Optically Isolated RS-485 to RS-485 PLC Converter

Connects to your PLC network safely

Model 485ABOIC

Description

Make quick and easy connections to your Allen Bradley® PLC® models SLC™ 500, 5/01, 5/02, & 5/03™ using B&B Electronic's model **485ABOIC**. The unit optically isolates balanced half-duplex RS-485 signals to balanced half-duplex RS-485 signals, comparable to the converter provided by Allen Bradley. The 485ABOIC is housed in a compact enclosure ready to be mounted on a DIN rail or panel.

Optical isolation adds security against conventional problems like ground loops, spikes, and surges that may be present on data and control lines. No power supply is required as the module draws power from the PLC connection. If needed, there is a 3-position screw terminal block for an external supply. An LED indicates power.

An included two-foot cable connects easily from the PLC to the unit using the 8-pin SDL Amp connector. The 6-position terminal block provides the RS-485 backbone link to the network. By using B&B's model 232ABRJ45 (not included) handheld devices or PC/laptops can be connected to the RS-485 network through the RJ45 port. The RJ45 jack can also be used for daisy chaining to another unit.

Features

- Straight forward easy connections
- Compact enclosure
- DIN mountable
- Panel mountable
- Provides 2000 VAC isolation
- Two-foot cable included for connections to the PLC
- Two power method - directly from PLC or external (not included)
- Power status LED for quick reference

Connections

Power can be brought in through the optional external screw barrier strip as marked on the enclosure. The RS-485 backbone network link is made through the removable terminal block with pin descriptions marked on the enclosure. The PLC connection is made through the 8-pin Amp connector using the provided cable (male 8-pin Amp to male RJ45). Table 1 shows the pin outs of the Amp connector. The RJ45 jack is designed for jumping to another unit using a straight through RJ45 cable. It can also be used with B&B's model 232ABRJ45 (not included) to interface to a handheld device or PC/laptop. Table 2 shows the pin outs of the RJ45 jack.

Table 1 – 8 Position Amp Pin Outs

Signal	Pin Number	Direction
DATA +	1	Bidirectional
DATA -	2	Bidirectional
24VDC IN	3	Input
GND	4	Bidirectional
TX EN	5	Input
NC	6	N/A
GND	7	Bidirectional
24VDC OUT	8	Output

Table 2 – RJ45 Pin Outs

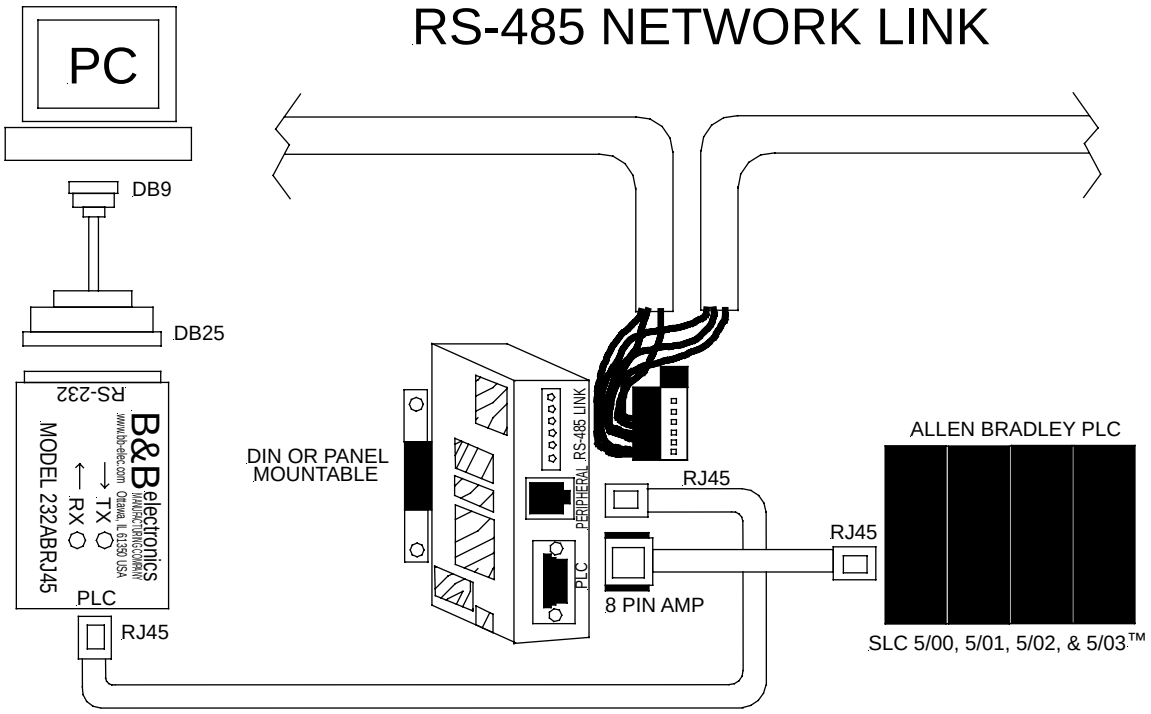
Signal	Pin Number	Direction
DATA +	1	Bidirectional
DATA -	2	Bidirectional
NC	3	N/A
GND	4	Bidirectional
TX EN	5	Input
NC	6	N/A
GND	7	Bidirectional
24VDC OUT	8	Output

