

User Manual

Revision 1.001
English



Gateway ProfiBus Slave to Serial Communication Master

(Order Code: HD67561)

for Website information:

www.adfweb.com?Product=HD67561

for Price information:

www.adfweb.com?Price=HD67561

Benefits and Main Features:

- ▶ Very easy to configure
- ▶ Low cost
- ▶ Industrial temperature range:
-30°C / 70°C (-22°F / 158°F)

For others Gateways / Bridges:

CANopen to Modbus

See also the following links:

- www.adfweb.com?Product=HD67001 (Modbus RTU Master)
- www.adfweb.com?Product=HD67002 (Modbus RTU Slave)
- www.adfweb.com?Product=HD67004 (Modbus TCP Master)
- www.adfweb.com?Product=HD67005 (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=HD67015 (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	11/09/2008	FI	All	First release version
1.001	13/11/2008	FI	All	New software version

WARNING:

ADFweb.com reserves the right to change information in this manual about our product without warning.

ADFweb.com is not responsible for any error this manual may contain.

TRADEMARKS:

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CONNECTION SCHEME:

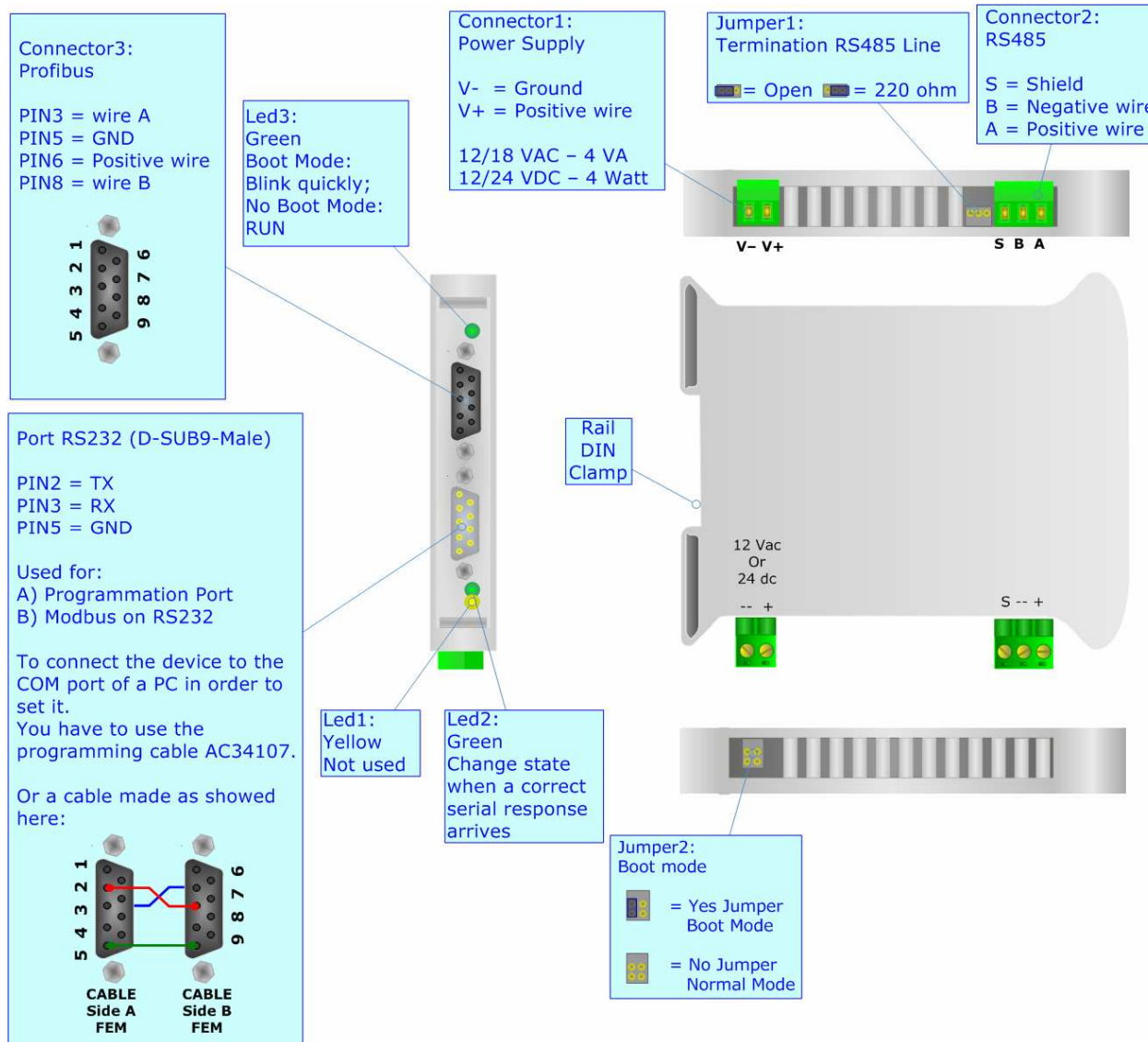


Figure 1: Connection scheme for HD67561

CHARACTERISTICS:

The Configurable Profibus Slave to Serial Communication Master Gateway allow the following:

- Baud Rate and Parity changeable with software;
- Mountable on Rail DIN;
- Power Supply 12/18V AC, 4 VA o 12/24V DC;
