

User Manual

Revision 1.010

English

BACnet Slave/ Modbus TCP Master - Converter

(Order Code: HD67673-IP-A1, HD67673-MSTP-A1, HD67673-MSTP-B2)

For Website information:

www.adfweb.com?Product=HD67673

For Price information:

www.adfweb.com?Price=HD67673-A1

Benefits and Main Features:

- ⊕ Very easy to configure
- ⊕ Electrical isolation
- ⊕ Two Ethernet ports, used for BACnet and Modbus TCP
- ⊕ Temperature range: -40°C/85°C (-40°F/185°F)

For others PROFINET products see also the following link:

Converter BACnet to

www.adfweb.com?Product=HD67056
www.adfweb.com?Product=HD67671
www.adfweb.com?Product=HD67672
www.adfweb.com?Product=HD67673
www.adfweb.com?Product=HD67674
www.adfweb.com?Product=HD67675
www.adfweb.com?Product=HD67676
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www.adfweb.com?Product=HD67679
www.adfweb.com?Product=HD67680
www.adfweb.com?Product=HD67681
www.adfweb.com?Product=HD67682
www.adfweb.com?Product=HD67683
www.adfweb.com?Product=HD67684

(M-Bus Master)
(Modbus Master)
(Modbus Slave)
(Modbus TCP Master)
(Modbus TCP Slave)
(PROFIBUS Master)
(PROFIBUS Slave)
(CAN)
(CANopen)
(PROFINET)
(DeviceNet Master)
(DeviceNet Slave)
(EtherNet/IP)
(NMEA 2000)
(Ethernet)

Do you have an your customer protocol?

www.adfweb.com?Product=HD67003

Do you need to choose a device? do you want help?

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.

REVISION LIST:

Revision	Date	Author	Chapter	Description
1.000	25/03/2013	FI	All	First Release
1.010	16/11/2015	FI	All	Software changed (v1.100)

WARNING:

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

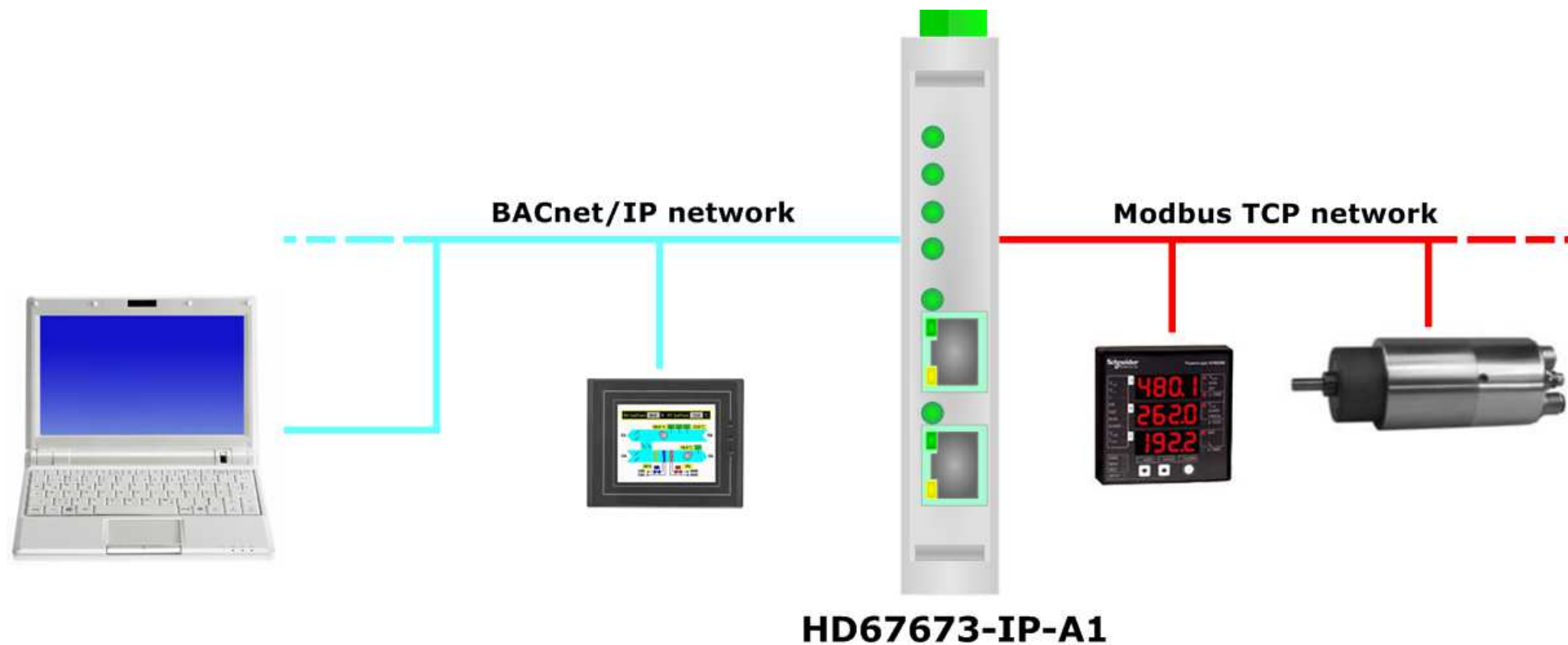


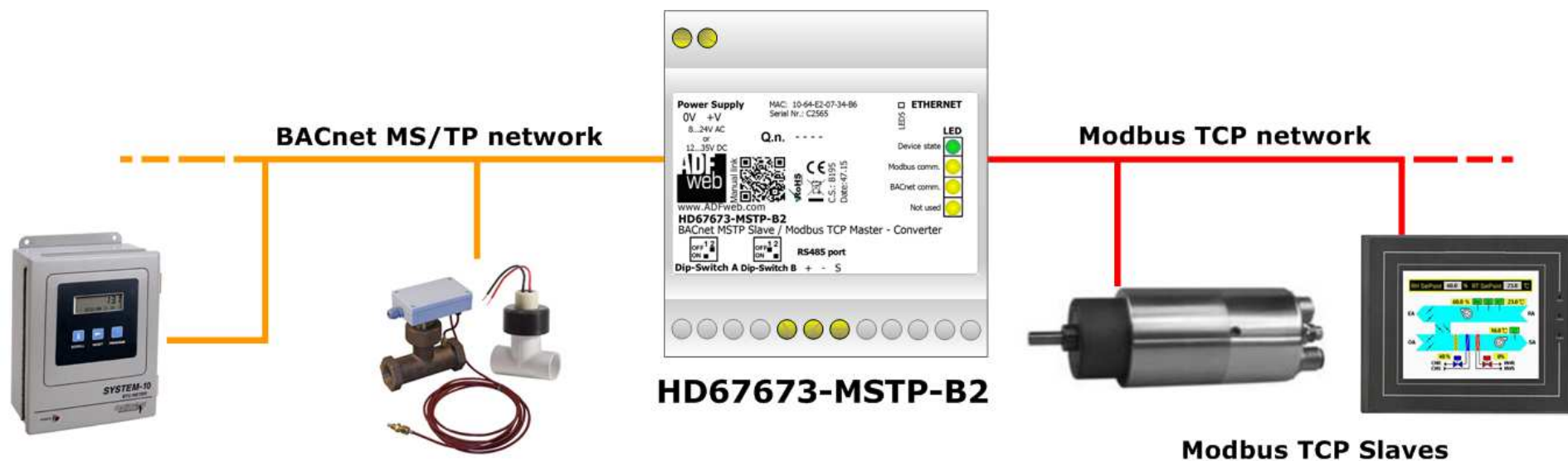
This symbol indicates that non-observance of the safety instructions is a danger for people that could lead to serious injury or death and / or the possibility of damage.

CE CONFORMITY

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

EXAMPLES OF CONNECTION:





CONNECTION SCHEME:

