

## User Manual

Revision 1.001

English

### PROFINET Master / CANopen - Converter

(Order Code: HD67B74-A1)

For Website information:

<http://www.adfweb.com/?Product=HD67B74>

For Price information:

<http://www.adfweb.com/?Price=HD67B74-A1>

#### Benefits and Main Features:

- ⊕ Triple electrical isolation
- ⊕ Two Ethernet ports
- ⊕ Temperature range: -40°C/+85°C (-40°F/+185°F)



For others PROFINET Master devices, see also the following links:

#### PROFINET Master from/to ...

[www.adfweb.com?Product=HD67B45](http://www.adfweb.com?Product=HD67B45)  
[www.adfweb.com?Product=HD67B70](http://www.adfweb.com?Product=HD67B70)  
[www.adfweb.com?Product=HD67B71](http://www.adfweb.com?Product=HD67B71)  
[www.adfweb.com?Product=HD67B72](http://www.adfweb.com?Product=HD67B72)  
[www.adfweb.com?Product=HD67B73](http://www.adfweb.com?Product=HD67B73)  
[www.adfweb.com?Product=HD67B75](http://www.adfweb.com?Product=HD67B75)  
[www.adfweb.com?Product=HD67B76](http://www.adfweb.com?Product=HD67B76)  
[www.adfweb.com?Product=HD67B77](http://www.adfweb.com?Product=HD67B77)  
[www.adfweb.com?Product=HD67B78](http://www.adfweb.com?Product=HD67B78)  
[www.adfweb.com?Product=HD67B79](http://www.adfweb.com?Product=HD67B79)  
[www.adfweb.com?Product=HD67B80](http://www.adfweb.com?Product=HD67B80)  
[www.adfweb.com?Product=HD67B81](http://www.adfweb.com?Product=HD67B81)  
[www.adfweb.com?Product=HD67B82](http://www.adfweb.com?Product=HD67B82)  
[www.adfweb.com?Product=HD67B84](http://www.adfweb.com?Product=HD67B84)

(OPC UA Server)  
 (Serial)  
 (Modbus Slave)  
 (PROFIBUS Slave)  
 (CAN)  
 (DeviceNet Slave)  
 (Modbus TCP Slave)  
 (SNMP Agent)  
 (Ethernet/IP Slave)  
 (KNX)  
 (MQTT)  
 (BACnet Slave)  
 (IEC 61850 Server)  
 (Ethernet)

Do you have an your customer protocol?

See the following links:

[www.adfweb.com?Product=HD67003](http://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](http://www.adfweb.com?Cmd=helpme)



User Manual

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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/](http://www.adfweb.com/download/) and search for the corresponding code on the page. Click on the proper “Document Code” and download the updates.

## REVISION LIST:

Revision	Date	Author	Chapter	Description
1.000	13/03/2020	Ff	All	First release version
1.001	26/11/2024	Ln	All	New design

## 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:

All trademarks mentioned in this document belong to their respective owners.

**SECURITY ALERT:****GENERAL INFORMATION**

To ensure safe operation, the device must be operated according to the instructions in the manual. When using the device, legal and safety regulation are required for each individual application. The same applies also when using accessories.

**INTENDED USE**

Machines and systems must be designed so the faulty conditions do not lead to a dangerous situation for the operator (i.e. independent limit switches, mechanical interlocks, etc.).

**QUALIFIED PERSONNEL**

The device can be used only by qualified personnel, strictly in accordance with the specifications. Qualified personnel are persons who are familiar with the installation, assembly, commissioning and operation of this equipment and who have appropriate qualifications for their job.

**RESIDUAL RISKS**

The device is state-of-the-art and is safe. The instruments can represent a potential hazard if they are inappropriately installed and operated by untrained personnel. These instructions refer to residual risks with the following symbol:

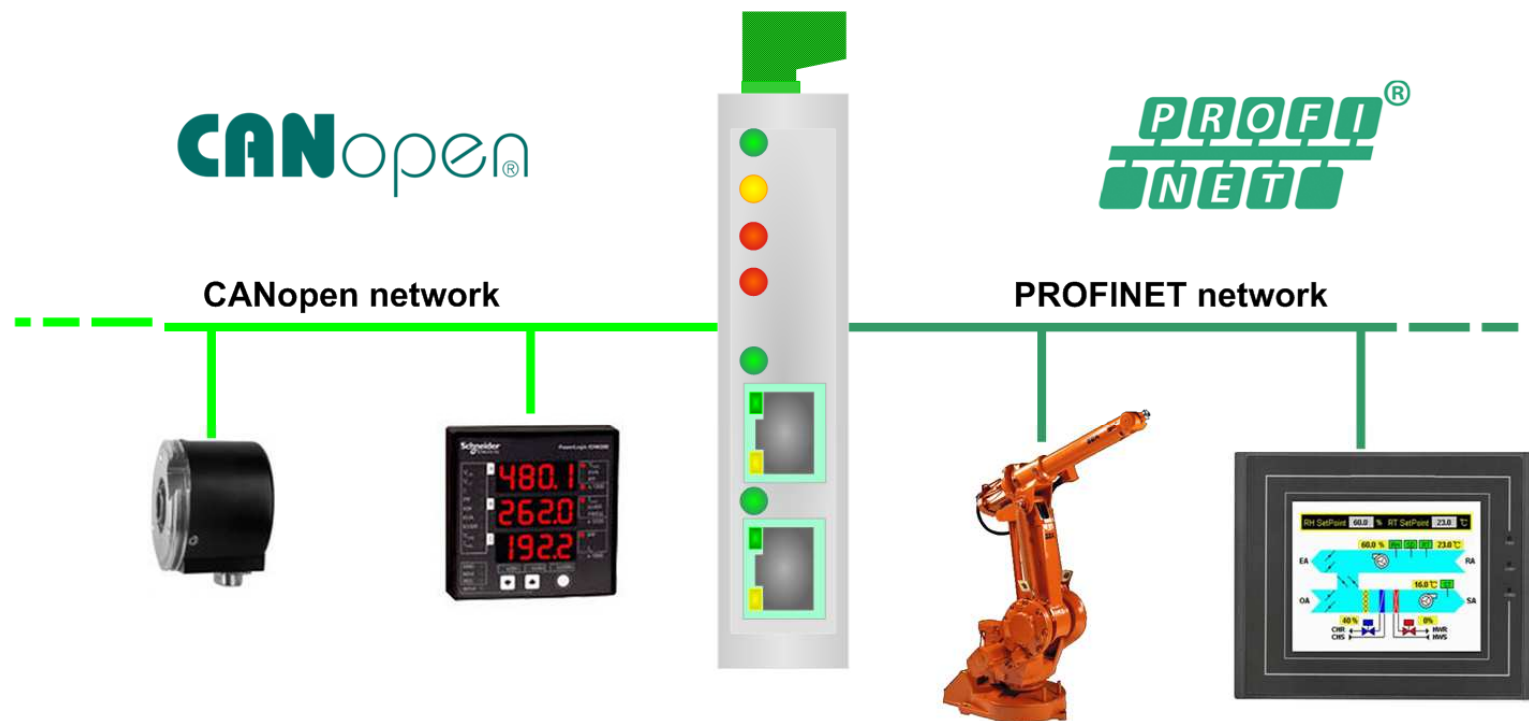


This symbol indicates that non-observance of the safety instructions is a danger for people that could lead to serious injury or death and / or the possibility of damage.

**CE CONFORMITY**

The declaration is made by our company. You can send an email to [support@adfweb.com](mailto:support@adfweb.com) or give us a call if you need it.

