

## Hardware configuration

Required hw:



CBX500 + BM3x0  
Matrix400 or Matrix200



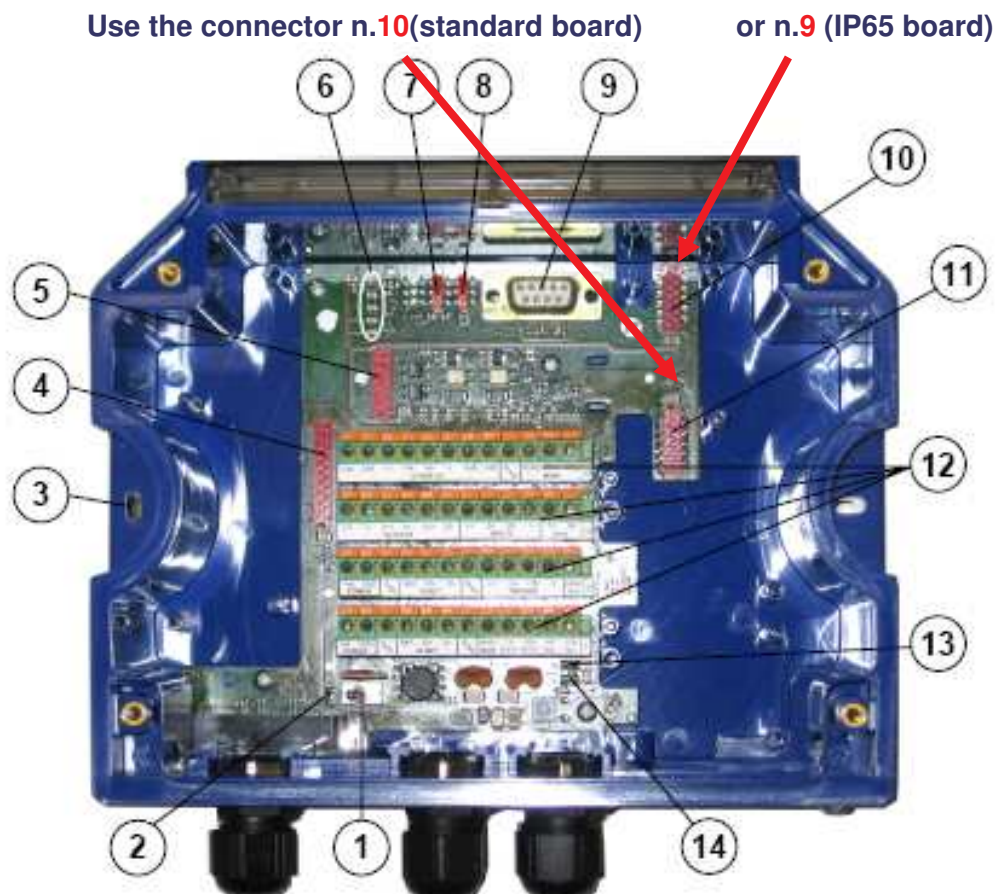
## 1. Connect the Matrix to the 25 pin connector of the CBX



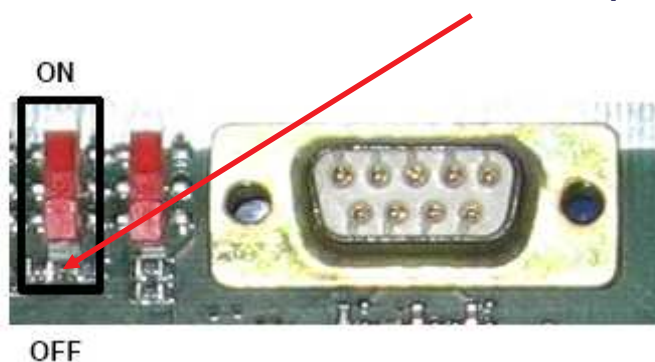
## 2. Plug the BM3x0 Profibus interface board into the box<sup>1</sup>



<sup>1</sup> Refer to the [Datalogic Host Interfaces Modules - Instruction Manual](#) for further information