- Temperature range -30°C to 70°C.
- Serials Protocols supported:
 - Simple ASCII Protocol;
 - Simple Binary Protocol;
 - Modbus;
 - JBUS.

CONFIGURATION:

You need Compositor SW67561 software on your PC in order to perform the following:

- Define the parameter of the Profibus;
- Define the parameter of the Serial lines;
- Define the frames to read or write.

USE OF COMPOSITOR SW67561:

To configure the Gateway, use the available software that runs with Windows, called SW67561. It is downloadable on the site www.adfweb.com and its operation is described in this document.

When launching the SW67561 the right window appears (Fig. 2):

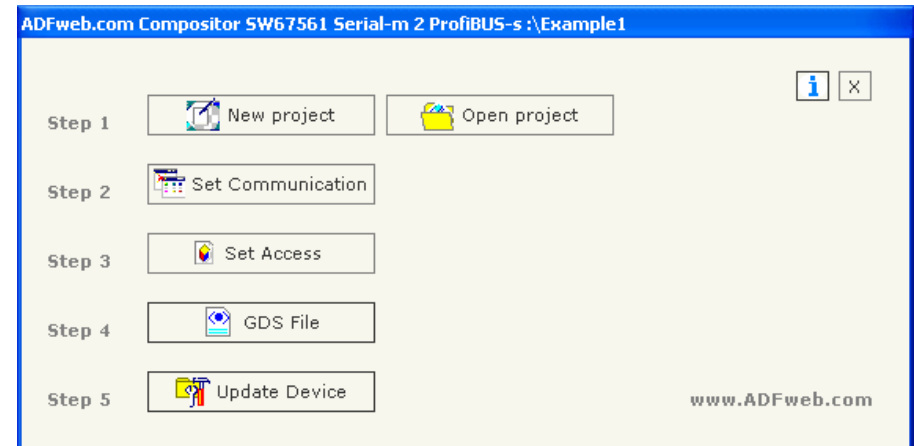


Figure 2: Main window for SW67561

NEW PROJECT / OPEN PROJECT:

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

- To clone the configurations of a Programmable Profibus to Serial Communication 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”;
- When a new project is created or an existent project is open, it will be possible to access the various configuration section of the software:

SET COMMUNICATION:

This section define the fundamental communication parameter of two Buses, Serial and ProfiBus.

By Pressing the "Set Communication" button from the main window for SW67561 (Fig. 2) the window "Set Communication" appears (Fig. 3).

The Window is divided in two section, one for the ProfiBus and the other for the Serial.

