INSTALLATION MANUAL
TIS LEADING EDGE DIMMER
### Dimmer controller with four channels
Model: DIM-4CH-3A

TIS®
CONTROL EVERYTHING

ℹ PRODUCT INFORMATION

This product functions with TRIAC technology to intelligently adjust the brightness level of incandescent and halogen lights. If programmed, it can be utilized for integrating ceiling fans into home automation system.

PRODUCT SPECIFICATIONS

⚡	**I/O Load Voltage**	Number of channels	4
		Nominal voltage	110/230 V AC 50/60 Hz
		Nominal current per channel	3 A
		Maximum total channel load	10 A
	TIS Bus	Number of devices on 1 line	Max. 64
		Bus voltage	12-32 V DC
		Current consumption	<30 mA / 24 V DC
		Protection	Reverse polarity protection
🛡	**Protection**	Over current	4x internal fuse aR class 6A
		Over heat	Internal temp sensor protection
		Over load	Dimmer coil max load up to 6A
		Heat sink	Aluminum alloy with straight fin
	Operation	Programming button/LED	For assignment of the physical address
		1-4 buttons	Manual ON/OFF and programming
		By TIS-BUS	TIS protocol messages and commands
		Programming	Manual & via software
		Upgrading	1 X mini USB for upgrading
⚙	**Functions**	Lighting control dimming	4 separately controllable channels
		Scenes	8 different scenarios
		Sequences	6 different sequences
	Dimensions	Width × Length × Height	144mm × 76mm × 90mm
	Housing	Materials	Fireproof ABS
		Casing color	Black
		Button color	Silver
		IP rating	IP 20

CE RoHS COMPLIANT PC ⊘ FC

Read Instructions

We recommend that you read this Instruction Manual before installation.

Safety instructions

Electrical equipment should only be installed and fitted by electrically skilled persons.
Failure to observe the instructions may cause damage to the device and other hazards.
These instructions are an integral part of the product and must remain with the end customer.

Programming

This device can be tested and programmed manually. Advanced programming requires knowledge of the TIS Device Search software and instruction in the TIS advanced training courses.

Simple Installation

You can use either the DIN rail or fixing points to install this module.

Mounting Location

Install in a dry, well-ventilated location. Controllers may emit some mechanical noises. Consider this when deciding on a mounting location.

Data Cable

Use screened stranded RS485 data cable with four twisted pairs. Configure devices in a "Daisy Chain."
Do not cut or terminate live data cables.

Electrical Wires

The recommended wire size for light channels is 2.5mm, and 4mm for the Line, Neutral, and Earth cables. The installer should consider the total current consumption when selecting the wires.

Warranty

There is a two-year warranty provided by law. The hologram warranty seal and product serial number are available on each device.

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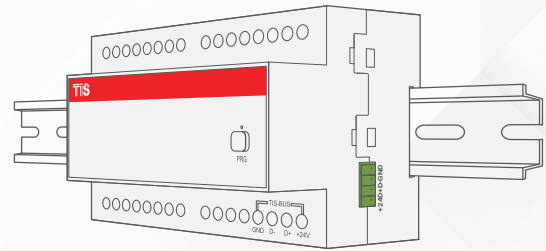
⚙ INSTALLATION STEPS

1 ≫ Turn off the main electrical source before installation.

⚠ **WARNING! HIGH VOLTAGE**

2 ≫ Mount the device on DIN Rails inside an approved enclosure. The device can also be installed using two mounting screw holes.
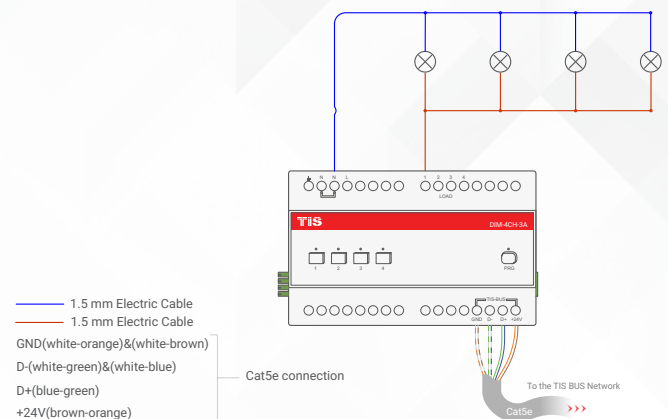

3 ≫ Connect a Cat5e TIS network data cable to the TIS-BUS port as per the connection diagram. No need to loop the TIS-bus cable if 2 DIN Rail modules are connected together from the side bus train terminal.

To the TIS BUS Network
Cat5e
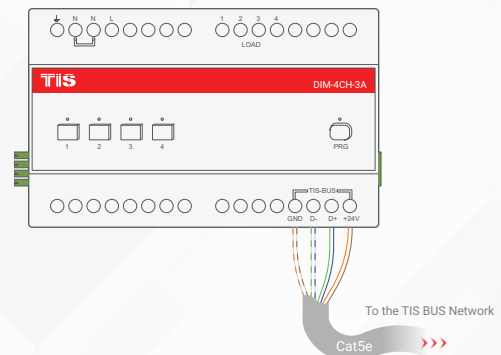
4 ≫ Connect the load (light channel) electrical wires to outputs 1-4. The device is capable of managing up to 10 Amps, and each channel dims up to 3A loads. The installer should make sure not to overload the device and module channels.
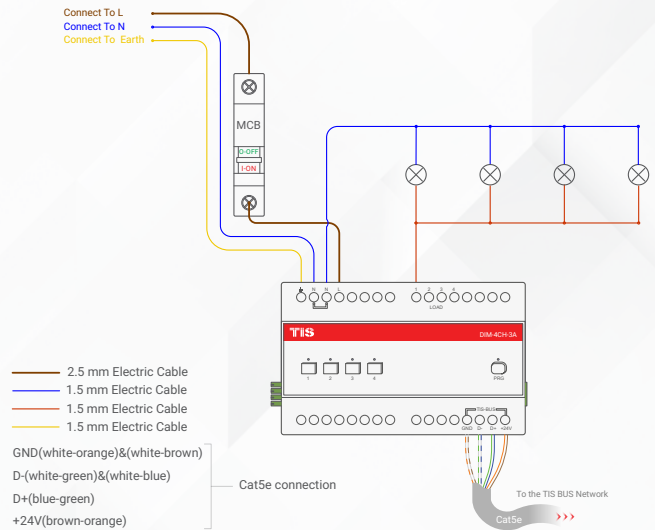
1.5 mm Electric Cable
1.5 mm Electric Cable
GND(white-orange)&(white-brown)
D-(white-green)&(white-blue)
D+(blue-green)
+24V(brown-orange)
Cat5e connection