3. Be sure the RS485 termination switch is to the **OFF** position



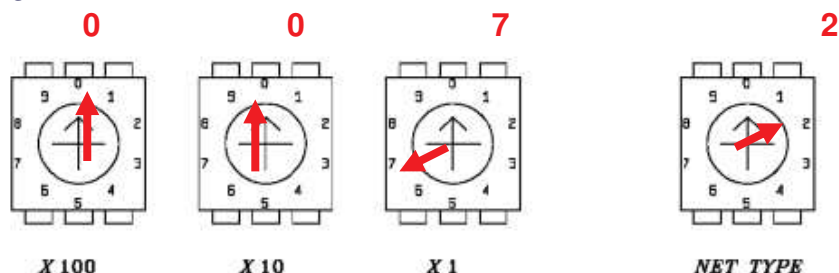
4. On the **BM100** backup module, set the rotary switches on the positions below:



- Net Type = **2**
- Address X100 = 0,1
- Address X 10 = 0..9
- Address X 1 = 0..9

**Note:** the address range is 000...126<sup>2</sup>

*Example: to set the Profibus address "7", move the rotary switches like in the figure below:*



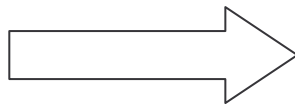
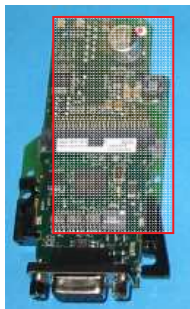
<sup>2</sup> **126** is a special address which allows the Fieldbus Master, through software, to set the node address in the range from 000 to 125. Refer to the [Datalogic BM100 Instruction Manual](#) for further information.



## Software configuration

### 1. Switch ON the CBX 500

In approximately 10 seconds the GREEN Status LEDs (the couple n.2 on the picture) will turn ON. The couple n.1 has to be OFF.



### 2. Launch the “Visiset” sw tool and open the Matrix configuration

#### VisiSet

File Edit Connect Disconnect Device Options Tools Help

**MAIN MENU**

- M. Setup Wizard
- F. Calibration Tool
- V. Symbol Verification
- A. Run Mode
- B. Capture Image
- C. Decode Last Image
- D. View Last Image
- E. Download Last Image
- H. Upload Bitmap Image
- O. Image Buffer
- 3. Button Function Menu
- T. Test

Device: Matrix 200  
Model: 213-100  
Communication Port: Auxiliary

Standard Application Program

Connection: Z08F00001 on COM3 at 115200,N,8,1 Reader Status: OFF

#### Parameter Setup

File Device Mode

Get Send Send Defaults Permanent Interactive

2D Codes	1D Codes	Postal Codes	Image Processing	Miscellaneous
Data Collection	Match Code	Symbol Verification	Communication	
Operating Modes	Calibration	Digital I/O	LEDs And Keypad	
Reading System Layout	Microglyph Codes	CBX Gateway	Display	Diagnostics

