C-Bus[®]



by Schneider Electric



Ceiling Sweep Fan Control Relay L5501RFCP

The C-Bus Ceiling Sweep Fan Control Relay offers the ability for C-Bus input devices such as wall switches, DLT switches and touchscreens to natively switch speeds on ceiling sweep fans that regulate their speed using capacitors. Until now, this style of sweep fan speed control has been provided by using standard C-Bus relay devices in the switchboard enclosure, or by integration with third-party relay products. Housed in a 3 pole DIN-rail enclosure, the fan control relay offers the installer the ability to install the unit alongside 12 pole C-Bus output units inside 15 pole wide switchboards.

The C-Bus Ceiling Sweep Fan Control Relay is powered by the C-Bus network. This enables the control relay to handle ceiling fans that operate at a wide range of input voltages and frequencies. The electrically interlocked relays also provide the installer adjustable dwell time between speeds as well as double-pole switching when this is required.

There is a provision for the capacitor supplied with the fan to be housed in a compartment inside the fan control relay. The capacitor compartment is accessed by opening the hinged lid. When the fan control relay is installed behind the switchboard escutcheon, the capacitor cannot be accessed until the escutcheon is removed.

The fan control relay includes a manual override pushbutton that operates even if the unit has not been programmed for final operation. This lets the installing electrician test the fan provided C-Bus power is present.

Control

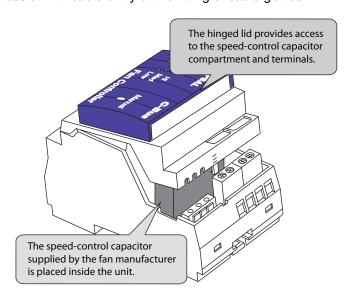
The fan control relay is designed to control virtually any 3-speed capacitor-controlled fan. However, you can use a single- or dual-speed fan, if desired. The control unit includes many options including Direct On Line (DOL) start and the control of the duration of the DOL start too. This ensures that the fan always starts at the highest speed. It is also possible to use a single button to step through the speeds from high through to low, then off. If single-button control is desired and a DLT style switch is providing the control, the current speed of the fan can be displayed on the label of the DLT. The labels are installer configurable, which enables the fan control relay to be used for other purposes, if so desired. It is possible to configure the control relay so that absolute speeds can be set too. This is useful when a scene includes the fan operating at a particular speed.

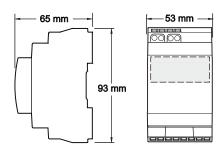
Design

The fan control relay is temperature rated up to 65° C, and is IP20 rated. When installed in the optional enclosure, it is suitable for installation directly into ceiling spaces. The enclosure provides segregation between the C-Bus and fan control wiring. Keylocking on the enclosure and the fan control relay ensure they can only be assembled in the correct way. The enclosure also includes a C-Bus screw terminal strip with a small lead to the RJ45 connector on the fan control relay. The enclosure also includes multiple knockouts and cable tie-points to assist with installation.

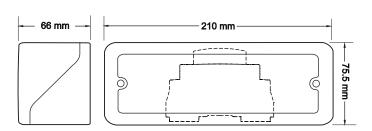
C-Bus® Ceiling Sweep Fan Control Relay L5501RFCP

The enclosure is designed for surface mount installation and is suitable for higher temperatures such as in ceilings near fans where control is required. Mounting holes or keyhole mounting options are provided. Indicators are provided for both C-Bus and Unit status and for each of the three speeds. Multiple 20mm knockouts are provided to assist with cable entry or the fitting of cable glands.





The capacitor compartment is 45 mm long x 20 mm wide and 32 mm high



Specifications - Fan Control Relay

Parameter	Description
Description	C-Bus Ceiling Sweep Fan Control Relay
Catalogue number	L5501RFCP
C-Bus supply voltage	15 to 36 V d.c.
Current requirement	18mA powered from C-Bus. Does not provide power to the C-Bus network.
Network clock	software selectable
Network burden	software selectable when unit address is 001
AC input impedance	100k Ohms at 1kHz
Electrical isolation	3.75 KV from C-Bus to mains
Load rating per relay channel	1.5 A @ 100 – 250 V a.c. Suitable for inductive loads.
Contact type	voltage free, interlocked double pole switching
Connectors	C-Bus: 2 x RJ45 UTP Cat.5e capacitor block: 3 x push type, 1.5mm² cable size per connection fan load: screw type, accommodates 1.5mm² cable per terminal fan supply: screw type accommodates two 1.5mm² cable per terminal
Indicators	C-Bus, Unit and fan speed indicators
Local control	local override pushbutton, non-illuminated
Warm-up time	10 seconds
Mounting	DIN rail, surface
IP rating Weight	IP20 145 g
Operating temperature	0 to 65° C (32° to 150° F)
Operating Humidity	10 to 95% RH, non-condensing

Specifications - Enclosure

Parameter	Description
Description Catalogue number	Fan Control Relay Enclosure 5501FRE
C-Bus connection Mounting	screw terminal and 1 x RJ45-to-bootlace crimp 100 mm lead surface, indoor only
Cable entry knockouts IP rating Weight	6 x 20 mm diameter IP5x 220 g

Specifications are subject to change without notice.

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Clipsal Australia Pty Ltd

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Head Office

33-37 Port Wakefield Road. Gepps Cross, South Australia 5094 Internet: http://clipsal.com/cis/ E-mail: cis.support@clipsal.com.au

CIS Technical Support Hotline: Australia 1 300 722 247 New Zealand 0 800 888 219

Contact us at: http://www.clipsal.com/feedback

International Sales and Marketing

export@clipsal.com.au

New Zealand

Schneider Electric (NZ) Ltd Telephone +64 9 576 3403

Malaysia

Clipsal Integrated Systems (M) Sdn Bhd Telephone +60 3 7665 3555

Singapore

Clipsal Singapore Pte Ltd Telephone +65 6415 3211 Telephone +65 6415 3232

China

Clipsal China Limited Telephone +86 755 8237 5959

Greece

Schneider Electric AE Telephone +30 69 4646 3200

Hong Kong

Clipsal Integrated Systems (HK) Limited Telephone +852 2487 0261

India

Schneider Electric India Pvt Ltd Telephone +91 11 5159 0000

Indonesia

PT Clipsal Graha Nusa Telephone +62 21 630 6430

Korea

Clipsal Korea Co. Ltd Telephone +822 549 5550

Pakistan

Clipsal Pakistan (Pvt) Ltd Telephone +92 21 506 7278

Philippines

Clipsal Phillipines Inc. Telephone +632 683 0275-78

South Africa

Clipsal South Africa (Pty) Ltd Telephone +27 11 314 5200

Taiwan

Schneider Electric Taiwan Telephone +886 2 8751 6388

Thailand

Clipsal Thailand Ltd Telephone +66 2 952 5338 Telephone +66 2 952 5342

United Arab Emirates

Clipsal Middle East Telephone +971 6 5570 777

United Kingdom

Clipsal Integrated Systems c/o Schneider Electric Telephone +44 870 608 8 608

Vietnam

Clipsal - VTEC Telephone +848 856 3002



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