjoy the perfect temperature all year round with C-Bus Thermostats. C-Bus Thermostats are programmable and will control heating, ventilation, and air conditioning (HVAC) equipment.

The Thermostat range allows the user to manually set the mode of operation (heating, cooling and ventilation) as well as control fan speed and setback or economy modes. The easy to use operater interface includes an integral LCD to display the current temperature and mode of operation. Thermostat is compatible with equipment that supports SELV contact (RWG) control.

Wall mounted, Single Zone Thermostats include support for control of HVAC units via C-Bus or the internal HVAC relays. They also allow the user to manually uset the temperature and mode of operation (heating, cooling or ventilation). The easy to use operator interface includes fan speed control, set back or economy mode and an integral LCD to display the current temperature and mode of operation.

Programmable 4 Zone Thermostats include on-board 7-day HVAC time scheduling (user programmable) manual fan speed control, set back mode and an easy to use interface, comprising of an LCD, manual control buttons and a rotating dial with an integral press switch. From the unit, the user can manually adjust the temperature set point, the mode of operation (heating, cooling, ventilation) and time schedules.



Single Zone



4 Zone

### TECHNICAL INFORMATION

C-Bus Supply Voltage	15 - 36VDC, 40mA
	Does not supply current to the C-Bus network
C-Bus AC Input Impedance	50kΩ @ 1kHz
Relays (5070THPR model)	Each relay rated at 2A @ 24V ac 3750V isolation between terminals and C-Bus
C-Bus Connection	One terminal block to accommodate 0.2 to 1.3mm² (24 to 16 AWG)
Temperature Sensor Accuracy	=/- 0.5°C (+/- 0.9°F)
C-Bus System Clock	Software selectable
Network Burden	Software selectable
Operating Temperature	-10 to 50°C (14 to 122°F)
Operating Humidity Range	10 to 95% R.H.

- Support for control of HVAC units via C-Bus or internal relays ('RWG' control)
- Control of up to four switched Zones for ducted systems plus the common zone (4 zone unit only)
- 7 day programmable HVAC schedules (4 zone unit only)
- Support for remote temperature sensing by other C-Bus devices
- Optional manual fan speed (for HVAC plant that supports variable fan speeds)
- Setback capability for reducing energy consumption.
- CE (European Community) compliant

CATALOGUE NUMBER	DESCRIPTION	CATALOGUE NUMB
*5070THBRPGWE	Single Zone White	*5070THPRPGWE
*5070THBRBK	Single Zone Black	*5070THPRBK
*5070THBRSS	Single Zone Stainless Steel	*5070THPRSS
*5070THBPGWE	Single Zone no relays White	*5070THPPGWE
*5070THBBK	Single Zone no relays Black	*5070THPBK
*5070THBSS	Single Zone no relays Stainless Steel	*5070THPSS
*Ask for availability		E5031RDTSL

CATALOGUE NUMBER	DESCRIPTION
*5070THPRPGWE	4 Zone White
*5070THPRBK	4 Zone Black
*5070THPRSS	4 Zone Stainless Steel
*5070THPPGWE	4 Zone no relays White
*5070THPBK	4 Zone no relays Black
*5070THPSS	4 Zone no relays Stainless Steel
E5031RDTSL	C-Bus remote digital temperature sensor

# General Input Unit

The 4 channel general input units are DIN rail mounted units designed to measure digital, voltage, current loop and thermistor inputs and generate messages to the C-Bus network.

The unit is designed to broadcast the actual measured value to the C-Bus network, which in turn may be displayed on other C-Bus devices such as the touch screen, C-Gate or C-Lution. In addition, the unit may trigger a group address as a function of the input level, up to eight trigger points may be assigned to a single input channel.

The general input unit is designed to interface to third party products, such as light level sensors, temperature sensors, power, frequency, moisture, rate sensors and others. In this way, the general input may be used to extend the functionality of the C-Bus and its ability to integrate with other systems such as HVAC and power monitoring systems. The general input also generates 24VDC to power the external sensors.

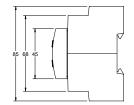
The general input units are available as passive models only, hence do not source current to the C-Bus network.

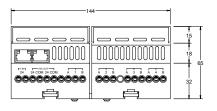


### TECHNICAL INFORMATION

Catalogue Number	E5504GI
Supply Voltage	24VAC +/- 10% @ 500mA, power pack not supplied with the unit
Supply Frequency	50/60Hz
C-Bus Supply Voltage	15-36VDC @ 18mA
Auxiliary Output	24VDC @ 250mA
Voltage Inputs	0 - 1V, 0 - 5V, 0 - 10V and 0 - 20V
Current Inputs	0 - 20mA and 4 - 20mA
Impedance Inputs	0 - 500Ω, 0-1kΩ and 0-3kΩ
Digital Inputs	Yes
Broadcast Rate	2 to 1,024 seconds
Maximum Number of Units on a Single C-Bus Network	10
Status Indicators	Unit and C-Bus
A/D Conversion	8 - bit
Accuracy	0.5%
Warm Up Time	5 seconds
Network Clock	Software selectable
Network Burden	Software selectable
C-Bus Termination	2 x RJ45 Socket
Load Termination	2 x 1.5mm <sup>2</sup> or 1 x 2.5mm <sup>2</sup>
Operating Temperature Range	0°C to 45°C
Operating Humidity Range	0 - 95% RH, non-condensing

# General Input





E5504GI illustrated

# CATALOGUE NUMBER DESCRIPTION

\*E5504GI 4 channel general input module

\*Ask for availability

- Provides 4 channels of input, compatible with a range of third party sensor products
- Capable of threshold switching or broadcasting value onto the network
- Programmable via the C-Bus Toolkit Software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power
- Designed to fit standard 35mm top hat DIN rail
- Designed to fit into standard electrical switchboards
- CE (European Community) compliant

# Auxiliary Input Unit

# Learn Enabled

The auxiliary input unit is a DIN rail mounted unit that provides four isolated inputs for voltage free, mechanical switches to interface to the C-Bus network. The auxiliary input supports momentary and latching switch types.

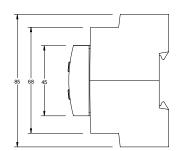
The auxiliary input unit features learn mode, Channel, C-Bus and unit status indicators.

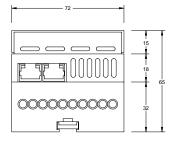
The auxiliary input unit may be programmed with the same functions as a key input, including toggle, timer, dimmer and scene control.



### TECHNICAL INFORMATION

Catalogue Number	L5504AUX
C-Bus Supply Voltage	15-36VDC @ 18mA
Switch Isolation	500V
Maximum Switch and Cable Impedance	1000Ω
Switch Open Voltage	5V
Switch Closed Current	0.4mA
Maximum Number of Units on a Single C-Bus Network	100
Status Indicators	Channel (4), Unit and C-Bus
Warm Up Time	5 seconds
C-Bus Termination	2 x RJ45 Sockets
Load Termination	2 x 1.5mm <sup>2</sup> or 1 x 2.5mm <sup>2</sup>
Operating Temperature Range	0°C to 45°C
Operating Humidity Range	0 - 95% RH, non-condensing





L5504AUX illustrated

- Provides 4 channels of input, compatible with voltage free mechanical switches
- Isolated inputs, up to 500V isolation
- Programmable by learn mode or using the C-Bus Toolkit
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power
- Designed to fit standard 35mm top hat DIN rail
- Designed to fit into standard electrical switchboards
- CE (European Community) compliant

# **Bus Coupler**

# Learn Enabled

The bus couplers provide non-isolated inputs for voltage free, mechanical switches to interface to the C-Bus network. The bus couplers support momentary and latching switch types.

The bus coupler units may be programmed with the same functions as a key input, including toggle, timer, dimmer and scene control.

The four channel bus coupler provides support for 4 switches which are programmed to report the state of the switch.

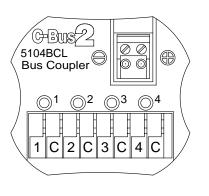
The bus couplers are small in size and volume and are designed to fit into any wallbox.

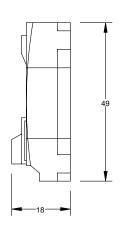


5104BCLWE

### TECHNICAL INFORMATION

Catalogue Number	5104BCL
C-Bus Supply Voltage	15-36VDC @ 18mA
Maximum Distance between	1m
Switch and Bus Coupler	
Number of Channels	4
LED Drive Output	0mA
Maximum Number of Units on	100
a Single C-Bus Network	
Status Indicators	Channel (4)
Warm Up Time	5 seconds
C–Bus Termination	Screw terminals
Load Termination	Push Terminals, 1 x 1.5mm2
Operating Temperature	0°C to 45°C
Operating Humidity	0 - 95% RH, non condensing







5104BCLWE illustrated

- Provides 4 channels of input, compatible with voltage free mechanical switches
- Programmable by learn mode or using the C-Bus configuration software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power
- Small in size and volume, designed to fit into any wallbox
- CE (European Community) compliant

# Pascal Automation Controller

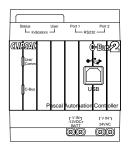
The Pascal Automation Controller (PAC) is a DIN rail mounted device that provides sophisticated and affordable control of a Clipsal C-Bus system. The PAC can perform operations in response to monitored events by executing custom written embedded programs. These programs are written by installers to suit individual application needs using the Microsoft Windows™ based programming interface for C-Bus embedded devices or 'PICED' software.

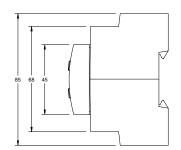
The PAC provides a USB interface through which programs are downloaded. The USB connection can also be used to communicate directly with a C-Bus installation via a PC. This allows the PAC to function as a PC Interface and can be used by the C-Bus Toolkit Software when configuring a C-Bus installation.

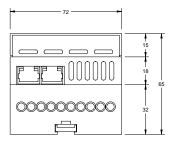


### TECHNICAL INFORMATION

Catalogue Number	5500PACA
C-Bus Supply Voltage	15-36VDC @ 32mA
Battery Backup Supply Voltage	12VDC @ 30mA
Network Clock	Software selectable
Network Burden	Software selectable
Maximum Number of C-Bus Applications Supported	10
C-Bus Connections	2 x RJ45 Sockets
RS-232 Port Connectors	2 x RJ45
Dimensions	72mm(W) x 92mm(H) x 63mm(D)
Operating Temperature Range	0°C to 45°C
Operating Humidity Range	10 - 95% RH







5500PACA illustrated

# PRODUCT FEATURES

- Conditional and real-time events programming for C-Bus
- Dedicated scheduling, logic and scene programming modules
- Connects to and powered by C-Bus
- Programmable using the C-Bus Toolkit Software
- Includes a built-in real time clock
- Compact size
- 2 x RS-232 ports for third party device control
- CE (European Community) compliant

CATALOGUE NUMBERDESCRIPTION5500PACAPascal Automation Controller

# Indoor Motion Sensor, 90 Degrees

The indoor occupancy sensors are surface mounted, input units used to detect movement by sensing natural thermal radiation emitted from any moving body. When movement is detected, the unit issues commands over the C-Bus network to control C-Bus output devices. In addition, the unit features a light level sensor to automatically switch lighting on, under low light conditions.