**HOST INTERFACE**

Host Interface Type: Profibus

**FIELD BUS**

Data TX: Enabled

Header String: <2>

Terminator String: <13><10>

Serial Polled Period (ms): 30

**PROFIBUS**

Baud Rate: Auto

Max. Exchange Area Size: 152

Master Input Area Size: 8

Master Output Area Size: 8

Node Address: 7

Data Flow Control: Disabled

**DIGITAL I-O CONDITIONING**

Phase Echo: Disabled

External Trigger Echo: Disabled

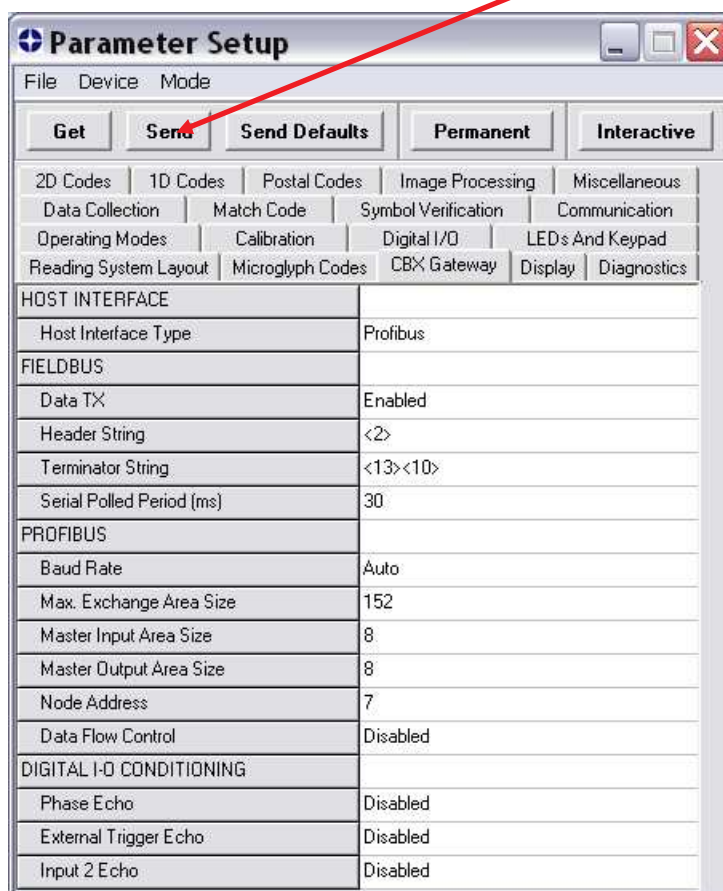
Input 2 Echo: Disabled

### 3. Set/check the Matrix parameters are as in table below:

Parameter	Value	Note
CBX Gateway / Host Interface/ <b>Host Interface Type</b>	Profibus	<i>This value must be already present</i>
CBX Gateway / Fieldbus / <b>Data Tx</b>	enabled	
CBX Gateway / Profibus / <b>Node Address</b>	000..126	<i>The showed value must be aligned to the address rotary switches positions</i>
<b>CBX Gateway / Profibus / Data Flow Control</b>	Disabled	<i>Suggested value to check the bus communication</i>

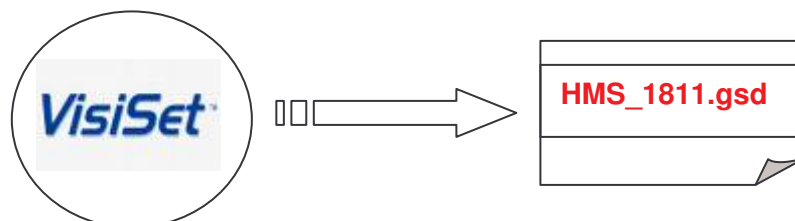
**Note:** keep the default values on all the other parameters

