User Manual

Revision 1.003
English

Gateway / Bridge
DeviceNet to PROFIBUS Slave

(Order Code: HD67554)

for Website information:
www.adfweb.com?Product=HD67554

for Price information:
www.adfweb.com?Price=HD67554

Benefits and Main Features:

- Very easy to configure
- Low cost
- PROFIBUS Baudrate up to 12M
- Wide supply input range
- Galvanic isolation
- Industrial temperature range:
  -30°C / 70°C (-22°F / 158°F)

HD67554

For others Gateways / Bridges:

CANopen to Modbus

See also the following links:
www.adfweb.com?Product=HD67001 (Modbus RTU Master)
www.adfweb.com?Product=HD67502 (Modbus RTU Slave)
www.adfweb.com?Product=HD67004 (Modbus TCP Master)
www.adfweb.com?Product=HD67505 (Modbus TCP Slave)

For others Gateways / Bridges:
For **CAN bus 2.0A** and/or **CAN bus 2.0B** to **Modbus**

See also the following links:
www.adfweb.com?Product=HD67011 (Modbus RTU Slave)
www.adfweb.com?Product=HD67012 (Modbus RTU Master)
www.adfweb.com?Product=HD67014 (Modbus TCP Slave)
www.adfweb.com?Product=HD67515 (Modbus TCP Master)

Do you have an your customer protocol?
See the following links:
www.adfweb.com?Product=HD67003

Do you need to choose a device? do you want help?
Ask it to the following link:
www.adfweb.com?Cmd=helpme

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UPDATED DOCUMENTATION:

Dear customer, we thank you for your attention and we remind you that you need to check that the following document is:

- Updated
- Related to the product you own

To obtain the most recently updated document, note the "document code" that appears at the top right-hand corner of each page of this document.

With this "Document Code" go to web page www.adfweb.com/download/ and search for the corresponding code on the page. Click on the proper "Document Code" and download the updates.

To obtain the updated documentation for the product that you own, note the "Document Code" (Abbreviated written "Doc. Code" on the label on the product) and download the updated from our web site www.adfweb.com/download/

REVISION LIST:

Revision	Date	Author	Chapter	Description
1.000	15/09/2008	FI	All	First release version
1.001	09/01/2009	FI	All	Software changed
1.002	10/07/2009	MI	All	Revision
1.003	15/07/2010	FT	All	Revision

WARNING:

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CONNECTION SCHEME:

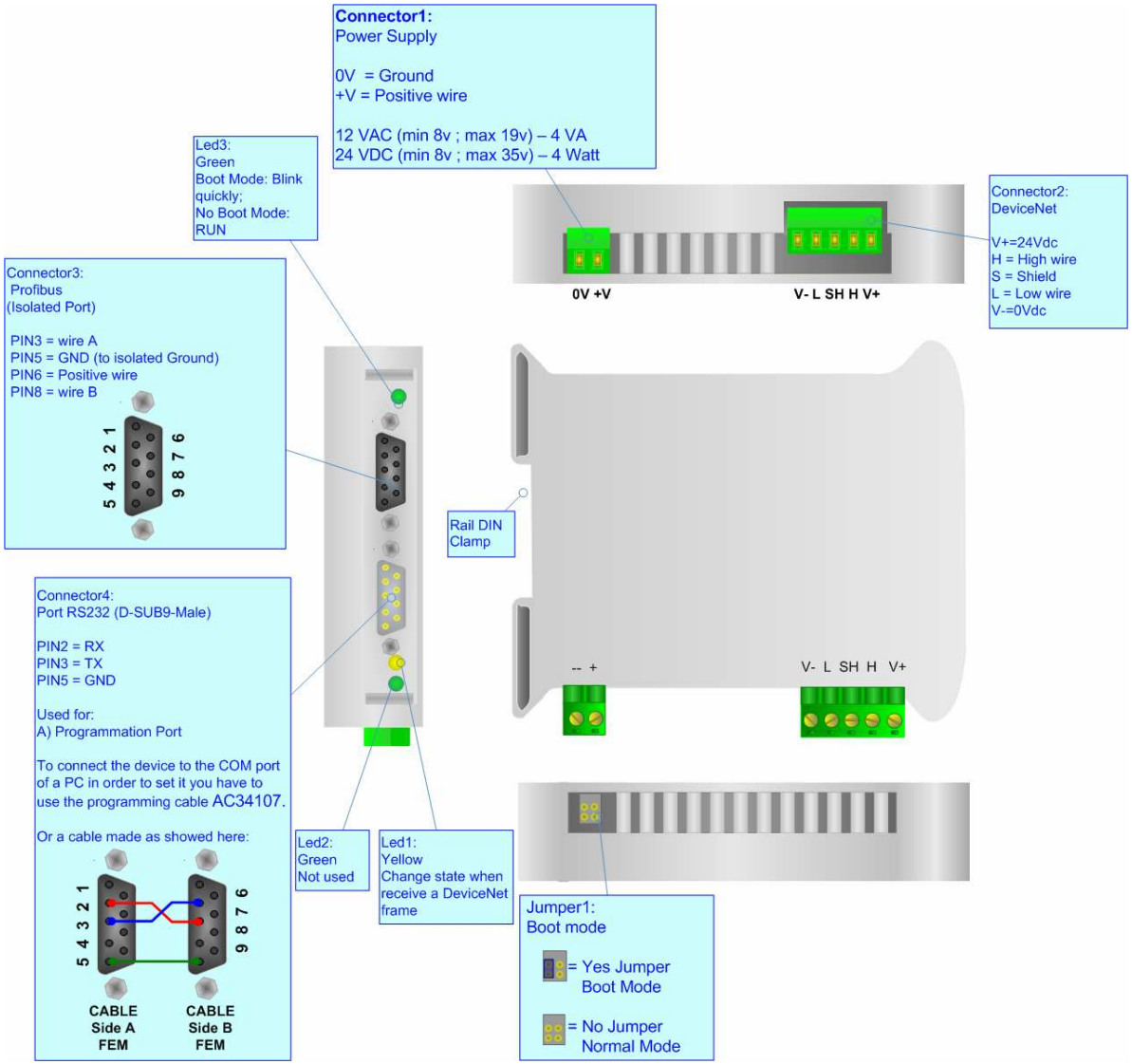


Figure 1: Connection scheme for HD67554

CHARACTERISTICS:

The Configurable DeviceNet to PROFIBUS Slave Gateway allows the following characteristics:

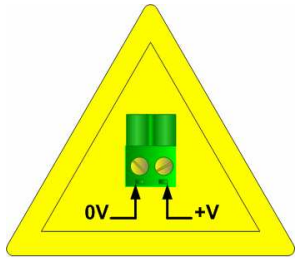
- Two-directional information between network DeviceNet and PROFIBUS;
- Eletrical isolation between two buses;
- Temperature range -30°C to 70°C.

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 .



HD67554

CONFIGURATION:

You need Compositor SW67554 software on your PC in order to perform the following:

- Define the parameter of the DeviceNet;
- Define the parameter of the PROFIBUS;
- Create a GSD File.

USE OF COMPOSITOR SW67554:

To configure the Gateway, use the available software that runs with Windows, called SW67554. It is downloadable on the site www.adfweb.com and its operation is described in this document.

When launching the SW67554 the right window appears (Fig. 2).

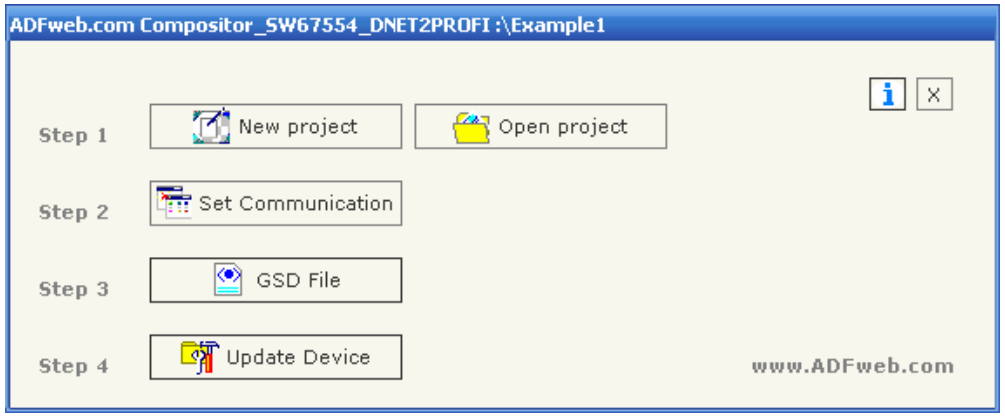


Figure 2: Main window for SW67554

NEW PROJECT / OPEN PROJECT:

The "New Project" button creates the folder which contains the entire device configuration.
A device configuration can also be imported or exported:

- To clone the configurations of a Programmable DeviceNet to PROFIBUS Gateway in order to configure another device in the same manner, it is necessary to maintain the folder and all its contents;
- To clone a project in order to obtain a different version of the project, it is sufficient to duplicate the project folder with another name and open the new folder with the button "Open Project".

SET COMMUNICATION:

This section defines the fundamental communication parameter of two Buses, PROFIBUS and DeviceNet.

By Pressing the "Set Communication" button from the main window for SW67554 (Fig. 2) the window "Set Communication" appears (Fig. 3).

The window is divided in two sections, one for the PROFIBUS and the other for the DeviceNet.

