

LC-103H

1-channel AC Digital Input and 3-channel Relay Output
Lighting Control Module with High Power Relay Output

Features

- Provide High Power Relay Output to turn ON/OFF the Lighting
  - Support Lighting Module (Max.):
  - Incandescent Lamp: 40 W/ 220 VAC * 8 Sets
- LED(Electronic ballast): 40 W/ 220 VAC * 10 Sets
- Isolated AC Digital Input
- Made from fire retardant materials (UL94-V0 Level)
- 5000 VDC Intra-Module Isolation
- ±2 kV Surge ,±4 kV ESD and EFT Protection
- Supports Modbus RTU and DCON Protocols
- Low power consumption

Introduction

The LC-103H is an easy-to-use lighting control module that requires no specialist skills to install and operate, and no software is needed in order to control the DO channels.

The LC-103H provides 1 channel for digital input (photo couple isolation) and 3 channels for relay output. All output channels are form A type relays, while the input channel is based on a sink-type using a wire connection. The input channel can directly control a 3-channel relay ON and OFF sequence without requiring a remote host controller. 4 kV ESD protection and 5000 Vrms intra-module isolation are also provided.

When required, communication with the LC-103H is programmable based on the DCON & Modbus RTU protocol, and an added benefit is that different addresses can be set for DCON & Modbus RTU communication via hardware configuration.

Applications



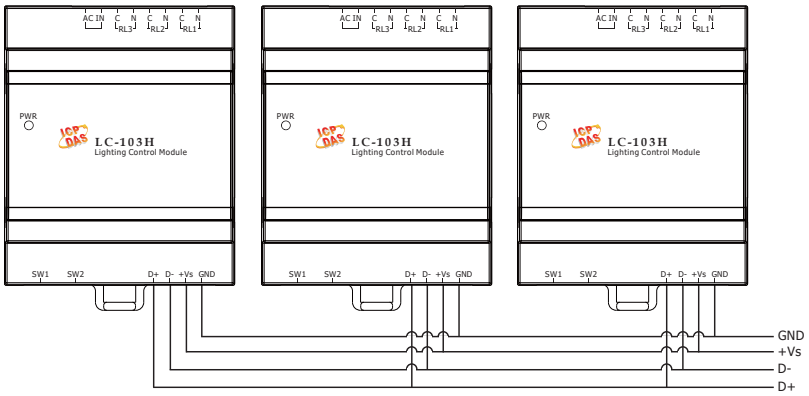
Specifications

Software	
Function	Local and Remote Direct Control Relay ON/OFF and Remote Status Monitoring
EMS Protection	
ESD (IEC 61000-4-2)	±2 kV Contact for each Terminal
	±4 kV Air for Random Point
EFT (IEC 61000-4-4)	±2 kV for Power
SURGE(IEC 61000-4-5)	±2 kV for Power
LED Indicators	
Status	1 LED as Power Indicator
Digital Input	
Channels	1
Type	Wet Contact, 90 ~ 240 VAC
On Voltage Level	65 VAC
Off Voltage Level	56 VAC
Isolation	5000 Vrms
Input Impedance	68 KΩ, 1 W
Relay Output	
Channels	3
Type	Power Relay, Form A (SPST N.O.)
Contact Rating	16 A @ 250 VAC or 16 A @ 30 VDC
Operate Time	10 ms Max.
Release Time	5 ms Max.
Electrical Endurance	120,000 ops.
Mechanical Endurance	5,000,000 ops.
Application Specification	(1).Incandescent Lamp: 40W/ 220VAC * 8 Sets (2).LED(Electronic ballast): 40W/ 220VAC *10 Sets

COM Ports	
Ports	1 x RS-485
Baud Rate	9600 bps
Data Format	(N, 8, 1)
Protocol	Modbus RTU/DCON
Power	
Input Range	10 ~ 30 VDC
Consumption	0.5 W Max.
Mechanical	
Dimensions (mm)	72 x 100 x 59 (W x L x H)
Installation	DIN-Rail
Environment	
Operating Temperature	-25 ~ +75°C
Storage Temperature	-30 ~ +75°C

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Power and communication





Pin Assignments

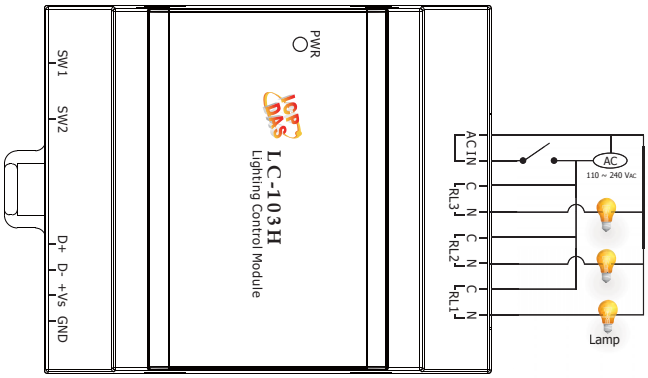


No.	Pin	Function
1	GND	Ground
2	VSS	Power Supply
3	D-	RS-485 Data-
4	D+	RS-485 Data+

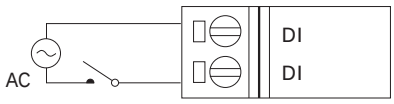
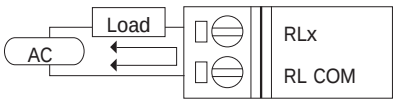
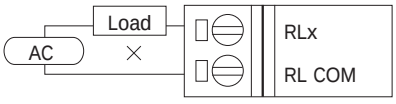


No.	Pin	Function
1	RL.N	DO1 RL1 Relay Output
2	RL.C	
3	RL.N	DO2 RL2 Relay Output
4	RL.C	
5	RL.N	DO3 RL3 Relay Output
6	RL.C	
7	AC_IN	DI Wet Contact Input Channel
8	AC_IN	

Function Diagram



Wire Connections

DIO Wire Connections
DI

Relay Output ON

Relay Output OFF


Ordering Information

LC-103H CR	1-channel AC Digital Input and 3-channel Relay Output Lighting Control Module with High Power Relay Output (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)	

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