

LINDY®

CONNECTION PERFECTION

RS232 <=> 422/485 Converter DTE

User Manual

English



LINDY No. 32159

www.lindy.com

Tested to Comply with FCC Standards
For Home and Office Use!

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Overview

English

The LINDY RS232 <=> 422/485 interface converter is an optically isolated bi-directional converter. It converts full or half-duplex serial RS232C signals to optically isolated, balanced, full or half duplex RS422 or RS485 signals at baud rates up to 115.2 kbps. It suppresses surges from the RS422/485 lines. It has built-in photoelectric isolators for high voltage (3500VRMS 500VDC) protection. A rapid transient voltage suppressor circuit can protect up to a certain level of lightning (600W) and 15kV ESD.

It features send data control circuitry so no software control of handshake lines is required in RS485 mode. It provides Point-to-Point, Multi-Drop (up to 32 devices) and Simplex Operation and can be powered from a DC 9V to 12V > 200mA power adapter.

A single slide switch is used to configure to either RS422 or RS485 mode. Support for both half duplex and full duplex, latter only for 4 wire transmissions. RS422/485 connection cable can be attached either by an RJ11 cable or via the screw terminal block.

Another slide switch configures the unit for either DTE or DCE mode.

Features

English

- RS232 interface for connection to a DTE or DCE device
- Compliant to EIA / RS232C/422/485 Standards
- Optically isolated with surge, lightning and ESD protection
- Supports half and full duplex RS422/485
- Automatic half/full duplex and handshake recognition and setting
- Typical distances and max. data rates supported using AWG 24 wire:

Data rate (kbps)	115.2	38.4	9.6
Max. distance (km)	0.3	2.4	5.0

Packaging Contents

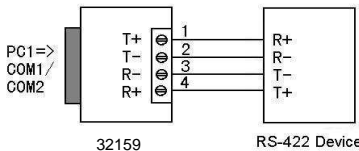
English

- 1 x Interface Converter
- 1 x Wide range Power supply with exchangeable connector for Euro, UK, US and AUS/China
- 1 x This Manual

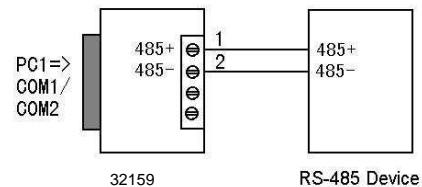
Installation and Use

English

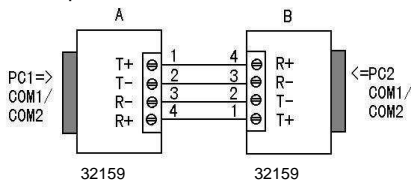
- Switch the converter either to RS422 or RS485 mode
 - RS422 point to point / 4 wire full duplex communication



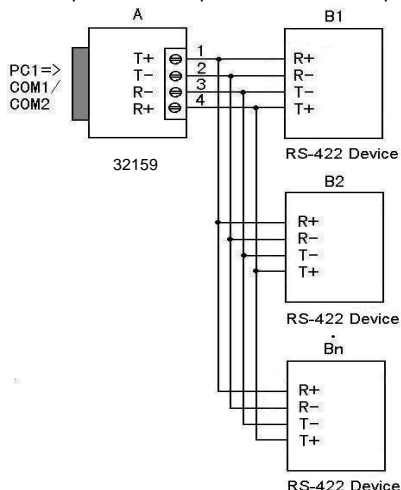
- RS485 point to point/ dual-line half duplex



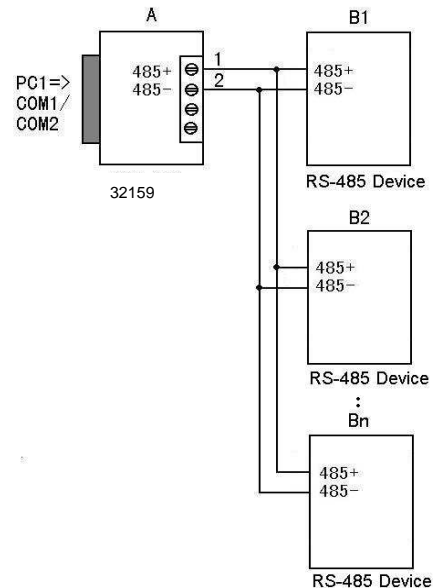
- Full Duplex communication between 2x 32159



