

# FOSTCDRI

## Industrial Serial to Multimode Fiber Converter

- ✓ **Data Rates up to 115.2 kbps**
- ✓ **10 – 48 VDC Input Power Range**
- ✓ **Wide Operating Temperature**
- ✓ **3-Way 2000V Optical Isolation**
- ✓ **MODBUS ASCII/RTU Compatible**
- ✓ **EMI / RFI Protection**
- ✓ **UL Class 1 DIV 2**
- ✓ **Built-in, Switchable Termination & Bias**

The FOSTCDRI is our premium Industrial Serial to Multimode Fiber Optic Converter. Designed for rugged industrial environments, it is UL approved and certified for use in Class 1 Division 2 environments. In addition to direct point-to-point connectivity, it is capable of operating in a multi-drop mode. This allows one serial device to communicate with up to 31 others around a fiber ring. Since it supports mixed standards, you can replace other converters and isolators and add the EMI / RFI protection inherent to fiber optic communications.

In RS-232 mode, the converter supports transmit and receive data. Handshaking signals are not passed through. An Automatic Send Data Control circuit controls the RS-422/485 driver chip, eliminating the requirement for external software.

Easy to install and configure, it has a 12 position DIP Switch on the bottom to configure RS-422/485 parameters.

The serial data and power cables connect to removable terminal blocks. ST connectors are used for the fiber.

Remember, when it comes to reliable communications in harsh duty industrial environments, B&B Electronics iLinx™ brand is your number one choice.



### Specifications

#### Serial Technology

RS-232	TD, RD, GND
RS-485 2-Wire	Data A(-), Data B(+), GND
RS-422/485 4-Wire	TDA(-), TDB(+), RDA(-), RDB(+), GND
Serial Connector	5 Position, Removable Terminal Block
Data Rate	9.6 to 115.2 kbps
Isolation	2KV RMS, 1 minute
Surge Protection	600 W Peak Power Dissipation
	Clamping time < 1 pico-second
Industrial Bus	MODBUS ASCII/RTU
Bias	Built-in, Switchable, 1.2KΩ
Termination	Built-in, Switchable, 120Ω

#### Fiber Optic Technology

Type / Wavelength	Multimode / 820 nm
Output Power	-16dBm min, -12dBm typical, -9dBm max
Receive Sensitivity	-24dBm min, -25.4dBm max
Cable	62.5/125 micro-meter
Connector	ST
Data Rate	9.6 TO 115.2 kbps
Maximum Distance	2.5 miles (4 km)
Idle State	Transmitter Light ON

#### Power

Source	External
Power Connector	2 Position, Removable Terminal Block
Input Voltage	10 to 48 VDC (56 VDC max)
Power Consumption	0.5 W (Typical), 1.3W (With Termination)

#### Terminal Blocks

Wire Size Accepted	28 to 12 AWG
Pitch	5.08 mm
Insulation Resistance	≥ 500 MΩ @ 500 VDC
Maximum Torque	5 Kg / cm

#### Indicators

Power	Red LED
FO Receive	Red LED
FO Transmit	Red LED

#### Mechanical

Dimensions	4.9 x 4.5 x 1.3 in (12.3 x 11.3 x 3.2 cm)
Enclosure	IP 20 Plastic, 35 mm DIN Mount
Weight	0.44 lbs (199.6 g)
MTBF	138904 hours
MTBF Calc. Method	Parts Count Reliability Prediction

#### Environmental

Op Temperature	- 40 to 80°C (-40 to 176°F)
Storage Temp	- 40 to 85°C (-40 to 185°F)
Op Humidity	0 to 95% Non-condensing