The means of the fields for Serial are:

- If the field "RS232" is checked, the serial line in use is the RS232, otherwise if field "RS485" is checked, the serial line in use is the RS485;
- In the field "Baud Rate" the baudrate for the serial line is defined;
- In the field "Parity" the parity of the serial line is defined;
- In the field "Time Out" there is the maximum time that the device attends for the answer from the Slave interrogated;
- In the field "Cyclic Delay" a delay between two requests is defined;
- In the subsection "Protocol" it is possible to select the protocol that you wish to use between the following:
 - Modbus RTU;
 - Modbus ASCII;
 - JBUS;
 - Simple Binary Protocol;
 - Simple ASCII Protocol.

The means of the fields for ProfiBus are:

- In the field "ID DEV", the address for the ProfiBus side is defined;
- In the field "Baud Rate", the baudrate for the ProfiBus is defined;
- In the field "N Byte IN", the number of byte from the slave ProfiBus to the gateway are defined;
- In the field "N Byte OUT", the number of byte from the gateway to the slave ProfiBus are defined.

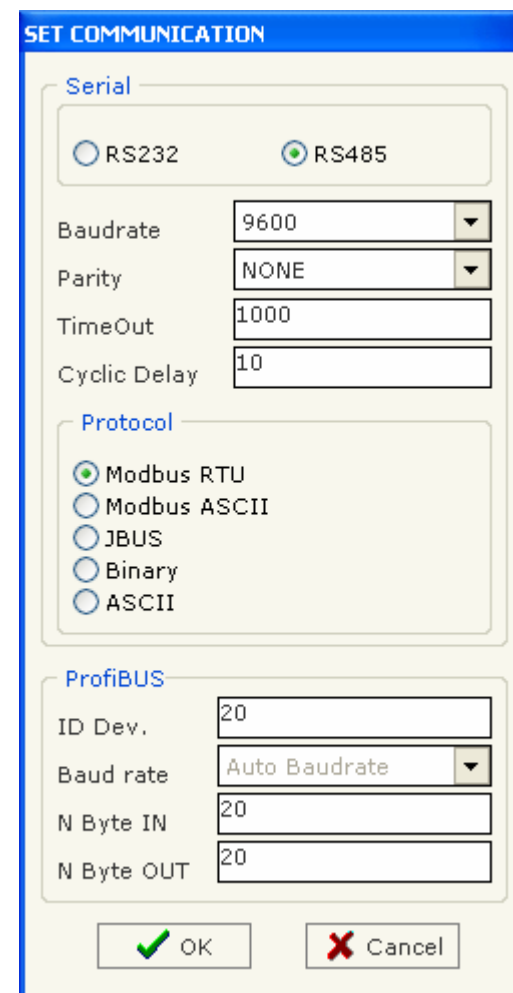


Figure 3: "Set Communication" window

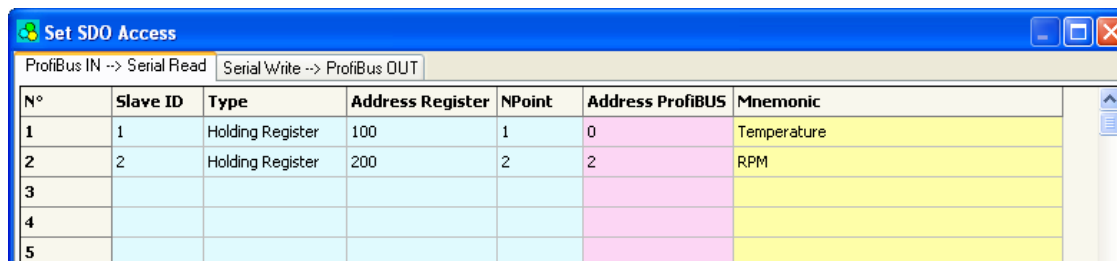
SET ACCESS:

By pressing the "Set Access" button from the main window for SW67561 (Fig. 2) the window "Set SDO Access" appears (Fig. 4):

It is divided in two part, the "ProfiBus IN --> Serial Read" and the "Serial Write --> ProfiBus OUT".