**EXAMPLE OF CONNECTION:**



**HD67B74-A1**

## CONNECTION SCHEME:

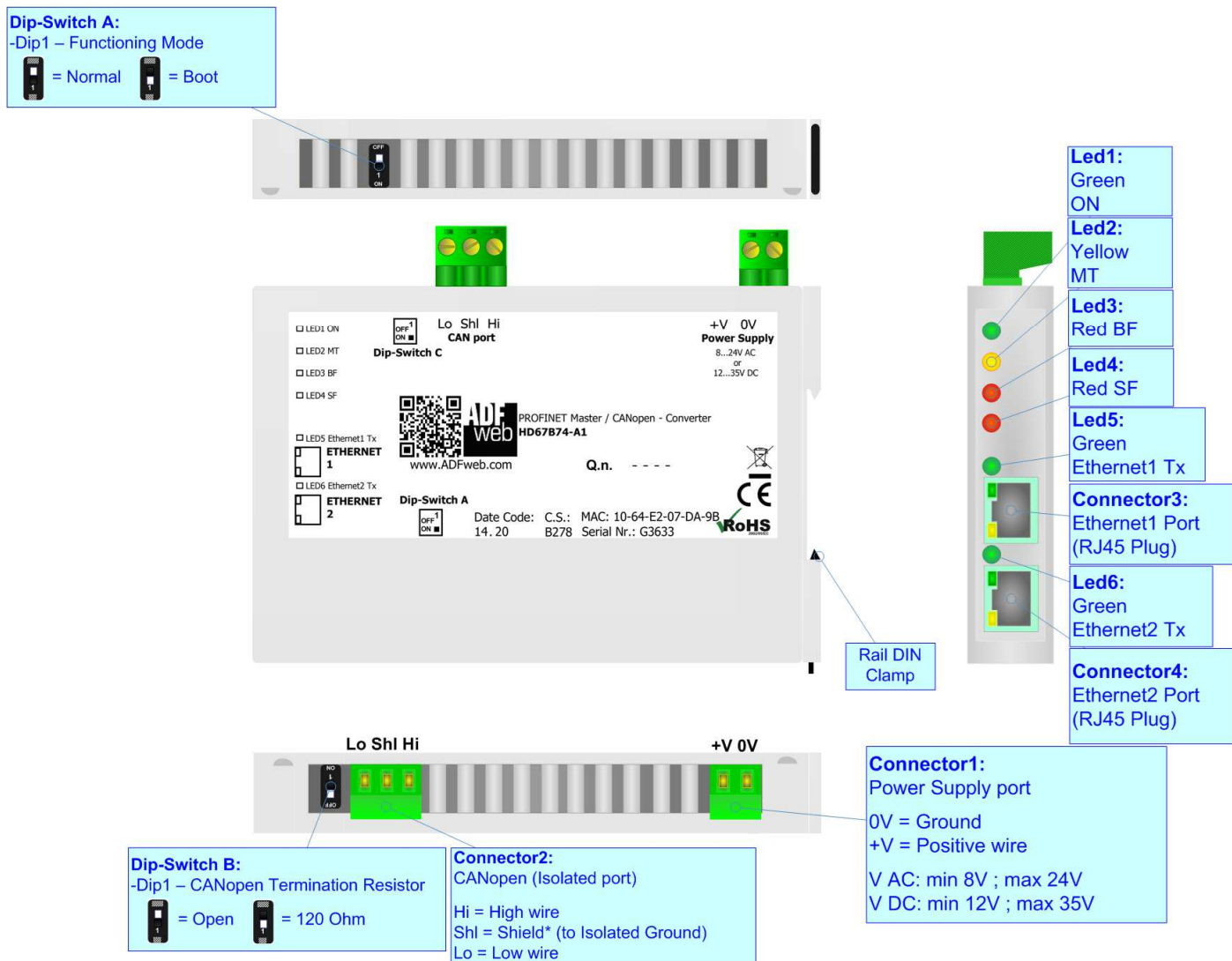


Figure 1: Connection scheme for HD67B74-A1

**CHARACTERISTICS:**

The HD67B74-A1 is a PROFINET Master / CANopen converter.

It allows the following characteristics:

- Triple isolation between CAN - Power Supply, CAN - Ethernet, Ethernet - Power Supply;
- Up to 4096 bytes in reading and 4096 bytes in writing;
- Two-directional information between CANopen and PROFINET;
- Mountable on 35mm Rail DIN;
- Wide power supply input range: 8...24V AC or 12...35V DC;
- Wide temperature range: -40°C / +85°C [-40°F / +185°F].



**CONFIGURATION:**

You need Compositor SW67B74 software on your PC in order to perform the following:

- Define the parameter of the PROFINET;
- Define the parameter of the CANopen;
- Define the list of PROFINET slaves connected to the converter;
- Define the list of CANopen objects in reception and transmission;
- Update the device.

## POWER SUPPLY:

The devices can be powered between a wide range of tensions. For more details see the two tables below.

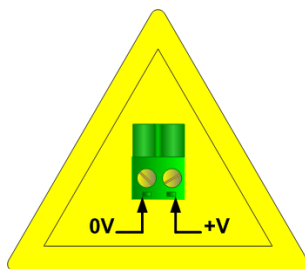
	VAC 		VDC 	
	Vmin	Vmax	Vmin	Vmax
HD67B74-A1	8V	24V	12V	35V

Consumption at 24V DC:

Device	W/VA
HD67B74-A1	4



**Caution: Not reverse the polarity power**



HD67B74-A1

**Connector1:**  
Power Supply port  
0V = Ground  
+V = Positive wire  
V AC: min 8V ; max 24V  
V DC: min 12V ; max 35V



0V +V

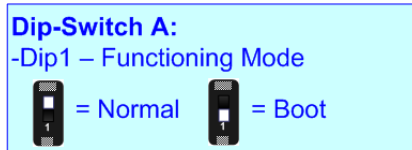
**FUNCTION MODES:**

The device has got two functions mode depending of the position of the Dip1 of 'Dip-Switch A':

- The first, with Dip1 in Off position (factory setting), is used for the normal working of the device.
- The second, with Dip1 in On position, is used for upload the Project/Firmware.

For the operations to follow for the updating (see 'UPDATE DEVICE' section).

According to the functioning mode, the LEDs will have specifics functions (see 'LEDS' section).

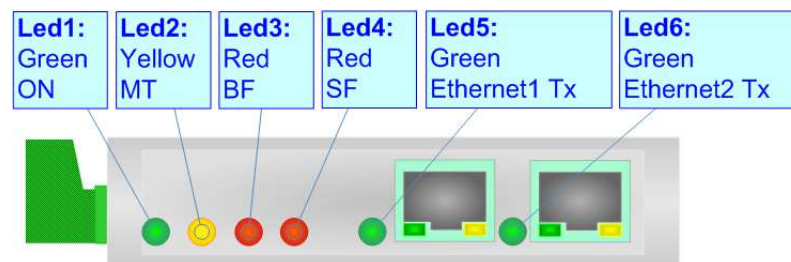




## LEDS:

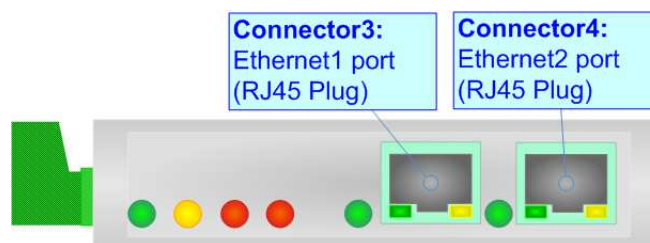
The device has got six LEDs that are used to give information of the functioning status.  
The various meanings of the LEDs are described in the table below.

LED	Normal Mode	Boot Mode
1: ON [supply voltage ] (green)	<b>ON:</b> Device powered <b>OFF:</b> Device not powered	<b>ON:</b> Device powered <b>OFF:</b> Device not powered
2: MT [maintenance display] (yellow)	<b>ON:</b> Maintenance are present <b>OFF:</b> No maintenance are present	<b>Blinks quickly:</b> Boot state <b>Blinks very slowly (~0.5Hz):</b> update in progress
3: BF [bus fault] (red)	<b>ON:</b> The Ethernet connection is defective; the IP address exists several times in the network; the own NameOfStation exists several times in the network; no IP address has been set <b>Flashing:</b> At least one configured AR is no longer in the data exchange <b>OFF:</b> No errors are present	<b>Blinks quickly:</b> Boot state <b>Blinks very slowly (~0.5Hz):</b> update in progress
4: SF [group error] (red)	<b>ON:</b> At least one AR is not in the data exchange <b>OFF:</b> No errors are present	<b>Blinks quickly:</b> Boot state <b>Blinks very slowly (~0.5Hz):</b> update in progress
5: Ethernet1 Tx (green)	Blinks when is transmitting Ethernet frames	<b>Blinks quickly:</b> Boot state <b>Blinks very slowly (~0.5Hz):</b> update in progress
6: Ethernet2 Tx (green)	Blinks when is transmitting Ethernet frames	<b>Blinks quickly:</b> Boot state <b>Blinks very slowly (~0.5Hz):</b> update in progress



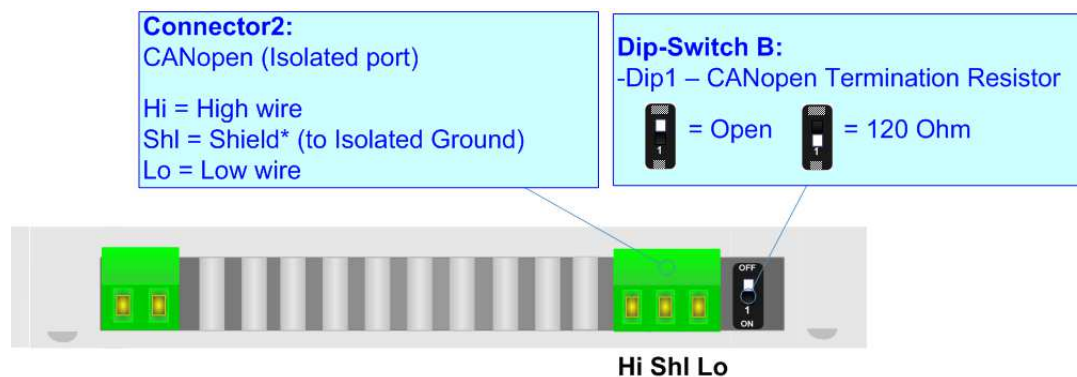
**ETHERNET:**

The Ethernet connection must be made using Connector3 or Connector4 of HD67B74-A1 with at least a Category 5E cable. The maximum length of the cable should not exceed 100m. The cable has to conform to the T568 norms relative to connections in cat.5 up to 100 Mbps. To connect the device to an Hub/Switch is recommended the use of a straight cable, to connect the device to a PC/PLC/other is recommended the use of a cross cable.