The sensor has a detection field that covers an area up to 8.5 metres from the unit, with a field of view of 90 degrees. The unit features a 'lens less' design with 12 overlapping zones forming a continuous detection field, therefore resulting in uniform sensitivity across the whole of the detection field, with no dead zones. This features allows the sensor to be ceiling or wall mounted.

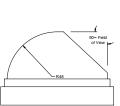
The sensor features learn mode, which permits the unit to be programmed without the need for a PC connected to the system.

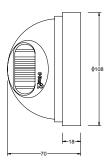
The sensor features an environmental rating of IP44 and is suitable for indoor applications. The sensor is designed for surface mount applications, and located in the corner of the room where detection is required.



### TECHNICAL INFORMATION

Catalogue Number	5751LWE	E5751L
Base, Mounting Centres	84mm	60.3mm
C-Bus Supply Voltage	15-36VD0	@ 18mA
Timer Range	Programmable, 1 sec - 18 hrs	
Timer Resolution	1 sec	
Light Threshold Adjustment	User adjustable, 1 Lux to full sunlight	
Mounting Height	2.4m nominal, (2.0 to 3.2m)	
Field of View	90 degrees	
Detection Area	6m x 6m	
Maximum Number of Units on a Single C-Bus Network	100	
Status Indicator	Walk test LED	
Warm Up Time	5 seconds	
IP Rating	IP44	
C-Bus Termination	Fly lead x 2	
Operating Temperature Range	0°C to	) 45°C
Operating Humidity Range	0 - 95% RH, non-condensing	





5751LWE illustrated

- Programmable by learn mode or using the C-Bus Toolkit Software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power
- Programmable walk test LED for commissioning
- User adjustable light level threshold, from low light (1 Lux) to full sunlight
- · Dual element detectors to minimise false triggering.
- Optical bandpass filter minimises unwanted heat sources from triggering the circuitry
- CE (European Community) compliant

# Indoor Motion Sensor, 360 Degrees

The indoor occupancy sensors are flush mounted, input units used to detect movement by sensing natural thermal radiation emitted from any moving body. When movement is detected, the unit issues commands over the C-Bus network to control C-Bus output devices. In addition, the unit features a light level sensor to automatically switch lighting on, under low light conditions.

The sensor has a detection field that covers an elliptical area up to 12m x 14m, with a field of view of 360 degrees. The unit features a multi-segmented Fresnel lens design, for superior detection capability.

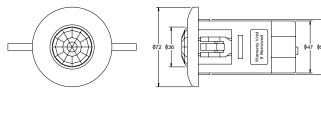
The sensor features learn mode, which permits the unit to be programmed without the need for a PC connected to the system.

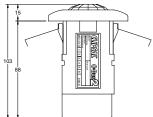
The sensor features an environmental rating of IP44 and is suitable for indoor applications. The sensor is compact in size, and is designed for flush mount applications, located at the centre of the detection area.



### TECHNICAL INFORMATION

Catalogue Number	5753L
C-Bus Supply Voltage	15-36VDC @ 18mA
Timer Range	Programmable, 1 sec - 18 hrs
Timer Resolution	1 sec
Light Threshold Adjustment	User adjustable, 1 Lux to full sunlight
Mounting Height	2.4m nominal, (2.0 to 3.2m)
Field of View	360 degrees
Detection Area	12m x 14m
Maximum Number of Units on a Single C-Bus Network	100
Status Indicator	Walk test LED
Warm Up Time	5 seconds
IP Rating	IP44
C-Bus Termination	Screw terminals
Operating Temperature Range	0°C to 45°C
Operating Humidity Range	0 - 95% RH, non-condensing





5753L illustrated

- Programmable by learn mode or using the C-Bus Toolkit Software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power
- Programmable walk test LED for commissioning
- User adjustable light level threshold, from low light (1 Lux) to full sunlight
- Dual element detectors to minimise false triggering
- Optical bandpass filter minimises unwanted heat sources from triggering the circuitry
- Designed for flush mount applications, protrudes only  $8 \mathrm{mm}$
- CE (European Community) compliant

# Outdoor Motion Sensor, 110 Degrees

The outdoor occupancy sensors are surface mounted, input units used to detect movement by sensing natural thermal radiation emitted from any moving body. When movement is detected, the unit issues commands over the C-Bus network to control C-Bus output devices. In addition, the unit features a light level sensor to automatically switch lighting on, under low light conditions.

The sensor has a detection field that covers an area up to 18 metres from the unit, with a field of view of 110 degrees. Advanced microprocessor circuit technology and a flat multi-segmented lens, divide the field of view into 28 zones located at four different levels. This ensures immediate reaction of body movement and reduces the number of 'dead zones' that can be penetrated.

The sensor features learn mode, which permits the unit to be programmed without the need for a PC connected to the system.

The sensor features an environmental rating of IP66 and is suitable for outdoor applications.



E5750WPL

### TECHNICAL INFORMATION

Catalogue Number	E5750WPL
Base, Mounting Centres	60.3mm
C-Bus Supply Voltage	15-36VDC @ 18mA
Timer Range	Programmable, 1 sec - 18 hrs
Timer Resolution	1 sec
Light Threshold Adjustment	User adjustable, 1 Lux to full sunlight
Mounting Height	2.4m nominal, (2.0 to 3.2m)
Field of View	110 degrees
Detection Area	18m radius x 110 degrees
Lens Type	Frensel, multi-segmented
Maximum Number of Units on a Single C-Bus Network	100
Status Indicator	Walk test LED
Warm Up Time	5 seconds
C-Bus Termination	Fly lead x 2
IP Rating	IP66
Operating Temperature Range	0°C to 45°C

# 74 — 138 — 20 — 38 — 20 — 38 — 111

E5750WPL illustrated

- Programmable by learn mode or using the C-Bus Toolkit Software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power
- Programmable walk test LED for commissioning
- User adjustable light level threshold, from low light (1 Lux) to full sunlight
- Dual element detectors to minimise false triggering
- Optical bandpass filter minimises unwanted heat sources from triggering the circuitry
- CE (European Community) compliant

# Indoor Multi-Sensor, 360 Degrees

The indoor occupancy sensors are surface mounted, input units used to detect movement by sensing natural thermal radiation emitted from any moving body. When movement is detected, the unit issues commands over the C-Bus network to control C-Bus output devices. In addition, the unit features a light level sensor to automatically switch lighting on, under low light conditions.

The sensor has a detection field that covers an area up to 8.5 metres from the unit, with a field of view of 90 degrees. The unit features a 'lens less' design with 12 overlapping zones forming a continuous detection field, therefore resulting in uniform sensitivity across the whole of the detection field, with no dead zones. This feature allows the sensor to be ceiling or wall mounted.

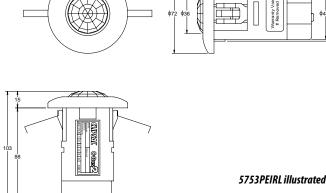
The sensor features learn mode, which permits the unit to be programmed without the need for a PC connected to the system.

The sensor features an environmental rating of IP44 and is suitable for indoor applications. The sensor is designed for surface mount applications, and located in the corner of the room where detection is required.



### TECHNICAL INFORMATION

Catalogue Number	5753PEIRL
C-Bus Supply Voltage	15-36VDC @ 18mA
Timer Range	Programmable, 1 sec - 18 hrs
Timer Resolution	1 sec
Light Threshold Adjustment	Programmable, 1 Lux to full sunlight
Light Regulation	40 - 3000 Lux
Mounting Height	2.4m nominal, (2.0 to 3.2m)
Field of View	360 degrees
Detection Area	Programmable, up to 12m x 8.5m
IR Receiver	Remote enabled/disable control
Maximum Number of Units on a Single C-Bus Network	100
Status Indicator	Walk test and IR receive LED
Warm Up Time	5 seconds
IP Rating	IP44
C-Bus Termination	Screw terminals
Operating Temperature Range	0°C to 45°C
Operating Humidity Range	0 - 95% RH, non-condensing



- Programmable by learn mode or using the C-Bus Toolkit Software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power
- Programmable walk test LED for commissioning
- User adjustable light level threshold, from low light (1 Lux) to full sunlight
- Dual element detectors to minimise false triggering
- Optical bandpass filter minimises unwanted heat sources from triggering the circuitry
- CE (European Community) compliant

# Light Level Sensors

The light level sensors are surface mounted input units used to measure ambient light levels and regulate lighting loads.

The sensor has a field of view of 180 degrees and is capable of measuring lighting levels in the range of 20 to 3000 lux and regulating lighting in the range of 40 to 1600 lux, which is suitable for most commercial applications.

The light level sensor may be used in conjunction with non-dimmable ballasts to bank switch luminairies or with dimmable electronic ballasts to regulate lighting levels continuously, within a programmed target range.

The unit features built in lag, to prevent rapid changes in output, due to changes in environmental conditions, such as cloud cover or rapid movement through the detection area.

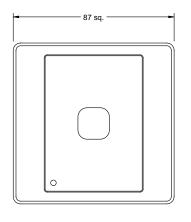


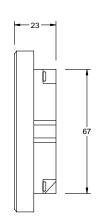
E5031PE

### TECHNICAL INFORMATION

C-Bus Supply Voltage	15-36VDC @ 18mA
Light Level (measure)	20 - 3000 lux
Light Level (regulate)	40 - 1600 lux
Field of View	180 degrees
Time Constant	Approx. 90 seconds
Mounting Height	2.4m nominal, (2.0 to 3.2m)
Field of View	180 degrees
Maximum Number of Units on	100
a Single C-Bus Network	
Status Indicator	Programmable
Warm Up Time	5 seconds
C-Bus Termination	Screw terminals
Standard Colours	White
Operating Temperature	0°C to 45°C
Operating Humidity	0 - 95% RH, non condensing

- Programmable using the C-Bus configuration software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power
- Programmable target light level and margin
- Bank switching or light level regulation
- CE (European Community) compliant







E5031PE illustrated

CATALOGUE NUMBER	R DESCRIPTION
E5031PE	Light level sensor, 40-1600 lux
IP66 Weatherproof So	eries
*5031PEWPGY	Light level sensor, IP66
*Ask for availability	

# **Clock Modules**

The clock modules are surface mounted, input units used to provide basic timing functions and convenient control of C-Bus output units.

The clock modules are 7-day timers, featuring 42 program storage locations for event programming. Events may be programmed up to 6 days in advance and event durations may be up to 99 days.

The clock modules are powered from the two wire C-Bus connection, they feature a rechargeable power storage that maintains the clock for up to 24 hours, in the event of loss of the C-Bus power supply.

The clock modules also feature a daylight saving option and random check generator from 5 to 60 minutes.

