

Outputs

0-10 V Analogue Controller

The 0-10 V analogue controller shall provide four independent analogue DC control channels. The unit shall be suitable for devices which require a variable 0-10 V DC control voltage (such as electronically dimmable fluorescent lighting ballasts).

The unit shall have local push button override switches to allow local control of the channels. The override switches shall illuminate when outputs are active.

The 0-10 V analogue controller shall incorporate two remote override inputs which cause all channels to switch on or off when triggered. These inputs shall be capable of switching the unit's channels when there is no functioning lighting control system network.

The unit shall be programmable through the lighting control system network, using PC based configuration software. It shall also be programmable without configuration software by use of a "learn mode".

The unit shall be packaged in a 4M DIN rail mount enclosure and provide 2 × RJ45 sockets for connection to the lighting control system. Control channel terminals shall accommodate 2 × 1.5 mm² or 1 × 2.5 mm² wire.

Connection to the lighting control system shall be via Cat-5 cable. The unit shall be powered through this connection when mains is not present and draw no more than 22 mA of current.

The unit shall be Clipsal C-Bus Catalogue No. L5504AMP.

DALI Controller

The DALI controller shall manage two DALI networks and interface these with the lighting control system. The unit shall allow the control of 64 ballasts, 16 groups and 16 scenes per network.

The unit shall incorporate two remote override inputs which cause all ballasts on the DALI networks to switch on or off when triggered. These inputs shall be capable of switching the ballasts when there is no functioning lighting control system network.

The DALI controller shall be programmable through the lighting control system network, using PC based configuration software.

The unit shall be packaged in a 4M DIN rail mount enclosure and provide 2 × RJ45 sockets for connection to the lighting control system. DALI terminals shall accommodate 2 × 1.5 mm² or 1 × 2.5 mm² wire.

Connection to the lighting control system shall be via Cat-5 cable. The unit shall be powered through this connection and draw no more than 32 mA of current. No mains connection shall be required.

The unit shall be Clipsal C-Bus DALI Gateway, Catalogue No. 5502DAL.

Dimmer, DIN Rail – Leading Edge

The DIN rail leading edge dimmer shall provide leading edge phase control dimming of incandescent and dimmable mains rated LED loads. The unit shall be available in 4 and 8 channel models, with load capacities of 2 and 1 Amp per channel respectively. The 4 and 8 channel models shall each be available with or without a built-in lighting control system power supply. All models shall draw no current from the lighting control system network when units are mains powered.

Each channel shall incorporate thermal overload and over current protection. The unit shall use a fast dimming technique when switching loads to provide a soft and smooth on/off. The leading edge dimmer shall incorporate mains, lighting control system network and load status LEDs, and shall be capable of providing lighting control system voltage level information across the lighting control system network.

The leading edge dimmer shall be capable of restoring the state of its loads on resumption from a mains power outage. Each channel shall be capable of using a configurable power-up delay to provide staggered load reactivation when power is restored.

The unit shall have local push button override switches to allow local control of the loads. The override switches shall illuminate when loads are active.

The leading edge dimmer shall incorporate two remote override inputs which cause all channels to switch on or off when triggered. These inputs shall be capable of switching the unit's channels when there is no functioning lighting control system network.

The unit shall be programmable through the lighting control system network, using PC based configuration software. Programming shall be possible without mains power connected. The unit shall also be programmable without configuration software by use of a "learn mode".

The leading edge dimmer shall meet EN/IEC 60669-2-1 for EMC and electrical safety.

The unit shall be packaged in a 12M DIN rail mount enclosure and provide 2 × RJ45 sockets for connection to the lighting control system. Dimmer load and mains terminals shall accommodate 2 × 1.5 mm² or 1 × 2.5 mm² wire. Connection to the lighting control system shall be via Cat-5 cable. The unit shall be powered through this connection when mains is not present and draw no more than 18 mA of current.

Units shall be Clipsal C-Bus Catalogue No. L5504D2A, L5504D2AP, L5508D1A and L5508D1AP.

Dimmer, DIN Rail – Universal

The DIN rail universal dimmer shall provide 4 channels of phase control dimming suitable for a range of load types. Each channel shall have a load capacity of up to 2.5 Amps. The dimmer shall sense the type of load and provide leading or trailing edge dimming as appropriate. The unit shall be available with or without a built-in lighting control system power supply and shall draw no current from the lighting control system network when mains powered.

