LC-101H/LC-102H

1-CH Lighting Control Module with AC Load Current Measurement (1 AC DI + 1 Relay output)
2-CH Lighting Control Module with AC Load Current Measurement (2 AC DI + 2 Relay output)

Features

- High Power Relay Output to Turn On/Off the Lighting
- Number of Lighting Fixtures That Can Be Connected:
  - Incandescent Lamp: 40 W/ 220 VAC * 5 Sets
  - LED(Electronic ballast): 40 W/ 220 VAC *8 Sets
- 0 to 5 A AC power Load Current Measurement Relay output
- Isolated AC Digital Input
- Node Addresses by Hardware Configuration
- Low Power Consumption
- Modbus RTU and DCON Protocols

Introduction

The LC lighting control module is easy-to-use and requires no specialist skills to install and operate, and no software is needed in order to control the lighting control channels.

The LC-101H is a 1-channel lighting control module with AC load current measurement which provides 1-channel high power relay output and 1-channel AC digital input.

The LC-102H is a 2-channel lighting control module with AC load current measurement which provides 2-channel high power relay output and 2-channel AC digital input.

The AC load current measurement is provided in the relay control loop. This function not only allows the user to know the load current value, but also through the measurement of the load current value, it can be used to know the switching state of the relay, whether the load is working normally in the light control loop, or the relay is stuck and cannot be switched.

The input channel can directly control the relay ON and OFF sequence without the host command.

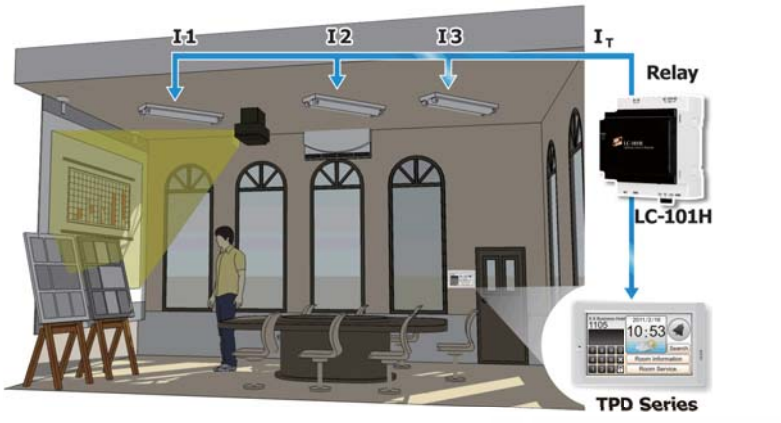
When required, the module can be communicated with the Modbus RTU protocol, and an added benefit is that different addresses can be set for Modbus RTU communication via hardware configuration.

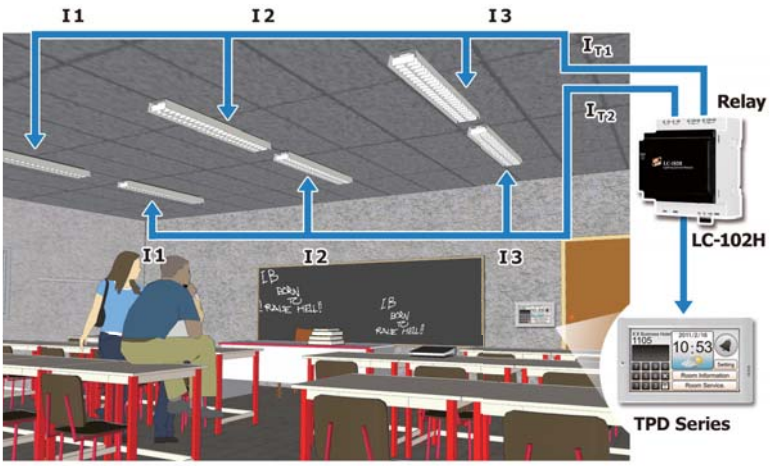
Specifications

Model	LC-101H	LC-102H
Communication		
Ports	1 x RS-485	
Data Format	N,8,1/O,8,1/E,8,1/N,8,2	
Baud Rate	Hardware Configuration: Fixed 9600 bps Software Configuration: 1200 to 115200 bps	
Protocol	Modbus RTU / DCON	
Software		
Function	Local and Remote Direct Control Relay ON/OFF and Remote Status Monitoring	
Node Addresses	32 to 63 for hardware configuration	
LED Display		
Status	1 LED as Power Indicator	
EMS Protection		
ESD (IEC 61000-4-2)	±4 kV Contact for each Terminal	
EFT (IEC 61000-4-4)	±4 kV for Power	
SURGE(IEC 61000-4-5)	±2 kV for Power	
Power		
Reverse Polarity Protection	Yes	
Input Voltage Range	10 ~ 30 VDC	
Consumption	1.9 W Max.	2.8 W Max.
Mechanical		
Dimensions (W x L x H)	72 mm x 95 mm x 57 mm	
Installation	DIN-Rail	
Environment		
Operating Temperature	-25 ~ +75°C	
Storage Temperature	-30 ~ +75°C	
Humidity	10 ~ 95% RH, Non-condensing	