## CANOPEN:

For terminate the CANopen line with a 120Ω resistor it is necessary that the Dip1 of 'Dip-Switch B' is at ON position.



Cable characteristics:

<b>DC parameter:</b>	Impedance	70 Ohm/m
<b>AC parameters:</b>	Impedance	120 Ohm/m
	Delay	5 ns/m
<b>Length</b>	<b>Baud Rate [bps]</b>	<b>Length MAX [m]</b>
	10 K	5000
	20 K	2500
	50 K	1000
	100 K	650
	125 K	500
	250 K	250
	500 K	100
	800 K	50
	1000 K	25

## USE OF COMPOSITOR SW67B74:

To configure the Converter, use the available software that runs with Windows called SW67B74. It is downloadable on the site [www.adfweb.com](http://www.adfweb.com) and its operation is described in this document. *(This manual is referenced to the last version of the software present on our web site)*. The software works with MSWindows (XP, Vista, Seven, 8, 10 or 11; 32/64bit).

When launching the SW67B74, the window below appears (Fig. 2).



### Note:

It is necessary to have installed .Net Framework 4.

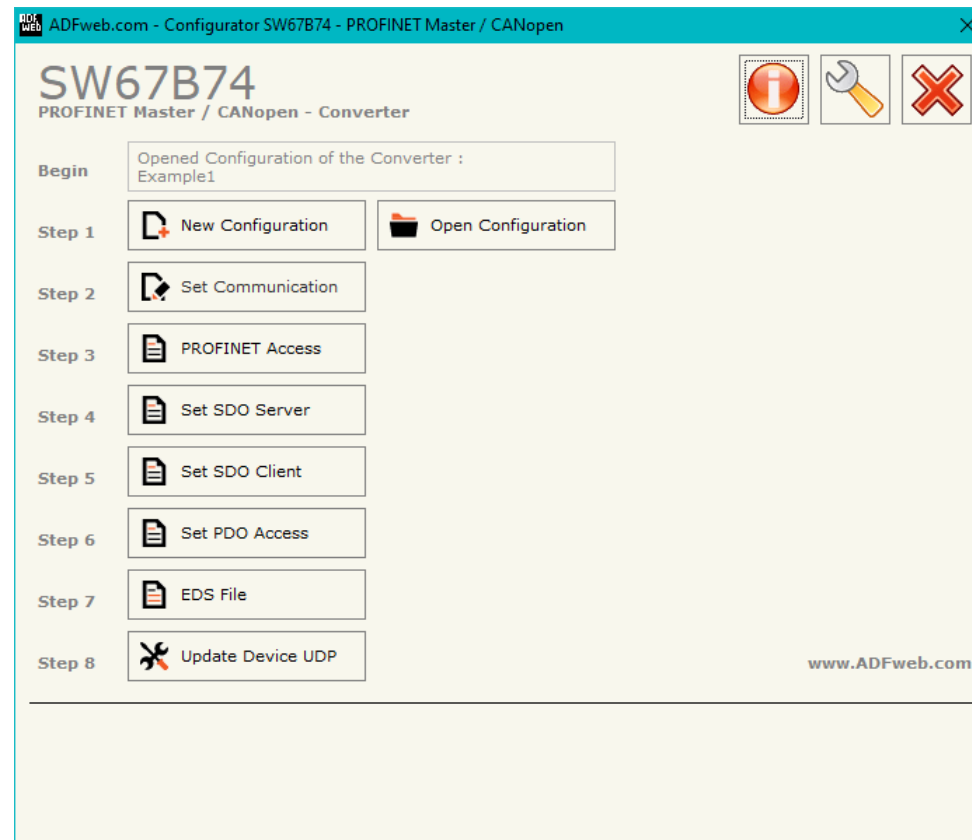
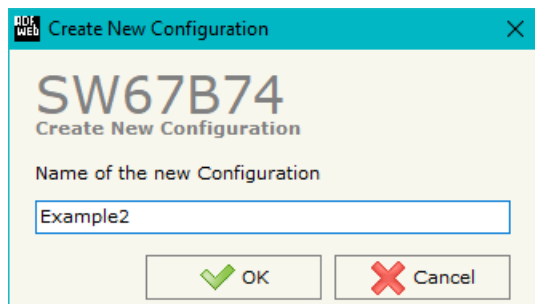


Figure 2: Main window for SW67B74

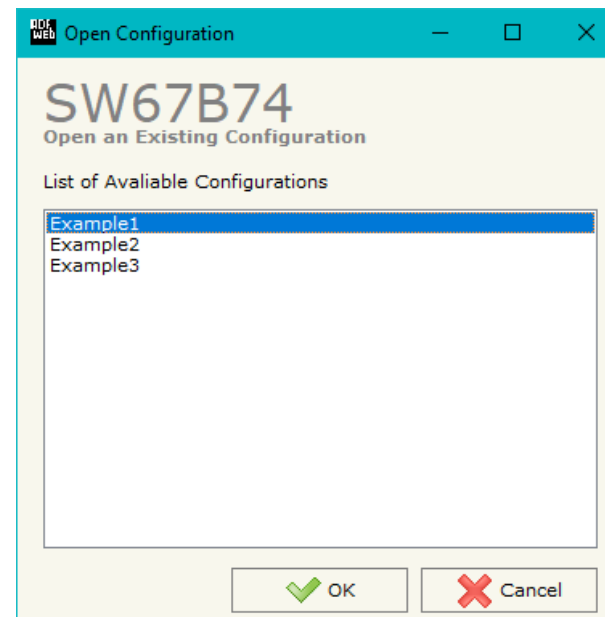
**NEW CONFIGURATION / OPEN CONFIGURATION:**

The “**New Configuration**” button creates the folder which contains the entire device’s configuration.




A device’s configuration can also be imported or exported:

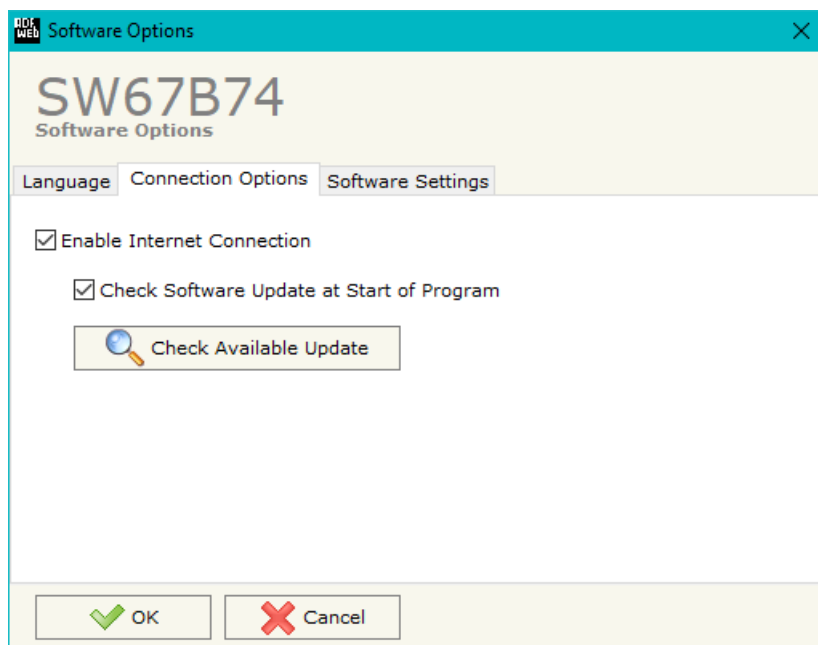
- To clone the configurations of a programmable “PROFINET Master / CANopen - Converter” in order to configure another device in the same manner, it is necessary to maintain the folder and all its contents;
- To clone a project in order to obtain a different version of the project, it is sufficient to duplicate the project folder with another name and open the new folder with the button “**Open Configuration**”.