To the TIS BUS Network
Cat5e
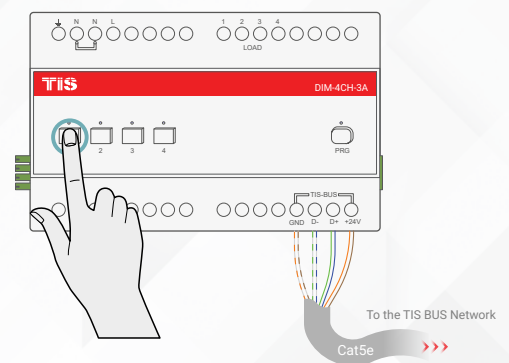
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⚙ INSTALLATION STEPS

5 ❯❯ Connect the L, N, and PE to Live, Neutral, and Earth cables, respectively. The device input must have an appropriate MCB to protect that load circuit.

Connect To L
Connect To N
Connect To Earth

MCB
0-OFF
I-ON

DIM-4CH-3A
LOAD
PRG
TIS-BUS
GND D- D+ +24V

2.5 mm Electric Cable
1.5 mm Electric Cable
1.5 mm Electric Cable
1.5 mm Electric Cable

GND(white-orange)&(white-brown)
D-(white-green)&(white-blue)
D+(blue-green)
+24V(brown-orange)

Cat5e connection

To the TIS BUS Network
Cat5e ❯❯❯

6 ❯❯ Turn on the power source, and then test the loads by short pressing on local override buttons 1-4 on the device.

N N L
LOAD 1 2 3 4

DIM-4CH-3A
2 3 4
PRG
TIS-BUS
GND D- D+ +24V

To the TIS BUS Network
Cat5e ❯❯❯

4

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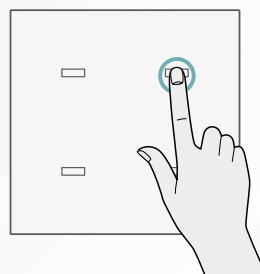**TIS CONTROL LIMITED**
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PAIRING (MANUAL PROGRAMMING)

You can pair the light channels with any wall panels. To do so, follow these steps:
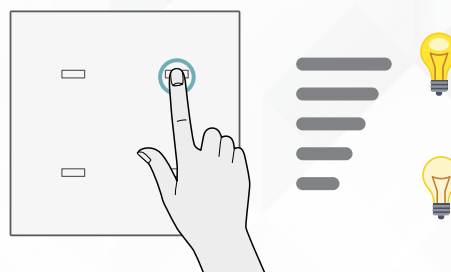
1 Press on any buttons 1-4 for 6 seconds so that the LED indicator of that button starts blinking.
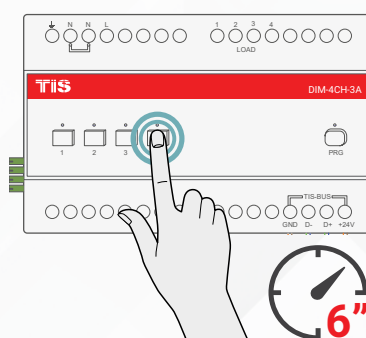
2 Shortly press the light icons on any wall panel, such as Luna, Mars, Terre, etc.

3 Test the button on the panel by short pressing it for ON/OFF Long Press to dim.

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🧰 TROUBLESHOOTING

❓	**PRG Button Blinks Red Color Rapidly**	**Reason:** The module's address conflicts with another device in the TIS network. You need to press and hold the PRG button for 6 seconds so the module can get a new address.
❓	**The PRG LEDs do not blink, and the device is not powered.**	**Reason 1:** There is no power or no connection to the L/N input. **Reason 2:** The TIS 24V power supply is not connected to the TIS-BUS.
❓	**The LED is ON, but the lights are OFF.**	**Reason 1:** The lights' neutral wire is not connected. **Reason 2:** There is no 110V/220V output from the dimmer. Change the fuse of the burned channel inside the dimmer.
❓	**The load (lights) flicker.**	**Reason:** Lights are not compatible with the dimmer. Use compatible loads or dimmers.
❓	**Wall panels fail to pair with the device.**	**Reason 1:** The TIS-BUS connection has a problem, or the wire is short. **Reason 2:** Manual programming function is disabled on the device. (it is enabled by default)
❓	**Wall panels fail to control the device channels.**	**Reason 1:** The TIS-BUS connection has a problem, or the wire is short. **Reason 2:** The programming address is faulty.
❓	**Load lights dimmed suddenly.**	**Reason:** Channels are overloaded. When the dimmer is hot, it automatically reduces the load as a protection function. Do not overload the channels. Follow the device datasheet and diagram.

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