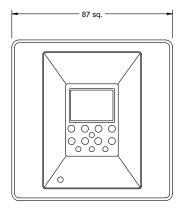


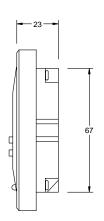
E50312TC7

# TECHNICAL INFORMATION

C-Bus Supply Voltage	15-36VDC @ 18mA	
Timer	7 day	
Number of Channels	2	
Memory Locations	42	
Accuracy	2.5 sec/day @ 20°C	
Timer Resolution	1 minute	
Running Reserve	24 hours (without C-Bus power)	
Reserve Charge Time	2 minutes	
Daylight Saving Mode	Yes	
Random Event Generator	5 to 60 minutes	
Display	Iconic LCD display, grey scale	
Maximum Number of Units on	100	
a Single C-Bus Network		
Status Indicator	Programmable	
Warm Up Time	5 seconds	
C-Bus Termination	Screw terminals	
Standard Colours	White	
Operating Temperature	0°C to 45°C	
Operating Humidity	0 - 95% RH. non condensina	

- Programmable using the C-Bus configuration software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power
- Reserve power backup in case of loss of C-Bus supply
- CE (European Community) compliant







E50312TC7 illustrated

CATALOGUE NUMBER	DESCRIPTION
*E50312TC7	Clock module 7day vertical
*Ask for availability	

# Telephone Interface

The telephone interface unit provides a remote telephone interface to the C-Bus network. The dial in, dial out facility permits the user to dial in and navigate a voice prompt menu to monitor and control devices on the C-Bus network from a remote location. Control is exercised using the DTMF keypad on the phone.

The telephone interface facilities a connection to the C-Bus network for remote programming of the units using the C-Bus Toolkit Software.

An audio output is also included so that C-Bus events can be audibly announced. The telephone interface connects to either the public switched telephone network (PSTN) or to a local PABX.

The telephone interface unit includes the facility to issue voice prompts, send commands, report status and to obtain operator responses using DTMF tones. The responses are turned into actions on a C-Bus network.

For added security, the telephone interface requires the telephone user to enter a user profile number and password to access the voice prompt menus. Upon receipt of the correct password, the unit activates a voice prompt menu and directs the user to available actions or more menus.

The telephone interface incorporates a history log, is supplied pre-loaded with a standard library of words and phrases and supports multiple languages.

# AND COMMENTS OF THE PARTY OF TH

E5100TAU

### TECHNICAL INFORMATION

Catalogue Numbers	E5100TAU
C-Bus Supply Voltage	15 - 36VDC @ 20mA
CBTI Power Supply	12VDC or 15VAC, 50/60Hz power pack not included
Status Indicators	C-Bus, Line Grab, Serial Comms. and Internal Comms.
Modes	Home and Away
C-Bus Connection	2 x RJ45 sockets
PC Interface Connection	DB9 socket
Telephone Connection	3 x RJ12 sockets (1 incoming/2 outgoing)
Audio Connection	2 RCA sockets (in/out)
Network Burden	Software selectable
System Clock	Software selectable
Voice Library	User programmable
Operating Temperature Range	0°C to 45°C
Operating Humidity Range	0 - 95% RH, non-condensing

# POWER RECOGNIT PROJECT PROJECT TO SEE CHESTAGE TYPOC THE THE CONT PROJECT TO SEE CHESTAGE THE CHESTAGE STEPPAGE THE CHESTAGE STEPPAGE

E5100TAU illustrated

- Programmable using the C-Bus telephone interface configuration software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power
- Audio out (line out) to annunciate messages
- Includes user profile number and password to access voice prompt menus
- Remote programming of the C-Bus devices
- Supports communication through C-Bus network bridges
- CE (European Community) compliant

CATALOGUE NUMBER	DESCRIPTION
*E5100TAU	Telephone interface module
*Ask for availability	

# **System Units**



### **Ethernet Network Interface**

The Ethernet network interface is a C-Bus device designed to provide an isolated communications path between an Ethernet 10 Base–T network and C-Bus network. This allows high-speed control and monitoring of a C-Bus installation via the TCP/IP protocols used in computer networks and by the Internet.

The network interface is a near instantaneous connection to a C-Bus network. It provides a gateway between high-speed, high bandwidth Ethernet communication and the robust, time tested Clipsal C-Bus control system.

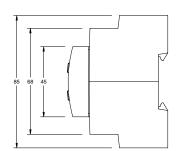
In addition to programming, the network interface provides similar convenience for third party applications to issue commands to a C-Bus network and monitor the behavior of units on the network. The network interface is assigned an IP address, just like a PC on a computer network. Once an IP address is assigned it is possible for a myriad of applications, applets and third party system to send C-Bus commands to the C-Bus network remotely.

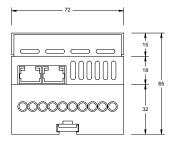


#### TECHNICAL INFORMATION

Catalogue Number	E5500CN	
C-Bus Supply Voltage	15-36VDC @ 22mA	
Ethernet Supply Voltage	9-12VAC/DC	
Network Speed	10 Base-T	
Network Protocol	TCP/IP	
Status Indicators	Network and C-Bus	
Network Burden	Software selectable	
System Clock	Software selectable	
C-Bus Termination	2 x RJ45 sockets	
Ethernet Termination	1 x RJ45 socket, shielded	
Power Pack	Not included	
Operating Temperature Range	0°C to 45°C	
Operating Humidity Range	0 - 95% RH, non-condensing	

# 9 - 12V ETHERNET OHBUS CBust halcomps Network Interface CBus CONNECTIONS





E5500CN illustrated

- Provides a TCP/IP interface to the C-Bus network
- Provides high-speed backbone communications path
- Permits any size C-Bus networks, overcomes restrictions of network size when Network Bridges are used
- Programmable via the C-Bus configuration software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power
- Designed to fit standard 35mm top hat DIN rail, measures just 4M in size
- Designed to fit into standard electrical switchboards
- CE (European Community) compliant

CATALOGUE NUMBER	DESCRIPTION
E5500CN	Computer network interface, 10 Base-T

### PC Interface

The PC Interface is a C-Bus device designed to provide an isolated, bi-directional, interface between the PC and the C-Bus network. Through the PC Interface, C-Bus units can be programmed, commands can be issued and activity on the C-Bus network can be monitored.

Installation of the PC Interface on the C-Bus network requires connection to the Category 5 unshielded twisted pair network cable.

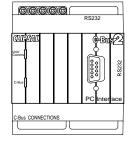


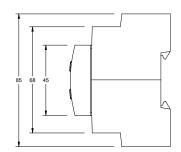


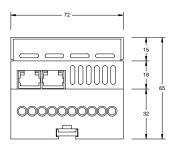
#### TECHNICAL INFORMATION

C-Bus Supply Voltage	15-36VDC @ 32mA	
Status Indicators	Unit and C-Bus	
Network Burden	Software selectable	
System Clock	Software selectable	
C-Bus Termination	2 x RJ45 sockets	
Operating Temperature Range	0°C to 45°C	
Operating Humidity Range	0 - 95% RH, non-condensing	

- Provides a serial interface to the C-Bus network
- C-Bus units may be configured, monitored or controlled via the serial connection
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power
- Designed to fit standard 35mm top hat DIN rail, measures just 4M in size
- Designed to fit into standard electrical switchboards
- CE (European Community) compliant







5500PC illustrated

CATALOGUE NUMBER	DESCRIPTION
5500PC	PC Interface RS232
5500PCU	PC Interface USB

### Network Bridge

The network bridge is a network support device that provides an isolated communications channel between C-Bus units on separate networks. Both sides of the network bridge are optically isolated, providing electrical isolation between adjacent networks.

Network bridges are required to manage networks to particular units in particular zones, or to extend the network past system limitations of 100 passive units and 1000 metres of C-Bus cable in any one network.

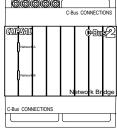


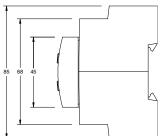
#### TECHNICAL INFORMATION

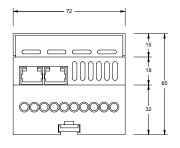
Catalogue Number	5500NB	
C–Bus Supply Voltage	15-36VDC @ 20mA	
Electrical Isolation rating (between networks)	3,500V RMS (opto-isolated, 1 minute)	
Maximum Number of Units on a Single C-Bus Network	100	
Status Indicators	Network 1 and Network 2	
C–Bus Termination	4 x RJ45 sockets (Network 1 and 2)	
Operating Temperature Range	0°C to 45°C	
Operating Humidity Range	0 - 95% RH, non-condensing	

#### PRODUCT FEATURES

- Provides an isolated communications path between networks
- Programmable via the C-Bus configuration software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of C-Bus power
- Designed to fit standard 35mm top hat DIN rail, measures
- · Designed to fit into standard electrical switchboards
- CE (European Community) compliant







5500NB illustrated

### **Power Supply**

The power supply converts the line voltage input to 36VDC output, required for correct operation by C-Bus devices. The power supply can source up to 350mA to the network and power supplies may be added in parallel as more C-Bus devices are added to the network, under these conditions the power supplies share the load current equally.

The power supplies feature short circuit and reverse polarity protection and the line voltage is galvonically isolated from the C-Bus output side.

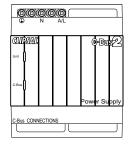


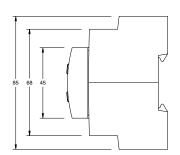
#### TECHNICAL INFORMATION

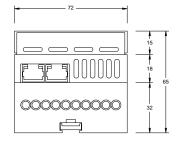
Catalogue Numbers	5500PS	
Line Supply Voltage	220-240VAC	
Supply Frequency	47-53Hz	
Output Voltage	32-39VDC	
Output Current	350mA (maximum)	
Duration of Short Circuit on Output	Indefinite	
AC Isolation Mains/C-Bus	3,750V RMS	
Warm-Up Time	3 seconds	
Number of C-Bus Units, Supported by one Power Supply (Standard passive unit = 18mA)	19	
Maximum Number of Units on a Single C-Bus Network	5	
Maximum Voltage Drop measured between Power Supply and Passive C-Bus Unit for correct operation	10VDC	
Status Indicators	Unit and C-Bus	
C-Bus Termination	2 x RJ45 sockets	
Line Termination	2 x 1.5mm <sup>2</sup> or 1 x 2.5mm <sup>2</sup>	
Operating Temperature Range	0°C to 45°C	
Operating Humidity Range	0 - 95% RH, non-condensing	

#### PRODUCT FEATURES

- Delivers up to 350mA to the C-Bus network
- High efficiency switched mode power supply design
- Units may be operated in parallel on the same network
- Does not require programming on installation
- Designed to fit standard 35mm top hat DIN rail, measures iust 4M in size
- Designed to fit into standard electrical switchboards
- CE (European Community) compliant







5500PS illustrated

CATALOGUE NUMBER	DESCRIPTION
5500PS	Power supply 350mA

### Network Analyser

The network analyser is a field diagnostic tool designed to measure and report the status of various network parameters.

The network analyser connects to the C-Bus network and is used to measure the network voltage, active clock and network impedance and determine if these are within acceptable limits for correct operation.

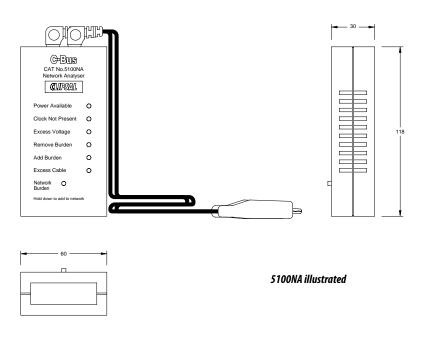
The unit displays the results by illuminating LEDs located on the unit.