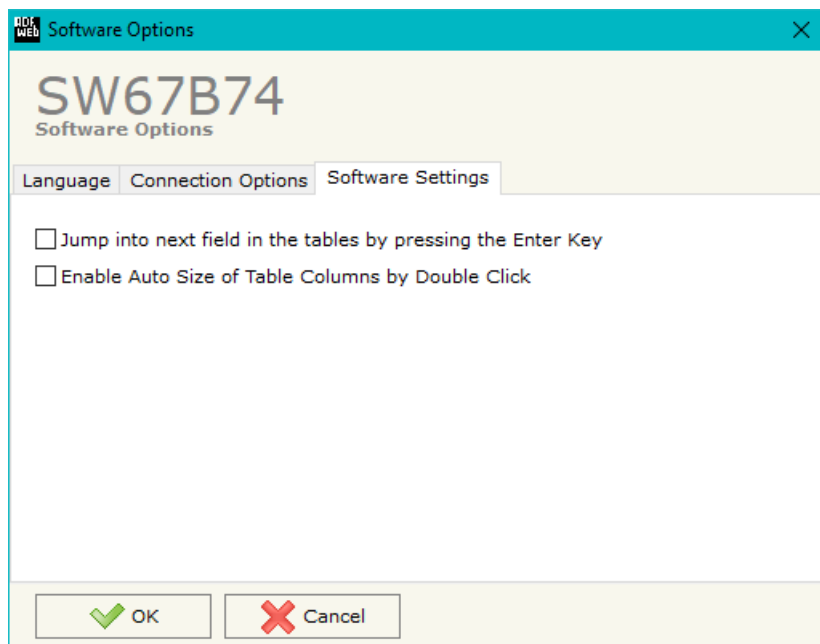
## SOFTWARE OPTIONS:

By pressing the “**Settings**” () button there is the possibility to change the language of the software and check the updatings for the compositor.

In the section “Language” it is possible to change the language of the software.



In the section “Connection Options”, it is possible to check if there are some updatings of the software compositor in ADFweb.com website. Checking the option “**Check Software Update at Start of Program**”, the SW67B74 check automatically if there are updatings when it is launched.



In the section "Software Settings", it is possible to enable/disable some keyboard's commands for an easier navigation inside the tables contained in the different sections of the software.

## SET COMMUNICATION:

This section defines the fundamental communication parameters of two buses, PROFINET and CANopen.

By Pressing the **"Set Communication"** button from the main window for SW67B74 (Fig. 2) the window "Set Communication" appears (Fig. 3).

The means of the fields for "Ethernet Connection" are:

- In the field **"Device Name (Hostname)"** the Hostname to assign to the converter is defined;
- If the field **"Obtain an IP Address Automatically (DHCP for Cable Connection)"** is checked, DHCP for LAN connection is enabled;
- If the field **"Enable DNS"** is checked, DNS protocol is enabled;
- In the field **"Primary DNS"** the IP Address of the primary DNS server is defined;
- In the field **"Secondary DNS"** the IP Address of the secondary DNS server is defined.

The means of the fields for "PROFINET Master" are:

- In the fields **"IP Address"** the IP address for PROFINET side of the converter is defined;
- In the fields **"SubNet Mask"** the SubNet Mask for PROFINET side of the converter is defined;
- In the fields **"Gateway"** the default gateway of the net is defined. This feature can be enabled or disabled pressing the Check Box field. This feature is used for going out of the net;
- In the field **"Name of Station"** the name of the PROFINET node is defined.

The means of the fields for the "CANopen" section are:

- In the field **"ID Device"** the ID of the CANopen side is defined;
- In the field **"Baudrate"** the data rate of the CANopen line is defined;
- In the field **"Set Operational State at Start-Up"** the state of the CANopen is defined. I.e. If it is checked the board starts in Operational State, else it starts in Pre-Operational;

The screenshot shows the 'Set Communication' window for device SW67B74. The window has a title bar with the ADFweb logo and a close button. The main content area is divided into three sections: 1. Ethernet Connection, 2. PROFINET Master, and 3. CANopen. Section 1 includes fields for Device Name (Hostname), checkboxes for 'Obtain an IP Address Automatically (DHCP for Cable Connection)' and 'Obtain an IP Address Automatically (DHCP for Wi-Fi Connection)', a checkbox for 'Enable DNS', and IP address fields for Primary DNS and Secondary DNS. Section 2 includes IP Address, SubNet Mask, Gateway (checked), and Name of Station. Section 3 includes ID Device, Baudrate (250K), checkboxes for 'Set Operational State at Start-Up' and 'Network Start at Start-Up. Delay (seconds)' (checked), and SDO Client TimeOut (10000). At the bottom are OK and Cancel buttons.

Figure 3: "Set Communication" window

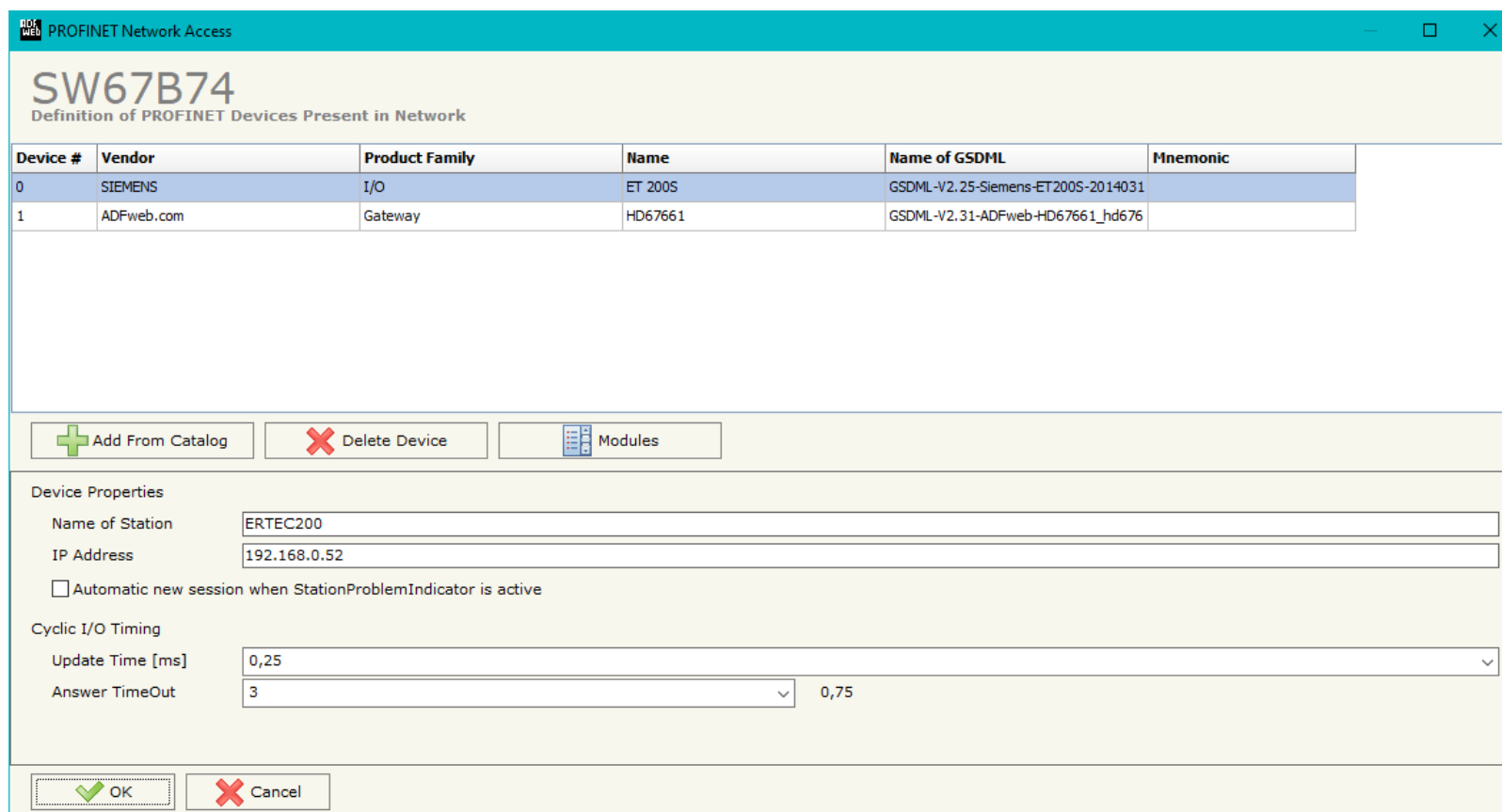


- In the field "**Network Start at Start-Up**" the state of the CANopen network is defined. I.e. If it is checked the board sends a command to set the Operational State of all the devices present in the network, after the time defined in the "Delay" field;
- In the field "**Delay (s)**" the delay before sending the "Start" command for the CANopen is defined;
- In the field "**SDO Client TimeOut (1/10 ms)**" the maximum time that the device attends for the answer from the Slave interrogated is defined.

## PROFINET ACCESS:




By Pressing the “**PROFINET Access**” button from the main window for SW67B74 (Fig. 2) the window “Definition of PROFINET Devices Present in Network” appears (Fig. 4).

This section is used to define the list of the PROFINET slaves to read/write with the PROFINET Master. It is possible to add the PROFINET slaves from the hardware catalog. If a new device will be connected, it is possible to instal the GSDML file.



