Thank you for purchasing the RS485-232 converter card. This product is warranted to be free of manufacturing defects for one (1) year from the date of purchase.

**DISCLAIMER**

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**RS485-232 Converter Card User Manual**

Product: RS485-232 converter card  
Version: 1.00  
Date: 3/20/2009

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Description of Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00</td>
<td>3/20/2009</td>
<td>New Manual</td>
</tr>
</tbody>
</table>
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1 Features

- RoHS compliant
- Input voltage of +7 to 40 VDC
- Connection to PC via serial COM port
- Easy 3-Pin connection to user’s RS485 device
- Small, compact device

2 Pinouts

The green screw terminal connector is for main power. The 3-pin header is for RS485 communication.

![Pin 1 location]

**Table 1: Power pinouts**

<table>
<thead>
<tr>
<th>Pin</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Power (7-40VDC)</td>
</tr>
<tr>
<td>2</td>
<td>Ground</td>
</tr>
</tbody>
</table>

**Table 2: RS485 pinouts**

<table>
<thead>
<tr>
<th>Pin</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>RS485 A (-)</td>
</tr>
<tr>
<td>2</td>
<td>Ground</td>
</tr>
<tr>
<td>3</td>
<td>RS485 B (+)</td>
</tr>
</tbody>
</table>
3 Connection Specifications

This card is used with several products (see section 7). Below is a general diagram of how to connect the RS485-232 converter card to a PC and an RS485 communicating device.

![Diagram of connections](image)

For specific connection specifications with the Silverpak 17C, 23C, R256, R356 or Silverpak 17T, please see the specific product manaul.

### Serial COM Port

The DB9 side of the RS485-232 Converter card is a female DB9 and pinouts are standard to all PC serial COM Ports (Pin 2: RxD, Pin 3: TxD, Pin 5: GND):

![DB9 pinouts](image)
RS485 Connection with full duplex

If your RS485 device is a full duplex, or 4-wire device, below is the recommended connection to the RS485-232 converter card.

Multi-drop network (Daisy Chaining)

In order to communicate to multiple units at once, combine all three RS485 communication wires in parallel as shown below:
4 Mechanical Specifications

2 x 4-40 screws are provided on the DB-9 side of the unit

5 Electrical & Operating Specifications

Power supply requirement
Voltage +7 to 40 VDC

Operating Temperature
Temperature range: -20°C to 75°C
6 Comparison with Obsolete RS485-232 card

The non-RoHS converter card is no longer available. Changes were made to the pinouts of the RS485 connection.

Description of change:

Old Converter card
Lin p/n: 017-00024

New Converter Card
Lin p/n: 083-00050

<table>
<thead>
<tr>
<th>OLD RS232 Converter Card</th>
<th>NEW RS232 Converter Card</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Lin Part Number: 017-00024</td>
<td>• Lin Part Number: 083-00050</td>
</tr>
<tr>
<td>• Not RoHS Compliant</td>
<td>• RoHS Compliant</td>
</tr>
<tr>
<td>• Red 4-Pin connection for PWR, Ground, RS485 A, RS485 B.</td>
<td>• White 3-Pin connection for RS485 A, Ground, RS485 B.</td>
</tr>
<tr>
<td>• Voltage Input: +7 to 40 VDC</td>
<td>• Voltage Input: +7 to 40 VDC</td>
</tr>
<tr>
<td>• Grey Cover</td>
<td>• Black Cover</td>
</tr>
</tbody>
</table>
Pinout differences:

Power Connector (Green):

<table>
<thead>
<tr>
<th>Pin</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PWR</td>
</tr>
<tr>
<td>2</td>
<td>Ground</td>
</tr>
</tbody>
</table>

(Change)

Communication Connector (White):

<table>
<thead>
<tr>
<th>Pin</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PWR</td>
</tr>
<tr>
<td>2</td>
<td>GND</td>
</tr>
<tr>
<td>3</td>
<td>RS485 B (+)</td>
</tr>
<tr>
<td>4</td>
<td>RS485 A (-)</td>
</tr>
</tbody>
</table>

How to connect with old cable:

If you have a cable with a Red 4-Pin connector, simply cut off this connector, strip the wires and reconnect to a 3-Pin connector in the following manner:

Old 4-Pin cable | Connect to | New 3-Pin cable
---|---|---
Pin 1 Red (PWR) | No connection | --
Pin 2 Green (GND) | Green (GND) | Pin 2
Pin 3 Brown RS485 B (+) | Brown RS485 B (+) | Pin 3
Pin 4 Black/white RS485 A (-) | Black/white RS485 A (-) | Pin 1

Follow connection specifications as stated in this user manual, section 3.
7 Products

The following products are used with the RS485-232 Converter Card in order to receive commands or parameters via PC.

- **SilverPak 17C/CE**
  - CO-4118S
  - CO-4118M
  - CO-4118L
  - CE-4118S
  - CE-4118M
  - CE-4118L
- **SilverPak 23C/CE**
  - CO-5718X
  - CO-5718M
  - CO-5718L
  - CE-5718X
  - CE-5718M
  - CE-5718L
- **R256-RO controller/driver**
- **R356-RO controller/driver**
- Designer kit: 083-00004 for Silverpak 17C/CE
- Designer kit: 083-00035 for Silverpak 23C/CE

![Image of SilverPak 17C/CE](image1)

![Image of SilverPak 23C/CE](image2)

![Image of R256-RO controller/driver](image3)

![Image of R356-RO controller/driver](image4)