

I-8142iW | I-8144iW

2-port Isolated RS-422/485 Module

4-port Isolated RS-422/485 Module

Features

- 2/4 Isolated RS-422/485 Ports
- Baud Rate of up to 115200 bps
- Internal 128-byte Hardware FIFO for Each Port
- ±4 kV ESD Protection on Each Port
- LED Indicators for TxD, RxD and Power Status
- 2500 VDC Isolation

Introduction

The I-8142iW-G provides 2 isolated RS-422/485 serial ports, while the I-8144iW-G provides 4 isolated RS422/485 serial ports. It is equipped with a 128-byte hardware FIFO for each port and off ers speeds up to 115.2kbps with support for RS-422 full-duplex communication.

In the harsh industrial environment, the onboard ESD protection devices can divert this potentially damaging charge away from sensitive circuitry and protect the I-8142iW/I-8144iW from permanent damage.

The serial communication modules are designed for use with intelligent devices like bar code readers, serial printers, intelligent sensors, instrumentation equipment, computers, and almost any device with an RS-422/485 port.

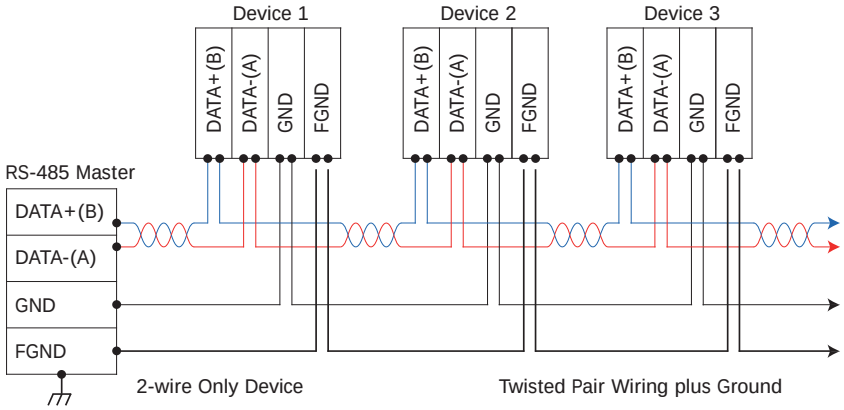
System Specifications

Model	I-8142iW	I-8144iW
COM Port		
Ports	2 x RS-422/RS-485	4 x RS-422/RS-485
Interface	Isolated RS-422/485 (The RS-422 and RS-485 can not be used simultaneously) RS-422: TxD+, TxD-, RxD+, RxD-, GND; RS-485: D+, D-, GND	
Cabling	Belden 9841 (2P twisted-pair cable)/Belden 9842 (4P twisted-pair cable)	
Transfer Distance	Max. 1,200 m at 9.6 kbps; Max. 400 m at 115.2 kbps	
Protocol	Speed: 115200 bps Max.	
	Data Bit: 5, 6, 7, 8	
	Stop Bit: 1, 1.5, 2	
	Parity: None, Even, Odd, Mark, Space	
FIFO	Internal 128 Bytes for Each Port	
LED Display		
System LED Indicator	1 LED as Power Indicator	
I/O LED Indicator	4 LEDs as TxD Indicators; 4 LEDs as RxD Indicators	
Isolation		
Intra-module Isolation, Field-to-Logic	2500 VDC	
EMS Protection		
ESD (IEC 61000-4-2)	±4 kV Contact for Each port	
Power		
Consumption	1.5 W (without Resistor), 2 W (With 2 Resistors,1/4 W, 120 Ω 5 %)	1.75 W (without Resistor), 3 W (With 4 Resistors,1/4 W, 120 Ω 5 %)
Mechanical		
Dimensions (W x L x H)	30 mm x 115 mm x 102 mm	
Environment		
Operating Temperature	-25 ~ +75 °C	
Storage Temperature	-40 ~ +85 °C	
Humidity	10 ~ 90 % RH, Non-condensing	

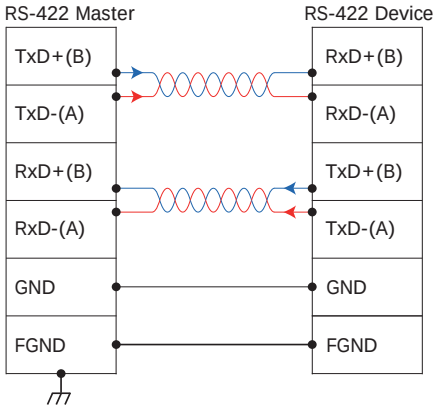
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Wire Connections

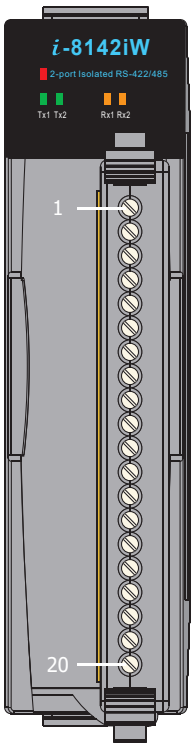
2-wire RS-485 Wiring



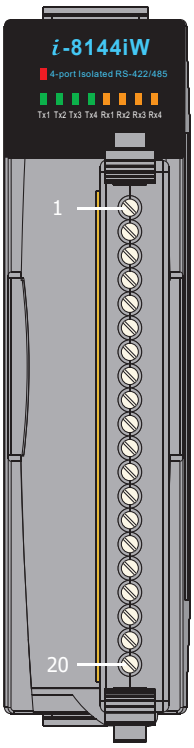
4-wire RS-422 Wiring



Pin Assignments

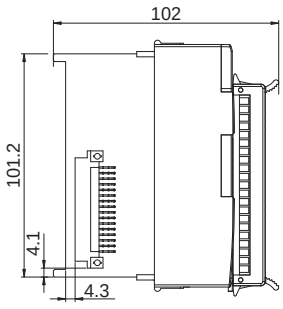


Terminal No.	Pin Assignment
01	D1+/TxD1+
02	D1-/TxD1-
03	RxD1+
04	RxD1-
05	GND1
06	D2+/TxD2+
07	D2-/TxD2-
08	RxD2+
09	RxD2-
10	GND2
11	N.C.
12	N.C.
13	N.C.
14	N.C.
15	N.C.
16	N.C.
17	N.C.
18	N.C.
19	N.C.
20	N.C.

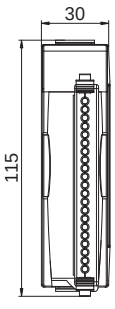


Terminal No.	Pin Assignment
01	D1+/TxD1+
02	D1-/TxD1-
03	RxD1+
04	RxD1-
05	GND1
06	D2+/TxD2+
07	D2-/TxD2-
08	RxD2+
09	RxD2-
10	GND2
11	D3+/TxD3+
12	D3-/TxD3-
13	RxD3+
14	RxD3-
15	GND3
16	D4+/TxD4+
17	D4-/TxD4-
18	RxD4+
19	RxD4-
20	GND4

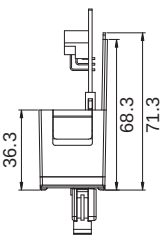
Dimensions (Units: mm)



Left View



Front View



Top View

Ordering Information

I-8142iW-G CR	2-port Isolated RS-422/485 Module (RoHS)
I-8144iW-G CR	4-port Isolated RS-422/485 Module (RoHS)

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