

OPERATING MANUAL  
RS232 TO RS422/RS485 CONVERTER  
MODEL LD-15PN

## INTRODUCTION

Milestone RS232 to RS422/RS 485 converter Model LD-15PN is an industrial grade unit designed for high-speed data transmission between computer system and or peripherals over long distance under high noise conditions. The converter has 2-wire as well as 4-wire mode. It is available in DIN Rail/Panel Mount Enclosure.

Application for these converters can be for factory automation, programmable logic controllers, attendance recording systems, Barcode Readers, remote data transmission, remote terminals, EPABX etc.

## SPECIFICATIONS

Input Signals	RS232 - TxD, RxD, GND
Output Signals	RS485 – Tx+, Tx-, Rx+, Rx-, GND, E(Earth). Each signal is protected by spike suppressor, and has opto-isolation.
2 Wire/4 Wire Selection	Selectable through front panel jumpering
Max. Distance	1.2Kms. @ 19,200 bps
LED Indication	Power, TD, RD
Power Supply	Option 1. Mains 230 VAC Option 2. +10V to +40V DC
Power Consumption	20VA Maximum
Size H (mm)	70 D x 75 W x 112



□ **Bottom Row** (From Left)

- MAINS – 230 V Term No. 9 - L  
10 - N  
11 - E
- RS232C Term No. 12 - GRD2  
13 - Tx (Out)  
14 - Rx (In)
- DC Supply – 24 V Term No. 15 - +24VDC  
16 - +24VDC RETURN

## **LONG DISTANCE CABLE LAYING**

Long distance cable between two RS422/RS485 interfaces must be a twisted pair shielded cable. The pair should be used for each signal type + and – signal. This gives high common mode noise rejection. While laying the cable, care should be taken not to lay this cable parallel to power line cables. The cable resistance should not be more than 90 ohms/1000 meters. The cable should be run through conduit pipe for physical protection.

**TABLE I: OUTPUT CABLE – 4 Wire**

<b>Signal</b>	<b>Term No.</b>	<b>Instrument</b>
+T/R	4	+Rx
-T/R	5	-Rx
+R	6	+Tx
-R	7	-Tx

**TABLE II: OUTPUT CABLE – 2 wire**

<b>D25 Female</b>	<b>Pin No.</b>	<b>Instrument</b>
+T/+R	4	+T/+R
-T/-R	5	-T/-R

----- X ----- X ----- X -----