



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.

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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.



— **53 mm**



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



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Specifications – Fan Control Relay

	Parameter	Description
	Description	C-Bus Ceiling Sweep Fan Control Relay
,	Catalogue number	L5501RFCP
	C-Bus supply voltage Current requirement	15 to 36 V d.c. 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, 1.5mm ² cable size per connection fan load: screw type, accommodates 1.5mm ² cable per terminal fan supply: screw type accommodates two 1.5mm ² cable per terminal
	Indicators	C-Bus, Unit and fan speed indicators
	Local control	local override pushbutton, non-illuminated
	Warm-up time	10 seconds
	Mounting IP rating	DIN rail, surface IP20
	Weight	145 g
	Operating temperature	U TO 65° C (32° TO 150° F)
	Operating Humidity	10 to 95% KH, non-condensing

Specifications - Enclosure

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

Specifications are subject to change without notice.

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