

LC-223H

1-channel Dimmer Control Module

Features

- Isolated Analog Output (0 to 20 mA, 0 to 10 V, 1 to 10 V) For Dimming Control
- Relay Operation Current: 16 A (Res. Load)
- Support Lighting Module (Max.):
  - Incandescent Lamp: 40W/ 220VAC * 8 Sets
  - LED(Electronic ballast): 40W/ 220VAC * 10 Sets
- Provide Power Relay Output to turn ON/OFF the Dimming Ballast
- Isolated Analog Output(0 to 20 mA, 0 to 10 V, 1 to 10 V) for Dimming Control
- Provide the wall Switch function to Control the Brightness of the Dimming Ballast
- Provide The Dry Contact to trigger the Brightness of the Dimming Ballast
- Supports Modbus RTU and DCON Protocols
- 2500 VDC Intra-Module Isolation
- ±2 kV SURGE,±4 kV ESD and EFT Protectio
- DIN-Rail Mounting

Introduction

The LC-223H is an easy-to-use dimming ballast control module that can be easily installed and operated without requiring specialist knowledge or skills. The brightness of a fluorescent lamp can be controlled using a dimmer, either via digital input or a host controller. The digital input can be used to directly control the light value of the luminous flux in sequence from 10% to 100%, without the need for a remote host controller. 4 kV ESD,2kV SURGE protection and 2500 VDC intra-module isolation are also provided. When required, communication with the LC-223H is programmable based on the Modbus RTU/DCON protocol, with the added benefit that different addresses can be set via hardware configuration.

System Specifications

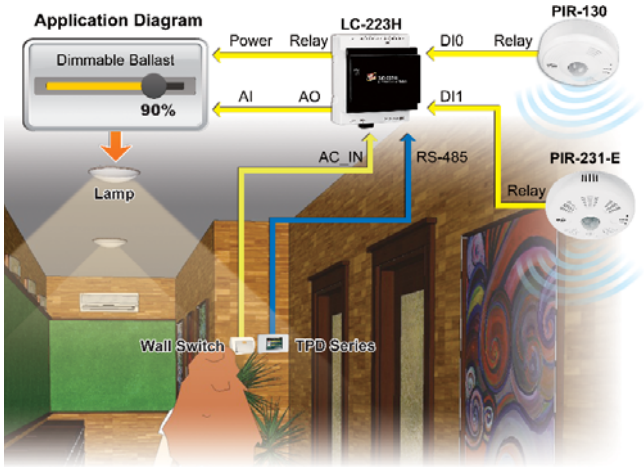
Communication	
Interface	RS-485
Format	N, 8, 1
Baud Rate	1200 to 115200 bps
Protocol	DCON, Modbus RTU
Node Addresses	64 to 95
LED Indicators	
Power	1 LED as Power Indicator
Isolation	
Intra-module Isolation, Field-to-Logic	2500 VDC
EMS Protection	
ESD (IEC 61000-4-2)	±4 kV contact for each Terminal
	±4 kV Air for Random Point
EFT (IEC 61000-4-4)	±4 kV for Power
SURGE(IEC 61000-4-5)	±2 kV for Power
Power	
Reverse Polarity Protection	Yes
Powered from Terminal Block	Yes, 10 to 30 VDC
Consumption	1.5 W Max.
Mechanical	
Dimensions (W x L x H)	72 mm x 100 mm x 59 mm
Installation	DIN-Rail
Environment	
Operating Temperature	-25 to +75°C
Storage Temperature	-30 to +80°C
Humidity	10 to 95% RH, Non-condensing

I/O Specifications

Analog Output		
Channels		1
Type		0 to 20 mA, 4 to 20 mA, 0 to 10 V, 1 to 10 V
Resolution		12-bit
Accuracy		±0.1% of FSR
DA Output Response Time		10 ms
Voltage Output Capability		20 mA
Current Load Resistance		450 Ω
Digital Input		
Channels	Dry Contact	2 for the Dimming Trigger
	Wet Contact	1 for the Wall Switch Control
Type		Wet Contact, Dry Contact
Wet	ON Voltage Level	65 VAC to 240 VAC
	OFF Voltage Level	58 VAC Max.
Dry	ON Voltage Level	Close to GND
	OFF Voltage Level	Open
Relay Output		
Channels		1
Type		Power Relay, Form A (SPST N.O.)
Operating Voltage		250 VAC or 30 VDC
Max. Load Current		16 A (Res. load) (1).250 VAC (Recommend Working Current 1.5 A)
Operate Time		10 ms Max.
Release Time		5 ms Max.
Mechanical Endurance		5,000,000 ops.
Electrical Endurance		120,000 ops.
Application Specification		(1).Incandescent Lamp: 40W/ 220VAC * 8 Sets (2).LED(Electronic ballast): 40W/ 220VAC * 10 Sets
Power-on and Safe Value		Yes, programmable

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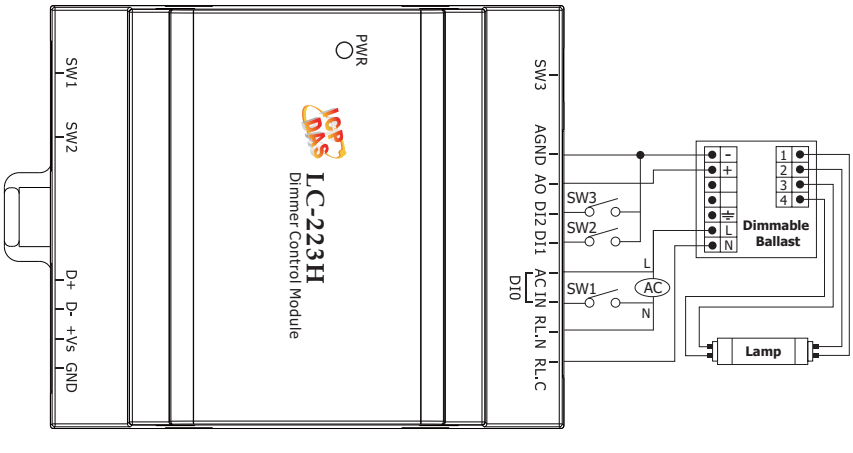
Applications



Configuration

DIP Switch Description				
SW2 ON DIP 1 2 3 4	SW2.1	Protocol	ON	DCON
			OFF	Modbus RTU
	SW2.2	Configuration	ON	By Software
			OFF	By Hardware
	SW2.3	Address	ON	Added by 16
			OFF	Added by 0
	SW2.4	INIT mode	ON	INIT
			OFF	Normal

Wire Connections



When the SW1 press less than 1 second	When the SW1 press more than 1 second
	

Ordering Information

LC-223H CR	1-channel Dimmer Control Module with 2-channel Dry Contact Input Trigger (RoHS)

Accessories

 tM-7520U CR	RS-232 to RS-485 Converter (RoHS)
 tM-7561 CR	USB to RS-485 Converter (RoHS)
 LC-485 CR	4 Channels RS-485 Active Hub (RoHS)
 TPD-280 CR	2.8” Touch HMI Device with RS-485 (RoHS)

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