

Quick Start Guide

ILinx 485DRCI-PH Triple Isolated RS-232 to RS-422/485 Converter



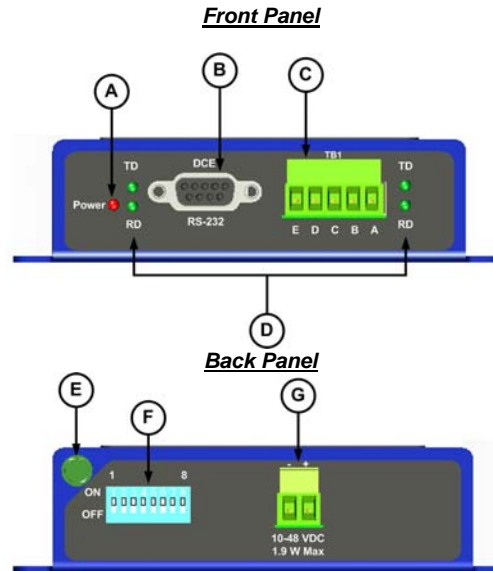
1. Check for Required Hardware

- ILinx 485DRCI-PH Serial Converter
- This Quick Start Guide
- Additional Items Required but not included
 - o A 10 to 48 VDC Power Supply (Converter draws 1.9W Max).

2. Information – UL Class 2 Div 2

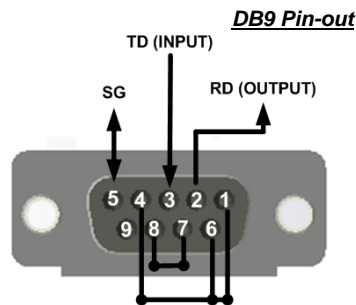
1. Refer to the Nonincendive Field Wiring Apparatus Control Drawing for important information.
2. Power, Input / output (I/O) wiring for the end use enclosure must be in accordance with Class 1 Division 2 wiring methods (Article 501.10(B) of the National Electric Code, NFPA 70) and in accordance with the local authority having jurisdiction.
3. Maximum ambient air temperature 85°C.
4. Temperature rating of field installed conductors 105°C. Use Copper Wire Only.
5. These devices must be installed in end use enclosure suitable for the location.
6. **WARNING – EXPLOSION HAZARD**
SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS 1, DIVISION 2.
7. **WARNING – EXPLOSION HAZARD:** DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NON-HAZARDOUS.
8. **WARNING – THIS APPARATUS IS SUITABLE FOR USE IN CLASS 1 DIVISION 2, GROUPS A, B, C, AND D OR NONHAZARDOUS LOCATIONS ONLY.**

3. Front & Back Panel, DB9 Pin-out



Front and Back Panel

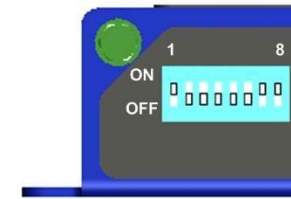
A	Power LED	Red, ON When Power Applied
B	DB9 Female	RS-232 (Wired DCE)
C	422/485 TB	5 Position, Removable
D	Data LEDs	Green. LEDs Flash When Data is on Port.
E	Ground Lug	Chassis Ground to Earth Ground
F	DIP Switch	Used to Configure
G	Power TB	2 Position, Removable



PIN	SIGNAL	DIRECTION
1	DCD	---
2	RD	OUTPUT
3	TD	INPUT
4	DTR	---
5	GND	---
6	DSR	---
7	RTS	---
8	CTS	---
9	RI	---

Pins 1, 6, & 4 are tied together internally.
 Pins 7 & 8 are tied together internally.

4. Configuration DIP Switch



SWITCH POSITION 8 IS NOT USED

Highlighted settings indicate factory default.