The first part ("ProfiBus IN --> Serial Read") is used to read the data that arrived from the Slave ProfiBus.

The second part ("Serial Write --> ProfiBus OUT") is used to Write the data that will be sent to the Slave ProfiBus.



N°	Slave ID	Type	Address Register	NPoint	Address ProfiBUS	Mnemonic
1	1	Holding Register	100	1	0	Temperature
2	2	Holding Register	200	2	2	RPM
3						
4						
5						

Figure 4: "Set SDO Access" window

Profibus IN --> Serial Read

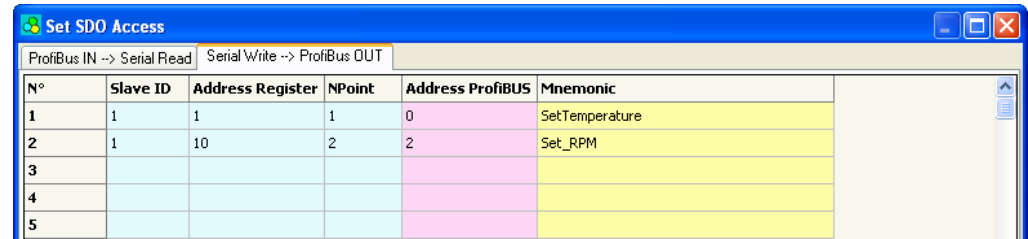
The means of the fields are:

- In the field "Address ProfiBus", the address for the ProfiBus is defined;
- In the field "Slave ID" the address of the Modbus device you must read is defined;
- In the field "Address Register" the start address of the register to be read is defined;
- In the field "Type" insert the data type of the Register you like read.
 - Coil Status;
 - Input Status;
 - Holdind Register;
 - Input Register.
- In the field "NPoint" insert the number of consecutive register to be read;
- In the field "Mnemonic" the description for the request is defined.

Serial Write --> Profibus OUT

The means of the fields are:

- In the field "Address ProfiBus", the address for the ProfiBus is defined;
- In the field "Slave ID" the address of the Modbus device you must write is defined;
- In the field "Address Register" the start address of the register to be write is defined;
- In the field "NPoint" insert the number of consecutive register to be write;
- In the field "Mnemonic" the description for the request is defined.



N°	Slave ID	Address Register	NPoint	Address ProfiBUS	Mnemonic
1	1	1	1	0	SetTemperature
2	1	10	2	2	Set_RPM
3					
4					
5					

Figure 5: "Address Setting" window

GDS FILE:

By pressing the "GDS File" button is possible to save the GDS 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. 6):

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 Form your PC to the Gateway.
- Insert the Boot Jumper (see the Fig. 1 for more info).
- Select COM port and press the "Connect" Button.
- Turn on the device.
- Check The BOOT Led. It must to Blink quickly (see the Fig. 1 for more info).
- Press the "Next" Button
- Select which operations you want to do. Can select only Firmware or only Project or both.
- Press the "Execute update firmware" to start the upload.
- When all the operation 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.