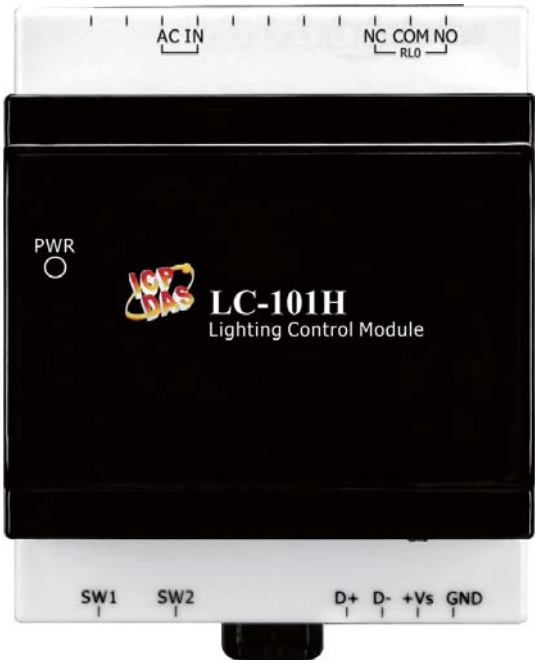
Model	LC-101H	LC-102H
Digital Input		
Channels	1	2
Type	Wet Contact, 90 ~ 240 VAC	
On Voltage Level	65 VAC	
Off Voltage Level	56 VAC	
Input Impedance	68 KΩ, 2W	
Isolation	3000 VDC	
Relay Output with Load Current Measurement		
Channels	1	2
Type	Power Relay, Form C (SPDT N.O+N.C..)	
Contact Rating	30 A @ 250 VAC	
Max. Inrush Current	112A /1ms	
Number of lighting fixtures	(1).Incandescent Lamp: 40W/ 220VAC * 5 Sets (2).LED(Electronic ballast): 40W/ 220VAC *8 Sets	
Operate Time	15 ms Max	
Release Time	22 ms Max.	
Electrical Endurance	100,000 ops.	
Mechanical Endurance	10,000,000 ops	
AC Load Current Measurement	Yes, 0 ~ 5 A range with 3% of FSR Accuracy.	
Power-on Value	Yes	
Safe Value	Yes	

Applications

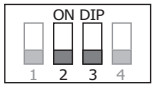
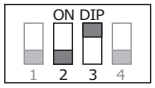


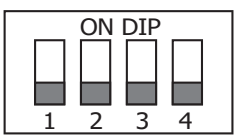


Pin Assignments



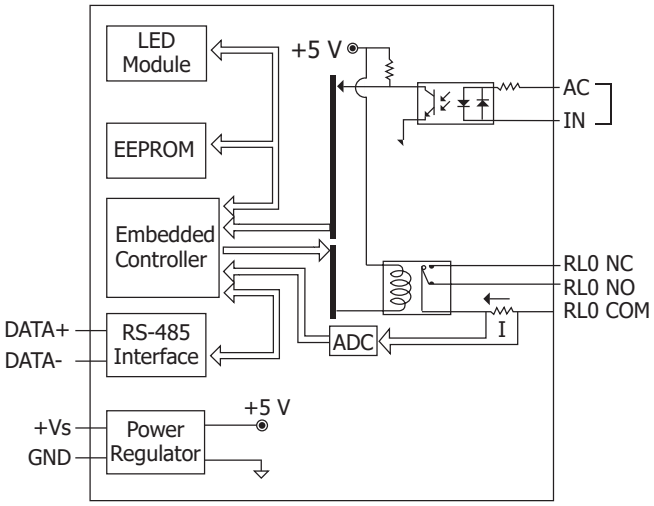
Configuration

SW1		
		0 to F for Address 32-47 (Node Address - Low)
		0 to F for Address 48 -63 (Node Address - High)

