LOVE ®
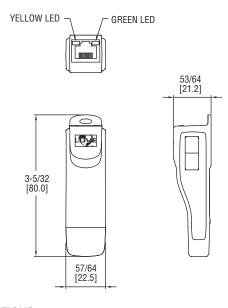
Model MN-1 Mini-Node Communication Signal Converter

Bulletin E-90-MN-1

Specifications and Operating Instructions

YELLOW LED   GREEN LED

53/64
[21.2]

3-5/32
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57/64
[22.5]

The Model MN-1 Mini-Node Communication Signal Converter is a low cost device that converts half duplex RS 485 serial communications signals into a signal that can be read by any computer with a USB port. The integral USB connector and RJ-45 connector reduces set up time by eliminating extra wiring. The Model MN-1 is powered via the USB connection which eliminates the need for an external power source. The compact size is great for field installation, control panels, and lab testing.

SPECIFICATIONS

Power Requirements: No external power required.
Power Consumption: 0.4 W.
Isolated Voltage: 3000 VDC.
Input Impedance: 96 kΩ.
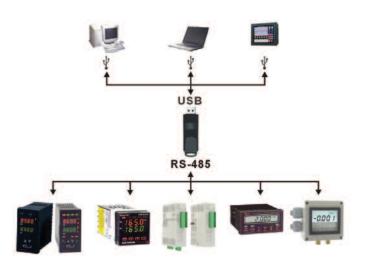**USB Connector:** A-Type (plug).
RS-485 Connector: RJ-45.
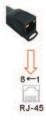**Baud Rate:** 75, 150, 300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, and 115200 bps.
Compatibility: Full compliance with USB V.2.0 specification.
Agency Approvals: CE.

APPLICATION

USB

RS-485

RJ-45 PIN

8 ←1

RJ-45

PIN	Signal Name
1	Reserved
2	Reserved
3	Reserved
4	SG+ (Red)
5	SG- (Green)
6	Reserved
7	Reserved
8	Reserved

The "SG+" connects to the "+" and the "SG-" connects to the "-" of the RS-485 Device.

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LED MODES
1. Green LED indicates unit is powered.
2. Yellow LED to indicate that data is being transferred.

USB DRIVER INSTALLATION
NOTE: Do NOT connect MN-1 to PC before extracting the driver file.

1. Insert the factory supplied CD into the CD drive of
   your computer. If the CD does not start automatically,
   click "Start", "Run" & type D:/Drivers.exe then click "OK".
2. Follow the on screen instructions to prepare for
   installation of the driver.
3. A folder marked SiLabs should now appear in the
   PC's C drive.
4. Connect the MN-1 to PC.
5. The PC should automatically recognize that new
   hardware has been found. If not, add hardware can
   be found un the control panel.
6. Follow on screen instructions for assigning USB driver
   to the MN-1.
7. Repeat steps 5 and 6 for assigning RS-485 Driver to
   the MN-1.
8. Open the system folder in the control panel.
9. Click on hardware tab.
10. Open the device manager.
11. Double click on ports.
12. Verify that USB to UART Bridge Controller appears.
13. The Driver installation is complete.

MAINTENANCE
Upon final installation of the Model MN-1 Mini-Node USB to RS 485 Converter, no routine maintenance is required. A periodic check of system calibration is recommended. The Model MN-1 is not field serviceable and should be returned if repair is needed (field repair should not be attempted and may void warranty). Be sure to include a brief description of the problem plus any relevant application notes. Contact customer service to receive a return goods authorization number before shipping.