Communications Mode

	Switch			
	1	2	3	4
RS-485 2-Wire Half Duplex	ON	ON	ON	ON
RS-485 4-Wire Full Duplex	ON	OFF	OFF	OFF
RS-422 Full Duplex	OFF	OFF	OFF	OFF

Built-in Termination Resistor

	Switch
Use the 120Ω Built-in Termination	ON
Use External or No Termination	OFF

Built-in Transmit Bias Resistor

	Switch
Use External or No Bias Resistor	ON
Use the 1.2K Ω Transmit Bias Resistor	OFF

Built-in Receive Bias Resistor

	Switch
Use External or No Bias Resistor	ON
Use the 1.2K Ω Receive Bias Resistor	OFF

For an explanation of RS-485 termination and biasing requirements, refer to B&B Electronics' RS-485 application note. This publication can be downloaded at: www.bb-elec.com

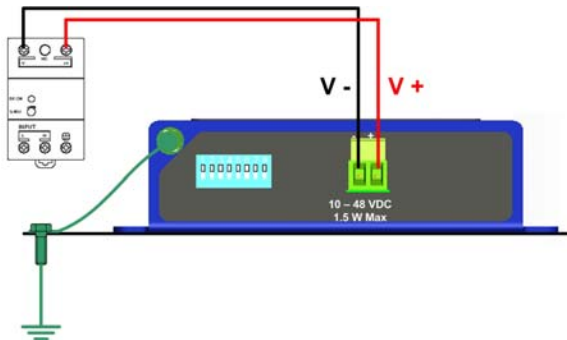
5. Ground Connection

1. It is recommended that the chassis be grounded.
2. Connect a grounding wire from the ground lug to a good source of Earth Ground.



6. Power Connection

1. Connect Power. Power Requirements: 10 to 48 VDC, 1.9W Maximum.
2. The terminal block will accept 28 to 12 AWG Wire.



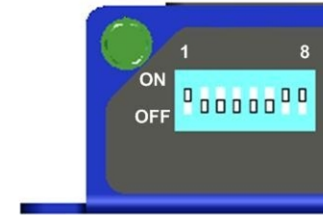
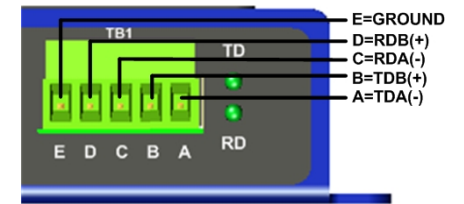
7. RS-422/485 Terminal Block



TERMINAL	RS-485 2-Wire	RS-422/485 4-Wire
A	---	TDA(-)
B	---	TDB(+)
C	DATA A(-)	RDA(-)
D	DATA B(+)	RDB(+)
E	GROUND	GROUND

See cable recommendation in section one.

RS-422/ RS-485 4-wire



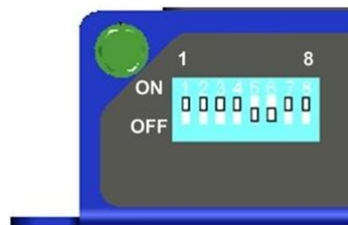
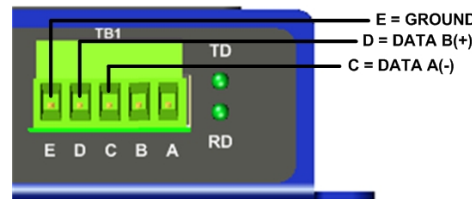
DIP Switch

1	2	3	4	5	6	7
X	OFF	OFF	OFF	X	X	X

Position 1 = ON for RS-485, OFF for RS-422.
 Positions 5, 6, and 7 are used for termination and biasing. See Section 4. Position 8 is not wired.

8. Wiring Examples

RS-485 2-wire



DIP Switch

1	2	3	4	5	6	7
ON	ON	ON	ON	X	X	X

Positions 5, 6, and 7 are used for termination and biasing. See Section 4.
 Position 8 is not wired.

9. Loop Back Test / Troubleshooting

- Configure for RS-485 Four wire.
- Jumper terminals A to C and B to D
- Connect a PC to the RS-232 port (see Step 3).
- Using hyper terminal or similar program, connect to the appropriate COM port. Turn off hyper terminal local echo
- Transmit data. The same data should be returned. When data is sent and looped back, the TD and RD LED's will blink on both ports.