

# User Manual

Revision 1.002  
English

## Isolator & Repeater RS485

(Order Code: HD67149-A1)



HD67149-A1

### Benefits and Main Features:

- ▶ Very easy to configure
- ▶ Low cost
- ▶ Rail mountable
- ▶ Microprocessor for queue data control
- ▶ Galvanic isolation
- ▶ Industrial temperature range:  
-30°C / 70°C (-22°F / 158°F)



Interfaces pour  
l'informatique  
industrielle

Produits et Solutions en Communication Industrielle  
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- Updated
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**REVISION LIST:**

Revision	Date	Author	Chapter	Description
1.000	25/02/2009	MI	All	First release version
1.001	22/04/2010	FI	All	Revision
1.002	20/05/2010	Dp	All	Revision

**WARNING:**

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**CONNECTION SCHEME:**

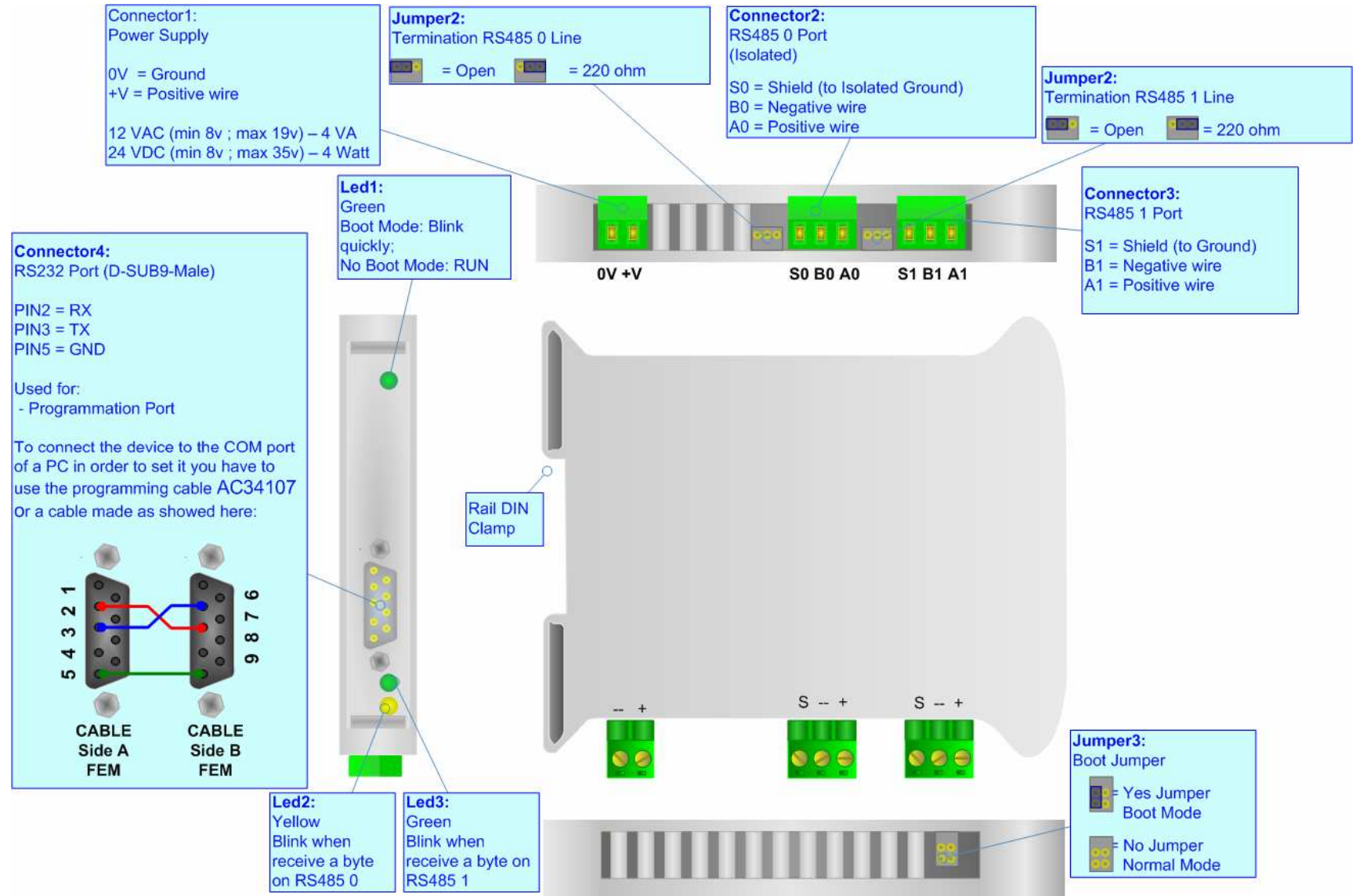


Figure 1: Connection scheme for HD67149-A1

**CHARACTERISTICS:**

The RS485 Isolator & Repeater allows the following characteristics:

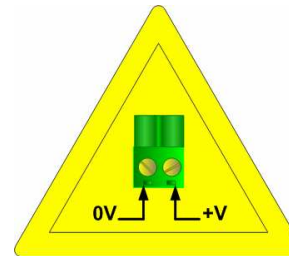
- Electrical isolation between two Buses;
- Baud Rate, Parity, StopBit changeable with software;
- Mountable on Rail DIN;
- Temperature range from -30°C to 70°C.