Note: The network analyser should be used in conjunction with the C-Bus Calculator software application.



#### TECHNICAL INFORMATION

Catalogue Numbers	5100NA	
C-Bus Supply Voltage	15-36VDC @ 20mA	
Status Indicators	Power available	
	Clock not present Excess voltage	
	Remove burden Add burden	
	Excess cable	
C-Bus Termination	2 x Alligator clips	
Operating Temperature Range	0°C to 45°C	
Operating Humidity Range	0 - 95% RH, non-condensing	





### Network Cable

The C-Bus network cable is a Category 5, unshielded twisted pair cable specifically developed for use with the C-Bus control network. The cable features a unique pink coloured outer sheath for ease of identification.

The cable is recommended for all C-Bus installations, and is mandatory for certified sites. The cable provides immunity to induced noise from external sources and superior crosstalk performance.

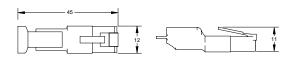
#### TECHNICAL INFORMATION

Catalogue Number	5005C305B	
Data Grade Insulation	100 +/- 15 Ohms	
Length	305m (boxed)	
DC Resistance	<93.8 0hms/1000m @ 20°C	
Sheath	Coloured PVC (pink), type V75 C, nominal diameter 5.2mm	
SRL	24.69dB at 33.11MHz	
Power Sum NEXT	53.84dB at 7.59MHz	
Construction	4-Pair 1/0.51 (0.2mm²), 24AWG	



CATALOGUE NUMBER	DESCRIPTION
5005C305B	Cable, 4-Pair, UTP, Cat 5, 305m

### Network Burden



5500BURDEN illustrated



5500BURDEN

CATALOGUE NUMBER	DESCRIPTION
5500BURDEN	Network burden RJ45 (pack of 10)

### **Output Units**



### 8 Channel Dimmer Range Learn Enabled

The 8 channel dimmer units are DIN rail mounted units employing leading edge phase control circuitry for dimming control. These dimmer units feature learn mode, local and remote overrides for on/off control, channel, C-Bus and unit status indicators.

Each dimmer channel is rated at 1 Amp and is suitable for incandescent and low voltage lighting using magnetic and leading edge compatible transformers. The dimmer output is controllable over the range of 2–98%, while frequency tracking algorithms ensure flicker-free operation and smooth dimming control.

The dimmer units are available as passive and current sourcing models that source up to 200mA to the C-Bus network.

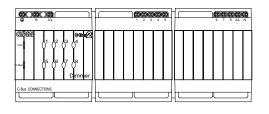


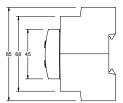
Catalogue Number	L5508D1A	L5508D1AP
Line Supply Voltage	220-240VAC	
Supply Frequency	47-53Hz and 57-63Hz	
Frequency Drift	3Hz/minute (maximum)	
Frequency Step Change	0.1Hz (maximum)	
C-Bus Supply Voltage	15-36VDC @ 0mA	
Load Rating per Channel	1A	
Minimum Load	15W per channel	
Control Range	2 - 98%	
Compatible Loads	Incandescent and low voltage lighting. Ensure compatible leading edge electronic transformers are used.	
C-Bus Source Current	200mA	0mA
Maximum Number of Units on a Single C-Bus Network	10	100
Status Indicators	Channel Status (8), Unit and C-Bus	
Warm Up Time	5 s	econds
Network Clock	Software selectable	
Network Burden	Software selectable	
C-Bus Termination	2 x RJ45 Socket	
Load Termination	2 x 1.5mm <sup>2</sup> or 1 x 2.5mm <sup>2</sup>	
Operating Temperature Range	0°C to 45°C	
Operating Humidity Range	0 - 95% RH. non-condensing	

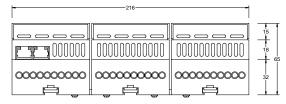


#### PRODUCT FEATURES

- Provides 8 x 1A channels of dimming control
- Programmable via the learn mode feature or using the C-Bus Toolkit Software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power
- Local and remote on/off control independent of C-Bus communications
- Programmable power up state following power cycling.
- Logic states (max/min) programmable using the C-Bus Toolkit Software
- Employs frequency-tracking algorithms for smooth flicker free operation
- Designed to fit standard 35mm top hat DIN rail, measures just 12M in size
- Designed to fit into standard electrical switchboards
- CE (European Community) compliant







L5508D1A illustrated

CATALOGUE NUMBER	DESCRIPTION	
L5508D1AP	8 Channel dimmer 1A, 220/240VAC 50/60Hz	
L5508D1A	8 Channel dimmer 1A, 220/240VAC 50/60Hz, C-Bus 200mA	

#### 4 Channel Dimmer Range Learn Enabled

The 4 channel dimmer units are DIN rail mounted units employing leading edge phase control circuitry for dimming control. These dimmer units feature learn mode, local and remote overrides for on/off control, channel, C-Bus and unit status indicators.

Each dimmer channel is rated at 2 Amps and is suitable for incandescent and low voltage lighting using magnetic and leading edge compatible transformers. The dimmer output is controllable over the range of 2–98%, while frequency tracking algorithms ensure flicker-free operation and smooth dimming control.

The dimmer units are available as passive and current sourcing models that source up to 200mA to the C-Bus network.

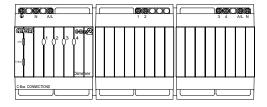


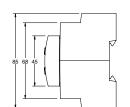
#### TECHNICAL INFORMATION

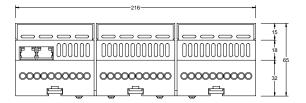
Catalogue Number	L5504D2A	L5504D2AP
Line Supply Voltage	220-240VAC	
Supply Frequency	47-53Hz and 57-63Hz	
Frequency Drift	3Hz/minute (maximum)	
Frequency Step Change	0.1Hz (m	aximum)
C-Bus Supply Voltage	15-36VD	OC @ 0mA
Load Rating per Channel	2	A
Minimum Load	15W per channel	
Control Range	2 - 98%	
Compatible Loads	Incandescent and low voltage lighting. Ensure compatible leading edge electronic transformers are used.	
C-Bus Source Current	200mA	0mA
Maximum Number of Units on a Single C-Bus Network	10	100
Status Indicators	Channel Status (4), Unit and C-Bus	
Warm Up Time	5 seconds	
Network Clock	Software selectable	
Network Burden	Software	selectable
C-Bus Termination	2 x RJ4	5 Socket
Load Termination	2 x 1.5mm² (	or 1 x 2.5mm²
Operating Temperature Range	0°C to 45°C	
Operating Humidity Range	0 - 95% RH, non-condensing	

#### PRODUCT FEATURES

- Provides 4 x 2A channels of dimming control
- Programmable via the learn mode feature or using the C-Bus Toolkit Software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power
- Local and remote on/off control independent of C-Bus communications
- Programmable power up state following power cycling
- Logic states (max/min) programmable using the C-Bus Toolkit Software
- Employs frequency-tracking algorithms for smooth flicker free operation
- Designed to fit standard 35mm top hat DIN rail, measures just 12M in size
- Designed to fit into standard electrical switchboards
- CE (European Community) compliant







L5504D2A illustrated

CATALOGUE NUMBER	DESCRIPTION
L5504D2AP	4 Channel dimmer 2A, 220/240VAC 50/60Hz
L5504D2A	4 Channel dimmer 2A, 220/240VAC 50/60Hz, C-Bus 200mA

### Universal Dimmer Range Learn Enabled

The Universal dimmers are DIN rail mounted C-Bus dimmers with automatic load sensing. These units can be used with leading edge or trailing edge compatible low voltage electronic transformers, as well as incandescent lamps and low voltage lamps with iron-core transformers. The units feature 4 independent channels of 2.5A output per channel, and are available with and without on-board 200mA C-Bus Power Supply and provide a software selectable Network Burden and C-Bus System Clock.



#### TECHNICAL INFORMATION

Catalogue number	L5504D2U	L5504D2UP
AC supply voltage	220 – 240V	
AC supply frequency	47 – 53Hz & 53 – 63Hz	
Single or 3 phase supply	1,2 or 3 phase	Single phase
AC supply frequency	47 – 53Hz & 53 – 63Hz	
Number of channels	4	
C-Bus learn enabled	Yes	
Maximum incandescent load per channel	2.5A	
Maximum iron core transformer load per channel	2.5A	
Maximum electronic transformer load per channel	2.5A	
Wall or DIN mounted	DIN	
No. of DIN modules wide	12 DIN modules	
Mains terminals	2 x 1.5mm <sup>2</sup> or 1 x 2.5mm <sup>2</sup>	
Dimensions	215 x 85 x 65mm	
Maximum units on a network (255 networks)	10	100
C-Bus connections	2 x RJ45	

- Provides 4 x 2.5A channels of dimming control.
- Programmable via the learn mode feature or using the C-Bus Toolkit software
- Provides 4 universal phase controlled dimming channels in a 12M wide DIN rail enclosure.

CATALOGUE NUMBER	DESCRIPTION	
L5504D2U	4 Channel 2.5A per channel dimmer, 200mA Power Supply	
L5504D2UP	4 Channel 2.5A per channel dimmer without power	

### 3 Channel Professional Dimmers

The 3 channel Professional Dimmers designed for commercial applications such as hotels, restaurants and office buildings.

The dimmers are C-Bus controlled, high power, multi phase control units, compatible with a wide range of load types, including neon. Dimming is achieved through phase control techniques creating a highly efficient range of dimmers.

The Professional Dimmers provide on-board MCB protection and thermal overload protection, and contain modular output channel cards of various ratings, allowing customisation to suit site needs.

A maintained active output is provided on each channel for emergency lighting. Each channel card has a bypass switch which permits direct local override of the lighting circuit. In the event of an over-temperature condition, such as one caused by excessive load current, the dimmer channel reduces the output power.

The Professional Dimmer is designed and tested for a wide range of international markets with comprehensive EMC and electrical safety testing and is fully ROHS compliant.



#### TECHNICAL INFORMATION

Load terminal standby leakage current	< 10 mA leading edge
AC supply voltage	240/415 V AC
AC supply frequency	47 to 53 Hz
Number of input phases	1 Phase (5 Amp model)
	1 or 3 Phase (10 Amp model)
	3 Phase (other models)
Minimum load/channel	20 W for incandescent
Compatible Loads	Incandescent and low voltage lighting. Ensure compatible leading edge electronic transformers
	are used.
Dimming technology	Leading edge 5 Amp; Triac
	Leading edge 10-20 Amp; SCR
Soft-start ramp time	0.5 sec
Load current rise time	200 μs
Power control range	1.5% to 95%
Standby AC supply current	90 mA base current
	75 mA each LE Channel
Short circuit withstand strength	6 kA
Rated insulation voltage	500 V
Dielectric test voltage	2500 V

#### PRODUCT FEATURES

- Soft start load turn-on protects lamp filaments.
- Voltage compensation to minimise load brightness variation if the AC supply voltage drifts.
- Filtering reduces supply voltage signalling effects.
- · Linear output load power following input control.
- C-Bus network burden and system clock generator.
- After mains fail, dimmers return to previous or preset values.
- Local C-Bus override switches on front panel.
- Channel Status indicators on front control panel.
- On-board MCB and optional RCD protection.
- Mounting brackets included for ease of installation.
- Generous load and mains supply terminals.
- Emergency lighting output for each channel.
- · Manual dimmer bypass switch on all channels.
- $\bullet \ \ \text{Fan-free operation, reduces maintenance requirements}.$
- Suitable for single or three phase track lighting applications with optional three phase MCBs and RCDs
- CE (European Community) compliant

Contact Schneider Electric on 0870 608 8 608 for more information.