### 4. Save the configuration on the device, clicking on the “Send” button

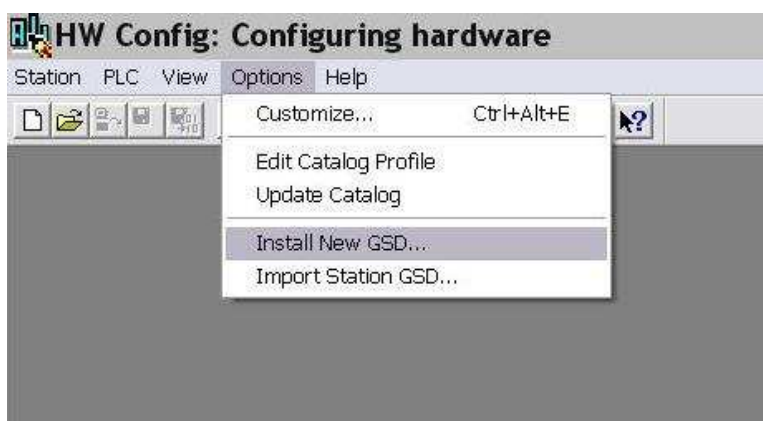


## Profibus Master<sup>3</sup> configuration

1. Take the “HMS\_1811.gsd” file from the Visiset CD and save it on your pc

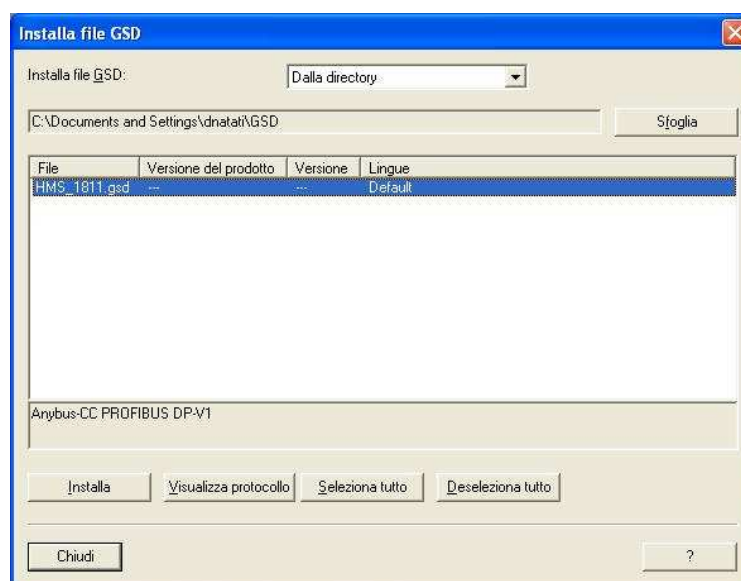


2. Open the Master HW Config and select “Install New GSD...” in “Options” tab



3. Select install the “HMS\_1811.gsd” file

and



<sup>3</sup> As Profibus Master sample, we refer a S7-300 Siemens PLC

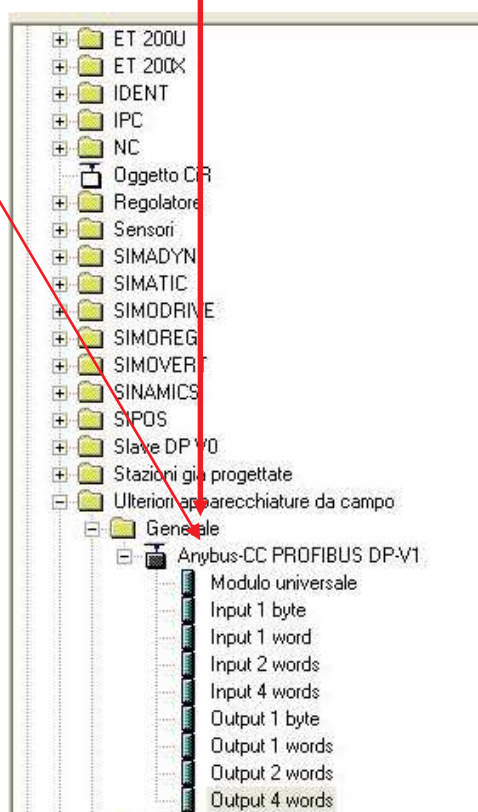
## 4. Update the Master Hardware catalogue



## 5. Find the new node

A new Anybus-CC PROFIBUS DP-V1 device will appear in the PLC catalogue under the folder:

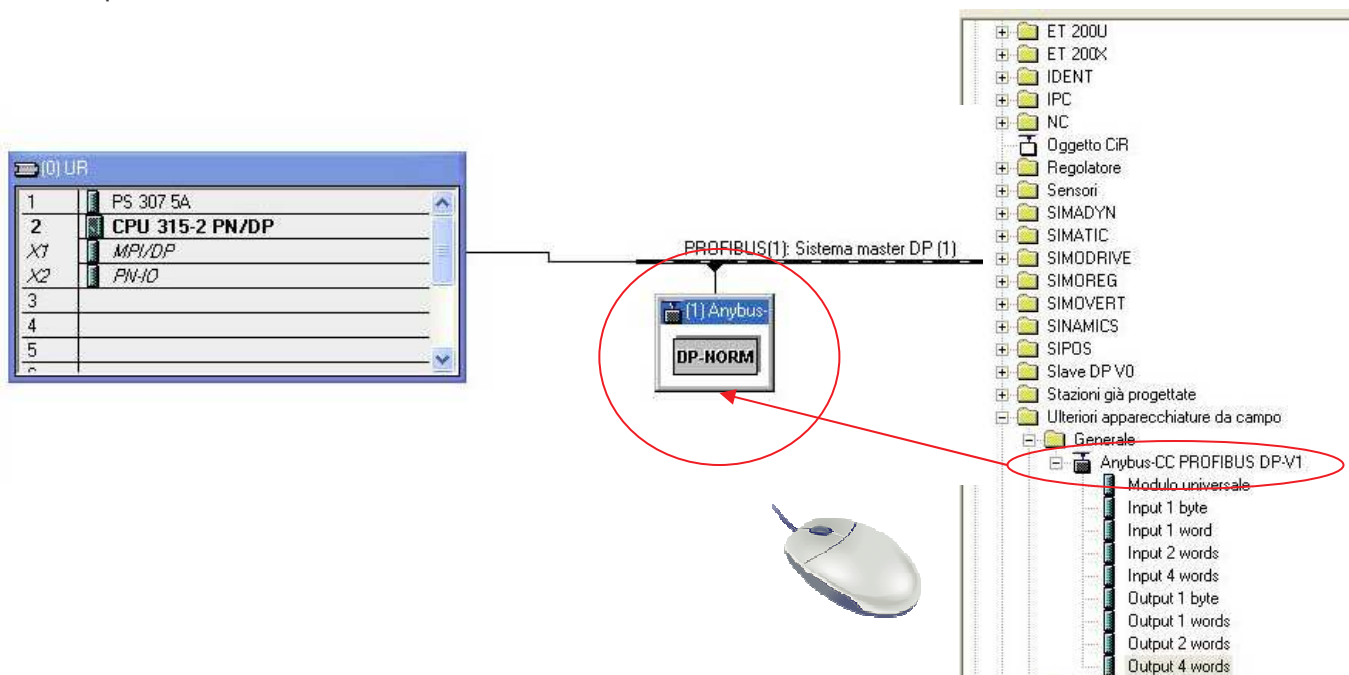
**Profibus-DP/Additional Field Devices / General**





## 6. Insert the device into the PROFIBUS network

An easy drag&drop function allows inserting the new device in your own network.  
In the picture below it becomes the **node n.1**



## 7. Set the I/O areas for the node

- 1 - select the node
- 2 - use the drag&drop function to take a module from the list on the right side and move it into the table under the network diagram.

**Warning: 8 INPUT bytes and 8 OUTPUT bytes required, at least**

See the picture below as example:

2 “4-word” modules (8 bytes each one) have been moved to create the I/O area for the node.

They are:

“Input 4 words” module to have 8 bytes of Input area

“Output 4 words” module to have 8 bytes of Output area

**Configurazione HW - SIMATIC 300 Station**

Stazione Modifica Inserisci Sistema di destinazione Visualizza Strumenti Finestra ?

**SIMATIC 300 Station (Configurazione) -- Example\_for\_manual**

**Catalogo hardware**

Trova: Standard

ET 200U  
ET 200X  
IDENT  
IPC  
NC  
Oggetto CIP  
Regolatore  
Sensori  
SIMADYN  
SIMATIC  
SIMODRIVE  
SIMOREG  
SIMOVERT  
SINAMICS  
SIPOS  
Slave DP V0  
Stazioni già progettate  
Ulteriori apparecchiature da campo

Generale  
Anybus-CC PROFIBUS DP-V1  
Modulo universale  
Input 1 byte  
Input 1 word  
Input 2 words  
Input 4 words  
Output 1 byte  
Output 1 words  
Output 2 words  
Output 4 words

Anybus-CC PROFIBUS DP-V1

Slave PROFIBUS-DP di SIMATIC (configurazione decentrata)

PROFIBUS(1): Sistema master DP (1)