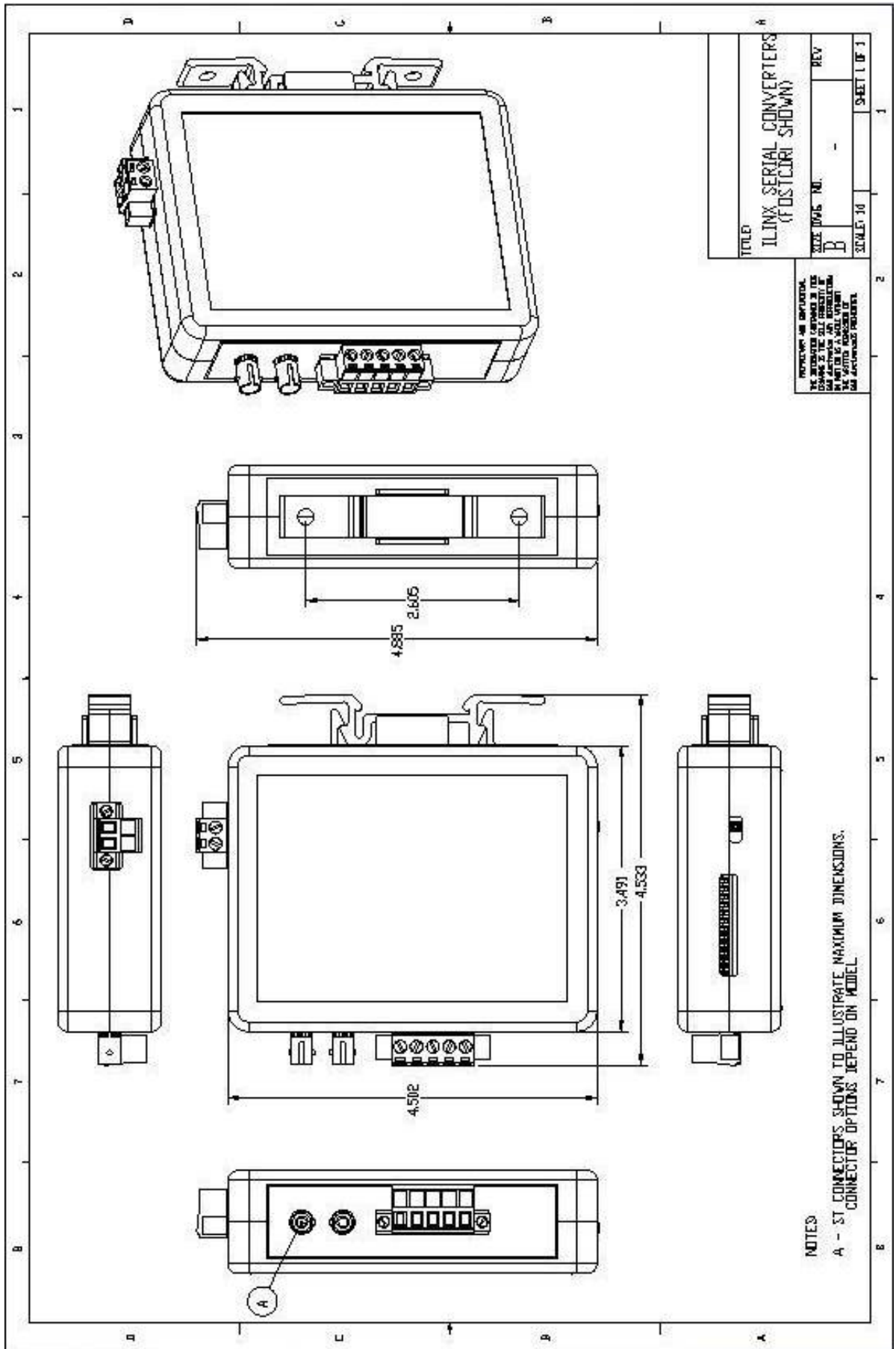
#### Regulatory

Approvals	FCC, CE,
	UL Class 1 DIV 2 Groups A, B, C, D
UL File Number	E222870 (HAZLOC E245458)

### Ordering Information

FOSTCDRI	Serial to Multimode fiber optic converter
<b>Required but not included</b>	
Power Supply	MDR-20-24 or PS5R-SC24 (C1 D2)





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