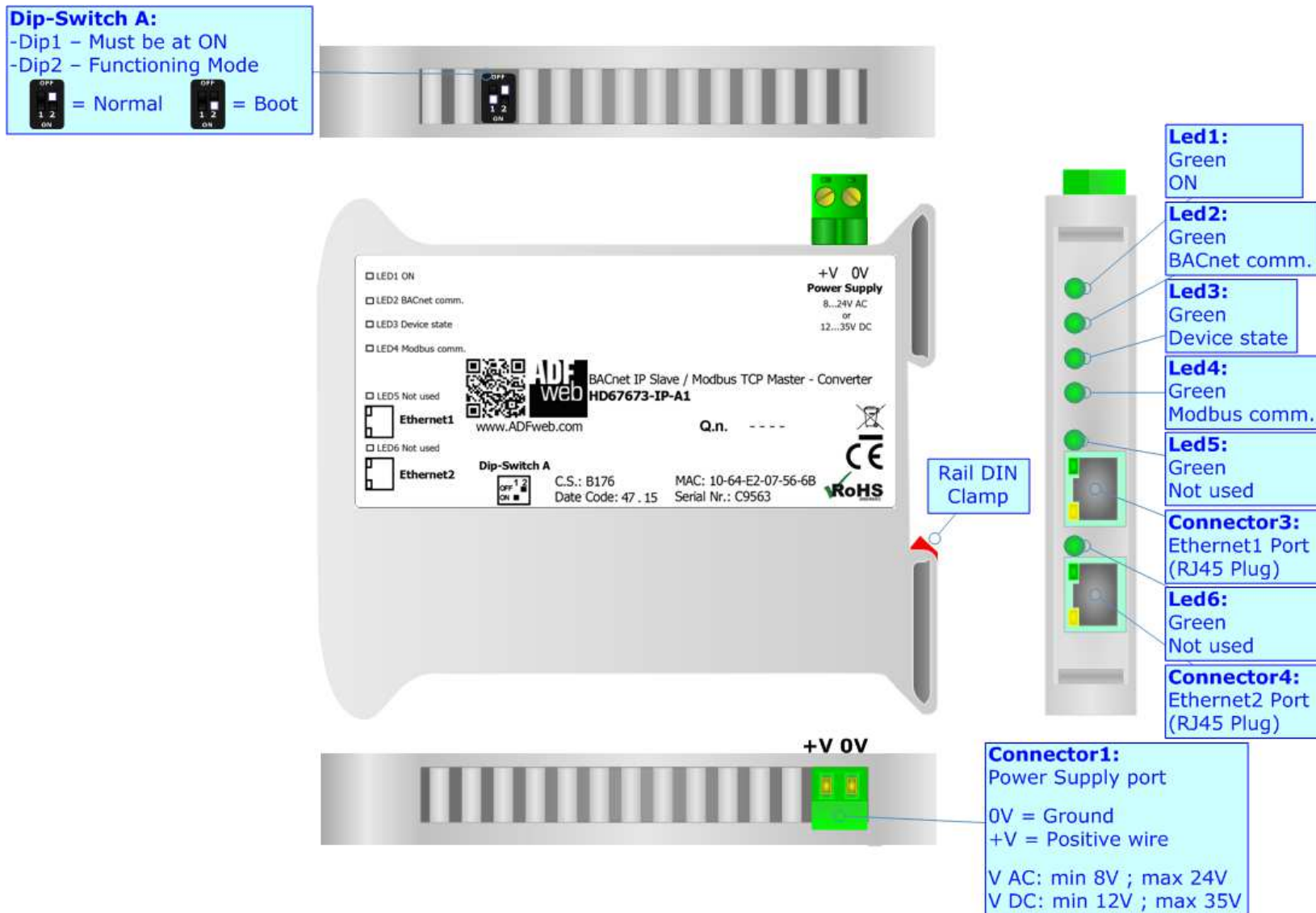


Figure 1a: Connection scheme for HD67673-IP-A1

Dip-Switch A:

- Dip1 – Must be at ON
- Dip2 – Functioning Mode

 = Normal  = Boot

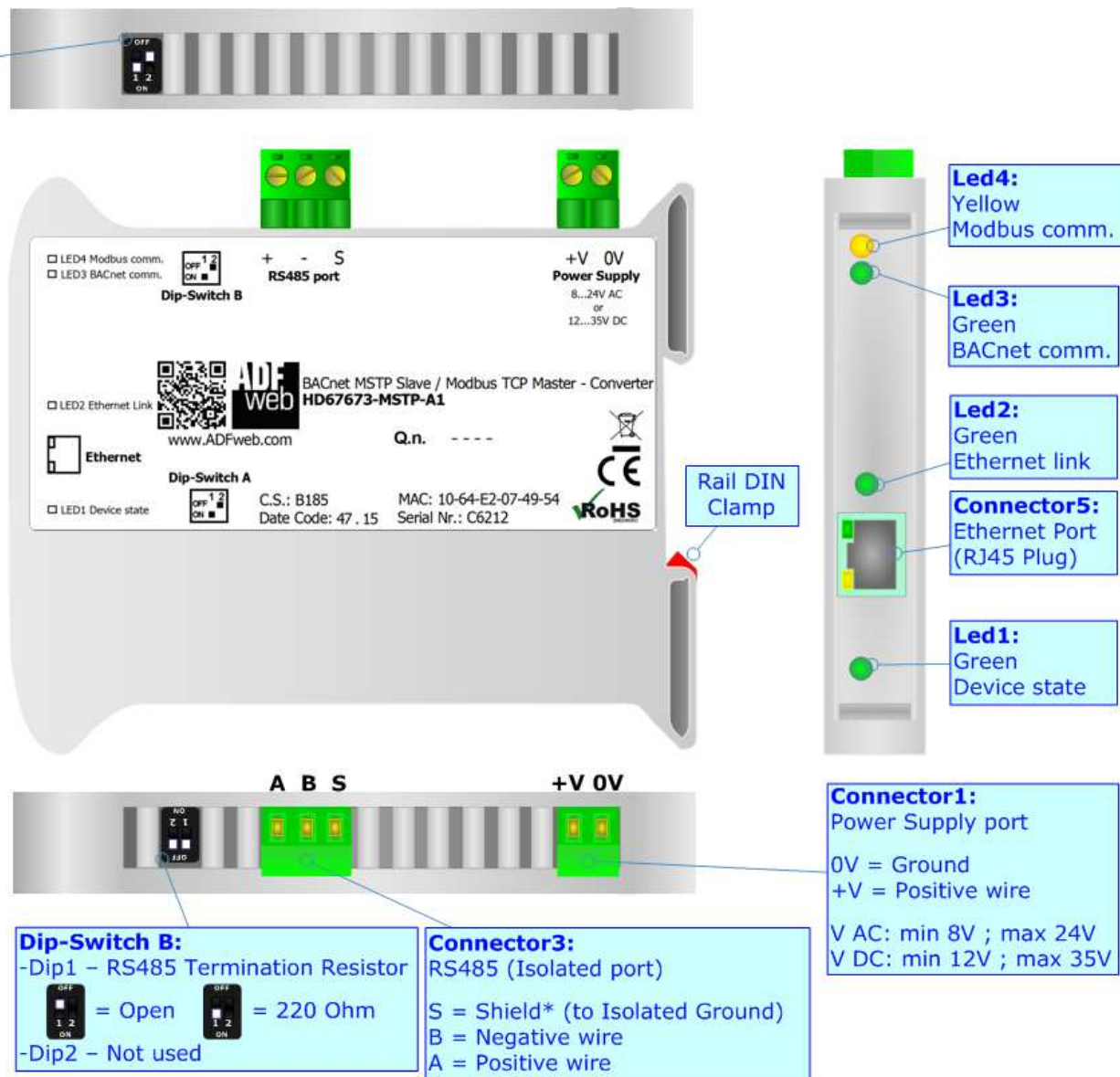


Figure 1b: Connection scheme for HD67673-MSTP-A1

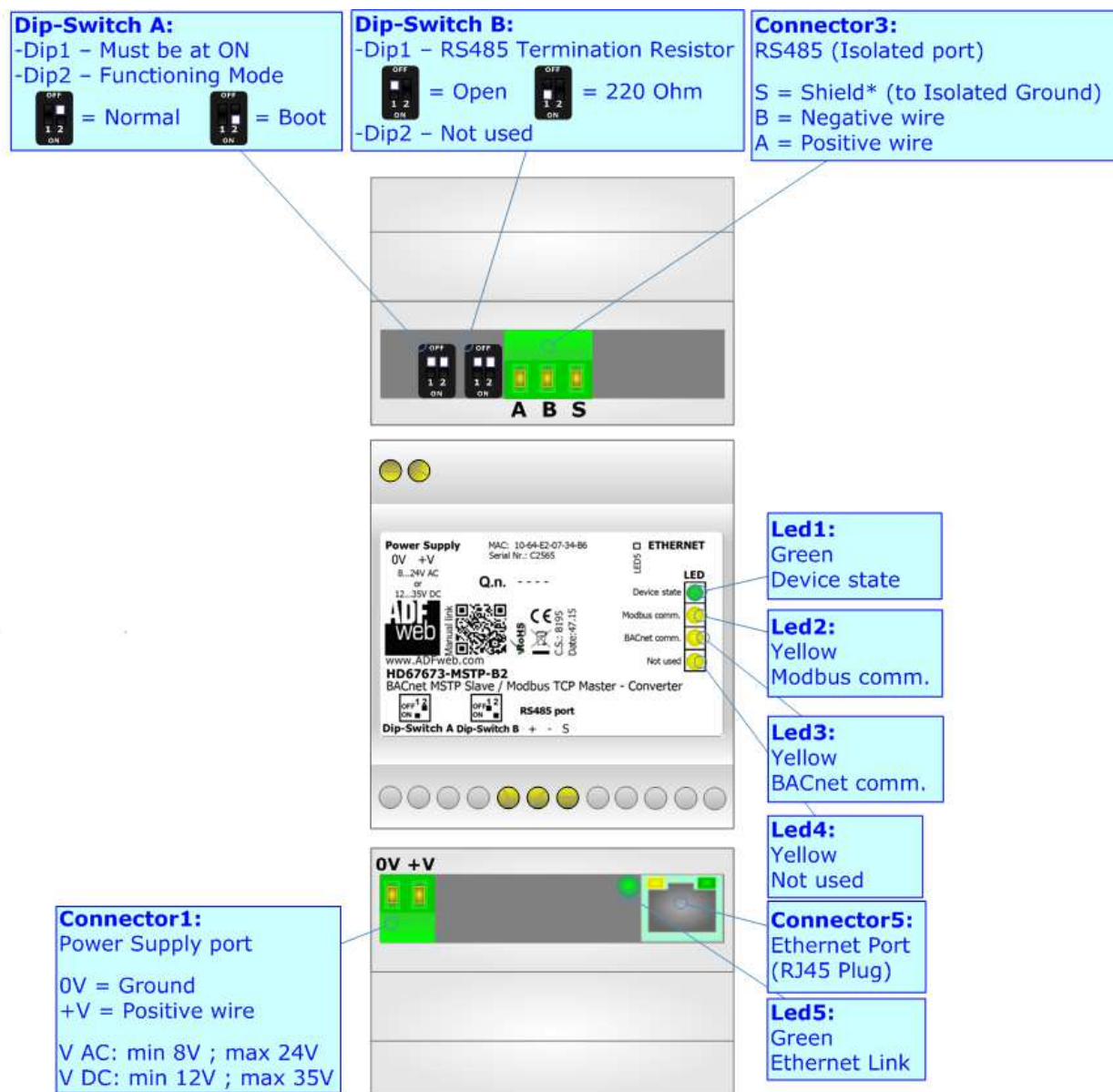


Figure 1c: Connection scheme for HD67673-MSTP-B2

CHARACTERISTICS:

The HD67673 is a BACnet Slave / Modbus TCP Master Converter and vice-versa.