**POWER SUPPLY:**

Recommended Power Supply	
VDC	VAC
24v	12v

VDC		VAC	
Vmin	Vmax	Vmin	Vmax
8v	35v	8v	19v

**Caution: Not reverse the polarity power .**



HD67149-A1

**CONFIGURATION:**

You need Compositor SW67149 software on your PC in order to perform the following:

- Define the parameter of RS485 0;
- Define the parameter of RS485 1;
- Update the Firmware.

**USE OF SW67149 RS485 TO RS485:**

To configure the repeater use the available software that runs with Windows, called SW67149. It is downloadable on the site [www.adfweb.com](http://www.adfweb.com) and its operations are described in this document.

When launching the SW67149 the right window appears (Fig. 2).

The Window is divided in three sections, one for the "INIT COM", another for the "RS485 CONFIGURATION" and the other for the "FIRMWARE".

In the field "Com Port" must be selected the COM Port of the PC where the serial cable is connected. When the "Init" button is pressed, it creates the connection between Personal Computer and HD67149.

The means of the fields for "RS485 CONFIGURATION" are:

- In the fields "BaudRate" the baudrate is defined for the RS485 0 and for the RS485 1;
- In the fields "Parity", the parity is defined for the RS485 0 and for the RS485 1;
- In the fields "StopBit" the number of the StopBit is defined for the RS485 0 and for the RS485 1;

When the button "Write Data" is pressed the parameters are written into the HD67149. When the button "Read Data" is pressed the paramaters in the Device are read and written in the fields.

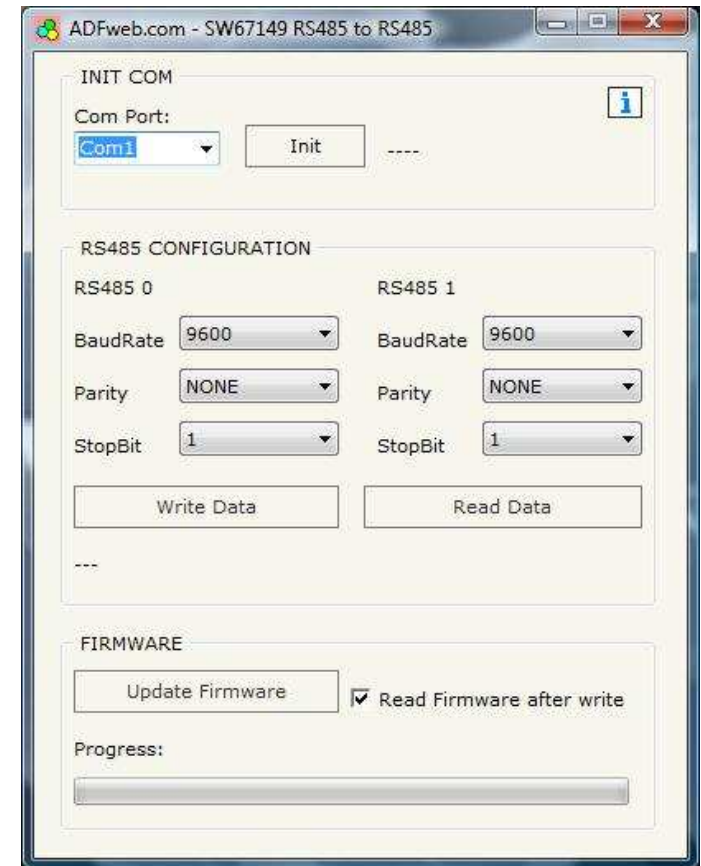


Figure 2: Main window for SW67149

The functions described above shall be made when the device is in Boot. For more details about Boot see "Connection Scheme" (Fig. 1).

If is necessary to update the firmware the button "Update Firmware" must be pressed.

In order to update the firmware in the board, follow these instructions:

- Turn off the device;
- Insert the Boot Jumper (see Fig. 1 for more info);
- Turn on the device;
- Press the "Update Firmware" button to start the upload;
- When all the operations are "OK" turn off the device;
- Disconnect the Boot jumper;
- Turn on the Device.

