

OPERATING MANUAL

RS232 TO RS422/RS485 CONVERTER

MODEL LD-15PNV

INTRODUCTION

Milestone RS232 to RS422/RS 485 converter Model LD-15PNV 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	Mains 90V-250VAC DC 70V- 400V DC
Power Consumption	20VA Maximum
Size H (mm)	70 D x 75 W x 112

OPERATING INSTRUCTIONS

Front Panel Terminal Connections

□ **Top Row** (From Left)

- 2 Wire/ 4 Wire Term No. 1 - 2 Wire
Mode Selection 2 - C (Common)

3 - 4 Wire

For 2 Wire mode short Term 1 & 2

For 4 Wire mode short Term 2 & 3

- RS 485 / RS 422 Term No. 4 - +T/R (In/Out)

(In/Out)

5 - - T/R

6 - +R (In)

7 - - R (In)

8 - GRD2

□ **Bottom Row** (From Left)

- Power Supply

Term No. 9 - L (+)

10 – N(-)

11 - E

- RS232C

Term No. 12 – GRD1

13 - Tx (Out)

14 - Rx (In)

If DC Supply is used, connect DC voltage between L(+) and N(-)

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

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

TABLE II: OUTPUT CABLE – 2 wire

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

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