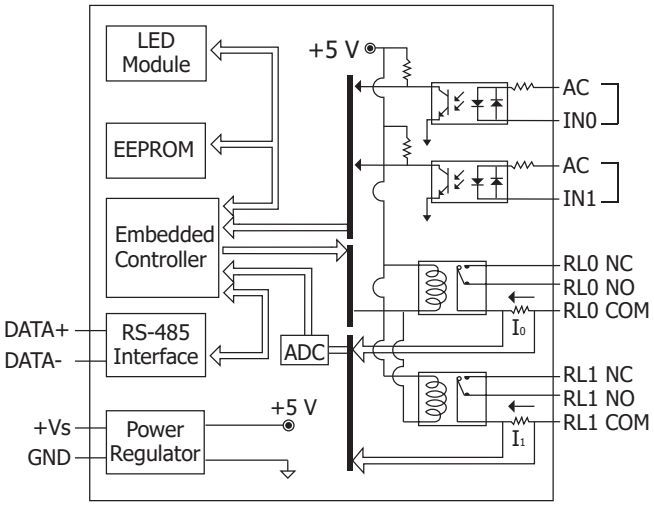
SW2			
	1	ON	DCON Protocol
		OFF	Modbus RTU Protocol
	2	ON	Software Configuration
		OFF	Hardware Configuration
	3	ON	Node Address (High)
		OFF	Node Address (Low)
	4	ON	INIT Mode
		OFF	Normal Mode

Internal I/O Structure

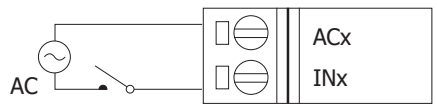
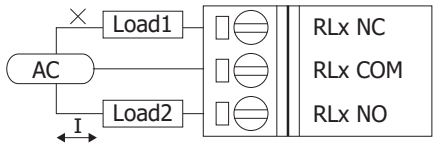
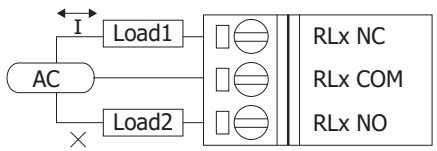
LC-101H



LC-102H

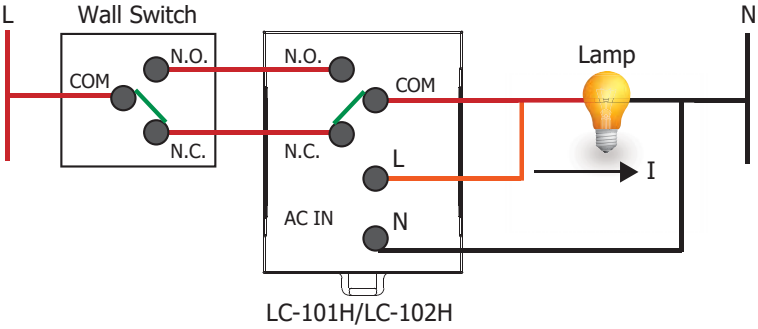


Wire Connections

DIO Wire Connections
DI

Relay Output ON

Relay Output OFF


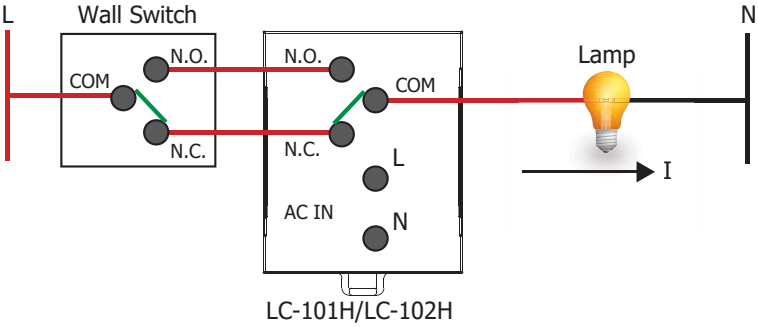
Wiring Application

LC-101H / LC-102H Compatible Substitute LC-101 wiring application (Existing case field)



LC-101H/LC-102H

New Case Wiring Application



LC-101H/LC-102H

Ordering Information

LC-101H CR	Lighting Control Module with 1-ch AC Digital Input and 1-ch Relay Output with AC Load Current Measurement (RoHS)
LC-102H CR	Lighting Control Module with 2-ch AC Digital Input and 2-ch Relay Output with AC Load Current Measurement (RoHS)

Accessories

	tM-7520U CR	RS-232 to RS-485 converter (RoHS)	
	tM-7561 CR	USB to RS-485 converter (RoHS)	
	I-7514U CR	4-channel RS-485 Hub (RoHS)	
	TPD-280 CR	2.8" Touch HMI device with RS-485 (RoHS)	