N-TRON
THE INDUSTRIAL NETWORK COMPANY

SER-485-FXC

The SER-485-FXC is our premium Industrial Serial to Multi-mode 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 other devices 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.

PRODUCT FEATURES

- 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

PRODUCT OVERVIEW

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.

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 typ. -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 (w/ Termination)
Power Supply Part #	NTPS 24-1.3

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

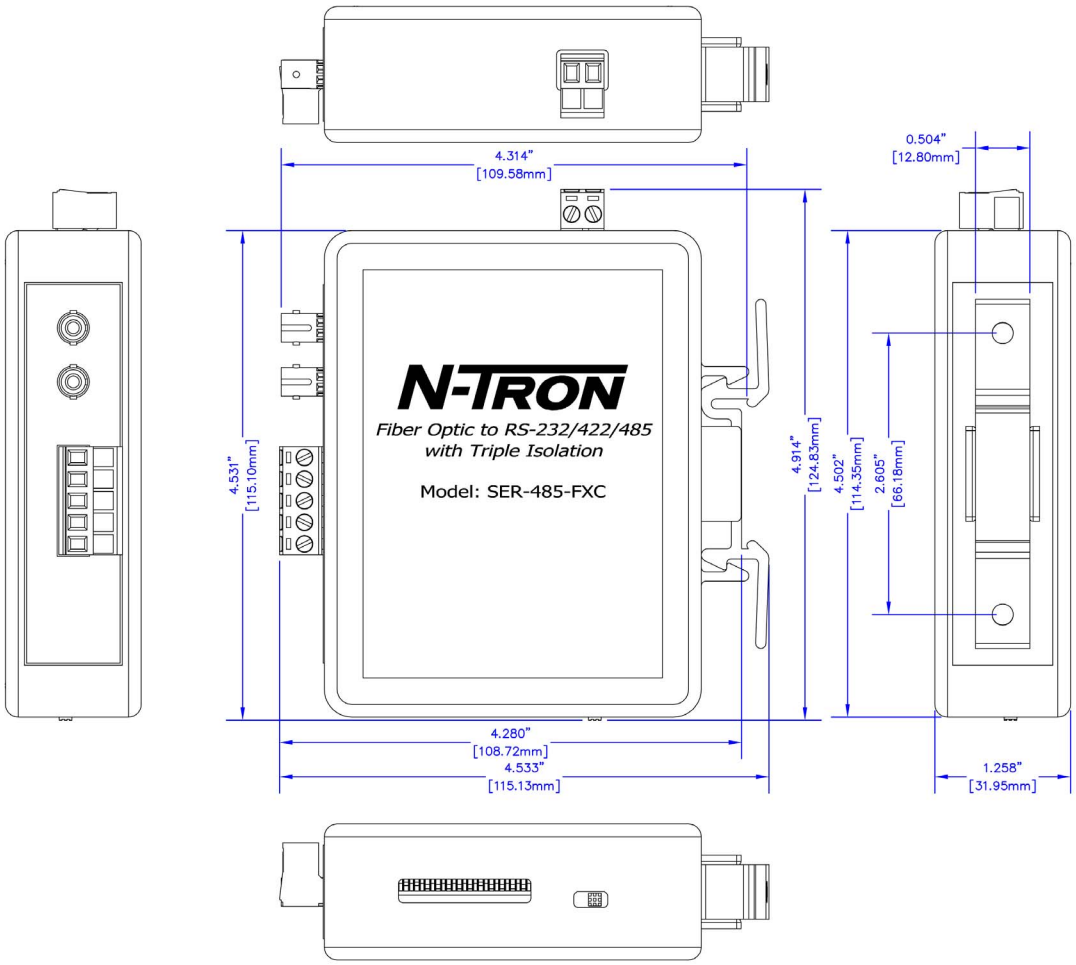
Power	Red LED
FO Receive	Red LED
FO Transmit	Red LED

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
RegulatoryApprovals	FCC, CE, UL Class 1 DIV 2 Groups A, B, C, D



N-TRON USA & Corporate Headquarters
3101 International Blvd. Building 6
Mobile, AL 36606 • USA
Phone +1-251-342-2164
Fax +1-251-342-6353
www.n-tron.com

please visit us worldwide at www.n-tron.com

QUALITY MANAGEMENT SYSTEM
CERTIFIED BY DNV
ISO 9001:2008