At this point the firmware on the device is correctly update.

#### **FUNCTION MODES:**

For the device HD67149, it is possible to update the microprocessor program. Therefore there are two functions to select from the boot jumper:

- NORMAL MODE (factory setting, without BOOT jumper), with this setting the HD67149 is able to function as a RS485 Repeater;
- BOOT MODE (with BOOT jumper), the boot mode is activated when the HD67149 is turned on. Eventual program updates are available on the site [www.adfweb.com](http://www.adfweb.com)

When the run LED blinks at frequency of about 1 second, the device functions in Normal Mode, otherwise if the run LED blinks more quickly the device is in Boot Mode.

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**CHARACTERISTICS OF THE CABLES:**

The connection from RS232 socket to a serial port (example one from a personal computer) must be made with a NULL MODEM cable (a serial cable where the pins 2 and 3 are crossed). It is recommended that the RS232C Cable not exceed 15 meters.

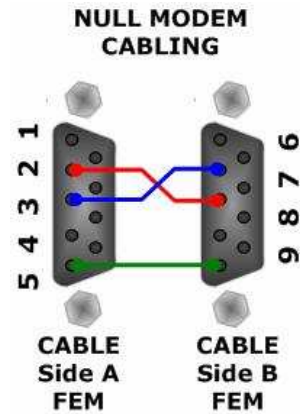
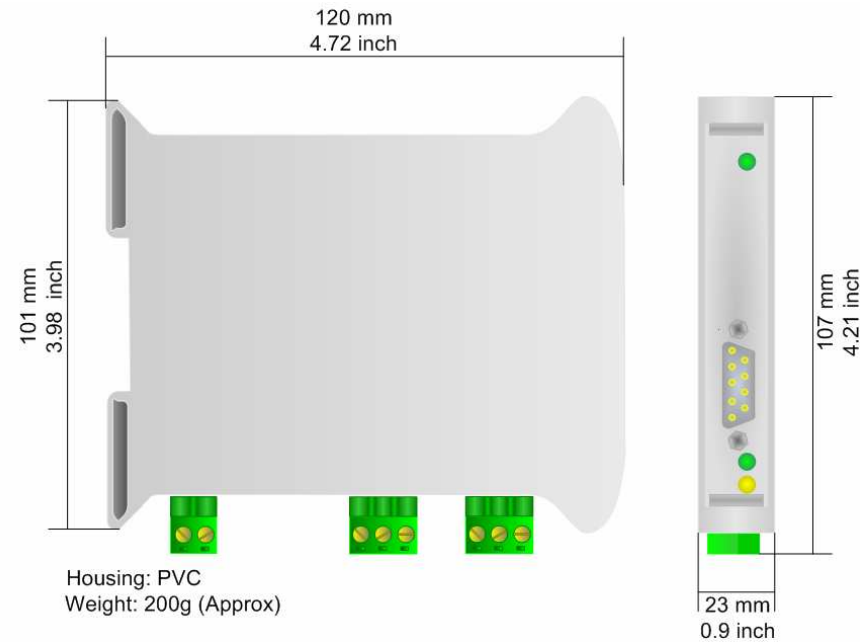


Figure 3: Null modem cabling

**MECHANICAL DIMENSIONS:**



*Figure 4: Mechanical dimensions scheme*

**ORDER CODE:**

Order Code: **HD67149-A1-** Isolator & Repeater RS485

**ACCESSORIES:**

Order Code: **AC34107** - Null Modem Cable Fem/Fem DSub 9 Pin 1,5 m

Order Code: **AC34114** - Null Modem Cable Fem/Fem DSub 9 Pin 5 m

Order Code: **AC34001** - Rail DIN - Power Supply 220/240V AC 50/60Hz – 12 V AC

Order Code: **AC34002** - Rail DIN - Power Supply 110V AC 50/60Hz – 12 V AC



**WARRANTIES AND TECHNICAL SUPPORT:**

For fast and easy technical support for your ADFweb.com SRL products, consult our internet support at [www.adfweb.com](http://www.adfweb.com).  
Otherwise contact us at the address [support@adfweb.com](mailto:support@adfweb.com)

**RETURN POLICY:**

If while using your product you have any problem and you wish to exchange or repair it, please do the following:

- 1) Obtain a Product Return Number (PRN) from our internet support at [www.adfweb.com](http://www.adfweb.com). Together with the request, you need to provide detailed information about the problem.
- 2) Send the product to the address provided with the PRN, having prepaid the shipping costs (shipment costs billed to us will not be accepted).

If the product is within the warranty of twelve months, it will be repaired or exchanged and returned within three weeks. If the product is no longer under warranty, you will receive a repair estimate.

**PRODUCTS AND RELATED DOCUMENTS:**

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