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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# SER-485-IC Industrial Isolated Converter

N-Tron Networking Series



## ▶▶▶ Industrial Isolated Converter

The SER-485-IC is our premium Industrial RS-232 to RS-422/485 Isolated Converter. Designed for rugged industrial use, it is UL approved and certified for operation in Class 1 Division 2 environments.

#### 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
- UL Class 1 Division 2
- Built-in, Switchable Termination & Bias

#### PRODUCT OVERVIEW

This DIN rail mountable converter optically isolates and converts unbalanced, full or half-duplex RS-232 signals to balanced RS-422/485 signals at baud rates up to 115.2 Kbps. In addition to optical isolation, the unit has surge suppression on the RS-422/485 lines. Featuring Automatic Send Data Control circuitry, it does not require special software control of handshake signals in RS-485 mode. The removable terminal blocks for power and RS-422/485 signals make wiring easy. It is powered by a supply voltage of 10 to 48 VDC which is isolated from all data and signal ground lines. Configuration is made easy with a 12 position DIP switch on the bottom of the converter.

## **Specifications**

### **Serial Technology**

RS-232 TD, RD, GND TDA(-), TDB(+), RDA(-), RDB(+) **RS-422** TDA(-), TDB(+), RDA(-), RDB(+), GND RS-485 4-Wire Data A(-), Data B(+) RS-485 2-Wire RS-232 CON. DB9 Female (DCE) 5 Position, Removable Terminal Block RS-422/485 CON. Data Rate 1.2 to 115.2 kbps Isolation 2KV RMS, 1 minute 600 W Peak Power Dissipation Surge Protection Clamping time < 1 pico-second

Industrial Bus MODBUS ASCII/RTU

Bias Built-in, Switchable,  $1.2K\Omega$  XMT/RCV Termination Built-in, Switchable,  $120\Omega$ 



#### **Power**

Source Power Connector Input Voltage Power Consumption Power Supply Part #

# Terminal Blocks Wire Size Accepted

Pitch Insulation Resistance Maximum Torque

#### **Indicators**

Power TD/RD

#### Mechanical

Dimensions
Enclosure
Weight
MTBF
MTBF Calc. Method

#### **Environmental**

Op Temperature Storage Temp Op Humidity RegulatoryApprovals External

2 Position Removable Terminal Block 10 to 48 VDC (56 VDC max) 0.5 W (Typical), 0.9W (w/Termination) NTPS 24-1.3

28 to 12 AWG 5.08 mm ≥ 500 MΩ @ 500 VDC 5 Kg / cm

Red LED Red LED

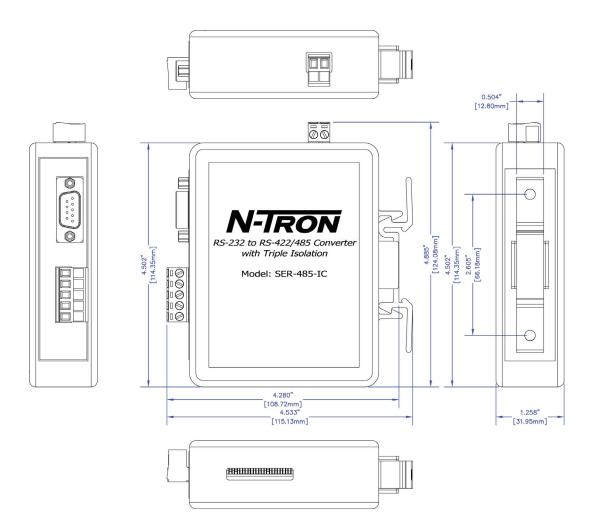
4.9 x 4.5 x 1.3 in (12.3 x 11.3 x 3.2 cm) IP 20 Plastic, 35 mm DIN Mount 0.45 lbs (204 g) 254617 hours
Parts Count Reliability Prediction

40 to 80°C (-40 to 176°F)
 40 to 85°C (-40 to 185°F)
 0 to 95% Non-condensing
 FCC, CE, UL

UL Class 1 DIV 2 Groups A, B, C, D



## ▶▶▶ SER-485-IC Specifications





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As the global experts in communication, monitoring and control for industrial automation and networking, Red Lion has been delivering innovative solutions for over forty years. Our award-winning technology enables companies worldwide to gain real-time data visibility that drives productivity. Product brands include Red Lion, N-Tron and Sixnet. With headquarters in York, Pennsylvania, the company has offices across the Americas, Asia-Pacific and Europe. For more information, please visit www.redlion.net. Red Lion is a Spectris company.