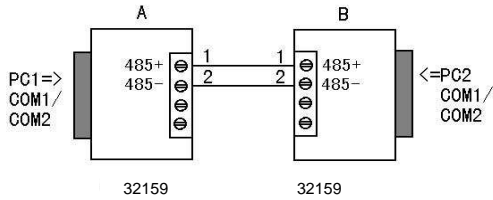
- RS422 point to multi-point / 4 wire full duplex RS422/485



- RS485 point to multi-point / dual-line half duplex



- o Half duplex communication connection between 2x 32159 interface converters



- Switch the converter either to DTE or DCE mode
 - o Switch to DCE position if the converter is connected to a PC serial port (DTE interface definition); switch to DTE position if it is connected to other RS-232 devices (DCE interface definition). When the toggle switch on the left of the converter is on DCE position, the inner definition of DB9 female RS232 interface is: PIN2 is TXD, PIN3 is RXD. When the toggle switch on its left is on DTE position, the inner definition of DB9 female RS232 interface is: PIN2 is RXD, PIN3 is TXD.
- Connect the power supply
- Connect the RS422/482 connection cable according to the above schematics. Use UTP twisted pair cable to achieve optimum data transmission.
- 3x LED status information:
 - TD: yellow = transmit / sending data active
 - RD: green = receiving data active
 - PW: red = power OK

Terminal Block Pin Assignment

RS-232 DB9 Female Connector Pin out

DB9 Female	RS-232
PIN2	TXD
PIN3	RXD
PIN5	GND

RS-422/485 Terminal Pin out

Terminal No	1	2	3	4
RS-422	T+	T-	R-	R+
RS-485	485+	485-	-	-

Environmental and Technical Specifications

Operating Temperature Range: -25°...75°C
 Humidity Range: 5...95% RH, non condensing
 Dimensions approx.: 8 x 5.5 x 2.2 cm
 Weight approx.: 0.045kg (converter only)

CE/FCC Statement

FCC Warning

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

CE Statement, EMC Compatibility

This device complies with EN Standards EN55022 and EN55024 according to the relevant EC EMC Directive. It must be used with shielded cables only to maintain EMC compatibility.

Recycling Information



WEEE (Waste Electrical and Electronic Equipment), Recycling of Electronic Products

United Kingdom

In 2006 the European Union introduced regulations (WEEE) for the collection and recycling of all waste electrical and electronic equipment. It is no longer permitted to simply throw away electrical and electronic equipment. Instead, these products must enter the recycling process.

Each individual EU member state has implemented the WEEE regulations into national law in slightly different ways. Please follow your national law when you want to dispose of any electrical or electronic products.

More details can be obtained from your national WEEE recycling agency.

Germany

Die Europäische Union hat mit der WEEE Richtlinie umfassende Regelungen für die Verschrottung und das Recycling von Elektro- und Elektronikprodukten geschaffen. Diese wurden im Elektro- und Elektronikgerätegesetz - ElektroG in deutsches Recht umgesetzt. Dieses Gesetz verbietet das Entsorgen von entsprechenden, auch alten, Elektro- und Elektronikgeräten über die Hausmülltonne! Diese Geräte müssen den lokalen Sammelsystemen bzw. örtlichen Sammelstellen zugeführt werden! Dort werden sie kostenlos entgegen genommen. Die Kosten für den weiteren Recyclingprozess übernimmt die Gesamtheit der Gerätehersteller.

France

En 2006, l'union Européenne a introduit la nouvelle réglementation (DEEE) pour le recyclage de tout équipement électrique et électronique.

Chaque Etat membre de l'Union Européenne a mis en application la nouvelle réglementation DEEE de manières légèrement différentes. Veuillez suivre le décret d'application correspondant à l'élimination des déchets électriques ou électroniques de votre pays.

Italy

Nel 2006 l'unione europea ha introdotto regolamentazioni (WEEE) per la raccolta e il riciclo di apparecchi elettrici ed elettronici. Non è più consentito semplicemente gettare queste apparecchiature, devono essere riciclate.

Ogni stato membro dell' EU ha tramutato le direttive WEEE in leggi statali in varie misure. Fare riferimento alle leggi del proprio Stato quando si dispone di un apparecchio elettrico o elettronico.

Per ulteriori dettagli fare riferimento alla direttiva WEEE sul riciclaggio del proprio Stato.

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