It allows the following characteristics:

- Up to 1024 BACnet objects (Read+Write);
- Isolation between BACnet/Modbus - Power Supply;
- Two-directional information between BACnet and Modbus;
- Mountable on 35mm Rail DIN;
- Wide power supply input range: 15...21V AC or 18...35V DC;
- Wide temperature range: -40°C / 85°C [-40°F / +185°F].

CONFIGURATION:

You need Compositor SW67673 software on your PC in order to perform the following:

- Define the parameter of BACnet line;
- Define the parameter of Modbus TCP line;
- Define BACnet objects that contains the data readed from the slaves Modbus (Analog Input, Binary Input, Large Analog Value, Positive Integer Value);
- Define BACnet objects that contains the data to send to the slaves Modbus (Analog Output, Binary Output, Large Analog Value, Positive Integer Value);
- Update the device.

POWER SUPPLY:

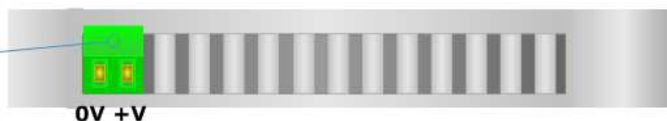
The devices can be powered at 8...24V AC and 12...35V DC. For more details see the two tables below.

VAC 		VDC 	
Vmin	Vmax	Vmin	Vmax
8V	24V	12V	35V

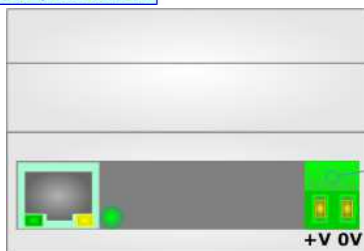
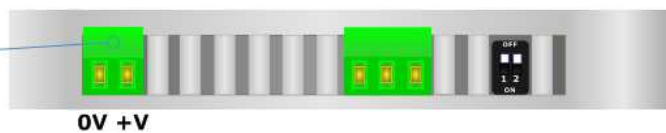
Consumption at 24V DC:

Device	Consumption [W/VA]
HD67673-IP-A1	3.5
HD67673-MSTP-A1	3.5
HD67673-MSTP-B2	3.5

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

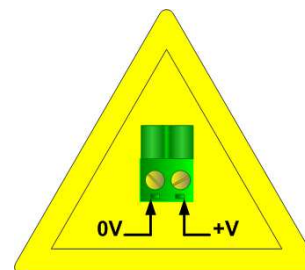


Connector1:
Power Supply port
0V = Ground
+V = Positive wire
V AC: min 8V ; max 24V
V DC: min 12V ; max 35V

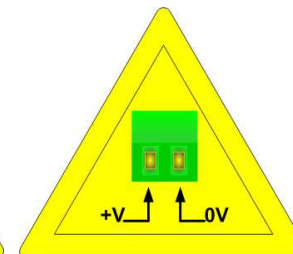


Connector1:
Power Supply port
0V = Ground
+V = Positive wire
V AC: min 8V ; max 24V
V DC: min 12V ; max 35V

Caution: Not reverse the polarity power



HD67673-IP-A1
HD67673-MSTP-A1



HD67673-MSTP-B2

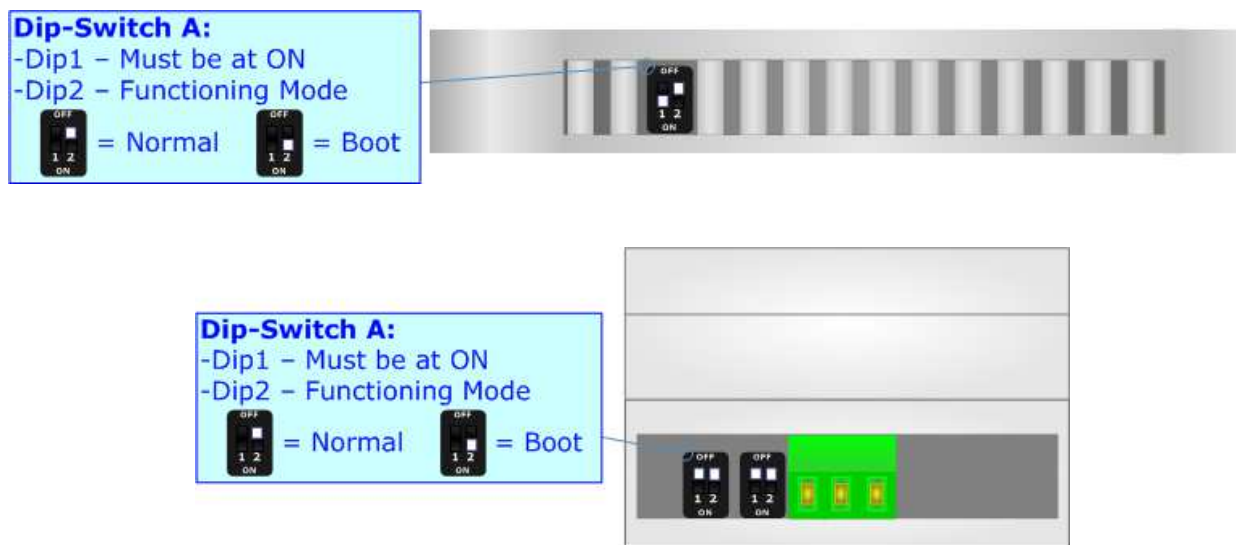
FUNCTION MODES:

The device has got two functions mode depending of the position of the 'Dip2 of Dip-Switch A':

- The first, with 'Dip2 of Dip-Switch A' at "OFF" position, is used for the normal working of the device.
- The second, with 'Dip2 of Dip-Switch A' at "ON" position, is used for upload the Project and/or 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.



Warning:

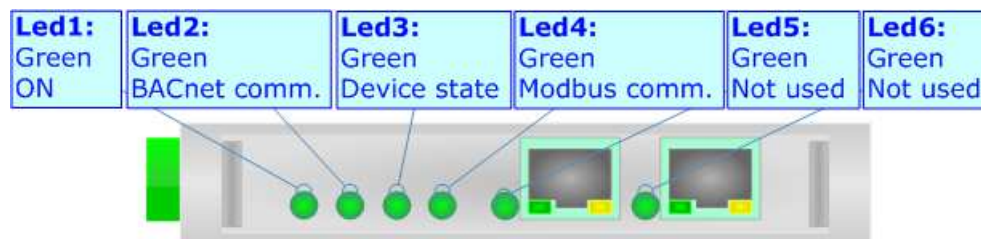
Dip1 of 'Dip-Switch A' must be at ON position for working even if the Ethernet cable isn't inserted.

LEDS:

HD67673-IP-A1

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

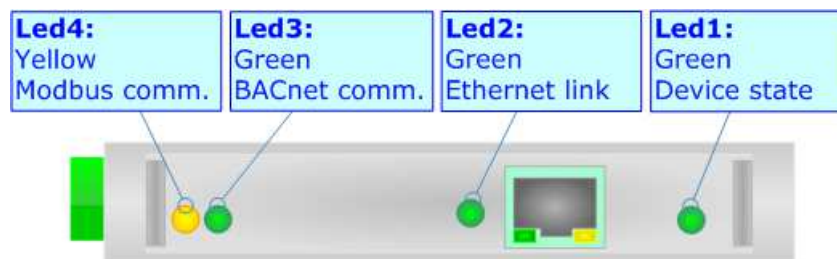
LED	Normal Mode	Boot Mode
1: ON [supply voltage] (green)	ON: Device powered OFF: Device not powered	ON: Device powered OFF: Device not powered
2: BACnet comm. (green)	Blinks quickly when receive a BACnet request	Blinks quickly: Boot state Blinks very slowly (~0.5Hz): update in progress
3: Device state (green)	Blinks slowly (~1Hz)	Blinks quickly: Boot state Blinks very slowly (~0.5Hz): update in progress
4: Modbus comm. (green)	Blinks quickly when arrive Modbus replies	Blinks quickly: Boot state Blinks very slowly (~0.5Hz): update in progress
5: Ethernet1 Tx (green)	Not used	Blinks quickly: Boot state Blinks very slowly (~0.5Hz): update in progress
6: Ethernet2 Tx (green)	Not used	Blinks quickly: Boot state Blinks very slowly (~0.5Hz): update in progress