**SW67B74**  
Definition of PROFINET Devices Present in Network

Device #	Vendor	Product Family	Name	Name of GSDML	Mnemonic
0	SIEMENS	I/O	ET 200S	GSDML-V2.25-Siemens-ET200S-2014031	
1	ADFweb.com	Gateway	HD67661	GSDML-V2.31-ADFweb-HD67661_hd676	

 Add From Catalog
  Delete Device
  Modules

**Device Properties**

Name of Station:

IP Address:

☐ Automatic new session when StationProblemIndicator is active

**Cyclic I/O Timing**

Update Time [ms]:

Answer TimeOut:  0,75



 OK
  Cancel

Figure 4: “Definition of PROFINET Devices Present in Network” window

The means of the fields below are:

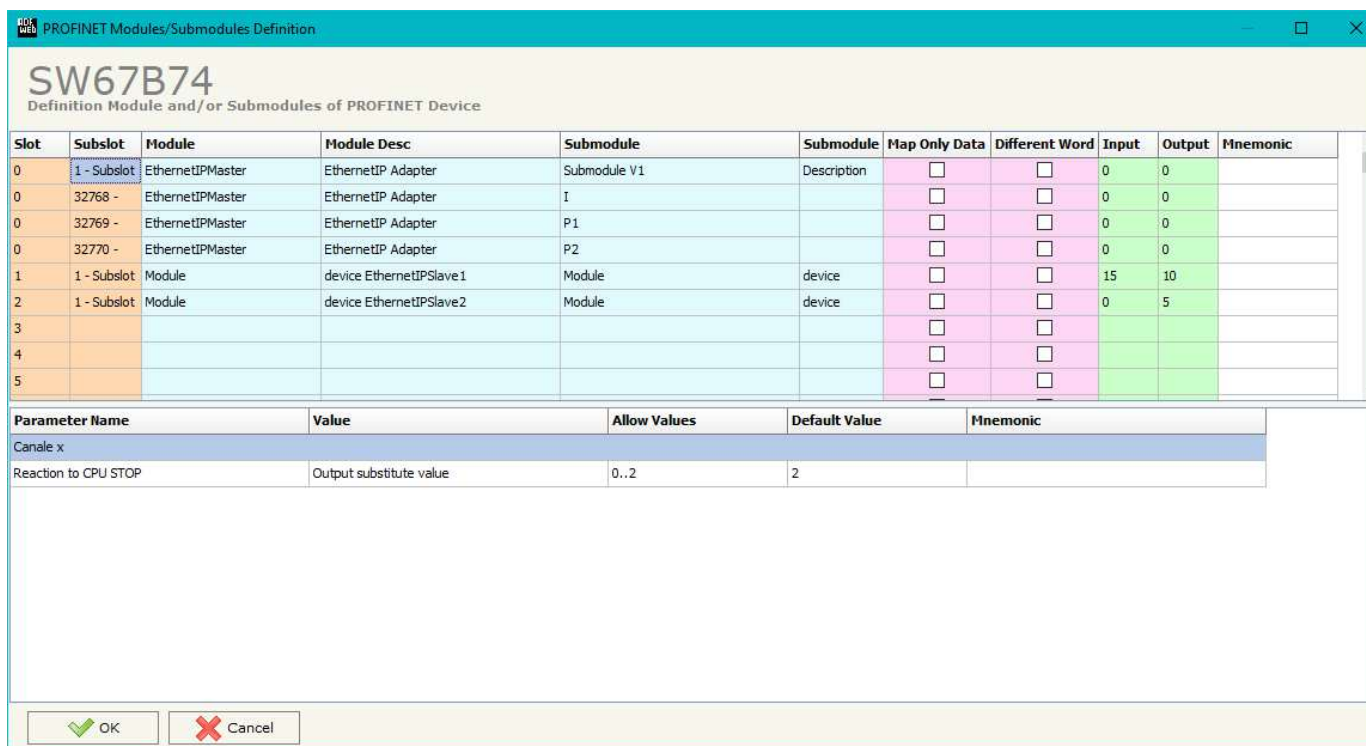
- In the field "**Name of Station**" is checked, the name of the PROFINET slave is defined;
- In the field "**IP Address**" the IP Address of the PROFINET slave is defined;
- If the field "**Automatic new session when StationProblemIndicator is Active**" is checked, the converter opens a new communication session when an error is present in the slave station;
- In the field "**Update Time [ms]**" the delay used for IO communication is defined;
- In the field "**Answer TimeOut**" the allowed number of cycles without response from the slave is defined.



Warning:

The data from/to the slaves are mapped consecutively into the IN/OUT PROFINET arrays, following the order with which they are defined.

By clicking on “**Modules**” button, it is possible to import the modules for the selected PROFINET slave device. The window “Definition Module and/or Submodules of PROFINET Device” appears (Fig. 5). In the main table it is possible to import the Modules of the PROFINET device in use. In the properties below, it is possible to set the parameters of the slave. These options depends on the slave in use, refer to the manual of the PROFINET device.



**SW67B74**  
Definition Module and/or Submodules of PROFINET Device

Slot	Subslot	Module	Module Desc	Submodule	Submodule	Map Only Data	Different Word	Input	Output	Mnemonic
0	1 - Subslot	EthernetIPMaster	EthernetIP Adapter	Submodule V1	Description	<input type="checkbox"/>	<input type="checkbox"/>	0	0	
0	32768 -	EthernetIPMaster	EthernetIP Adapter	I		<input type="checkbox"/>	<input type="checkbox"/>	0	0	
0	32769 -	EthernetIPMaster	EthernetIP Adapter	P1		<input type="checkbox"/>	<input type="checkbox"/>	0	0	
0	32770 -	EthernetIPMaster	EthernetIP Adapter	P2		<input type="checkbox"/>	<input type="checkbox"/>	0	0	
1	1 - Subslot	Module	device EthernetIPSlave1	Module	device	<input type="checkbox"/>	<input type="checkbox"/>	15	10	
2	1 - Subslot	Module	device EthernetIPSlave2	Module	device	<input type="checkbox"/>	<input type="checkbox"/>	0	5	
3						<input type="checkbox"/>	<input type="checkbox"/>			
4						<input type="checkbox"/>	<input type="checkbox"/>			
5						<input type="checkbox"/>	<input type="checkbox"/>			

Parameter Name	Value	Allow Values	Default Value	Mnemonic
Canale x				
Reaction to CPU STOP	Output substitute value	0..2	2	

OK Cancel

Figure 5: “Definition Module and/or Submodules of PROFINET Device” window

The means of the checkboxes inside the table are:

- If the field “**Map Only Data**” is checked, only the data of the modules are mapped into the CANopen map. Otherwise, for each module there will be the status of IN and OUT areas too (1 byte);
- If the field “**Different Word**” is checked, the data of the different modules are mapped in different and consecutive words.

## SET SDO SERVER:

By pressing the **"Set SDO Server"** button from the main window for SW67B74 (Fig. 2) the window "Set SDO Server Access" appears (Fig. 6).

This window is made to create the SDO in read or write in the CANopen side, and to indicate which byte are associated to these SDOs.

It is divided in two parts, the "SDO in read" and the "SDO in Write".

The first part is used to read, using the SDO, the data arrived from PROFINET side. The second is used to write, using SDO, the data that will be sent to PROFINET side.

The data of the columns have the following meanings:

- In the field **"Index"** the address of the SDO is defined;
- In the field **"SubIndex"** the second address of the SDO is defined;
- If the field **"N Byte"** the dimension of the SDO is defined (it can be 1, 2 or 4);
- In the field **"Address Byte1"** insert the address of the PROFINET arrays where read/write first byte of the SDO;
- In the field **"Address Byte2"** insert the address of the PROFINET arrays where read/write second byte of the SDO (only if N Byte is 2 or 4);
- In the field **"Address Byte3"** insert the address of the PROFINET arrays where read/write third byte of the SDO (only if N Byte is 4);
- In the field **"Address Byte4"** insert the address of the PROFINET arrays where read/write fourth byte of the SDO (only if N Byte is 4);
- In the field **"Mnemonic"** the description for the SDO is defined.