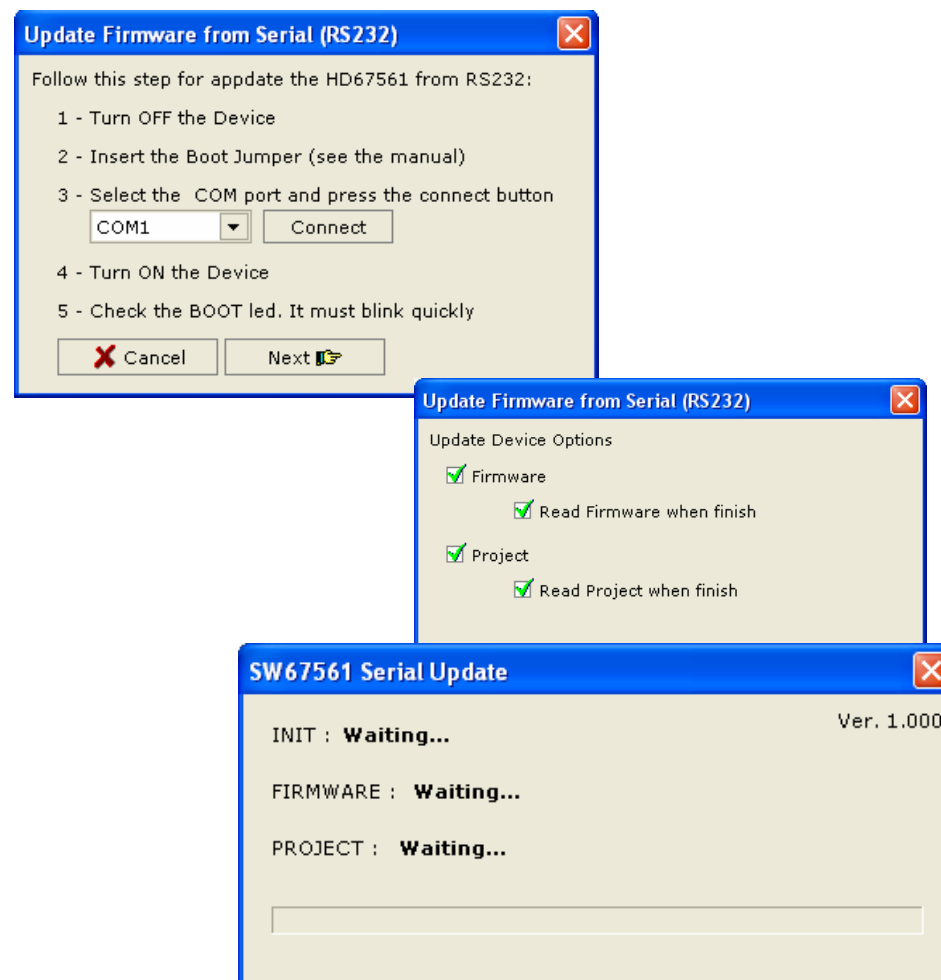
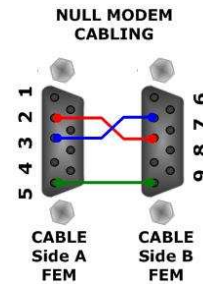


Figure 6: Update Device Serial

CHARACTERISTICS OF THE CABLES:

The connection from RS232C 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.



MECHANICAL DIMENSIONS:

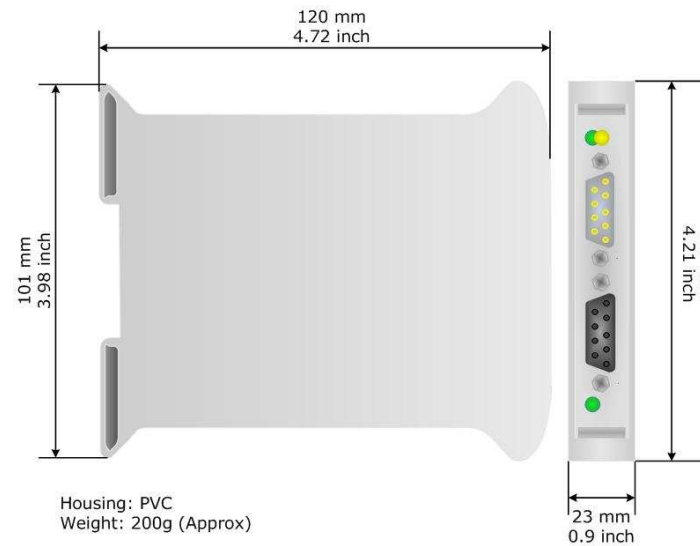


Figure 7: Mechanical dimensions scheme

ORDER CODE:

Order Code: **HD67561** - Gateway – Profibus Slave to Serial Communication Master

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
HD67002	Gateway CANopen / Modbus - RTU	www.adfweb.com?product=HD67002
HD67004 HD67005	Gateway CANopen / Modbus - Ethernet TCP	www.adfweb.com?product=HD67004
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