HD67673-MSTP-A1

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

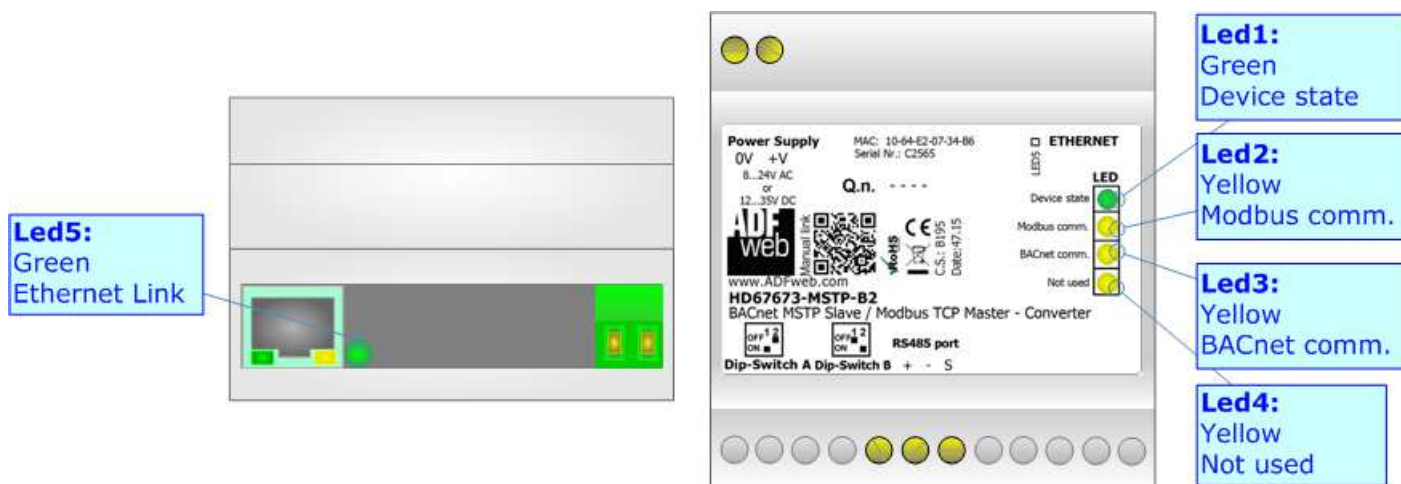
LED	Normal Mode	Boot Mode
1: Device State (green)	Blinks slowly ($\sim 1\text{Hz}$)	Blinks quickly: Boot state Blinks very slowly ($\sim 0.5\text{Hz}$): update in progress
2: Link Ethernet (green)	ON: Ethernet cable connected OFF: Ethernet cable disconnected	ON: Ethernet cable connected OFF: Ethernet cable disconnected
3: BACnet comm. (green)	Blinks quickly when there is BACnet communication	Blinks quickly: Boot state Blinks very slowly ($\sim 0.5\text{Hz}$): update in progress
4: Modbus comm. (yellow)	Blinks quickly when arrive Modbus replies	Blinks quickly: Boot state Blinks very slowly ($\sim 0.5\text{Hz}$): update in progress



HD67673-MSTP-B2

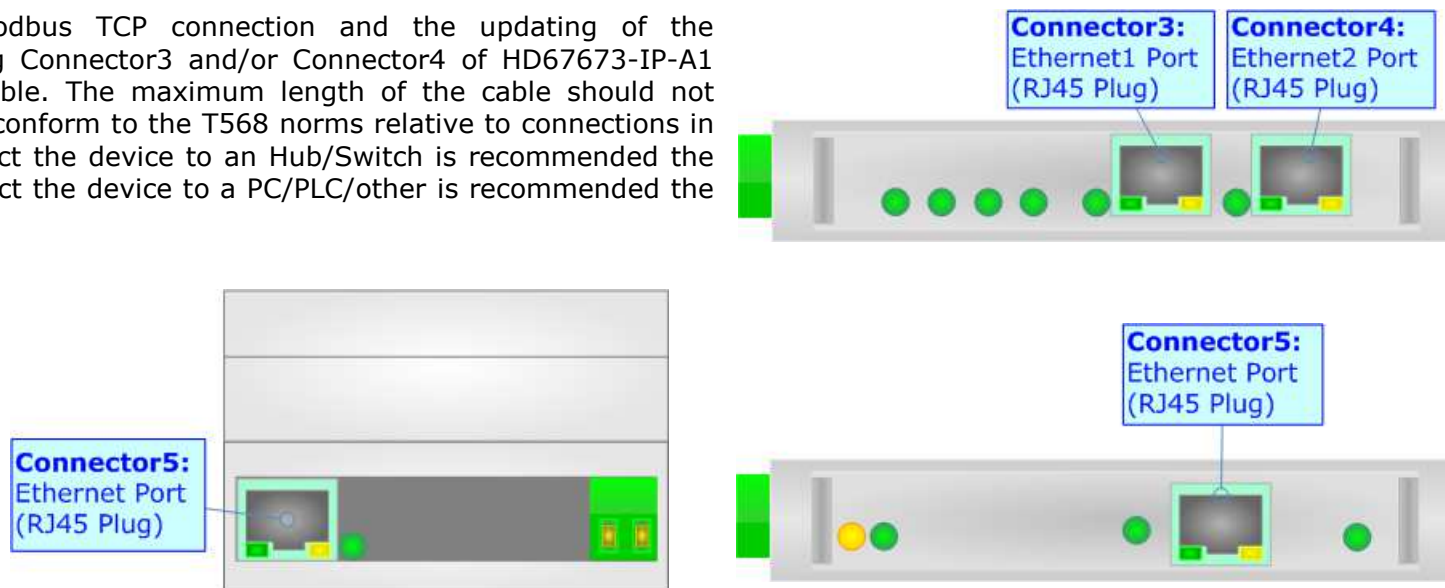
The device has five LEDs that are used to give information of the functioning status.
The various meanings of the LEDs are described in the table below.

LED	Normal Mode	Boot Mode
1: Device State (green)	Blinks slowly ($\sim 1\text{Hz}$)	Blinks quickly: Boot state Blinks very slowly ($\sim 0.5\text{Hz}$): update in progress
2: Modbus comm. (yellow)	Blinks quickly when arrive Modbus replies	Blinks quickly: Boot state Blinks very slowly ($\sim 0.5\text{Hz}$): update in progress
3: BACnet comm. (yellow)	Blinks quickly when there is BACnet communication	Blinks quickly: Boot state Blinks very slowly ($\sim 0.5\text{Hz}$): update in progress
2: Not used (yellow)	Not used	Blinks quickly: Boot state Blinks very slowly ($\sim 0.5\text{Hz}$): update in progress
5: Link Ethernet (green)	ON: Ethernet cable connected OFF: Ethernet cable disconnected	ON: Ethernet cable connected OFF: Ethernet cable disconnected



ETHERNET:

The BACnet/IP connection, Modbus TCP connection and the updating of the converters must be made using Connector3 and/or Connector4 of HD67673-IP-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.



Note:

For HD67673-MSTP-A1 and HD67673-MSTP-B2 the Ethernet port is used only for updating the Converter and for Modbus TCP communication.

RS485:

To terminate the RS485 line with a 220Ω resistor it is necessary to put ON dip 1, like in figure.

The maximum length of the cable should be 1200m (4000 feet).

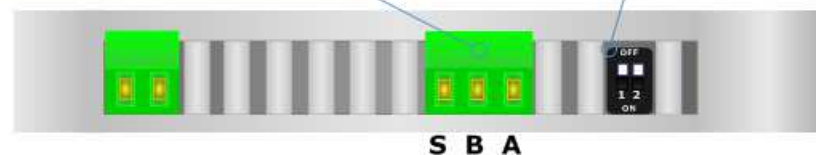
Here some codes of cables:

- Belden: p/n 8132 - 2x 28AWG stranded twisted pairs conductor + foil shield + braid shield;
- Belden p/n 82842 - 2x 24AWG stranded twisted pairs conductor + foil shield + braid shield;
- Tasker: p/n C521 - 1x 24AWG twisted pair conductor + foil shield + braid shield;

Tasker: p/n C522 - 2x 24AWG twisted pairs conductor + foil shield + braid shield.

Connector3:
RS485 (Isolated port)
S = Shield* (to Isolated Ground)
B = Negative wire
A = Positive wire

Dip-Switch B:
-Dip1 – RS485 Termination Resistor
OFF = Open ON = 220 Ohm
-Dip2 – Not used



Dip-Switch B:
-Dip1 – RS485 Termination Resistor
OFF = Open ON = 220 Ohm
-Dip2 – Not used



Connector3:
RS485 (Isolated port)
S = Shield* (to Isolated Ground)
B = Negative wire
A = Positive wire

USE OF COMPOSITOR SW67673:

To configure the Converter, use the available software that runs with Windows called SW67673. It is downloadable from the site 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; 32/64bit).

When launching the SW67673, the window below appears (Fig. 2).



Note:

It is necessary to have installed .Net Framework 4.