The means of the fields for "PROFIBUS" are:

- In the field "ID Dev." the address for the PROFIBUS side is defined;
- In the field "N Byte IN" the number of byte from the slave ProfiBus to the gateway is defined (at maximum it is possible to use 128 byte);
- In the field "N Byte OUT" the number of byte from the gateway to the slave ProfiBus is defined (at maximum it is possible to use 128 byte).

The means of the fields for "DeviceNet" are:

- In the field "ID Dev." the address of the DeviceNet is defined;
- In the field "Baud rate" the velocity of the DeviceNet bus is defined.

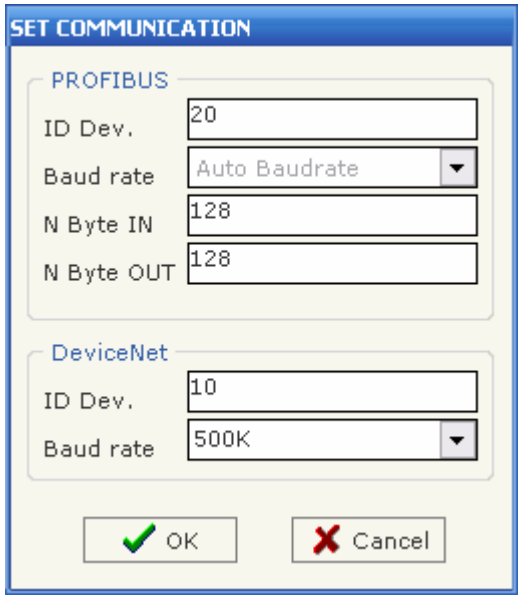


Figure 3: "Set Communication" window

GSD FILE:

By pressing the "GSD File" button it is possible to save the GSD file for the PROFIBUS side.
With this feature you can save the configuration of the gateway of the PROFIBUS side.

UPDATE DEVICE:

Section "Update Device" (Fig. 4):

In order to load the parameters or update the firmware in the gateway, follow these instructions:

- Turn OFF the device;
- Connect the Null Modem cable from your PC to the Gateway;
- Insert the Boot Jumper (For more info see the "Connection scheme");
- Turn ON the device;
- Check the "BOOT Led". It must blink quickly (For more info see the "Connection scheme");
- Select the COM port and press the "Connect" button;
- Press the "Next" button;
- Select the operations you want to do. You can select only "Firmware", only "Project" or both of them;
- Press the "Execute update firmware" button to start the upload;
- When all the operations are "OK" turn OFF the device;
- Disconnect the Boot Jumper;
- Disconnect the RS232 Cable;
- Turn ON the device.