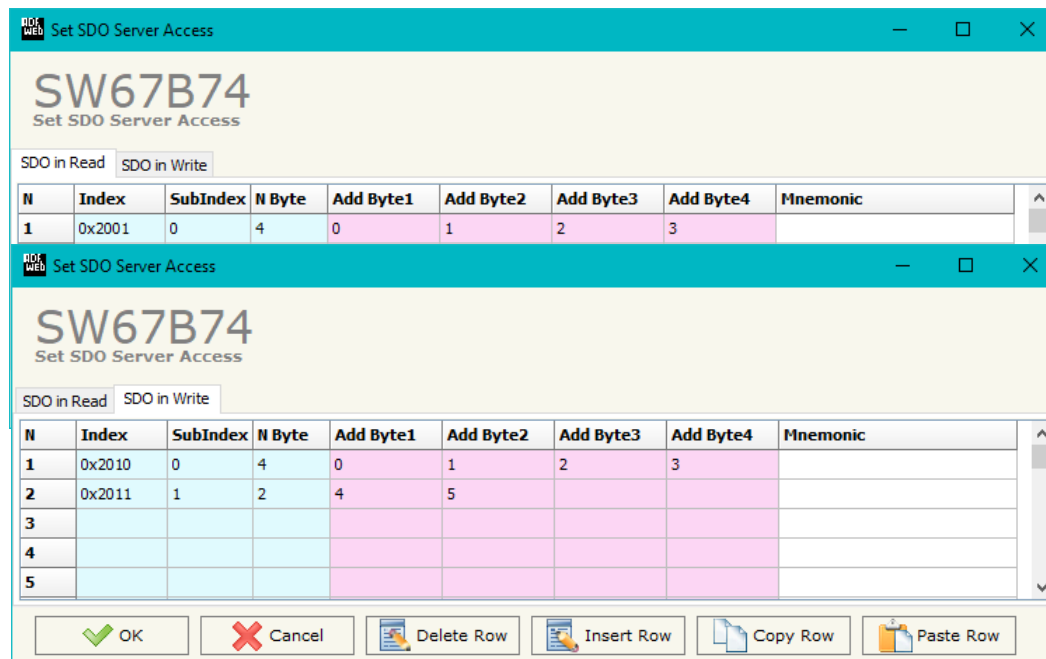


Figure 6: "Set SDO Server Access" window

## SET SDO CLIENT:

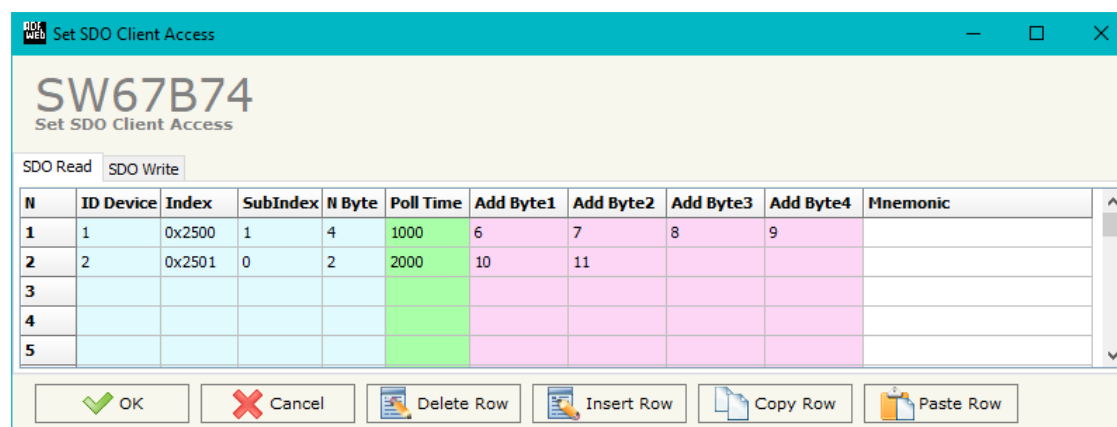
By pressing the **"Set SDO Client"** button from the main window for SW67B74 (Fig. 2) the window "Set SDO Client Access" appears (Fig. 7a and 7b).

With the SDO Client the HD67B74 Gateway can read and/or write the data from other devices connected in the network CANopen.

It is divided in two parts, the "SDO Read" and the "SDO Write". The first part is used to read, using the SDO, the data in another device and then put them in the PROFINET array. The second part is used to write, using the SDO, the data present in the PROFINET array to others CANopen devices.

The data of the columns in the "SDO Read" have the following meanings:

- In the field **"Device ID"** insert the ID of the device to read;
- In the field **"Index"** the address for the SDO is defined;
- In the field **"SubIndex"** the second address for the SDO is defined;
- In the field **"N Byte"** the dimension of the SDO is defined (it can be 1, 2, or 4);
- In the field **"Poll Time"** insert the cyclic time to make this request;
- In the field **"Address Byte1"** the address of the PROFINET array where coping the first byte of the SDO read is defined;
- In the field **"Address Byte2"** the address of the PROFINET array where coping the second byte of the SDO read is defined (only if N Byte is 2 or 4);
- In the field **"Address Byte3"** the address of the PROFINET array where coping the third byte of the SDO read is defined (only if N Byte is 4);
- In the field **"Address Byte4"** the address of the PROFINET array where coping the fourth byte of the SDO read is defined (only if N Byte is 4);
- In the field **"Mnemonic"** the description for the SDO is defined.

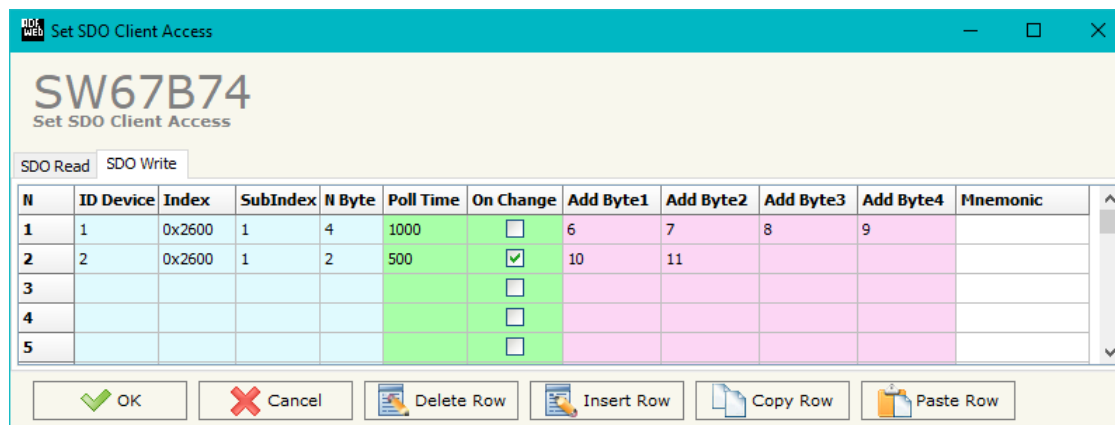


N	ID Device	Index	SubIndex	N Byte	Poll Time	Add Byte1	Add Byte2	Add Byte3	Add Byte4	Mnemonic
1	1	0x2500	1	4	1000	6	7	8	9	
2	2	0x2501	0	2	2000	10	11			
3										
4										
5										

Figure 7a: "Set SDO Client Access – SDO Read" window

The data of the columns in the "SDO Write" have the following meanings:

- In the field "**Device ID**" insert the ID of the device to write;
- In the field "**Index**" the address for the SDO is defined;
- In the field "**SubIndex**" the second address for the SDO is defined;
- In the field "**N Byte**" the dimension of the SDO is defined (it can be 1, 2, or 4);
- In the field "**Poll Time**" insert the cyclic time to make this request;
- If the field "**On Change**" is checked, the gateway sends the Write SDO request when the data change the value;
- In the field "**Address Byte1**" the address of the PROFINET array where reading the first byte of the SDO write is defined;
- In the field "**Address Byte2**" the address of the PROFINET array where reading the second byte of the SDO write is defined (only if N Byte is 2 or 4);
- In the field "**Address Byte3**" the address of the PROFINET array where reading the third byte of the SDO write is defined (only if N Byte is 4);
- In the field "**Address Byte4**" the address of the PROFINET array where reading the fourth byte of the SDO write is defined (only if N Byte is 4);
- In the field "**Mnemonic**" the description for the SDO is defined.



N	ID Device	Index	SubIndex	N Byte	Poll Time	On Change	Add Byte1	Add Byte2	Add Byte3	Add Byte4	Mnemonic
1	1	0x2600	1	4	1000	<input type="checkbox"/>	6	7	8	9	
2	2	0x2600	1	2	500	<input checked="" type="checkbox"/>	10	11			
3						<input type="checkbox"/>					
4						<input type="checkbox"/>					
5						<input type="checkbox"/>					

Figure 7b: "Set SDO Client Access – SDO Write" window

## SET PDO ACCESS:

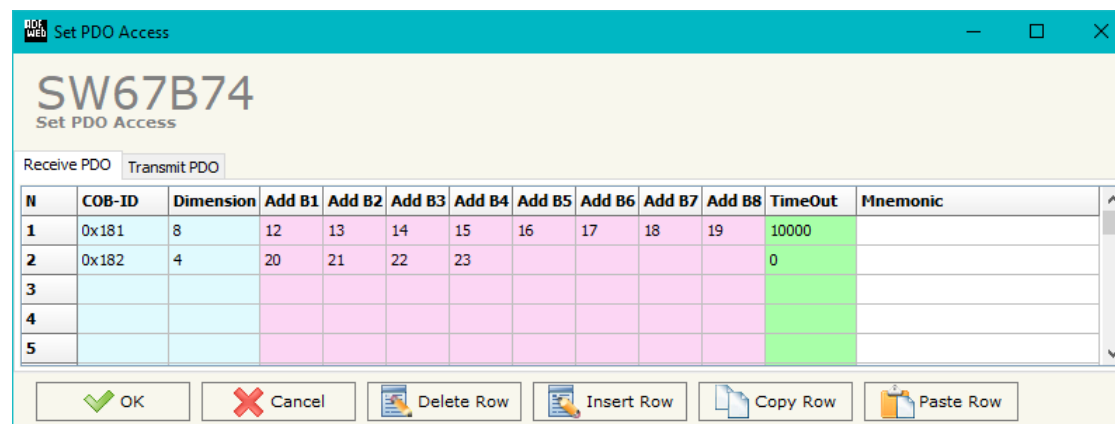
By pressing the "Set PDO Access" button from the main window for SW67B74 (Fig. 2) the window "Set PDO Access" appears (Fig. 8a and 8b).