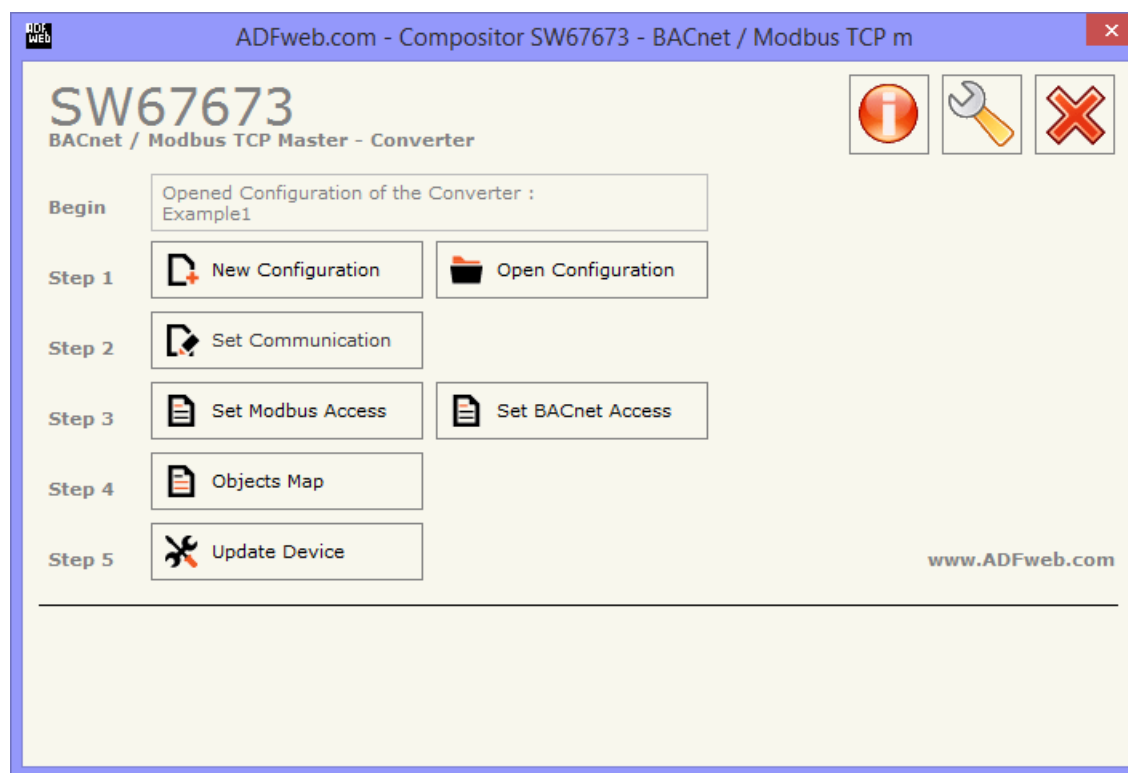
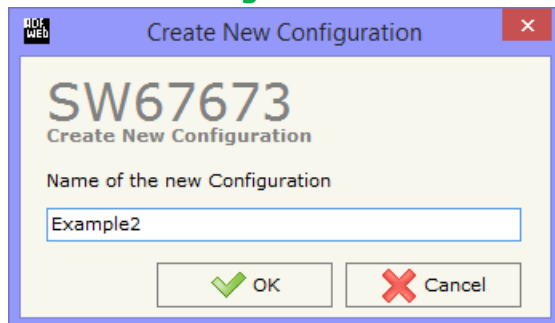


Figure 2: Main window for SW67673

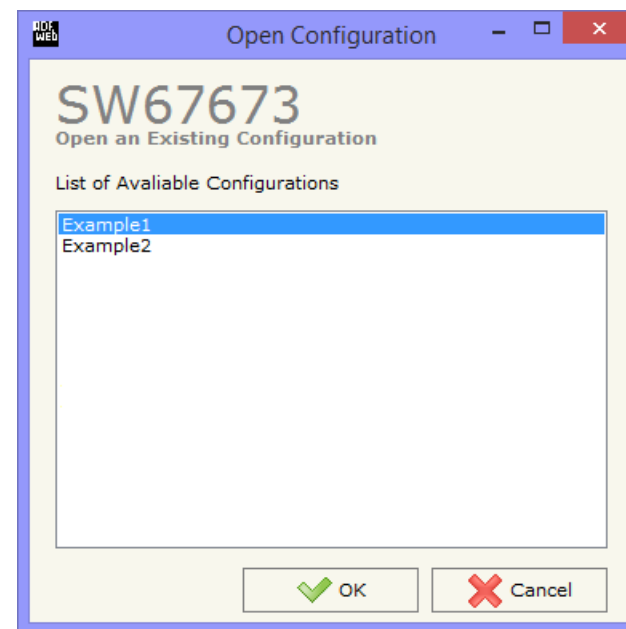
NEW CONFIGURATION / OPEN CONFIGURATION:

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




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

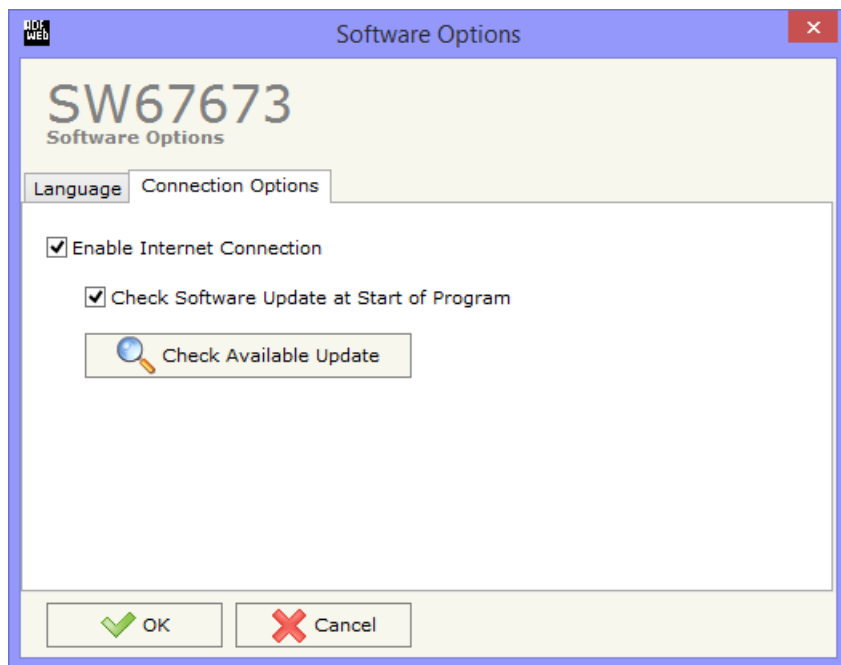
- To clone the configurations of a Programmable “BACnet Slave / Modbus Master - Converter” in order to configure another device in the same manner, it is necessary to maintain the folder and all its contents;
- To clone a project in order to obtain a different version of the project, it is sufficient 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 SW67673 check automatically if there are updatings when it is launched.

SET COMMUNICATION:

This section define the fundamental communication parameters of two buses, BACnet Slave and Modbus TCP Master.

By Pressing the "**Set Communication**" button from the main window for SW67673 (Fig. 2) the window "Set Communication" appears (Fig. 3).

In the section "BACnet Type" is possible to select the type of BACnet to use from:

- BACnet/IP (uses ethernet);
- BACnet MS/TP (uses RS485);

The means of the fields for "BACnet" are:

- In the fields "**IP ADDRESS**" insert the IP address that you want to give to the Converter;
- In the fields "**SUBNET Mask**" insert the SubNet Mask;
- In the fields "**GATEWAY**" insert the default gateway that you want to use. 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 "**Port**" the port used for BACnet communication is defined. The default port used for BACnet communication is 47808, but is possible to insert any value (except 10000 and 10001);
- In the field "**BACnet Device Name**" is possible to assign a name to the BACnet node;
- In the field "**Device Identifier**" is possible to assign a number to the BACnet node (Used for the Device Identifier).

The means of the fields for the "Modbus TCP Master" section are:

- In the "**TimeOut (ms)**" define the maximum time that the device attends for the answer from the slave interrogated;
- In the field "**Cyclic Delay (ms)**" the delay between two requests is defined.

The screenshot shows the "Set Communication" window for device SW67673. The window is divided into three main sections: "BACnet Type", "BACnet", and "Modbus TCP Master".

- BACnet Type:** A dropdown menu is set to "BACnet/IP".
- BACnet:**
 - IP ADDRESS:** 192.168.0.10
 - SUBNET Mask:** 255.255.255.0
 - GATEWAY:** A checkbox is unchecked, followed by the IP address 192.168.0.1.
 - Port:** 47808
 - BACnet Device Name:** bacnet_adfweb
 - Device Identifier:** 12345
- Modbus TCP Master:**
 - TimeOut (ms):** 1000
 - Cyclic Delay (ms):** 100

At the bottom of the window are two buttons: "OK" (with a green checkmark icon) and "Cancel" (with a red X icon).

Figure 3a: "Set Communication" window

If selected "BACnet MS/TP" the means of the fields for "BACnet" are:

- In the field "**Baudrate**" it is possible to select the baudrate of the BACnet line (9600, 19200, 38400, 57600, 76800, 115200);
- In the field "**Parity**" it is possible to select the parity of the line (None, Odd, Even). The default parity used by BACnet networks is "None";
- In the field "**BACnet Device Name**" is possible to insert the name to give to the BACnet node (maximum 17 characters);
- In the field "**MAC Address**" is possible to define the MAC of BACnet node (from 0 to 127);
- The field "**Max Masters**" specifies the highest allowable address for master nodes. The value shall be less than or equal to 127;
- The field "**Max Info Frames**" specifies the maximum number of information frames the node may send before it must pass the token;
- In the field "**Device Identifier**" is possible to assign a number to the BACnet node (Used for the Device Identifier);
- In the field "**Network**" is possible to define the number of BACnet MS/TP network where the converter is connected.

The means of the fields for the "Modbus TCP Master" section are:

- In the "**TimeOut (ms)**" define the maximum time that the device attends for the answer from the slave interrogated;
- In the field "**Cyclic Delay (ms)**" the delay between two requests is defined.

