

NMEA 0183 - Standard For Interfacing Marine Electronic Devices

consist of an optoisolator and should have protective circuits to limit current, reverse bias and power dissipation at the optodiode as shown in Figure 1. Reference is made to example circuits in Section 7.2 of this Standard.

The receive circuit shall be designed for operation with a minimum differential input voltage of 2.0 Volts and shall not take more than 2.0 mA from the line at that voltage.

For reasons of compatibility with equipment designed to earlier versions of this standard, it is noted that the "idle, marking, logical "1", OFF or stop bit state" had previously been defined to be in the range -15 to +0.5 Volts. The "active, spacing, logical "0", ON or start bit state" was defined to be in the range +4.0 to +15 Volts while sourcing not less than 15 mA.

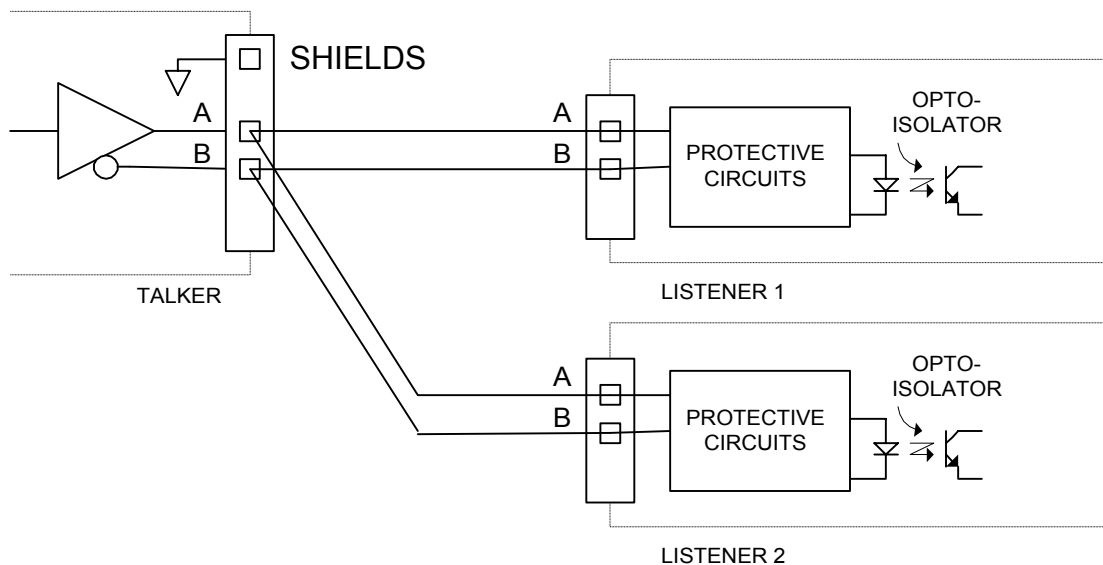


FIGURE 1

3.5.4 Electrical Isolation

Within a LISTENER there shall be no direct electrical connection between the signal line, "A", return line, "B", or shield and ship's ground or power. Isolation from ship's ground is required.

3.5.5 Maximum Voltage on Bus

The maximum applied voltage between signal lines "A" and "B" and between either line and Ground shall be in accordance with the EIA-422 specification.

For protection against miswiring and for use with earlier TALKER designs, all receive circuit devices should be capable of withstanding 15 volts between signal lines "A" and "B" and between either line and ground for an indefinite period.