



SC-6104-W5

1-channel AC Digital Input and 4-channel Relay Output Lighting Control Module

Features

- Cost-effective for lighting control
- Power Relay Outputs
- Isolated AC Digital Input
- -40°C ~ +80°C Temperature Detector
- Support DCON and Modbus RTU Protocol
- 7 Kinds DI DO coordinated functions



Introduction

The SC-6104-W5 is an easy-to-use fan control module that requires no specialist skills to install and operate, and no software is needed in order to control the DO channels.

The SC-6104-W5 provides 1 channel for digital input (photo couple isolation) and 4 channels for relay output. All of the 4 output channels are form C type relay, while the input channel is based on a sink-type using a wire connection. The input channel can directly control a 4-channel relay ON and OFF sequence without requiring a remote host controller. And the SC-6104-W5 support 7 kinds coordinated function for users select. In addition to there is one channel temperature sensor can detect -40°C ~ +80°C and it can be read by DCON and Modbus RTU communication protocol to control fan control unit. SC-6104-W5 has ± 4 kV ESD protection for each terminal and 5000 Vrms intra-module isolation for DI. And the Shell is using fireproof materials. These high protection designed allows users more at ease.

When required, communication with the SC-6104-W5 is programmable based on the DCON and Modbus RTU protocol, and an added benefit is that different addresses can be set for DCON and Modbus RTU communication via hardware configuration.

Warning

Do not use the SC-6104-W5 to connect to any device where the loading is greater than 550 W (5 A, 110 V) per channel, as this may cause the module to malfunction.

ICP DAS cannot be held responsible for any damage or injuries that may result from inappropriate usage and any such usage may cause your warranty to be voided.

System Specifications

Communication	
Interface	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 ~ 115200 bps
Protocol	Modbus RTU or DCON
Node Address	128 ~ 159 for Hardware Configuration 0 ~ 255 for Software Configuration * For Modbus RTU, Address 0 is Auto Become to 1
Connector	RJ-11 (6P4C or 6P6C) / 4-pin Screw Terminal
LED Indicators	
Power	1 LED as Power Indicator
Digital Output	4 LED as digital output indicator
EMS Protection	
ESD (IEC 61000-4-2)	± 4 kV Contact for each Terminal
EFT (IEC 61000-4-4)	± 1 kV for Power and Communication
Power	
Input Voltage Range	+10 ~ +30 VDC
Consumption	100 mA @ 24 VDC (2.4 W Max.)
Connector	RJ-11 (6P4C or 6P6C) / 4-pin screw terminal
Mechanical	
Dimensions (W x L x H)	116 mm x 122 mm x 64 mm
Installation	DIN-Rail
Environment	
Operating Temperature	-25 to +75°C
Storage Temperature	-30 to +85°C
Humidity	10 to 90% RH, Non-condensing

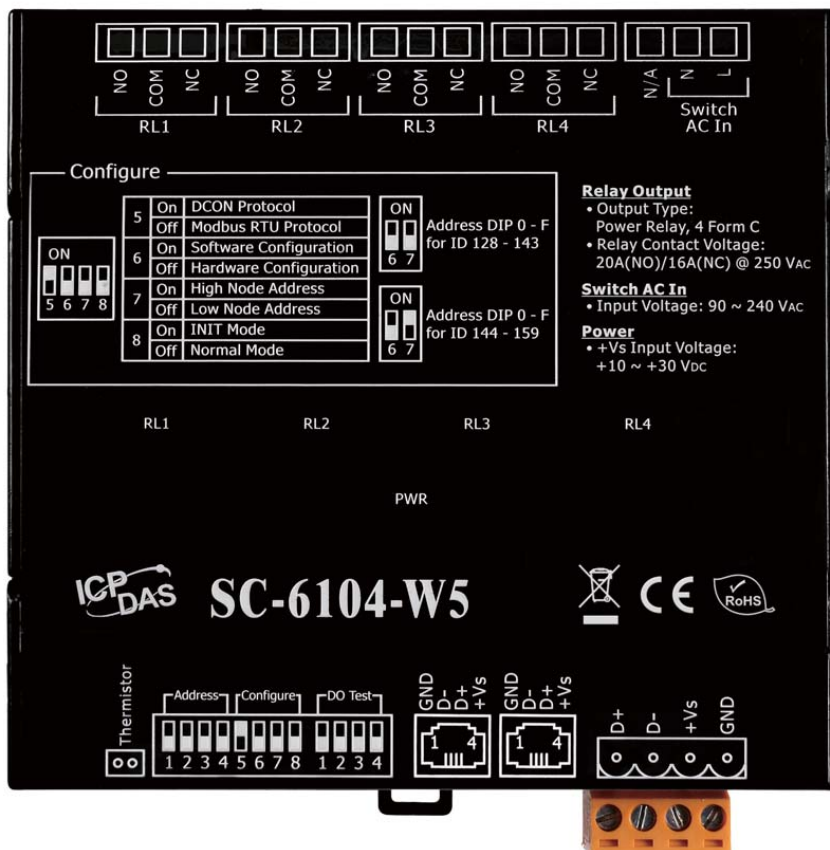
I/O Specifications

Digital Input	
Input Channel	2
Type	90 ~ 240 VAC
On Voltage Level	85 VAC
Off Voltage Level	60 VAC
Input Impedance	68 k Ω , 1 W
Isolation	5000 Vrms
Function	Local and remote direct control relay ON/OFF and remote status monitoring.
Digital Output	
Output Channel	4
Type	Power Relay, Form C
Operating Voltage	250 VAC or 30 VDC
Max. Load Current	20 A (NO)/16 A (NC) @ 250 VAC (Recommend Working Current 5 A)
Operating Time	20 ms Max.
Release Time	10 ms Max.
Electrical Life (1800 ops/hr)	100,000 ops
Mechanical Life (18000 ops/hr)	10,000,000 ops
Power-on Value	Yes
Temperature Sensor	
Temperature Channel	1
Type	Thermistor
Operating Temperature Range	-40°C ~ +80°C
Temperature Tolerance	$\pm 0.3^\circ\text{C}$ at 25°C, Max. $\pm 1^\circ\text{C}$

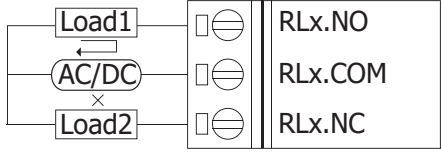
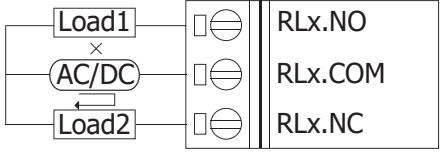
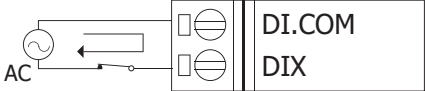
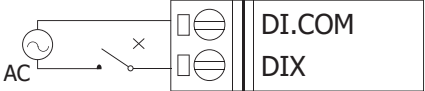
Applications



Pin Assignments







Wire Connections

Output Type	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0
Drive Relay RL1 ~ 4	Relay ON 	Relay OFF 
	DI Read Back as 1 ON 	DI Read Back as 0 OFF 

Ordering Information

SC-6104-W5 CR	1-channel AC Digital Input and 4-channel Relay Output Lighting Control Module (ROHS)
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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)