

# Product Overview



- Input Voltage 10-48 VDC (56 VDC max)
- Power Consumption 0.5 W (Typical), 1.3W Max
- Duplex multi-mode fiber with ST connectors
- Fiber cable specs needed:  
62.5/125 micro-meter, 820 nm wavelength

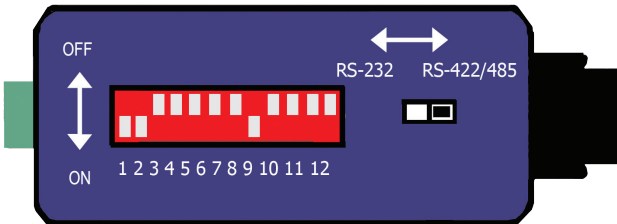
## Serial Terminal Block Settings

Terminal	RS-485 2-Wire	RS-422/485 4-Wire	RS-232
A	GND	GND	GND
B	Data B (+)	RD B (+)	*****
C	Data A (-)	RD A (-)	RS-232 Data Input
D	*****	TD B (+)	*****
E	*****	TD A (-)	RS-232 Data Output

## LED Indicators

<b>Receive</b>	Red, ON when data received on fiber
<b>Transmit</b>	Red, ON when data sent on fiber
<b>Power</b>	Red, ON when power applied

## 1 Set DIP Switches for RS232/422/485 Mode



Mode	DIP Switch Position						
	1	2	3	4	5	6	7
RS-485 2-Wire, Half-duplex	ON	ON	ON	ON	OFF	ON	OFF
RS-485 4-Wire, Full-duplex	ON	OFF	OFF	OFF	OFF	OFF	OFF
RS-422 Full-duplex	OFF	OFF	OFF	OFF	OFF	ON	OFF

+ If you wish to enable termination, refer to:  
[http://www.bb-elec.com/technical\\_library.asp](http://www.bb-elec.com/technical_library.asp)

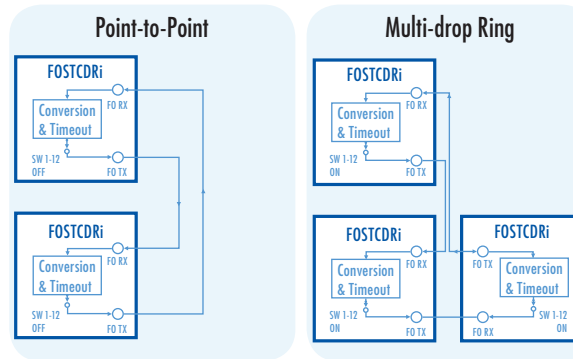
## 2 Set DIP Switches for Baud Rate

Baud	Switch Selectable Timeouts				Timeout
	DIP Switch Position				
	8	9	10	11	
9.6 K	OFF	OFF	OFF	ON	1.3 ms
19.2 K	OFF	OFF	ON	OFF	.56 ms
38.4 K	OFF	ON	OFF	OFF	.27 ms
57.6 K	ON	OFF	OFF	OFF	.22 ms
76.8 K	ON	OFF	ON	ON	.14 ms
115.5 K	ON	ON	ON	OFF	.10 ms

+ For baud rates not listed above, refer to:  
[http://www.bb-elec.com/technical\\_library.asp](http://www.bb-elec.com/technical_library.asp)

## 3 Set DIP Switch 12

OFF = Point-to-Point      ON = Multi-drop Ring



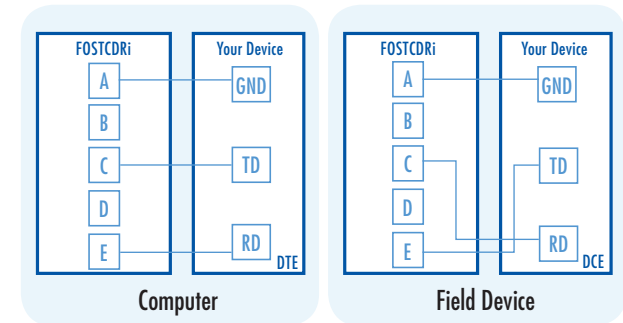
## 4 Multi-drop Mode

Multi-drop mode allows one serial device to communicate with up to 31 others around a fiber optic ring. Data will repeat around the ring until it finally reaches its source. When the data is received by the originator, timeout circuitry will prevent it from being re-transmitted.