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

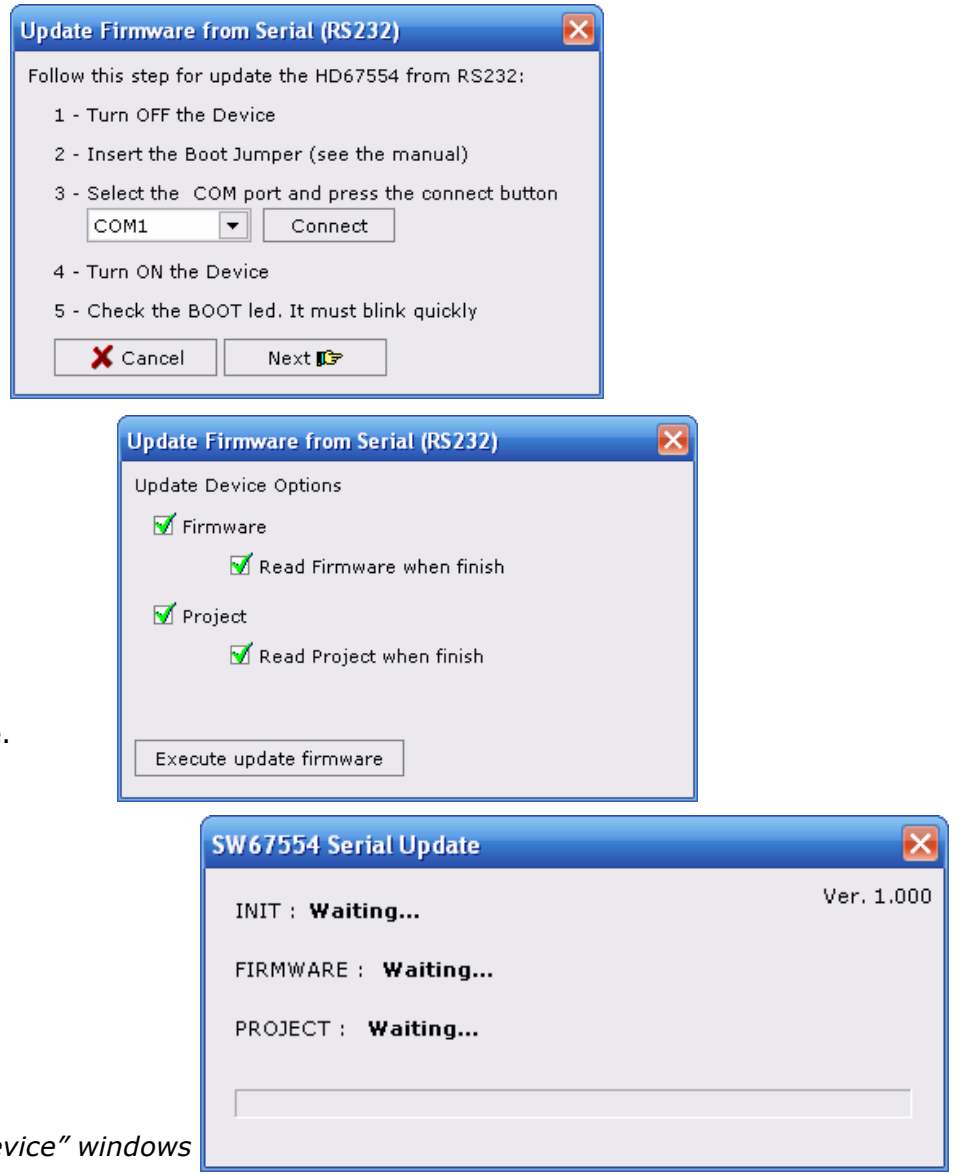


Figure 4: "Update Device" windows

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.

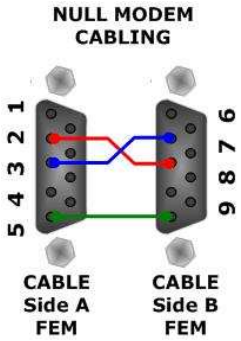


Figure 5: Null modem cabling

MECHANICAL DIMENSIONS:

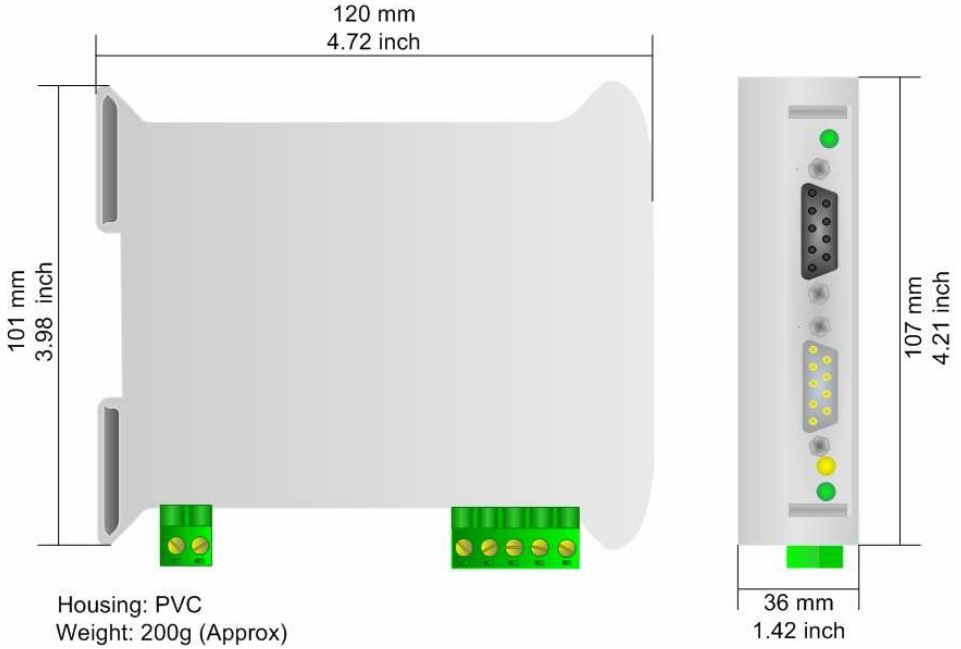


Figure 6: Mechanical dimensions scheme

ORDER CODE:

Order Code: **HD67554** **-** Gateway – DeviceNet to PROFIBUS Slave

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.
Otherwise contact us at the address 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. 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:

Part	Description	URL
HD67121	Gateway CANopen / Canopen	www.adfweb.com?product=HD67121
HD67502	Gateway CANopen / Modbus - RTU	www.adfweb.com?product=HD67502
HD67505	Gateway CANopen / Modbus – Ethernet TCP	www.adfweb.com?product=HD67505
HD67134	Gateway CANopen / DeviceNet	www.adfweb.com?product=HD67134
HD67117	CAN bus Repeater	www.adfweb.com?product=HD67117
HD67216	CAN bus Analyzer	www.adfweb.com?product=HD67216

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