### 6 Channel Professional Dimmers

The 6 channel Professional Dimmers are designed for commercial applications such as hotels, restaurants and office buildings.

The dimmers are C-Bus controlled, high power, multi phase control units, compatible with a wide range of load types, including neon. Dimming is achieved through phase control techniques creating a highly efficient range of dimmers.

The Professional Dimmers provides on-board MCB protection and thermal overload protection, and contain modular output channel cards of various ratings, allowing customisation to suite site needs.

A maintained active output is provided on each channel for emergency lighting. Each channel card has a bypass switch which permits direct local override of the lighting circuit. In the event of an over-temperature condition, such as one caused by excessive load current, the dimmer channel reduces the output power.

The Professional Dimmer is designed and tested for a wide range of international markets with comprehensive EMC and electrical safety testing and is fully ROHS compliant.



#### TECHNICAL INFORMATION

Load terminal standby leakage current	< 10 mA leading edge
, ,	< 1mA trailing edge
AC supply voltage	240/415 V AC
AC supply frequency	47 to 53 Hz
Number of input phases	1 Phase (3 Amp model)
	1 or 3 Phase (10 Amp model)
	3 Phase (other models)
Minimum load/channel	20 W for incandescent
Compatible Loads	Incandescent and low voltage lighting. Ensure compatible leading edge electronic transformers
	are used.
Dimming technology	Leading edge 3-5 A Triac
	Leading edge 10-20 A Dual SCR
Soft-start ramp time	0.5 sec
Load current rise time	200 μs
Power control range	1.5% to 95%
Standby AC supply current	90 mA base current
	75 mA each LE Channel
Short circuit withstand strength	6 kA*
Rated insulation voltage	500 V
Dielectric test voltage	2500 V

<sup>\*</sup>Note for 3 A model installer must connect dimmer to mains with protection rated at 20 A per phase 6 kA short circuit withstand strength

#### PRODUCT FEATURES

- Soft start load turn-on protects lamp filaments.
- Voltage compensation to minimise load brightness variation if the AC supply voltage drifts.
- Filtering reduces supply voltage signalling effects.
- · Linear output load power following input control.
- C-Bus network burden and system clock generator.
- After mains fail, dimmers return to previous or preset values.
- Local C-Bus override switches on front panel.
- Channel Status indicators on front control panel.
- On-board MCB and optional RCD protection.
- · Mounting brackets included for ease of installation.
- Generous load and mains supply terminals.
- Emergency lighting output for each channel.
- Manual dimmer bypass switch on all channels.
- Fan-free operation, reduces maintenance requirements.
- Suitable for single or three phase track lighting applications with optional three phase MCBs and RCDs
- CE (European Community) compliant

Contact Schneider Electric on 0870 608 8 608 for more information.

### 12 Channel Professional Dimmers

The 12 channel Professional Dimmers are designed for commercial applications such as hotels, restaurants and office buildings.

The dimmers are C-Bus controlled, high power, multi phase control units, compatible with a wide range of load types, including neon. Dimming is achieved through phase control techniques creating a highly efficient range of dimmers.

The Professional Dimmers provide on-board MCB protection and thermal load protection, and contain modular output channel cards of various ratings, allowing customisation to suite site needs.

A maintained active output is provided on each channel for emergency lighting. Each channel card has a bypass switch which permits direct local override of the lighting circuit. In the event of an over-temperature condition, such as one caused by excessive load, the dimmer channel reduces the output power.

The Professional Dimmer is designed and tested for a wide range of international markets with comprehensive EMC and electrical safety testing and is fully ROHS compliant.



#### TECHNICAL INFORMATION

Load terminal standby leakage current	< 10 mA leading edge
AC supply voltage	240/415 V AC
AC supply frequency	47 to 53 Hz
Number of input phases	3 Phase
	1 or 2 Phase (3 Amp model)
Minimum load/channel	20 W for incandescent
Compatible Loads	Incandescent and low voltage lighting. Ensure compatible leading edge electronic transformers
	are used.
Dimming technology	Leading Edge 3-5A Triac
	Leading Edge 10-20A Dual SCR
Soft-start ramp time	0.5 sec
Load current rise time	200 μs
Power control range	1.5% to 95%
Standby AC supply current	90 mA base current
	75 mA each LE Channel
Short circuit withstand strength	6 kA
Rated insulation voltage	500 V
Dielectric test voltage	2500 V

 $<sup>*</sup>Note for 3A \,model \,installer \,must \,connect \,dimmer \,to \,mains \,with \,protection \,rated \,at \,20A \,per \,phase \,6kA \,short \,circuit \,with stand \,strength$ 

#### PRODUCT FEATURES

- Soft start load turn-on protects lamp filaments.
- Voltage compensation to minimise load brightness variation if the AC supply voltage drifts.
- Mounting brackets included for ease of installation.
- Suitable for single or three phase track lighting applications with optional 3 phase MCB's and RCD's
- Filtering to reduce supply voltage signalling effects.
- After mains fail, dimmer returns to previous or preset values.
- Linear output load power following input control.
- C-Bus network burden and network clock generator.
- Emergency lighting output for each channel.
- On-board MCB and/or RCD protection.
- Fan free operation, reduces maintenance requirements.
- · Manual dimmer bypass switch on all channels.
- Local C-Bus override switches on front panel.
- Generous mains supply terminals and load terminals.
- Channel Status indicators on front control panel.
- CE (European Community) compliant

Contact Schneider Electric on 0870 608 8 608 for more information.

#### Single and Two Channel Relay Range Non Learn Mode

The 1 and 2 channel relay units are panel mounted units suitable for switching resistive, inductive and fluorescent loads. The units are ideally suited for mounting inside fluorescent lighting products, street lighting columns and adjacent HID luminaires due to their small size and volume.

These relay units feature a remote override for on/off control and a C-Bus status indicator.

Load control is provided by a special dual contact relay designed for extreme long life with lighting loads, even with power factor corrected fluorescent lamps. One contact is tungsten designed to withstand high in-rush currents and arcing when opening and the other contact is silver alloy for steady state current operation.

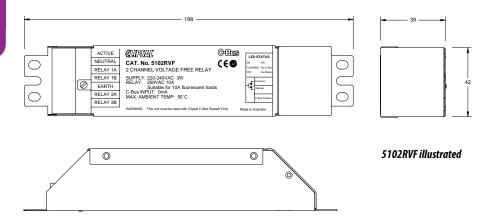
The single channel relay also features a 0–10V output, and is compatible with dimmable electronic ballasts, hence the relay may be used to switch line voltage to the ballast as well as dim the output using the 0–10V output.

The relay units are available as passive models only, hence do not source current to the C-Bus network.

# 5102RVF

#### TECHNICAL INFORMATION

Catalogue Number	5101R	5102RVF	
Line Supply Voltage	220-240VAC		
Supply Frequency	47-53Hz and 57-63Hz		
C-Bus Supply Voltage	15-36VDC @ 0mA		
Load Rating per Channel	10A	AC3	
Contact Type	Switched active	Voltage free, normally open, non latched	
Switch Operations	Greater than 60	Greater than 60,000 operations	
In-Rush Current	120A (20msec)		
Compatible Loads	Resistive, inductive, incandescent and fluorescent		
Analog Output	0 - 10VDC, compatible with up to 2 x 36W immable electronic ballasts	-	
C-Bus Source Current	On	nA	
Maximum Number of Units on a Single C-Bus Network	10	00	
Status Indicators	C-Bus power	C-Bus power available	
C-Bus Termination	Screw terminals		
Load Termination	Push connectors, 1 x 2.5mm <sup>2</sup>		
Operating Temperature Range	0°C to 45°C		
Operating Humidity Range	0 - 95% RH, non-condensing		



- Programmable via the C-Bus Toolkit Software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power
- Remote on/off control independent of C-Bus communications
- Programmable power up state following power cycling
- Logic states (and/or) programmable using the C-Bus Toolkit Software
- Panel mounted, small size and volume
- CE (European Community) compliant

CATALOGUE NUMBER	DESCRIPTION
*5101R	1 Channel relay, 10A, Non Learn Enabled, non DIN
*5102RVF	2 Channel relay, 10A, Non Learn Enabled, non DIN
*Ask for availability	

### 4 Channel 10A Relay Range Learn Enabled

The 4 channel relay units are DIN rail mounted units suitable for switching resistive, inductive and fluorescent loads.

These relay units feature learn mode, local and remote overrides for on/off control, Channel, C-Bus and unit status indicators.

Load control is provided by a special dual contact relay designed for extreme long life with lighting loads, even with power factor corrected fluorescent lamps. One contact is tungsten designed to withstand high in rush currents and arcing when opening and the other contact is silver alloy for steady state current operation.

The relay units are available as passive and current sourcing models that source up to 200mA to the C-Bus network.

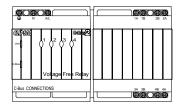
#### TECHNICAL INFORMATION

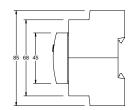
Catalogue Number	L5504RVF	L5504RVFP
Line Supply Voltage	220-240VA	
Supply Frequency	47-53Hz and 57-63Hz	
C-Bus Supply Voltage	15-36VDC @ 0mA	
Load Rating per Channel	10	)A
Contact Type	Voltage free, normally op	en, magnetically latched
Switch Operations	Greater than 60,000 operations	
In-Rush Current	120A (20msec)	
Compatible Loads	Resistive, inductive, incandescent and fluorescent	
C-Bus Source Current	200mA	0mA
Maximum Number of Units on a Single C-Bus Network	10	100
Status Indicators	Channel Status (4), Unit and C-Bus	
Network Clock	Software selectable	
Network Burden	Software selectable	
C-Bus Termination	2 x RJ45 Socket	
Load Termination	2 x 1.5mm² or 1 x 2.5mm²	
Operating Temperature Range	0°C to 45°C	
Operating Humidity Range	0 - 95% RH, non-condensing	

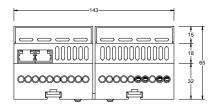


#### PRODUCT FEATURES

- Provides 4 x 10A channels of switching output
- Programmable via the learn mode feature or using the C-Bus Toolkit Software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power
- Local and remote on/off control independent of C-Bus communications
- Programmable power up state following power cycling
- Logic states (and/or) programmable using the C-Bus Toolkit Software
- Features magnetically latched relays that hold state in case of loss of C-Bus communications
- Designed to fit standard 35mm top hat DIN rail, measures just
   Min circ.
- Designed to fit into standard electrical switchboards
- CE (European Community) compliant







L5504RVF illustrated

CATALOGUE NUMBER	DESCRIPTION
L5504RVFP	4 Channel relay 10A, 220/240VAC 50/60Hz
L5504RVF	4 Channel relay 10A, 220/240VAC 50/60Hz, C-Bus 200mA

#### 8 Channel 10A Relay Range Learn Enabled

The 8 channel relay units are DIN rail mounted units suitable for switching resistive, inductive and fluorescent loads.

