

LC-305 LC-305/DIN

5-channel AC Load Current Measurement Module (ROHS)

Features

- 5-channel AC Load Current Measurement
- AC Current Input Ranges from 0 to 5 A
- Load Current Measurement Accuracy 3%
- Dual Watchdog
- Support DCON and Modbus RTU Protocol
- Wide Operating Temperature Range: -25 to +75°C
- Tiny Form Factor with Easy Screw Mounting

Introduction

The LC-305 is a 5-channel AC Load Current Measurement Module. LC-305 is fully RoHS-compliant and has qualification for 4 kV ESD protection and 2000 VDC intra-module isolation is also provided. When required, communication with the LC-305 is programmable based on the Modbus RTU protocol, and an added benefit is that different addresses can be set via hardware configuration. The module can measure the load current of each lamp to verify if the lamp is normal or failed; check if the bulb begins to fade and needs to be replaced; and see if there is carbon-buildup depositing on the relay contacts which may makes the relay become sticky.

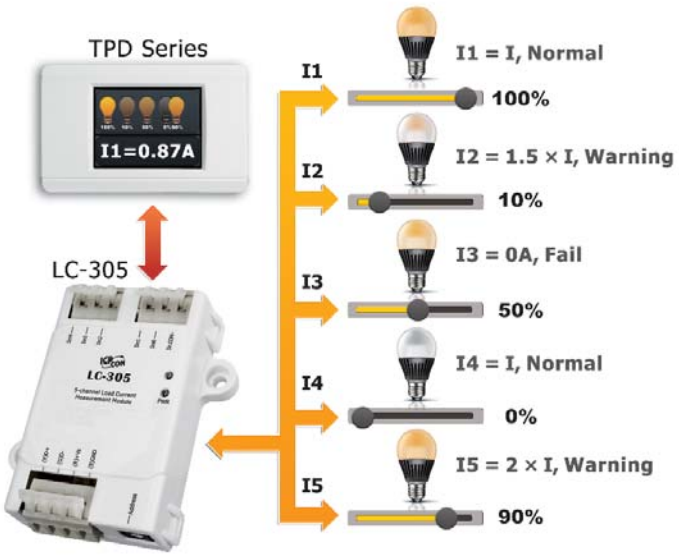
System Specifications

Communication	
Interface	RS-485
Data Format	N,8,1 / O,8,1 / E,8,1 / N,8,2
Baud Rate	1200 to 115200 bps
Protocol	Modbus RTU or DCON
Node Addresses	96 to 127
LED Indicators	
Power	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 and communication
Power	
Reverse Polarity Protection	Yes
Input Voltage Range	+10 to +30 VDC
Consumption	0.7 W Max.
Mechanical	
Dimensions (L x W x H)	83 mm x 70 mm x 29 mm
Installation	Screw Mounting / DIN Rail mount
Environment	
Operating Temperature	-25 to +75°C
Storage Temperature	-30 to +80°C
Humidity	10 to 95% RH, Non-condensing

I/O Specifications

AC Current Input	
Channels	5
Wiring	Single ended
Input Current	0 to 5A
Input Frequency	50/60 Hz
Max. Load Current	10 A / Module COM point Max. Single Load Current 5 A at 25°C
Accuracy	3% of FSR
Data Update Rate	1 Second

Applications

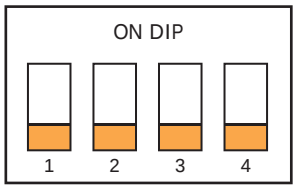


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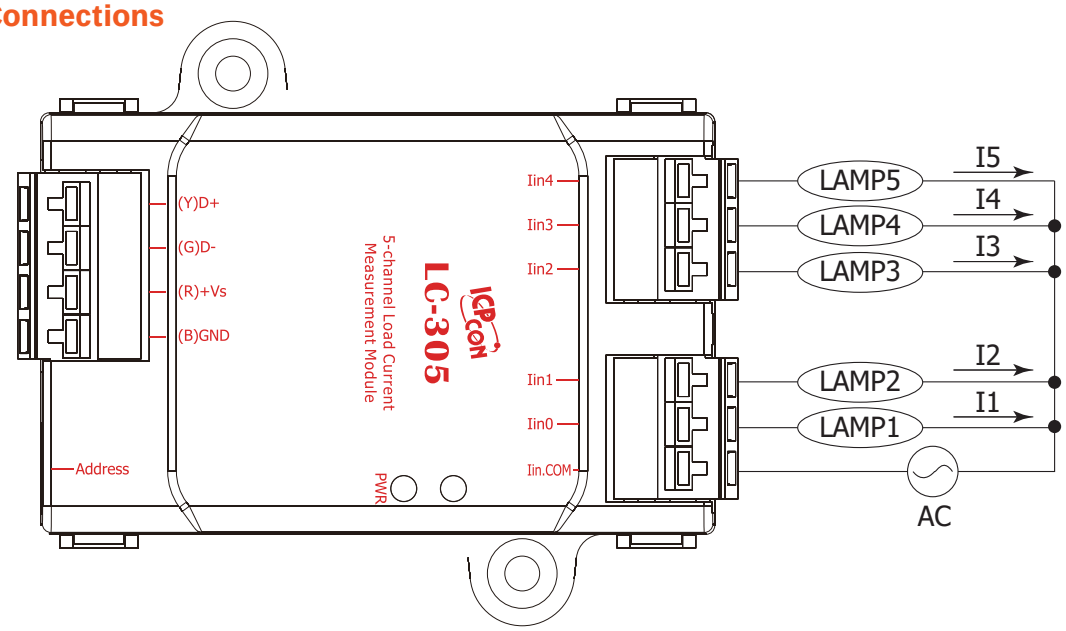
Configuration



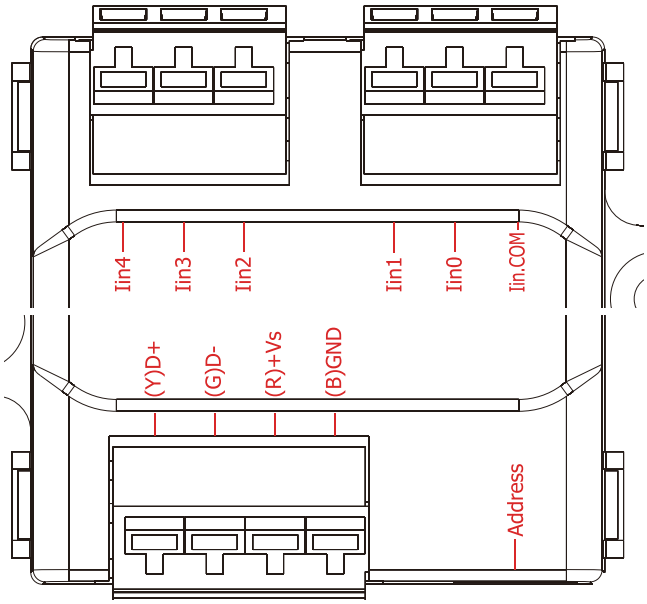
Rear View

DIP Switch Description			
	SW1	ON	DCON Protocol
		OFF	Modbus RTU Protocol
	SW2	ON	Software Configuration
		OFF	Hardware Configuration
	SW3	ON	High Node Address
		OFF	Low Node Address
	SW4	ON	INIT Mode
		OFF	Normal Mode

Wire Connections



PIN Assignments



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)

Ordering Information

LC-305 CR	5-channel AC Load Current Measurement Module (RoHS)
LC-305/DIN CR	5-channel AC Load Current Measurement Module (DIN Rail mount) (RoHS)

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