This window is made to create the Receive and the Transmit PDO in the CANopen side, and to indicate which bytes are associated to these PDO.

It is divided in two parts, the "Receive PDO" and the "Transmit PDO". The first part is used to receive PDO in the CANopen network and copy the data in the PROFINET array. The second part is used to transmit PDO in the CANopen network with the data of PROFINET array.

The data of the columns in the "Receive PDO" have the following meanings:

- In the Field "**Cob-ID**" the address for the PDO is defined;
- In the Field "**Dimension**" the dimension of the PDO is defined (it can be between 1 and 8);
- In the Field "**Add B1**" the first byte where the data will be saved in the PROFINET array is defined;
- In the Field "**Add B2**" the second byte where the data will be saved in the PROFINET array is defined (only if **Dimension** > 1);
- In the Field "**Add B3**" the third byte where the data will be saved in the PROFINET array is defined (only if **Dimension** > 2);
- In the Field "**Add B4**" the fourth byte where the data will be saved in the PROFINET array is defined (only if **Dimension** > 3);
- In the Field "**Add B5**" the fifth byte where the data will be saved in the PROFINET array is defined (only if **Dimension** > 4);
- In the Field "**Add B6**" the sixth byte where the data will be saved in the PROFINET array is defined (only if **Dimension** > 5);
- In the Field "**Add B7**" the seventh byte where the data will be saved in the PROFINET array is defined (only if **Dimension** > 6);
- In the Field "**Add B8**" the eighth byte where the data will be saved in the PROFINET array is defined (only if **Dimension** > 7);
- The field "**TimeOut**" is used for put at zero the data into PROFINET if the PDO doesn't arrive with a frequency less than the time expressed in the field. If the value in the field is 0, it means that you don't want to use this feature, and so the value is never deleted;
- In the field "**Mnemonic**" the description for the PDO is defined.



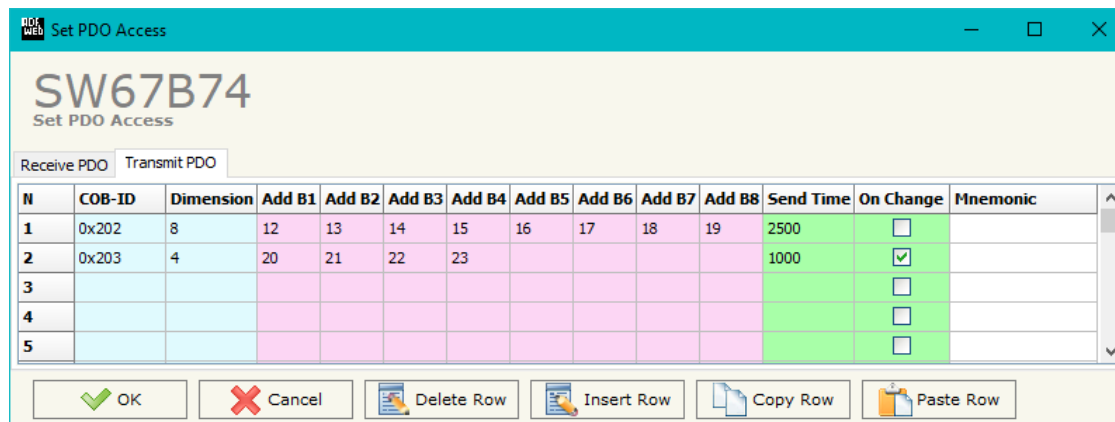
N	COB-ID	Dimension	Add B1	Add B2	Add B3	Add B4	Add B5	Add B6	Add B7	Add B8	TimeOut	Mnemonic
1	0x181	8	12	13	14	15	16	17	18	19	10000	
2	0x182	4	20	21	22	23					0	
3												
4												
5												

Figure 8a: "Set PDO Access – Receive PDO" window



The data of the columns in the "Transmit PDO" have the following meanings:

- In the Field "**Cob-ID**" the address for the PDO is defined;
- In the Field "**Dimension**" the dimension of the PDO is defined (it can be between 1 and 8);
- In the Field "**Add B1**" the first byte where the data will be loaded in the PROFINET array is defined;
- In the Field "**Add B2**" the second byte where the data will be loaded in the PROFINET array is defined (only if **Dimension** > 1);
- In the Field "**Add B3**" the third byte where the data will be loaded in the PROFINET array is defined (only if **Dimension** > 2);
- In the Field "**Add B4**" the fourth byte where the data will be loaded in the PROFINET array is defined (only if **Dimension** > 3);
- In the Field "**Add B5**" the fifth byte where the data will be loaded in the PROFINET array is defined (only if **Dimension** > 4);
- In the Field "**Add B6**" the sixth byte where the data will be loaded in the PROFINET array is defined (only if **Dimension** > 5);
- In the Field "**Add B7**" the seventh byte where the data will be loaded in the PROFINET array is defined (only if **Dimension** > 6);
- In the Field "**Add B8**" the eighth byte where the data will be loaded in the PROFINET array is defined (only if **Dimension** > 7);
- In the Field "**Send Time**" insert the interval used to send the PDO. The time is in milliseconds;
- If the field "**On Change**" is checked, the gateway send the Transmit PDO when the data change the value;
- In the field "**Mnemonic**" the description for the PDO is defined.



N	COB-ID	Dimension	Add B1	Add B2	Add B3	Add B4	Add B5	Add B6	Add B7	Add B8	Send Time	On Change	Mnemonic
1	0x202	8	12	13	14	15	16	17	18	19	2500	<input type="checkbox"/>	
2	0x203	4	20	21	22	23					1000	<input checked="" type="checkbox"/>	
3												<input type="checkbox"/>	
4												<input type="checkbox"/>	
5												<input type="checkbox"/>	

Figure 8b: "Set PDO Access – Transmit PDO" window

## EDS FILE:

By Pressing the "**EDS FILE**" button from the main window for SW67B74 (Fig. 2) it is possible to generate the EDS file to be imported into the master CANopen.

## UPDATE DEVICE:

By pressing the **"Update Device"** button, it is possible to load the created Configuration into the device; and also the Firmware, if necessary. This by using the Ethernet port.

If you don't know the actual IP address of the device you have to use this procedure:

- Turn OFF the Device;
- Put Dip1 of 'Dip-Switch A' in ON position;
- Turn ON the device
- Connect the Ethernet cable;
- Insert the IP **"192.168.2.205"**;
- Select which operations you want to do;
- Press the **"Execute update firmware"** button to start the upload;
- When all the operations are "OK" turn OFF the Device;
- Put Dip1 of 'Dip-Switch A' in OFF position;
- Turn ON the device.

If you know the actual IP address of the device, you have to use this procedure:

- Turn ON the Device with the Ethernet cable inserted;
- Insert the actual IP of the Converter;
- Select which operations you want to do;
- Press the **"Execute update firmware"** button to start the upload;
- When all the operations are "OK" the device automatically goes at Normal Mode.

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

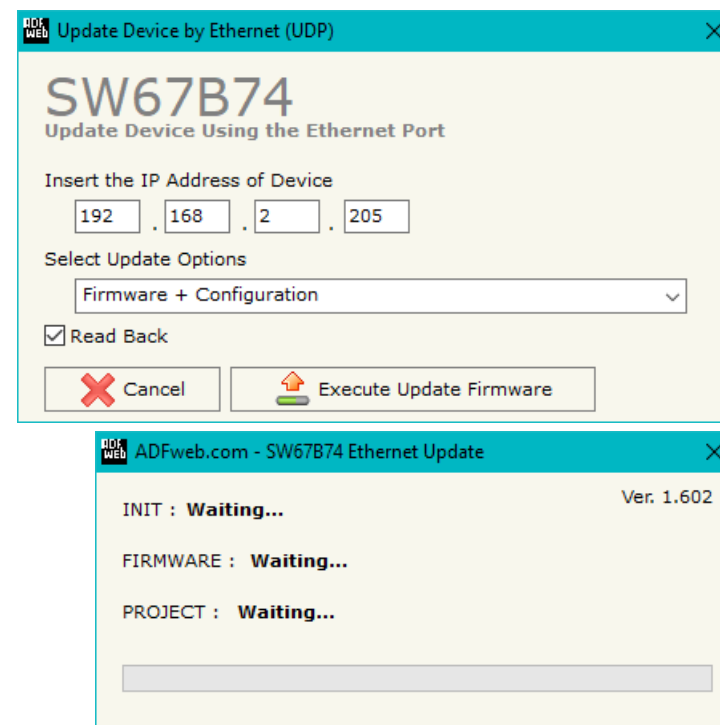


Figure 9: "Update device" windows


**Note:**

When you receive the device, for the first time, you also have to update the Firmware in the HD67B74 device.