Each channel shall incorporate thermal overload and over current protection. The unit shall use a fast dimming technique when switching loads to provide a soft and smooth on/off. The universal dimmer shall incorporate mains, lighting control system network and load status LEDs, and shall be capable of providing lighting control system voltage level information across the lighting control system network.

The universal dimmer shall be capable of restoring the state of its loads on resumption from a mains power outage. Each channel shall be capable of using a configurable power-up delay to provide staggered load reactivation when power is restored.

The unit shall have local push button override switches to allow local control of the loads. The override switches shall illuminate when loads are active.

The universal dimmer shall incorporate two remote override inputs which cause all channels to switch on or off when triggered. These inputs shall be capable of switching the unit's channels when there is no functioning lighting control system network.

The unit shall be programmable through the lighting control system network, using PC based configuration software. Programming shall be possible without mains power connected. The unit shall also be programmable without configuration software by use of a "learn mode".

The leading edge dimmer shall meet EN/IEC 60669-2-1 for EMC and electrical safety.

The unit shall be packaged in a 12M DIN rail mount enclosure and provide 2 × RJ45 sockets for connection to the lighting control system. Dimmer load and mains terminals shall accommodate 2 × 1.5 mm² or 1 × 2.5 mm² wire. Connection to the lighting control system shall be via Cat-5 cable. The unit shall be powered through this connection when mains is not present and draw no more than 18 mA of current.

Units shall be Clipsal C-Bus Catalogue No. L5504D2AP and L5508D1AP

Dimmer, Modular – Architectural

The architectural modular dimmer shall be of modular design, configurable with up to 12 interchangeable modules. Available modules shall include leading edge dimmer, autosensing leading/trailing edge dimmer, and ballast cards for DSI, DALI and 0-10 V control.

The dimmer shall have on-board DMX-512 capability allowing the dimmer channels to be controlled by external DMX capable equipment. The dimmer shall have customisable dimming curves allowing the dimming response to be optimised for various load types.

Dimmer modules shall meet EN/IEC 60669-2-1 for EMC and electrical safety.

The unit shall be programmable through the lighting control system network, using PC based configuration software. Mains terminals shall accommodate up to 1 × 25 mm² wire. Load terminals shall accommodate up to 1 × 6 mm² or 2 × 4 mm² wire.

The architectural modular dimmer shall be available in 3, 6 and 12 channel form factors, in single and three phase versions and with various combinations of MCBs and RCDs. Dimmer modules shall be available with load ratings of 5, 10, 16 and 20 Amps per channel.

The dimmer shall have four presets which override normal operation, for integration with emergency systems such as a backup generator and fire alarm system. The unit shall have a built-in scene capacity of 128 scenes.

The dimmer shall be fanless and shall incorporate circuit protection in each module.

The unit shall be Clipsal C-Bus Infinity Architectural Series Dimmer, Catalogue No. L5106D20UA, L5103D20UA, L5106D16UA, L5103D16UA, L5112D10UA, L5106D10UA, L5103D10UA, L5112D5UA, L5106D5UA, L5103D5UA, L5106D20UAR6, L5103D20UAR1, L5106D16UAR6, L5103D16UAR1, L5112D10UAR6, L5106D10UAR3, L5103D10UAR1, L5112D5UAR6, L5106D5UAR3, L5103D5UAR1.

Dimmer, Modular – Professional

The professional modular dimmer shall be of modular design, configurable with up to 12 interchangeable leading or trailing edge dimmer modules. It shall be possible to upgrade the dimmer's capabilities by substituting modules with alternative module types, including autosensing leading/trailing edge dimmer, and ballast cards for DSI, DALI and 0-10 V control.

Dimmer modules shall meet EN/IEC 60669-2-1 for EMC and electrical safety.

The unit shall be programmable through the lighting control system network, using PC based configuration software. Mains terminals shall accommodate up to 1 × 25 mm² wire. Load terminals shall accommodate up to 1 × 6 mm² or 2 × 4 mm² wire.

The professional modular dimmer shall be available in 3, 6 and 12 channel form factors, in single and three phase versions and with various combinations of MCBs and RCDs. Dimmer modules shall be available with load ratings of 3, 5, 10, 16 and 20 Amps per channel.

The dimmer shall be fanless and shall incorporate circuit protection in each module.