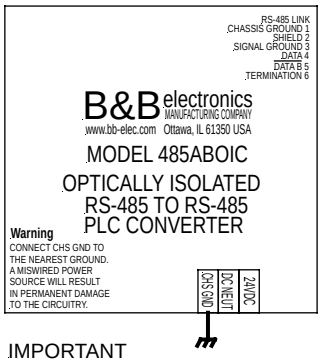
This product designed and manufactured in USA of domestic and imported parts by

Phone: (815) 433-5100
Office Fax: (815) 433-5105
Tech Fax: (815) 433-5104
Sales Fax: (815) 433-5109

B&B electronics MANUFACTURING COMPANY

Home Page: www.bb-elec.com
E-mail: orders@bb-elec.com
support@bb-elec.com
catrqst@bb-elec.com





IMPORTANT
Always connect CHS GND to the nearest ground. This connection must be made whether or not an external 24 VDC supply is used.

NOTE 1
In normal operation with the PLC connected to the unit, both the unit and the interface converter (like model 232ABRJ45, if connected) are powered by the PLC. No external power supply is required.

NOTE 2
If no PLC is connected to the unit, then a 24 VDC power supply should be used to supply power to this unit and the interface converter (if connected).

NOTE 3
One and only one of the unit at the end of the network link must have terminals 1 and 2 of the removable terminal block jumpered together.

NOTE 4
Units on both end of the network must have terminals 5 and 6 of the removable terminal block jumpered together.

Figure 1 - Setup and Installation

Specification Summary

PLC	Allen Bradley SLC 5/00, 5/01, 5/02, & 5/03™
RS-485 Backbone	6-position removable terminal block
RS-485 Peripherals	RJ45 female jack
PLC	8-pin Amp connector
Speed	38.4K baud max.
LED	1 red LED for power status
Isolation	2000 VAC
Power Requirement	24 VDC @ 25 mA max (does not include power consume by peripheral connection) PLC powered using included cable or externally powered (not included)
Approval	FCC Class A
Temperature	0 to 70°C (32 to 158°F)
Dimensions	4.5 x 3.5 x 1.3 in (11.4 x 8.9 x 3.2 cm)

This product designed and manufactured in USA of domestic and imported parts by
Phone: (815) 433-5100
Office Fax: (815) 433-5105
Tech Fax: (815) 433-5104
Sales Fax: (815) 433-5109
B&B electronics MANUFACTURING COMPANY
Home Page: www.bb-elec.com
E-mail: orders@bb-elec.com
support@bb-elec.com
catrqst@bb-elec.com