**Warning:**

If Fig. 10 appears when you try to do the Update try these points before seeking assistance:

- Try to repeat the operations for the updating;
- Try with another PC;
- Try to restart the PC;
- Check the LAN settings;
- If you are using the program inside a Virtual Machine, try to use in the main Operating System;
- If you are using Windows Seven, Vista, 8, 10 or 11 make sure that you have the administrator privileges;
- In case you have to program more than one device, using the "UDP Update", you have to cancel the ARP table every time you connect a new device on Ethernet. For do this you have to launch the "Command Prompt" and write the command "arp -d". Pay attention that with Windows Vista, Seven, 8, 10 or 11 you have to launch the "Command Prompt" with Administrator Rights;
- Pay attention at Firewall lock.

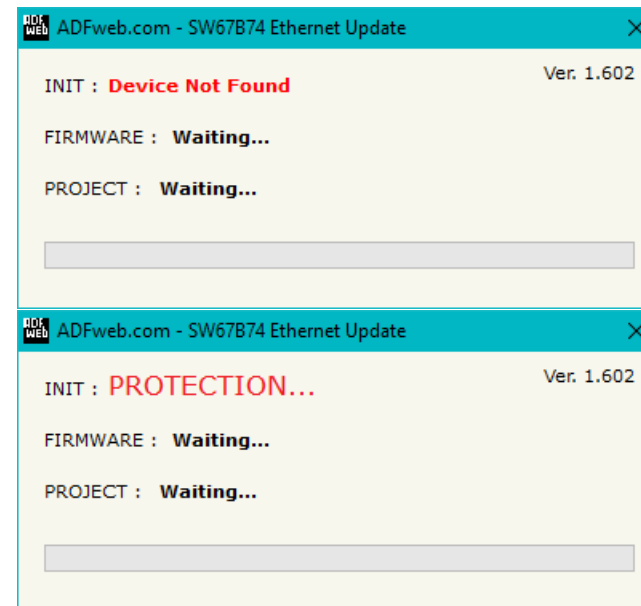
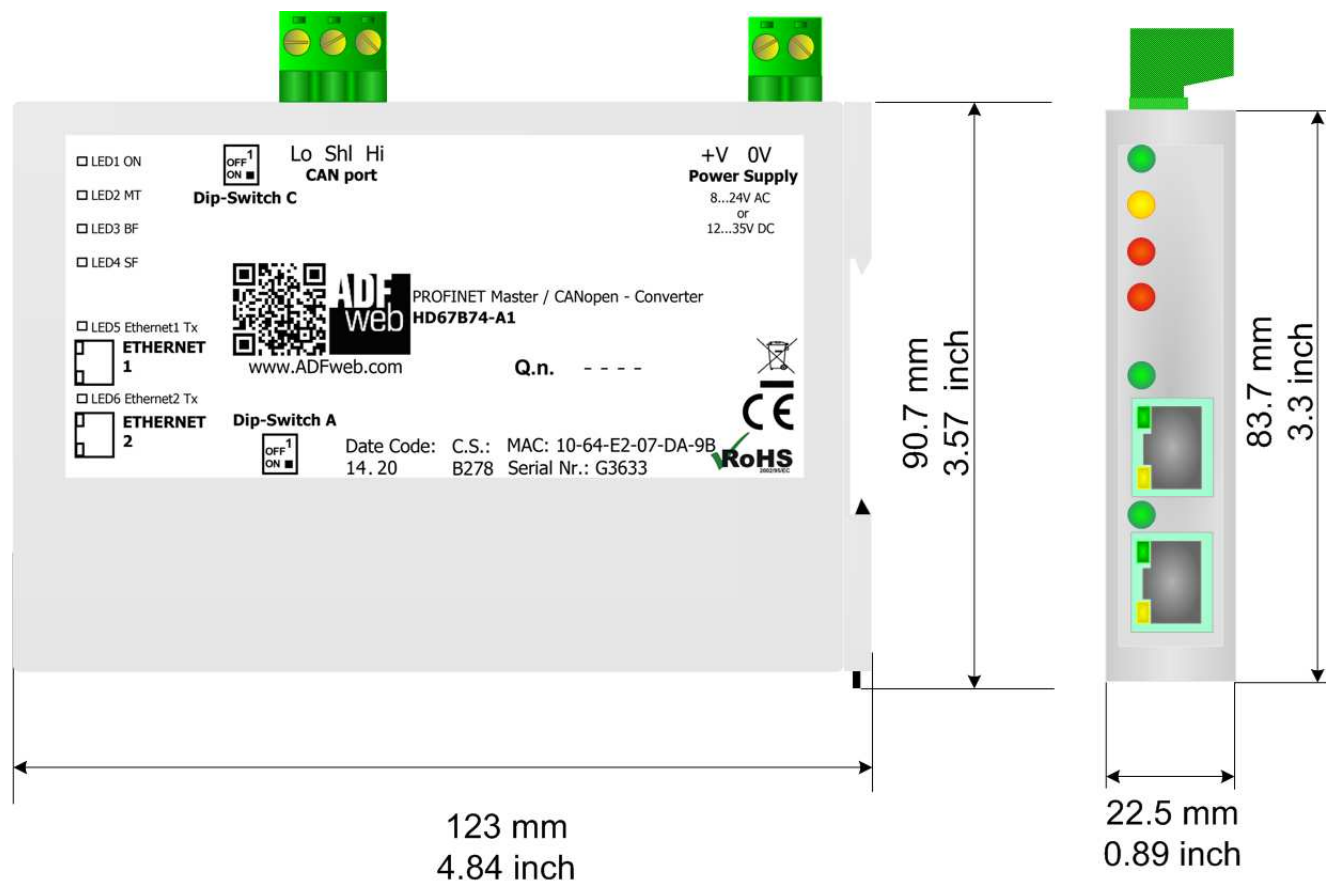


Figure 10: "Error" window


**Warning:**

In the case of HD67B74 you have to use the software "SW67B74": [www.adfweb.com/download/filefold/SW67B74.zip](http://www.adfweb.com/download/filefold/SW67B74.zip).

## MECHANICAL DIMENSIONS:



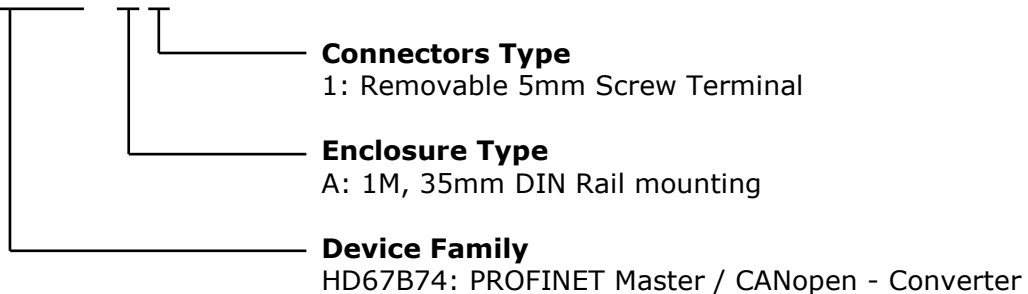
Housing: PC-ABS  
Weight: 200g (Approx)

Figure 11: Mechanical dimensions scheme for HD67B74-A1

## ORDERING INFORMATION:

The ordering part number is formed by a valid combination of the following:

### **HD67B74 - A 1**



Order Code: **HD67B74-A1** - PROFINET Master / CANopen - Converter

## ACCESSORIES:

Order Code: **AC34011** - Rail DIN - Power Supply 220/240V AC 50/60Hz – 12 V DC

Order Code: **AC34012** - Rail DIN - Power Supply 220/240V AC 50/60Hz – 24 V DC

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Disposal of old electrical and electronic equipment (as in the European Union and other European countries with separate collection systems).

■ This symbol on the product or on its packaging indicates that this product may not be treated as household rubbish. Instead, it should be taken to an applicable collection point for the recycling of electrical and electronic equipment. If the product is disposed correctly, you will help prevent potential negative environmental factors and impact of human health, which could otherwise be caused by inappropriate disposal. The recycling of materials will help to conserve natural resources. For more information about recycling this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

**RESTRICTION OF HAZARDOUS SUBSTANCES DIRECTIVE**

The device respects the 2002/95/EC Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (commonly referred to as Restriction of Hazardous Substances Directive or RoHS).

**CE MARKING**

The product conforms with the essential requirements of the applicable EC directives.

## 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

## RETURN POLICY:

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

- 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.
- 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.



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