The unit shall be Clipsal C-Bus Infinity Professional Series Dimmer, Catalogue No. L5106D20TP, L5103D20TP, L5106D16TP, L5112D10TP, L5106D10TP, L5103D10TP, L5112D5TP, L5106D5TP, L5103D5TP, L5112D3TP, L5106D3TP, L5112D20LP, L5106D20LP, L5103D20LP, L5112D16LP, L5112D10LP, L5106D10LP, L5103D10LP, L5112D5LP, L5106D5LP, L5103D5LP, L5112D3LP, L5106D3LP, L5106D20TPR6, L5103D20TPR1, L5106D16TPR6, L5112D10TPR6, L5106D10TPR3, L5103D10TPR1, L5112D5TPR6, L5106D5TPR3, L5103D5TPR1, L5112D20LPR12, L5106D20LPR6, L5103D20LPR1, L5112D16LPR12, L5112D10LPR6, L5106D10LPR3, L5103D10LPR1, L5112D5LPR6, L5106D5LPR3, L5103D5LPR1.

C-Bus® DMX Gateway

The C-Bus DMX Gateway is a one way device. It permits C-Bus input devices such as wall switches, DLT's and PIR's to control lighting devices with DMX interface capability. These include many manufacturers LED lights and theatrical equipment.

C-Bus DMX Gateway shall:

- be a DIN rail mounted unit that maps C-Bus Group Addresses and levels to a DMX-512-A interface
- be able to interact with DMX devices as if they are a outputs connected directly to the C-Bus network
- have two C-Bus connections and one wired terminal block for the DMX-512-A interface connection
- be a master device for transmission only, therefore, it must be at Position 1 on the DMX network

DSI Controller

The DSI controller shall control eight independent DSI channels and interface these with the lighting control system. Each channel shall support up to 100 DSI ballasts. The unit shall detect faulty lamp conditions and provide feedback of this via an LED indicator. The units shall have overload protection for each channel. On overload, the unit shall shut down the affected channel and provide feedback via an LED indicator.

The unit controller shall have local push button override switches to allow local control of the loads. Override switches shall illuminate when loads are switched on.

The DSI controller shall incorporate two remote override inputs which cause all DSI channels to switch on or off when triggered. These inputs shall be capable of switching the DSI channels when there is no functioning lighting control system network.

The unit shall be programmable through the lighting control system network, using PC based configuration software. Programming shall be possible without mains power connected. The unit shall also be programmable without configuration software by use of a "learn mode".

The DSI controller shall be packaged in a 12M DIN rail mount enclosure and provide 2 × RJ45 sockets for connection to the lighting control system. DSI and mains terminals shall accommodate 2 × 1.5 mm² or 1 × 2.5 mm² wire. Connection to the lighting control system shall be via Cat-5 cable. The unit shall be powered through this connection when mains is not present and draw no more than 18 mA of current.

The unit shall be Clipsal C-Bus DSI Gateway, Catalogue No. 5508DSIP

Infrared Transmitter

The infrared transmitter shall provide two infrared (IR) transmission channels for the purpose of controlling third party devices such as audiovisual equipment. Each channel shall use a 3.5 mm socket for the connection of a single or dual IR emitter lead.

The unit shall be capable of storing 100 IR commands (depending on the command length and protocol). LEDs shall be used to provide lighting control system network and IR transmission status indication. It shall be possible to disable these LEDs during unit configuration.

The infrared transmitter IR codes shall be programmed via PC based software using a programming cable. Lighting control system specific programming shall be performed through the lighting control system network, using PC based configuration software. The unit shall be available in various styles.

Connection to the lighting control system shall be via Cat-5 cable. Terminals shall accommodate 0.2 to 1.3 mm² wire. The unit shall be powered through this connection and draw no more than 32 mA of current. No mains connection shall be required.

The unit shall be Clipsal C-Bus Catalogue No. 5034NIRT

Relay, DIN Rail – Shutter Control

The DIN rail shutter control relay shall directly drive the motors for motorised curtains, blinds, screens and shutters. The unit shall use interlocked relays and have voltage free relay terminals. It shall be suitable for AC (24 to 240 V) and DC (24 V) motors with a maximum load of 2 Amps.

The unit shall incorporate lighting control system network and relay function status LEDs, and shall be capable of providing lighting control system voltage level information across the lighting control system network.

The unit shall have local push button override switches for Open and Close functions. It shall be controllable from wall switches and touch screens using one, two or three buttons.

The shutter control relay shall have a configurable fail safe delay to limit the motor on time, in case of motor limit switch failure. A minimum delay between Open and Close operations shall also be configurable.

The unit shall be programmable through the lighting control system network, using PC based configuration software. Programming shall be possible without mains power connected. The unit shall also be programmable without configuration software by use of a "learn mode".

The shutter control relay shall meet EN55014 for EMC and EN/IEC 61058-1 for electrical safety.