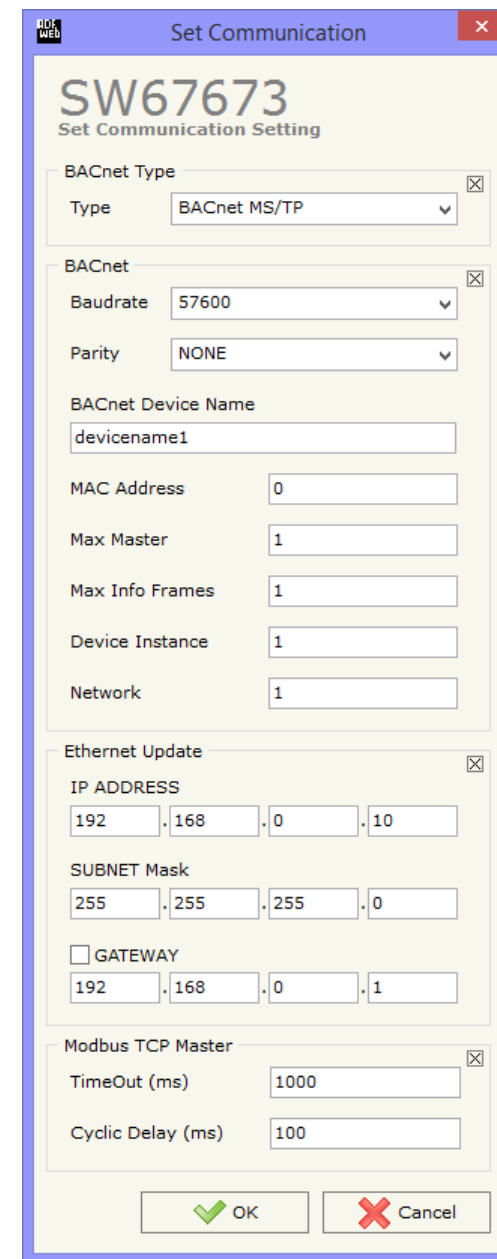
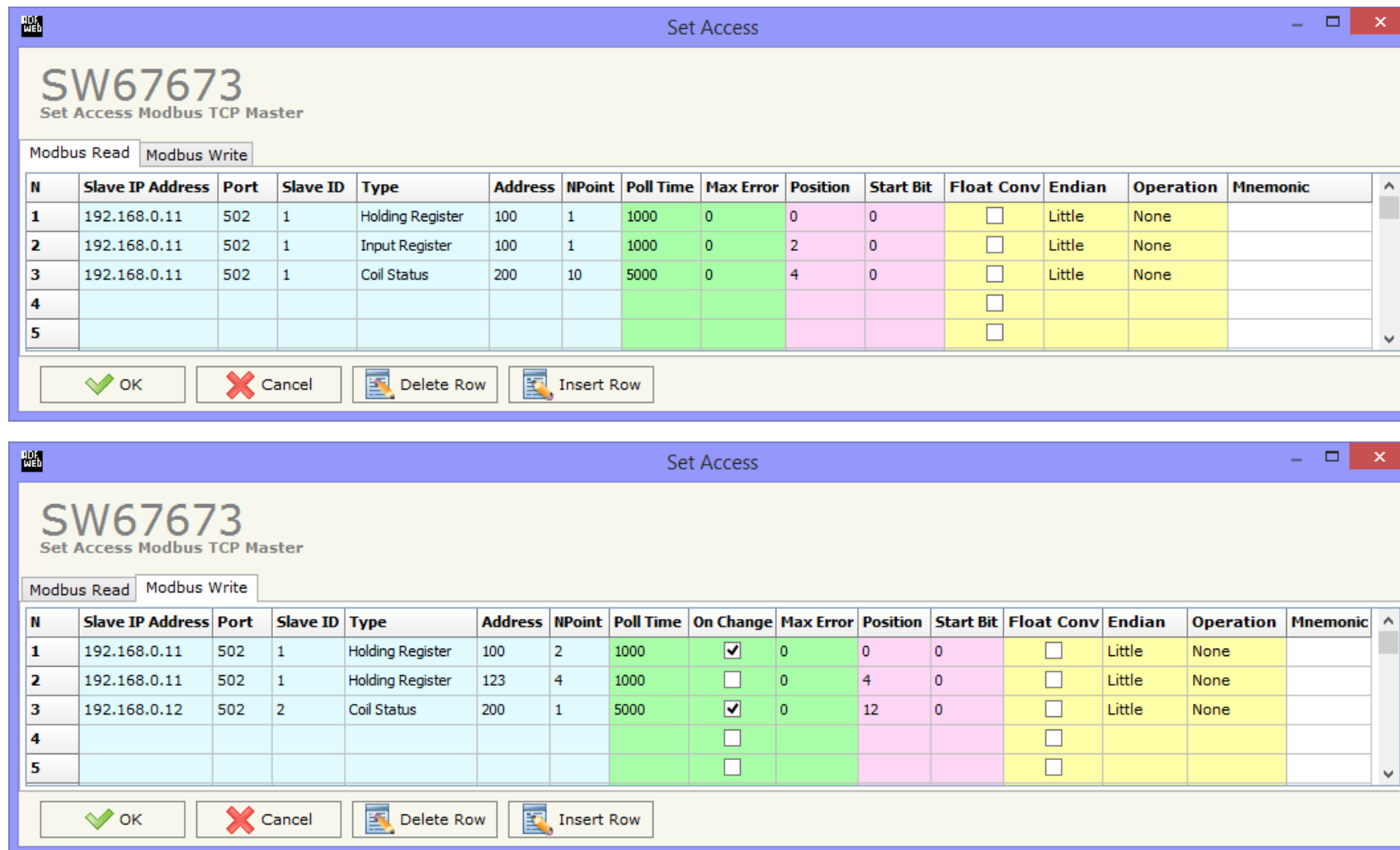


Figure 3b: "Set Communication" window

SET MODBUS ACCESS:

By Pressing the “**Set Modbus Access**” button from the main window for SW67673 (Fig. 2) the window “Set Access” appears (Fig. 4).



N	Slave IP Address	Port	Slave ID	Type	Address	NPoint	Poll Time	Max Error	Position	Start Bit	Float Conv	Endian	Operation	Mnemonic
1	192.168.0.11	502	1	Holding Register	100	1	1000	0	0	0	<input type="checkbox"/>	Little	None	
2	192.168.0.11	502	1	Input Register	100	1	1000	0	2	0	<input type="checkbox"/>	Little	None	
3	192.168.0.11	502	1	Coil Status	200	10	5000	0	4	0	<input type="checkbox"/>	Little	None	
4											<input type="checkbox"/>			
5											<input type="checkbox"/>			

N	Slave IP Address	Port	Slave ID	Type	Address	NPoint	Poll Time	On Change	Max Error	Position	Start Bit	Float Conv	Endian	Operation	Mnemonic
1	192.168.0.11	502	1	Holding Register	100	2	1000	<input checked="" type="checkbox"/>	0	0	0	<input type="checkbox"/>	Little	None	
2	192.168.0.11	502	1	Holding Register	123	4	1000	<input type="checkbox"/>	0	4	0	<input type="checkbox"/>	Little	None	
3	192.168.0.12	502	2	Coil Status	200	1	5000	<input checked="" type="checkbox"/>	0	12	0	<input type="checkbox"/>	Little	None	
4								<input type="checkbox"/>				<input type="checkbox"/>			
5								<input type="checkbox"/>				<input type="checkbox"/>			

Figure 4: “Set Access” window

The window is divided in two parts, the "**Modbus Read**" that contains the Modbus registers/status readable by the Converter and "**Modbus Write**" that contains the Modbus registers/status writeable by the Converter.

The meaning of the fields in the window are the follows:

- In the field "**Slave IP Address**" the address of the Modbus device you have to read/write is defined;
- In the field "**Port**" the port used for require the Modbus data is defined;
- In the field "**Slave ID**" the address of the Modbus device you have to read is defined;
- In the field "**Type**" insert the data type of the Register you would like to read/write. You can choose between the following:
 - Coil Status;
 - Input Status (only readable);
 - Holding Register;
 - Input Register (only readable);
- In the field "**Address**" the start address of the register/status to read/write is defined;
- In the field "**NPoint**" insert the number of consecutive registers/status to read/write;
- In the field "**Poll Time**" insert the time (expressed in milliseconds) used for read/write the register/status. If zero, the request isn't made;
- By checking the field "**On Change**" the Modbus write request is made only if BACnet data are changed; otherwise is send cyclically, using the "Poll Time". This feature is used only on "Modbus Write" section;
- In the field "**Max Error**" insert the number of consecutive errors that the Master waits before discard the row from the cycle of requests;
- In the field "**Position**" is possible to select the position where take/save the data from a 1440 bytes array;
- The field "**Start Bit**" is used for the "Binary In" and "Binary Out" BACnet objects;
- By checking the field "**Float Conv**" is possible to enabled the conversion of the value read in one or two modbus registers, expressed like Integer value, into a Float value. Instead, if the field is enable inside Modbus Write section, the converter converts the Float value that is arrived with BACnet into a Integer value. This command is usefull if your BACnet master uses only Analog-Input and Analog-Output, but on Modbus side you have Integer values;
- In the field "**Endian**" is possible to select if the values in the registers follow the Bin-Endian or Little-Endian format. This field has valence only if the NPoint has a value of two. This field is used only if "Float Conv" is checked;
- In the "**Operation**" field is possible to select a post-operation to do to the value before save it in the case of "Modbus Read" or write it in the case of "Modbus Write". This field is used only if "Float Conv" is checked;
- In the field "**Mnemonic**" is possible to insert a description of the data inserted in the row.



Note: If you want that the Modbus register/status is written only when data are changed, the "Poll Time" of the row must be 0.