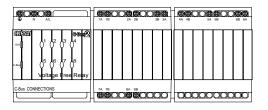
These relay units feature learn mode, local and remote overrides for on/off control, channel, C-Bus and unit status indicators.

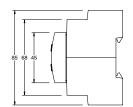
Load control is provided by a special dual contact relay designed for extreme long life with lighting loads, even with power factor corrected fluorescent lamps. One contact is tungsten designed to withstand high in-rush currents and arcing when opening and the other contact is silver alloy for steady state current operation.

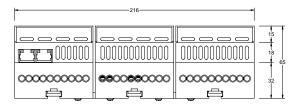
The relay units are available as passive and current sourcing models that source up to 200mA to the C-Bus network.



Catalogue Number	L5508RVF	L5508RVFP
Line Supply Voltage	220-240VAC	
Supply Frequency	47-53Hz and 57-63Hz	
C-Bus Supply Voltage	15-36VDC @ 0mA	
Load Rating per Channel	10A	
Contact Type	Voltage free, normally o	pen, magnetically latched
Switch Operations	Greater than 60	),000 operations
In-Rush Current	120A (	20msec)
Compatible Loads	Resistive, inductive, inco	andescent and fluorescent
C-Bus Source Current		200mA 0mA
Maximum Number of Units on a Single C-Bus Network	10	100
Status Indicators	Channel Status (	8), Unit and C-Bus
Network Clock	Software	selectable
Network Burden	Software	selectable
C-Bus Termination	2 x RJ4	5 Socket
Load Termination	2 x 1.5mm <sup>2</sup> or 1 x 2.5mm <sup>2</sup>	
Operating Temperature Range	0°C t	o 45°C
Operating Humidity Range	0 - 95% RH, n	on-condensing











- Provides 8 x 10A channels of switching output
- Programmable via the learn mode feature or using the C-Bus Toolkit Software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power
- Local and remote on/off control independent of C-Bus communications
- Programmable power up state following power cycling
- Logic states (and/or) programmable using the C-Bus Toolkit Software
- Features magnetically latched relays that hold state in case of loss of C-Bus communications
- Designed to fit standard 35mm top hat DIN rail, measures just 12M in size
- Designed to fit into standard electrical switchboards
- CE (European Community) compliant

CATALOGUE NUMBER	DESCRIPTION
L5508RVFP	8 Channel relay 10A, 220/240VAC 50/60Hz
L5508RVF	8 Channel relay 10A, 220/240VAC 50/60Hz, C-Bus 200mA

### 12 Channel 10A Relay Range Learn Enabled

The 12 channel relay units are DIN rail mounted units suitable for switching resistive, inductive and fluorescent loads.

These relay units feature learn mode, local and remote overrides for on/off control, Channel, C-Bus and unit status indicators.

Load control is provided by a special dual contact relay designed for extreme long life with lighting loads, even with power factor corrected fluorescent lamps. One contact is tungsten designed to withstand high in-rush currents and arcing when opening and the other contact is silver alloy for steady state current operation.

The relay units are available as passive and current sourcing models that source up to 200mA to the C-Bus network.

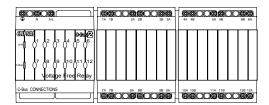


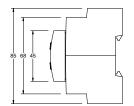
#### TECHNICAL INFORMATION

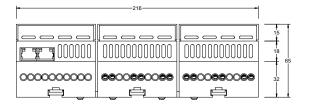
Catalogue Number	L5512RVF	L5512RVFP
Line Supply Voltage	220-2	40VAC
Supply Frequency	47-53Hz ar	nd 57-63Hz
C-Bus Supply Voltage	15-36VD	C @ 0mA
Load Rating per Channel	10	)A
Contact Type	Voltage free, normally	open, magnetically latched
Switch Operations	Greater than 60	,000 operations
In-Rush Current	120A (2	Omsec)
Compatible Loads	Resistive, inductive, inca	ndescent and fluorescent
C-Bus Source Current	200mA	0mA
Maximum Number of Units on a Single C-Bus Network	10	100
Status Indicators	Channel Status (1:	2), Unit and C-Bus
Network Clock	Software s	selectable
Network Burden	Software s	selectable
C-Bus Termination	2 x RJ45	Socket
Load Termination	2 x 1.5mm² o	r 1 x 2.5mm²
Operating Temperature Range	0°C to	45°C
Operating Humidity Range	0 - 95% RH, no	n-condensing

#### PRODUCT FEATURES

- Provides 12 x 10A channels of switching output
- Programmable via the learn mode feature or using the C-Bus Toolkit Software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power
- Local and remote on/off control independent of C-Bus
- Programmable power up state following power cycling.
- Logic states (and/or) programmable using the C-Bus Toolkit Software
- Features magnetically latched relays that hold state in case of loss of C-Bus communications
- Designed to fit standard 35mm top hat DIN rail, measures just 12M in size
- Designed to fit into standard electrical switchboards
- CE (European Community) compliant







L5512RVF illustrated

CATALOGUE NUMBER	DESCRIPTION
L5512RVFP	12 Channel relay 10A, 220/240VAC 50/60Hz
L5512RVF	12 Channel relay 10A, 220/240VAC 50/60Hz, C-Bus 200mA

### 4 Channel 20A Relay Range Learn Enabled

The 4 channel relay units are DIN rail mounted units suitable for switching resistive, inductive and fluorescent loads.

These relay units feature learn mode, local and remote overrides for on/off control, Channel, C-Bus and unit status indicators.

Load control is provided by a special mechanically latched relay, with local mechanical override on the unit, independent of the C-Bus communications. Each relay is rated at 20A, and is compatible with resistive, inductive, incandescent and fluorescent load types.

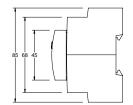
The relay units are available as passive and current sourcing models that source up to 200mA to the C-Bus network.

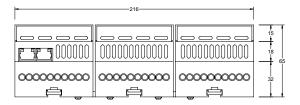


#### TECHNICAL INFORMATION

TECHNICAL INFORMATI	UN	
Catalogue Number	L5504RVF20	L5504RVF20P
Line Supply Voltage	220-2	40VAC
Supply Frequency	47-53Hz aı	nd 57-63Hz
C-Bus Supply Voltage	15-36VD	C @ 0mA
Load Rating per Channel	20	DA
Contact Type	Voltage free, normally op	oen, magnetically latched
Switch Operations	Greater than 60	,000 operations
In-Rush Current	120A (2	20msec)
Compatible Loads	Resistive, inductive, inca	ndescent and fluorescent
C-Bus Source Current	200mA	0mA
Maximum Number of Units on a Single C-Bus Network	10	100
Status Indicators	Channel Status (4	4), Unit and C-Bus
Network Clock	Software	selectable
Network Burden	Software	selectable
C-Bus Termination	2 x RJ4	5 Socket
Load Termination	2 x 1.5mm <sup>2</sup> c	or 1 x 2.5mm²
Operating Temperature Range	0°C to	o 45° C
Operating Humidity Range	0 - 95% RH, no	on-condensing

## Caus CONSCIONS





L5504RVF20 illustrated

- Provides 4 x 20A channels of switching output
- Programmable via the learn mode feature or using the C-Bus Toolkit Software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power
- Local and remote on/off control independent of C-Bus communications
- Mechanical override independent of C-Bus communications
- Programmable power up state following power cycling
- Logic states (and/or) programmable using the C-Bus Toolkit Software
- Features mechanically latched relays that hold state in case of loss of C-Bus communications
- Designed to fit standard 35mm top hat DIN rail, measures just 12M in size
- Designed to fit into standard electrical switchboards
- CE (European Community) compliant

CATALOGUE NUMBER	DESCRIPTION
*L5504RVF20P	4 Channel relay 20A, 220/240VAC 50/60Hz
*L5504RVF20	4 Channel relay 20A, 220/240VAC 50/60Hz, C-Bus 200mA
*Ask for availability	

#### 4 Channel Relay Driver Range Non Learn Mode

The 4 channel relay units are DIN rail mounted units designed to control up to four channels of external latching relay loads. The relay driver is used in conjunction with the relay modules type 5000RL20 (single channel 20A) and 5002RL20 (dual channel 20A).

These relay driver units feature a remote override for on/off control, C-Bus and unit status indicators. These units are low cost and do not feature learn mode or local override control.

The relay units are available as passive models only, and do not source current to the C-Bus network.

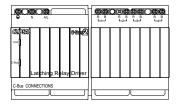
#### TECHNICAL INFORMATION

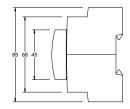
Catalogue Number	5504RDP
Line Supply Voltage	220-240VAC
Supply Frequency	47-53Hz and 57-63Hz
C-Bus Supply Voltage	15-36VDC @ 0mA
Driver Circuit	Use only with 5000RL20 or 5002RL20
C-Bus Source Current	0mA
Maximum Number of Units on a Single C-Bus Network	100
Status Indicators	Unit and C-Bus
Network Clock	Software selectable
Network Burden	Software selectable
C-Bus Termination	2 x RJ45 Socket
Load Termination	2 x 1.5mm² or 1 x 2.5mm²
Operating Temperature Range	0°C to 45°C
Operating Humidity Range	0 - 95% RH, non-condensing

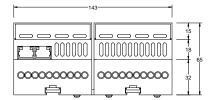


#### PRODUCT FEATURES

- Capable of controlling up to four channels of external latching relay loads
- Programmable via the C-Bus Toolkit Software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power
- Remote on/off control independent of C-Bus communications
- Programmable power up state following power cycling
- Logic states (and/or) programmable using the C-Bus Toolkit Software
- Designed to fit standard 35mm top hat DIN rail, measures iust 8M in size
- Designed to fit into standard electrical switchboards
- CE (European Community) compliant







5504RDP illustrated

### 4 Channel Relay Driver Range Learn Enabled

The DIN Driver is a 8M DIN rail mounted product designed to operate in conjunction with the relay units, 5000RL20 and 5002RL20. The relay driver is a C-Bus device, learn enabled which supplies control signal (pulse output) to drive the external relay.

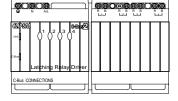
The advantages of the relay driver are, the external relay may be remotely mounted, and if a relay unit fails it may be replaced without the need to replace the relay drivers.

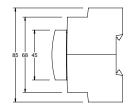
The relay driver features local overrides so the state of the external relay may be toggled from the unit.

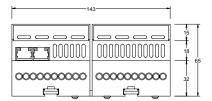


#### TECHNICAL INFORMATION

Catalogue Number	L5504RDP
Line Voltage	220-240VAC
C-Bus Source Current	0mA
Maximum Number of Units on a Single C-Bus Network	100







L5504RDP illustrated

- Units available both with and without a 200mA C-Bus power supply on-board
- Configured via either the C-Bus Installation Software or via the Learn Enabled Features
- Local on/off toggle buttons allow individual channels to be manually overridden at each unit
- Remote on and off facilities permit all channels to be turned on or off without C-Bus network communication
- Incorporates C-Bus Network Status, Mains Power Status, and Load Status indicators
- Capable of generating a C-Bus clock signal if enabled
- CE (European Community) compliant
- Designed to fit standard 35mm top hat DIN rail, measures just 8M in size

### Single Relay Module

The single channel relay, is a heavy duty, mechanically latched, DIN rail mounted relay and is rated at 20 Amps continuous use. The relay can withstand high in-rush currents and is suitable for incandescent, high intensity discharge lamps and fluorescent loads.