The unit shall be packaged in a 2M DIN rail mount enclosure and provide 2 × RJ45 sockets for connection to the lighting control system. A special enclosure shall be available to mount the relay external to a switchboard, if required. Load and mains terminals shall accommodate 2 × 1.5 mm² or 1 × 2.5 mm² wire.

Connection to the lighting control system shall be via Cat-5 cable. The unit shall be powered through this connection and draw no more than 22 mA of current.

The unit shall be Clipsal C-Bus Shutter Relay Catalogue No. L5501RBCP.

Relay, DIN Rail – Voltage Free

The DIN rail voltage free relay shall provide switching for general applications such as lighting, heating and motors. Units shall be available in models with 4, 8 or 12 independent voltage free relays with a current capacity of 2 Amps for motor loads, 10 Amps for resistive, inductive and fluorescent loads. A 4 channel model with 20 Amp rated relays for resistive, inductive and fluorescent loads shall also be available. All models shall be available with or without a built-in lighting control system power supply. All models shall draw no current from the lighting control system network when units are mains powered.

The DIN rail voltage free relay shall incorporate mains, lighting control system network and load status LEDs, and shall be capable of providing lighting control system voltage level information across the lighting control system network.

The unit shall be capable of restoring the state of its loads on resumption from a mains power outage. Each channel shall be capable of using a configurable power-up delay to provide staggered load reactivation when power is restored.

The DIN rail voltage free relay shall have local push button override switches to allow local control of the loads. The override switches shall illuminate when loads are active.

The unit shall incorporate two remote override inputs which cause all relays to switch on (close) or off (open) when triggered. These inputs shall be capable of switching the relays when there is no functioning lighting control system network.

The unit shall be programmable through the lighting control system network, using PC based configuration software. Programming shall be possible without mains power connected. The unit shall also be programmable without configuration software by use of a "learn mode".

The DIN rail voltage free relay shall meet EN/IEC 60669-2-1 for EMC and electrical safety.

The unit shall be packaged in a 12M DIN rail mount enclosure and provide 2 × RJ45 sockets for connection to the lighting control system. Relay and mains terminals shall accommodate 2 × 1.5 mm² or 1 × 2.5 mm² wire.

Connection to the lighting control system shall be via Cat-5 cable. The unit shall be powered through this connection when mains is not present and draw no more than 18 mA of current.

The units shall be Clipsal C-Bus Catalogue No. L5504RVF, L5504RVFP, L5504RVF20, L5504RVF20P, L5508RVF, L5508RVFP, L5512RVF and L5512RVFP.

Relay, Inline – 0-10 V

The 0-10 V inline relay shall provide single channel switching of up to 10 Amps (inductive loads) for lighting and other applications. It shall include a connection for the dimming of electronic ballasts which are dimmable via 0-10 V control.

In the event of a power loss the unit shall latch in its current state and synchronise to the lighting control system control state once power is re-established. The 0-10 V inline relay shall incorporate a remote override input which will switch the relay on (close) when triggered. This input shall be capable of switching the relay when there is no functioning lighting control system network.

The unit shall have a status LED that indicates the state of the system, communications and mains power. It shall be programmable through the lighting control system network, using PC based configuration software. Programming shall be possible without mains power connected.

The 0-10 V inline relay shall measure no more than 200 × 42 × 39 mm and be suitable for mounting inside luminaires. Relay and mains terminals shall accommodate 0.2 to 1.5 mm² solid or stranded wire. The unit shall provide an electrical isolation rating of 3500 VAC RMS, 1 minute.

The unit shall be Clipsal C-Bus Single Channel Relay, Catalogue No. 5101R.

Relay, Inline – Voltage Free

The voltage free inline relay shall provide two independent channels of switching for lighting and other applications. It shall incorporate a remote override input which will switch the relays on (close) when triggered. This input shall be capable of switching the relay when there is no functioning lighting control system network.

The voltage free inline relay shall have a status LED that indicates the state of the system, communications and mains power. It shall be programmable through the lighting control system network, using PC based configuration software. Programming shall be possible without mains power connected.

The unit shall measure no more than 200 × 42 × 39 mm and be suitable for mounting inside luminaires. Relay and mains terminals shall accommodate 0.2 to 1.5 mm² solid or stranded wire. The unit shall provide an electrical isolation rating of 3500 VAC RMS, 1 minute.

The unit shall be Clipsal C-Bus Two Channel Voltage Free Relay, Catalogue No. 5102RVF.