



## TRP-C29

### 8-channel isolated digital input and 8-channel digital output (O.C) RS485 module, Support ASCII and Modbus Protocol.

#### Specifications

- ◆ Input channel: 8 digital input channels.
- ◆ Input optical isolation: 3750 Vrms.
- ◆ Input logical level 0:  $\pm 1V$  (max).
- ◆ Input logical level 1:  $\pm 4.0V \sim \pm 30V$ .
- ◆ Digital Input can be used as counter channel:8
- ◆ Input counter :Dec 0~65535(max) or Hex 0000~FFFF(max).
- ◆ Input impedance: 3Kohm.
- ◆ Input Counter frequency: 100Hz.
- ◆ Input distance: 500M (max).
- ◆ Digital output Maximum voltage:  $\pm 30V$ .
- ◆ Digital output Maximum current: 100 mA.
- ◆ Digital output isolation: 3750Vrms.
- ◆ Communication interface: RS-485.
- ◆ Communication speed: Baud rate from 1.2kbps to 115.2Kbps.
- ◆ Dual watchdog: Hardware reset circuit, module and host operating status.
- ◆ Signal LED: Power on, all channels.
- ◆ Power supply: Screw terminal, or external DC adapter.
- ◆ Connection type: Screw terminal, accepts AWG #12~32 wires.
- ◆ Power consumption: 1.2W.
- ◆ Operating environment:  $-10$  to  $50^{\circ}C$ .
- ◆ Storage temperature:  $-20$  to  $70^{\circ}C$ .
- ◆ Humidity: 10-90% Non-condensing.
- ◆ Dimension: 151mm X 75mm X 26mm .
- ◆ Weight: 400g.

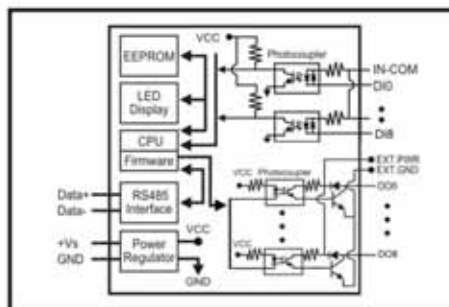
#### Introduction

TRP-C29 provides with 8 optical isolated digital input channels and 8-channel digital output open collector. All channel features screw terminals for convenient connection of field signals as well as LED's to indicate channel status. Input channels are equipped with 3750Vrms DC isolation, and surge protection on RS485 data lines that protect the module and devices against high power voltage input and ground potential differences. For easy user access, TRP-C29 can enter configuration mode and self-test mode with outer dip-switch. TRP-C29 support both ASCII and Modbus protocol, with a full set of command, dual watch-dog, and auto reset function the module can be bi-directionally remote controlled by PC in ASCII or Modbus RTU protocol.

#### Features

- ◆ Wide input range DC power supply.
- ◆ Support ASCII and Modbus RTU protocol.
- ◆ Supports baud rates from 1.2Kbps to 115.2 Kbps.
- ◆ All 8 channels digital input can be used as counter.
- ◆ Digital input signal with 3750Vrms isolation protection.
- ◆ Dual watchdog: Module's firmware, host computer traffic.
- ◆ LED for each channels working status.
- ◆ DIN rail and panel mount support.
- ◆ Configured and self-test by outer dip-switch.
- ◆ Support screw terminal and external DC power adaptor.

#### Block Diagram



#### Application Note