(1) Anybus-CC PROFIBUS DP-V1

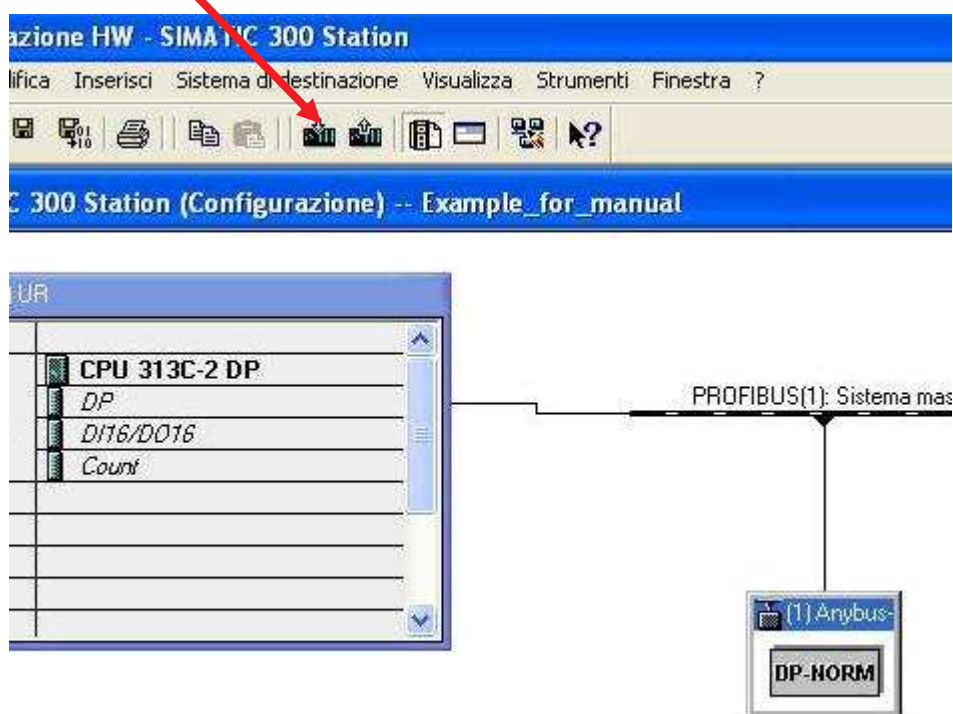
Posto connettore	Ident.	Numero di ordinazione / Identificazione	Indirizzo E	Indirizzo A	Commento
1	211	Input 4 words	10...17		
2	227	Output 4 words		8...15	
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

Premere F1 per accedere alla Guida.

Modifica

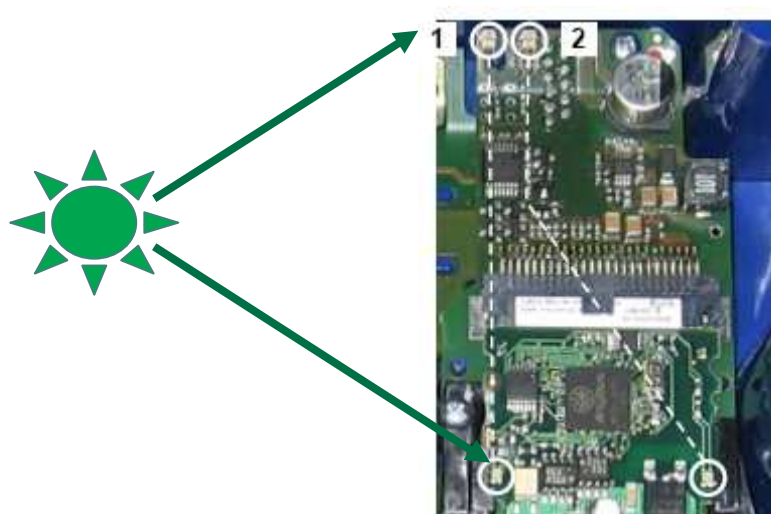
## 8. Download the configuration

- Press the *Download* icon to transfer sw & hw configuration to your PLC.



## 9. Check the communication

If the BM3x0 interface board is properly talking with the PLC, also the couple n.1 on the picture will turn ON, so the PLC will "see" the node.



	<h2 data-bbox="603 129 1133 224">How to configure a Matrix device over Profibus</h2> <p data-bbox="557 257 1134 288">Datalogic Automation – Rev. 1 - 12 May 2010</p>	<p data-bbox="1201 161 1390 194">Pag.: 12 of 12</p>
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Now you are ready to work and see data coming from the Matrix device to the PLC: setting a sample reading function on the PLC, just a data is available<sup>4</sup> it flows from the Matrix to the PLC over the bus.

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<sup>4</sup> Another option is implementing a data handshake. Refer to the “DAD-DPD Driver” manual for information how to implement the Datalogic Data Flow Control.