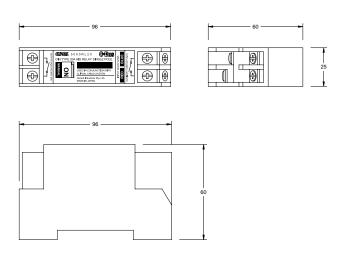
The relay module features a set of auxiliary contacts (normally open) and mechanical on/off control for manual operation.

The single channel relay must be used in conjunction with the 5504RDP or L5504RDP relay driver products.



#### TECHNICAL INFORMATION

Catalogue Number	5000RL20
Line Supply Voltage	220-240VAC
Supply Frequency	47-53Hz and 57-63Hz
Load Rating per Channel	20A AC3
Contact Type	Voltage free, normally open, mechanically latched
Switch Operations	Greater than 30,000 operations
Auxiliary Contacts	Normally open
In-Rush Current	300A (80msec)
Compatible Loads	Resistive, inductive, incandescent and fluorescent
Load Termination	2 x 1.5mm <sup>2</sup> or 1 x 2.5mm <sup>2</sup>
Dimensions	1.5M (M = 17.5mm)
Operating Temperature Range	0°C to 45°C
Operating Humidity Range	0 - 95% RH, non-condensing
Compliances	RCM, CE



5000RL20 illustrated

CATALOGUE NUMBER	DESCRIPTION
*5000RL20	Single relay, 20A (High In-Rush Current)
*Ask for availability	

### Dual Relay Module

The dual channel relay, is a heavy duty, mechanically latched, DIN rail mounted relay and is rated at 20 Amps continuous use. The relay can withstand high in-rush currents and is suitable for incandescent, high intensity discharge lamps and fluorescent loads.

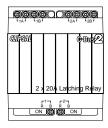
The relay module features mechanical on/off control for manual operation.

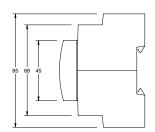
The dual channel relay must be used in conjunction with the 5504RDP or L5504RDP relay driver products.

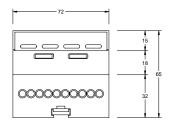


#### TECHNICAL INFORMATION

Catalogue Number	5002RL20
Line Supply Voltage	220-240VAC
Supply Frequency	47-53Hz and 57-63Hz
Load Rating per Channel	20A AC3
Contact Type	Voltage free, normally open, mechanically latched
Switch Operations	Greater than 60,000 operations
In-Rush Current	120A (20msec)
Compatible Loads	Resistive, inductive, incandescent and fluorescent
Load Termination	2 x 1.5mm <sup>2</sup> or 1 x 2.5mm <sup>2</sup>
Dimensions	4M (M = 17.5mm)
Operating Temperature Range	0°C to 45°C
Operating Humidity Range	0 - 95% RH, non-condensing
Compliance	RCM, CE







5002RL20 illustrated

ESCRIPTION
ual relay, 20A

### 4 Channel Changeover Relay Range Learn Enabled

The 4 channel changeover relay units are DIN rail mounted units suitable for switching resistive, inductive and fluorescent loads.

These relay units feature learn mode, local and remote overrides for on/off control, Channel, C-Bus and unit status indicators.

Load control is provided by non-latched, changeover relays that feature both normally open (N.O.) and normally closed (N.C.) contacts. The changeover relays can be interlocked and have applications in curtain and blind controls (up/down) or 3 speed air-conditioning controls (on/off, low, medium and high).

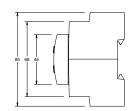
The relay units are available as passive and current sourcing models that source up to 200mA to the C-Bus network.

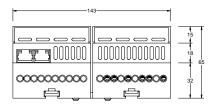


#### TECHNICAL INFORMATION

Catalogue Number	L5504RVFC	L5504RVFCP	
Line Supply Voltage	220-2	40VAC	
Supply Frequency	47-53Hz and 57-63Hz		
C-Bus Supply Voltage	15-36VDC @ 0mA		
Load Rating per Channel	10A resistive, 5A inductive and incandescent, 1A fluorescent		
Contact Type	Voltage free, normally open, magnetically latched		
Switch Operations	Greater than 60,000 operations		
Compatible Loads	Resistive, inductive, inca	ndescent and fluorescent	
C-Bus Source Current	200mA	0mA	
Maximum Number of Units on a Single C-Bus Network	10	100	
Status Indicators	Channel Status (4	4), Unit and C-Bus	
Warm Up Time	5 sec	onds	
Network Clock	Software	selectable	
Network Burden	Software selectable		
C-Bus Termination	2 x RJ45 Socket		
Load Termination	2 x 1.5mm <sup>2</sup> or 1 x 2.5mm <sup>2</sup>		
Operating Temperature Range	0°C to	45°C	
Operating Humidity Range	0 - 95% RH, no	on-condensing	

# Cas CONNECTORS





L5504RVFC illustrated

- Provides 4 channels of changeover, non-latched relay outputs
- Programmable via the learn mode feature or using the C-Bus Toolkit Software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power
- Local and remote on/off control, independent of C-Bus communications
- Programmable power up state following power cycling
- Logic states (and/or) programmable using the C-Bus Toolkit Software
- Relays may be interlocked for curtain, blinds and 3 speed air-conditioning controls
- Designed to fit standard 35mm top hat DIN rail, measures iust 8M in size
- Designed to fit into standard electrical switchboards
- CE (European Community) compliant

CATALOGUE NUMBER	DESCRIPTION
*L5504RVFCP	4 Channel changeover, relay 220/240VAC 50/60Hz
*L5504RVFC	4 Channel changeover, relay 220/240VAC 50/60Hz, C-Bus 200mA
*Ask for availability	

### 4 Channel Analogue Output Range Learn Enabled

The 4 channel analogue output units are DIN rail mounted units designed to control 0 – 10V and 1 – 10V compatible dimmable electronic ballasts used in the lighting industry.

These analogue output units feature learn mode, local and remote overrides for on/off control, Channel, C-Bus and unit status indicators.

Each channel is capable of sourcing or sinking current and the number of ballasts that may be connected to the analogue output unit is a function of the current drain of that particular ballast.

The analogue control signal typically regulates lighting output over the range of 3 – 100%. The dimming transitions are smooth and flicker free.

The analogue output units are available as passive models only, hence do not source current to the C-Bus network.

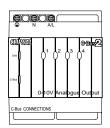


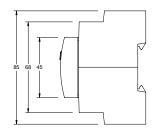
#### PRODUCT FEATURES

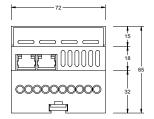
- Provides 4 channels of 0 10V dimming control
- Programmable via the learn mode feature or using the C-Bus Toolkit Software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power
- Local and remote on/off control independent of C-Bus communications
- Programmable power up state following power cycling
- Logic states (max/min) programmable using the C-Bus Toolkit Software
- Designed to fit standard 35mm top hat DIN rail, measures just 8M in size
- · Designed to fit into standard electrical switchboards
- CE (European Community) compliant

#### TECHNICAL INFORMATION

Catalogue Number	L5504AMP
Line Supply Voltage	220-240VAC
Supply Frequency	47-53Hz and 57-63Hz
C–Bus Supply Voltage	15-36VDC @ 0mA
Output Control Range	0-10VDC
Control Range	3 - 100%
Source Current	2.5mA
Sink Current	15mA at Vout = 0V, 8.0mA at Vout = 10V i.e. I = 15 - (0.7 Vout) mA
Maximum Number of Units on Single C-Bus Network	100
Status Indicators	Channel Status (4), Unit and C-Bus
Warm Up Time	5 seconds
Network Clock	Software selectable
Network Burden	Software selectable
C–Bus Termination	2 x RJ45 Socket
Load Termination	2 x 1.5mm² or 1 x 2.5mm²
Operating Temperature Range	0°C to 45°C
Operating Humidity Range	0 - 95% RH, non-condensing







L5504AMP illustrated

### Blind Control Relay

The Blind Control Relay units are designed to directly drive the motors for soft furnishing components like motorised blinds, curtains, shutters and awnings. The relay unit can be easily installed in the switchboard or in the field in the optional din-rail mount enclosure.

Designed with the installer in mind, this unit provides a easy to install module with features required to make direct motor control safe and simple.



L5501RBCP

#### TECHNICAL INFORMATION

Catalogue Number	L5501RBCP		
C-Bus Supply Voltage	15-36V DC @ 22mA required for normal operation.		
	Does not provide current to the C-Bus Network		
AC Input Impedance	80kΩ @ 1kHz		
Electrical Isolation	3.75kV RMS from C-Bus to mains		
Max. Units per Network	80		
Load Current Rating	2A (motor load)		
Load Voltage Rating	24V DC, 24-240V AC		
Warm Up Time	5 seconds		
Network Clock Software	Selectable		
Network Burden Software	Selectable		
Class of Switch	Class II		
Rated Impulse Withstand Voltage	4 kV		
Operating Temperature	0° to 45° C		
Operating Humidity	10 to 95% RH		
Dimensions (W x H x D)	36 x 93 x 63mm		
Weight	250g		
Mains terminals	Accommodates 2 x 1.5mm2 or 1 x 2.5mm2		
	(2 x 15AWG or 1 x 13AWG)		
Catalogue Number	5501RE		
Dimensions (W x H x D)	159 x 75 x 47mm		
Mounting Centres	84mm		
Weight	116a		

- Internally electrically interlocked directional contacts
- One, two or three button control from C-Bus switchplates or touchscreens
- Programmable time delays (0.5 4.0 seconds) between motor direction change
- Din-rail mounting or optional enclosure for field installation of unit
- Local manual override buttons to assist with setting endlimits.



L5501RBCP illustrated



5501RE illustrated

CATALOGUE NUMBER	DESCRIPTION
*L5501RBCP	Blind Control Relay
*5501RE	Enclosure for Blind Control Relay
*Ask for availability	

### 8 Channel DSI Gateway Range Learn Enabled

The 8 channel DSI gateway units are DIN rail mounted units designed to control Atco-Tridonic brand dimmable electronic ballasts featuring the digital serial interface. These DSI units feature learn mode, local and remote overrides for on/off control, channel, C-Bus and unit status indicators.

Each DSI channel can drive up to 100 DSI ballasts allowing a total of 800 DSI ballasts to be connected to a single C-Bus/DSI gateway module.

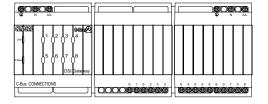
The DSI gateway is capable of detecting faulty lamps connected to its terminals and issuing a message onto the C-Bus network. These messages can be read by C-Gate server application, when integrated as part of an overall building management system, lamp status may be reported to a central location.

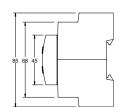
The DSI units are available as passive and current sourcing models that source up to 200mA to the C-Bus network.