Maximum Converters in a Fiber Ring		
Baud Rate	RS-232	RS-422/485
19.2 kbps and lower	32	32
38.4 kbps	16	24
115.2 kbps	2	8

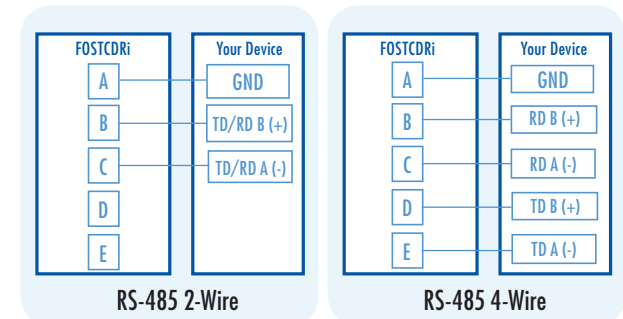
## 5 Wire the Converter

### RS-232



+ Additional tech notes on RS-232 DTE/DCE connections are located at: [http://www.bb-elec.com/technical\\_library.asp](http://www.bb-elec.com/technical_library.asp)

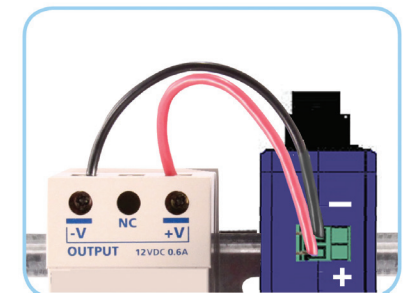
### RS-422/485



+ Additional tech notes on RS-422/485 connections are located at: [http://www.bb-elec.com/technical\\_library.asp](http://www.bb-elec.com/technical_library.asp)

## 6 Power the Converter

- Input Voltage 10-48 VDC (56 VDC max)
- Power Consumption 0.5 W (Typical), 1.3W Max



## UL Information

The FOSTCDRI is rated Class 1, Division 2

The FOSTCDRI-INV is rated UL508.

### Information - UL Class 1 Div 2 (FOSTCDRI only)

1. Power, input /output (I/O) wiring must be in accordance with Class 1 Division 2 wiring methods [Article 501.10(B) of the National Electric code, NFPA70] and in accordance with the local authority having jurisdiction.
2. Maximum ambient air temperature 80° C.
3. WARNING – EXPLOSION HAZARD: SUBSTITUTION OF ANY COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS 1, DIVISION 2.
4. WARNING – EXPLOSION HAZARD: WHEN IN HAZARDOUS LOCATIONS, TURN OFF POWER BEFORE REPLACING OR WIRING MODULES
5. WARNING – EXPLOSION HAZARD: DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NON-HAZARDOUS.
6. WARNING – THIS APPARATUS IS SUITABLE FOR USE IN CLASS 1 DIVISION 2, GROUPS A, B, C, AND D, OR UNCLASSIFIED AREAS.

## Informations UL

Le FOSTCDRI est classé Classe 1, Division 2

Le FOSTCDRI-INV est homologué UL508.

### Informations - UL Class 1 Div 2 (FOSTCDRI uniquement)

1. Le câblage d'alimentation, d'entrée / sortie (E / S) doit être Avec les méthodes de câblage de classe 1 Division 2 [Article 501.10 (B) Du code national électrotechnique, NFPA70] et conformément au Avec l'autorité locale compétente.
2. Température ambiante maximale 80 ° C.
3. AVERTISSEMENT - RISQUE D'EXPLOSION: SUBSTITUTION DE TOUS COMPOSANTS PEUVENT IMPARER LA SUITABILITÉ POUR LES CLASSES 1, DIVISION 2.
4. AVERTISSEMENT - RISQUE D'EXPLOSION: EN CAS DE DANGER EMBLEMES, MISE SOUS TENSION AVANT DE REMPLACER OU MODULES DE CÂBLAGE
5. AVERTISSEMENT - RISQUE D'EXPLOSION: NE PAS DÉCONNECTER ÉQUIPEMENT À MOINS QUE LA PUISSANCE A ÉTÉ COMMUTÉE OU LA ZONE EST CONNUE POUR NE PAS ÊTRE DANGEREUSE.
6. AVERTISSEMENT - CE APPAREIL EST ADAPTÉ À DES CLASSE 1 SECTION 2, GROUPES A, B, C ET D, OU SANS CLASSIFICATION.



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## **+** QUICK START GUIDE



### FOSTCDRI & FOSTCDRI-INV

Industrial Serial to Multi-mode Fiber Converters

Before you begin, be sure you have the following:

- + FOSTCDRI Fiber Converter
- + Required but not included:
  - 10-48 VDC Power Supply
  - Serial Cable
  - Multi-mode Fiber Optic Cable with ST Connectors(62.5/125 micro-meter)

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