SET BACNET ACCESS:

By Pressing the "**Set BACnet Access**" button from the main window for SW67673 (Fig. 2) the window "BACnet Set Access" appears (Fig. 5).

The window is divided in two parts, the "**BACnet in Read**" that contains the BACnet objects readable by a BACnet Master (the Modbus registers/status associated to these objects are read by Converter); and "**BACnet in Write**" that contains the BACnet objects writeable by a BACnet Master (the Modbus registers associated to these objects are written by Converter).

The meaning of the fields in the window are the follows:

- In the field "**Data Type**" is possible to select the BACnet object data type;
- In the field "**Eng. Unit**", with double click the window "*Select the BACnet Engineering Unit*" appears (Fig. 6);
- In the field "**Position**" is possible to select the position where take/save the data from a 6000 bytes array;
- The field "**Start Bit**" is used for the "Binary In" and "Binary Out" BACnet objects;
- The field "**Length**" is used for all the others BACnet objects.

BACnet Set Access

SW67673
BACnet Set Access

BACnet in Read BACnet in Write

N	Data Type	Eng. Unit	Position	Start Bit	Length	Mnemonic
1	Analog Input	95	0	0	2	
2	Positive Integer Value	160	2	0	2	
3	Binary Input	95	4	0	0	
4	Binary Input	95	4	1	0	
5						

OK Cancel Delete Row Insert Row

BACnet Set Access

SW67673
BACnet Set Access

BACnet in Read BACnet in Write

N	Data Type	Eng. Unit	Position	Start Bit	Length	Mnemonic
1	Positive Integer Value	82	0	0	4	
2	Large Analog Value	55	4	0	8	
3	Binary Out	95	12	0	0	
4						
5						

OK Cancel Delete Row Insert Row

Figure 5: "BACnet Set Access" window

Is possible to insert directly the Unit (using its unique number) by compiling the **"Selected BACnet Engineering Unit"** field; or by selecting with the fields **"Select the Type"** and **"Select unit"** the Type/Unit desired. If the second way is used, is necessary to press the **"Select Engineering Unit"** button for confirm the choice.

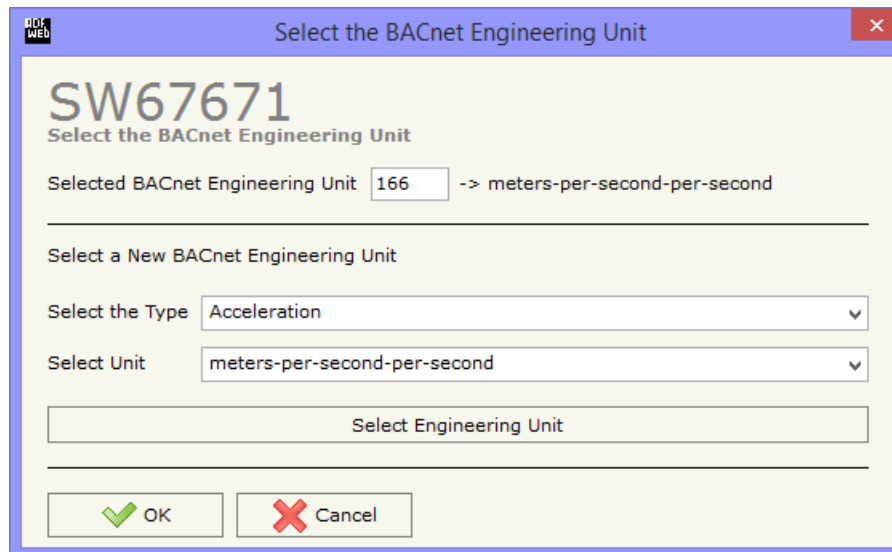


Figure 6: "Select the BACnet Engineering Unit" window

OBJECTS MAP:

By Pressing the **"Objects Map"** button from the main window for SW67673 (Fig. 2) is possible to create a .csv document with the map of BACnet Objects.

UPDATE DEVICE:

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

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

- Turn off the Device;
- Put Dip2 of 'Dip-Switch A' at ON position;
- Turn on the device
- Connect the Ethernet cable;
- Insert the IP **"192.168.2.205"**;
- Press the **"Ping"** button, must appear **"Device Found!"**;
- Press the **"Next"** button;
- 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 Dip2 of 'Dip-Switch A' at OFF position;
- Turn on the device.

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

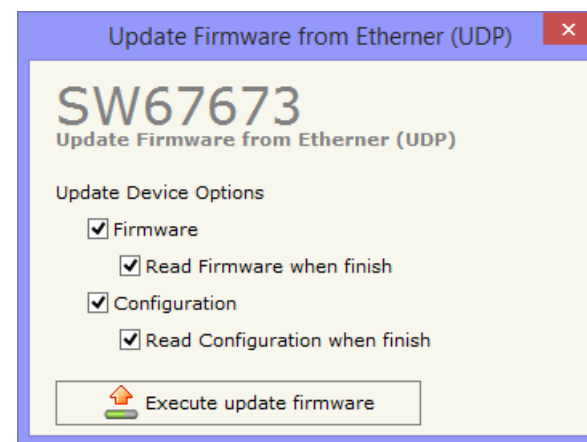
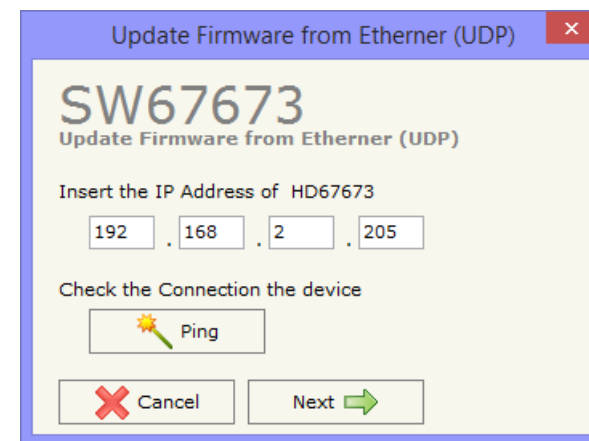
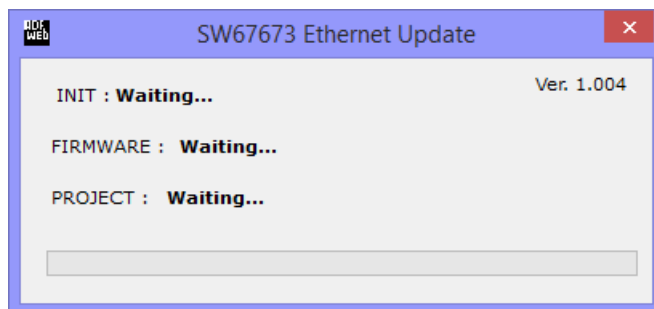


Figure 7: "Update device" windows

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;
- Press the "**Ping**" button, must appear "Device Found!";
- Press the "**Next**" button;
- 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 update.



Note:

When you install a new version of the software it is better if the first time you do the update of the Firmware in the HD67673 devices.



Note:

When you receive the device, for the first time, you have to update also the Firmware in the HD67673 devices.



Warning:

If Fig. 8 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;
- If you are using the program inside a Virtual Machine, try to use in the main Operating System;
- If you are using Windows Seven or Vista or 8, make sure that you have the administrator privileges;
- Take attention at Firewall lock;
- Check the LAN settings.

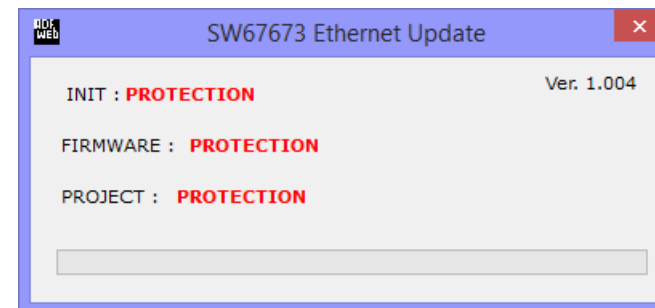
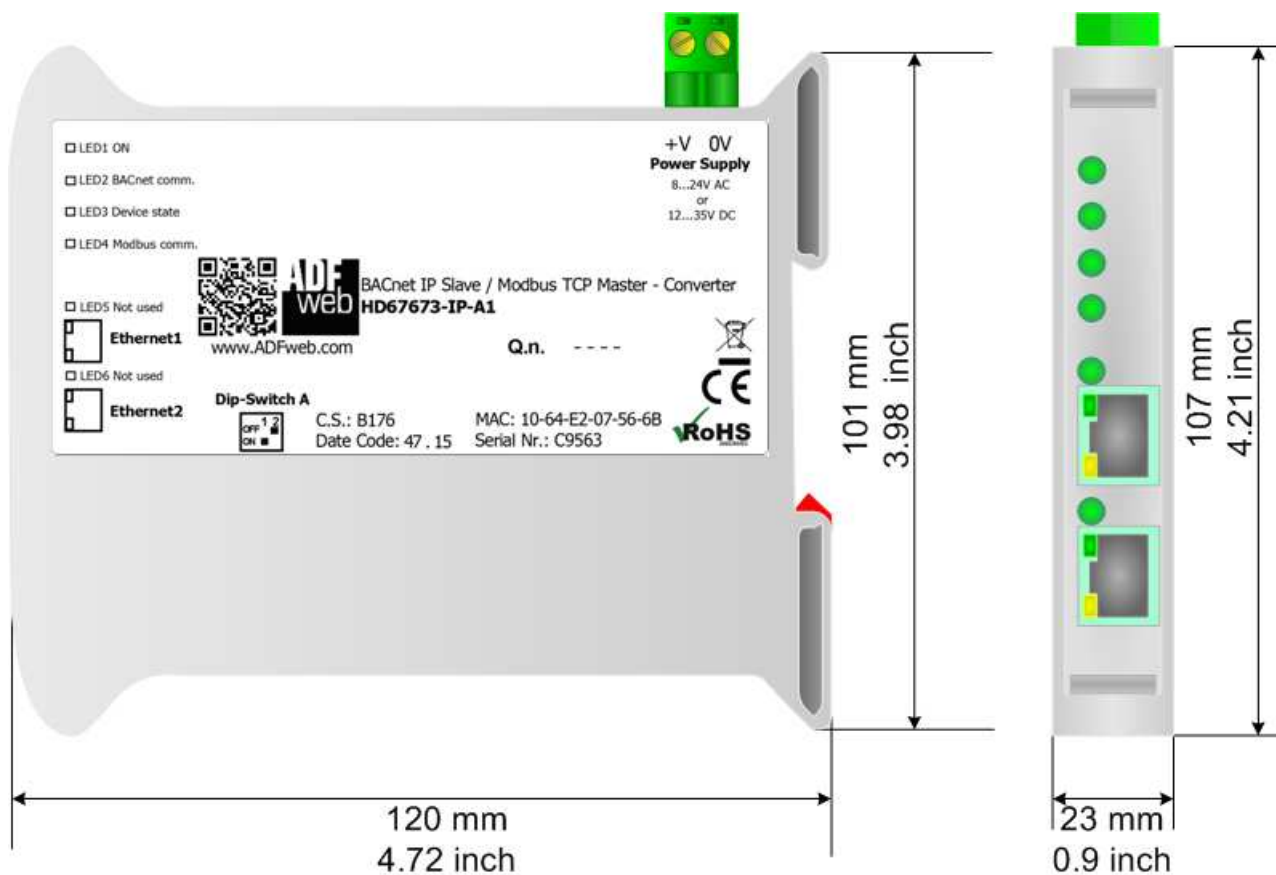