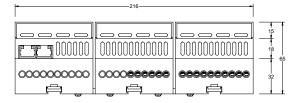


#### TECHNICAL INFORMATION

Catalogue Number	L5508DSI   L5508DSIP     220-240VAC     47-53Hz and 57-63Hz     15-36VDC @ 0mA     200mA (100 ballasts)     15W per channel     0 - 100%     Tridonic DSI dimmable ballasts or equivalent   0.0 - 0.8V (low) to 11.0 - 13.0V (high)   200mA   0mA   10   100     100		
Line Supply Voltage	220-2	240VAC	
Supply Frequency			
C–Bus Supply Voltage	15-36VDC @ 0mA		
Load Rating per Channel	200mA (100 ballasts)		
Minimum Load	15W per channel		
Control Range	-		
Compatible Loads	Tridonic DSI dimmable ballasts or equivalent		
Channel Output Voltage	·		
C–Bus Source Current	200mA	0mA	
Maximum Number of Units on a Single C-Bus Network	Tridonic DSI dimmable ballasts or equivalent  0.0 - 0.8V (low) to 11.0 - 13.0V (high)  200mA		
Status Indicators	Channel Status (	8), Unit and C-Bus	
Warm Up Time	5 se	conds	
Network Clock	Software	selectable	
Network Burden	Software	selectable	
C-Bus Termination	2 x RJ45 Socket		
Load Termination	2 x 1.5mm <sup>2</sup> or 1 x 2.5mm <sup>2</sup>		
Operating Temperature Range	0°C to 45°C		
Operating Humidity Range	0 - 95% RH, non-condensing		







L5508DSI illustrated

- Provides 8 channels of DSI dimming control
- Programmable via the learn mode feature or using the C-Bus Toolkit software
- Programmed variables are stored in non-volatile memory and are retained in case of loss of mains or C-Bus power
- Local and remote on/off control independent of C-Bus communications
- Programmable power up state following power cycling
- Logic states (max/min) programmable using the C-Bus Toolkit Software
- Monitors and reports lamp state
- Designed to fit standard 35mm top hat DIN rail, measures just 8M in size
- · Designed to fit into standard electrical switchboards
- CE (European Community) compliant

CATALOGUE NUMBER	DESCRIPTION
L5508DSIP	8 Channel dimmer for DSI Ballast, 20A
L5508DSI	8 Channel dimmer for DSI Ballast, 20A, C-Bus 200mA

### 2 Channel DALI Gateway Range Learn Enabled

The 2 channel DALI gateway units are DIN rail mounted units designed to control DALI compatible dimmable electronic ballasts and low voltage transformers.

Each DALI channel can drive up to 64 DALI devices allowing a total of 128 DALI devices to be connected to a single C-Bus/DALI gateway module.

With the DALI gateway each of the DALI devices are individually addressable. The DALI gateway also supports 16 groups of devices and 16 scenes, as well as global control over all devices.

The DALI gateway provides two-way communications between C-Bus and DALI devices, in this way C-Bus messages may be routed to DALI devices and visa versa. In addition, the DALI gateway constantly monitors the state of lamps and DALI devices and reports their state to the C-Bus network. These messages can be read by C-Gate server application, when integrated as part of an overall building management system, device status may be reported to a central location.

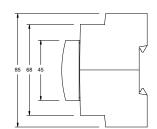
The DALI units are available as passive units only, hence do not source current to the C-Bus network.

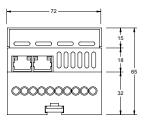


#### TECHNICAL INFORMATION

Catalogue Number	5502DAL
C-Bus Supply Voltage	15-36VDC @ 32mA
Load Rating per Channel	64 DALI devices
Control Range	0 - 100%
Compatible Loads	Digital Addressable Lighting Interface (DALI) electronic ballasts and low voltage transformers
Maximum Number of Units on a Single C-Bus Network	50
Status Indicators	Unit and C-Bus
Warm Up Time	5 seconds
Network Clock	Software selectable
Network Burden	Software selectable
C-Bus Termination	2 x RJ45 Socket
Load Termination	2 x 1.5mm² or 1 x 2.5mm²
Operating Temperature Range	0°C to 45°C
Operating Humidity Range	0 - 95% RH, non-condensing

# (S)(S)(N)(S) LDAL1 J LDAL2 J L





5502DAL illustrated

- Provides 2 channels of DALI interface, each channel can connect to 64 DALI devices
- Hard coded mapping between C-Bus group addresses and DALI device addresses
- Stored variables located in non-volatile memory and are retained in case of loss of C-Bus or DALI power
- Monitors and reports lamp and DALI device states
- Designed to fit standard 35mm top hat DIN rail, measures just 8M in size
- Designed to fit into standard electrical switchboards
- CE (European Community) compliant

CATALOGUE NUMBER	DESCRIPTION
5502DAL	2 Channel DALI Gateway

### **Software Packages**



### Software Packages

Please note all C-Bus Software Packages need to be programmed via a PC running the Microsoft Windows® operating system. All Installers will require an appropriate level of training and experience before they can program Clipsal C-Bus software packages to customer requirements. A C-Bus accredited System Integrator or approved C-Bus installer with the appropriate level of accreditation should therefore be used for software commissioning. Please contact your C-Bus specialist or Schneider Electric for further information.

#### Toolkit Software

The C-Bus Toolkit Software includes the new version of the C-Bus Installation Software, Project Manager, and C-Bus Calculator. The software works under Windows™ 98, ME, 2000 and XP and supports a unique barcode scanning feature. This allows the Installer to scan the C-Bus packaging of each new unit to add the unit to the database. This ensures the correct unit type is added and saves the Installer having to select from a list of unit types. The software prints adhesive labels that can be affixed to building plans. These labels include the Unit Address and the physical location that the unit is to be installed at. Labels are duplicated so that one label can be affixed to the unit and one to the electrical plan for the installation. The labels have barcodes on them so that units can be easily re-identified if required.

Please note: The latest version of the C-Bus Toolkit software is freely downloadable from the CIS website at www.clipsal.com/cis

#### Version 1 OPC Server Software

A C-Bus OPC Server Version 1 allows multiple software applications to share C-Bus data. The OPC Server will primarily be used to provide an interface between third party Building Management Systems or Process Control Presentation (SCADA) Systems and a Clipsal C-Bus system. Therefore experience in such third party systems is essential for s successful integrated C-Bus solution. The USB Dongle works under Windows® XP Home, XP Professional, Server 2003, Vista Ultimate, Vista Business and Vista Enterprise.

#### Version 4 Schedule Plus Software

C-Bus Schedule Plus Version 4 includes a number of major features, including enhanced scheduling features, support for monitoring load run times, load power and energy consumed, support for fully customizable multilevel, password protected, access level control, support for sunrise and sunset times, support for daylight saving times, support for 128 bit encrypted secure internet connectivity allowing control and monitoring via any Web Browser. The software also includes a fully featured programmable logic engine. The C-Bus USB Key works under Windows® XP Home, XP Professional, Server 2003, Vista Ultimate, Vista Business and Vista Enterprise.

#### Version 4 HomeGate Software

C-Bus HomeGate Version 4 includes a number of major features, including support for 128 bit encrypted secure internet connectivity allowing control and monitoring via any Web Browser, irrigation system control feature, enhanced scheduling features, support for sunrise and sunset times, and support for daylight saving times. The software also includes a fully featured programmable logic engine. The C-Bus USB Key works under Windows® XP Home, XP Professional, Server 2003, Vista Ultimate, Vista Business and Vista Enterprise.

Product reference	Page	Product reference	Page	Product reference	Page	Product reference	Page
1571	16	5080CTL27	21	E5054DLGB	11	SC5000CT2FBK	21
1571P	16	5080CTL26	21	E5054NLGB	13	·	
5000CTCPS2	23	5050CTL2GB	21	E5058NLGB	13		
5000CTCWB	23	5050CTL2WE	21	E5082F	10		
5000RL20	57	5050CTL228	21	E5082NL	8		
5002RL20	58	5050CTL2BK	21	 E5084DL	6		
5000CT2WB	21	5082F	10	E5084F	10		
5000CT2RS232	21	5082NL	9	E5084NL	8		
5005C305B	42	5084DF	6	E5086F	10		
5031PEWPGY	33	5084F	10	E5086NL	8		
5050CTC2	23	5084NL	9	E5100TAU	35		
5050CTCF	23	5085DF	7	 E5500CN	37		
5050IS	15	5085DL	7	E5504GI	25		
5050ISBA	15	5086F	10	E5750WPL	31		
5050ISGD	15	5086NL	9	L5501RBCP	61		
50500S	15	5100NA	41	L5504AMP	60		
5050CT2F	21	5101R	50	L5504AUX	26		
5050CT2GB	20	5102RVF	50	L5504D2A	45		
5050CT2WE	20	5104BCLWE	27	L5504D2AP	45		
5050CT2VL	20	5500BURDEN	42	L5504D2VI	46		
5050CT2BK	20	5500NB	39	L5504D2UP	46		
5052NLGB	14	5500PACA	28	L5504RDP	56		
					<del></del> -		
5052NRI	15	5500PC	38	L5504RVF	51		
5052NRP	15	5500PCU	38	L5504RVF20	54		
5054NLGB	14	5500PS	40	L5504RVF20P	54		
5054NRP	15	5501RE	61	L5504RVFC	59		
5055DLGB	12	5502DAL	63	L5504RVFCP	59		
5058NLGB	14	5504RDP	55	L5504RVFP	51		
5058NRP	15	5751LWE	29	L5508D1A	44		
5070THBRBK	24	5753L	30	L5508D1AP	44		
5070THBRPGWE	24	5753PEIRL	32	L5508DSI	62		
5070THBRSS	24	5850FBK	16	L5508DSIP	62		
5070THBPGWE	24	5850FBR	16	L5508RVF	52		
5070THBBK	24	5850FCM	16	L5508RVFP	52		
5070THBSS	24	5850FWE	16	L5512RVF	53		
5070THPRPGWE	24	BS5000CTC2	23	L5512RVFP	53		
5070THPRBK	24	BS5000CT2	20	R5050WB	18		
5070THPRSS	24	BS5000CTL2	21	R5061NL	18		
5070THPPGWE	24	BS5000CT2F	21	R5062VNL	18		
5070THPBK	24	E50312TC7	34	R5063NL	18		
5070THPSS	24	E5031NLWE	17	R5064VNL	18		
5080CTCF	23	E5031PE	33	R5066NL	18		
5080CTC2GF	23	E5032NLWE	17	R5068NL	18		
5080LC	10	E5032VNLWE	17	SC5000CT2WE	20		
5080CT2F	21	E5034NLWE	17	SC5000CT2CM	20		
5080CT2GF	20	E5050IS	15	SC5000CT2BK	20		
5080CT23	20	E5050ISBA	15	SC5000CTL2WE	21		
5080CT27	20	E5050ISGD	15	SC5000CTL2CM	21		
5080CT26	20	E5050MF	16	SC5000CTL2BK	21		
5080CTL2GF	21	E50500S	15	SC5000CT2FWE	21		
5080CTL23	21	E5052NLGB	13	SC5000CT2FCM	21		

### Nationwide support on one number – call the Customer Information Centre on

0870 608 8 608

Fax 0870 608 8 606

**Clipsal** Stafford Park 5, Telford Shropshire TF3 3BL



SE6155.V3 DEC 2009