Figure 8: "Protection" window



In the case of HD67673-A1 you have to use the software "SW67673": www.adfweb.com/download/filefold/SW67673.zip.

MECHANICAL DIMENSIONS:



Housing: PVC
Weight: 200g (Approx)

Figure 9a: Mechanical dimensions scheme for HD67673-IP-A1

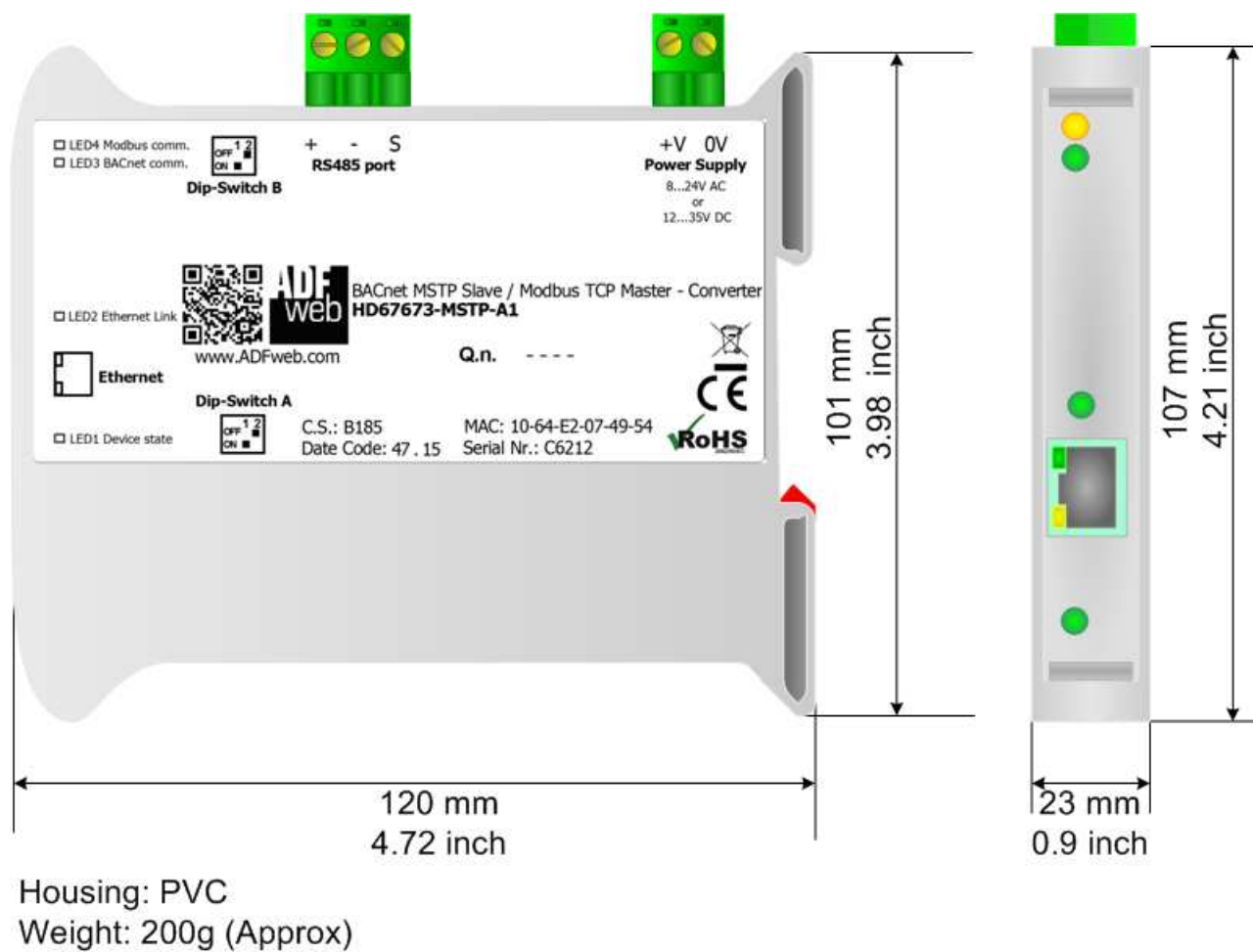
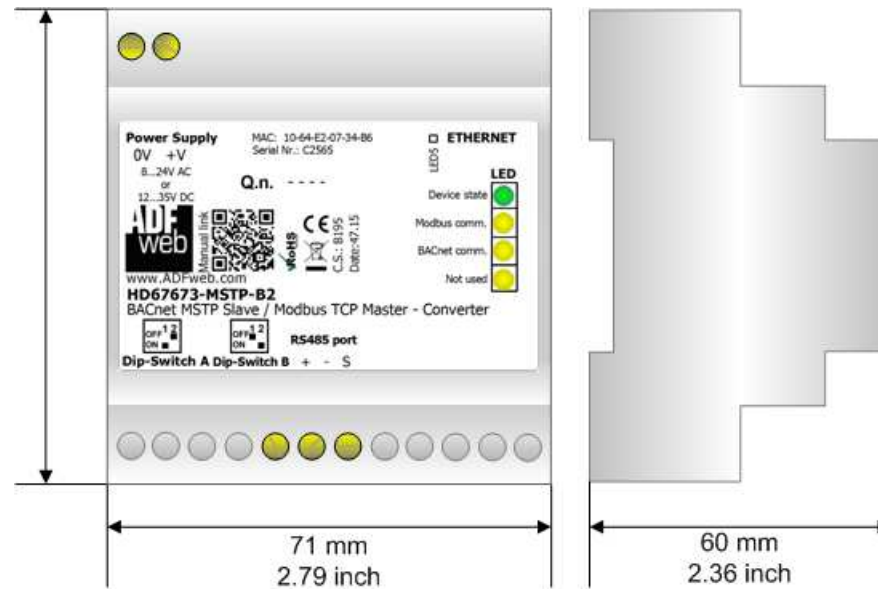


Figure 9b: Mechanical dimensions scheme for HD67673-MSTP-A1



Housing: PVC
Weight: 200g (Approx)

Figure 9c: Mechanical dimensions scheme for HD67673-MSTP-B2

ORDERING INFORMATION:

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

HD67673 - IP - A 1

Connectors Type

- 1: Removable 5mm Screw Terminal
- 2: Fixed 5mm Screw Terminal

Enclosure Type

- A: 1M, 35mm DIN Rail mounting
- B: 4M, 35mm DIN Rail mounting

BACnet type:

- IP: BACnet/IP
- MSTP: BACnet MS/TP

Device Family

- HD67673: BACnet slave / Modbus TCP master - Converter

- | | | |
|------------------------------------|---|--|
| Order Code: HD67673-IP-A1 | - | BACnet/IP slave/ Modbus TCP master – Converter |
| Order Code: HD67673-MSTP-A1 | - | BACnet MS/TP slave / Modbus TCP master – Converter |
| Order Code: HD67673-MSTP-B2 | - | BACnet MS/TP slave / Modbus TCP master – Converter |

ACCESSORIES:

- | | | |
|----------------------------|---|--|
| Order Code: AC34001 | - | 35mm Rail DIN - Power Supply 220/240V AC 50/60Hz – 12 V AC |
| Order Code: AC34002 | - | 35mm Rail DIN - Power Supply 110V AC 50/60Hz – 12 V AC |

DISCLAIMER:

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OTHER REGULATIONS AND STANDARDS:**WEEE INFORMATION**

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. 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. 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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