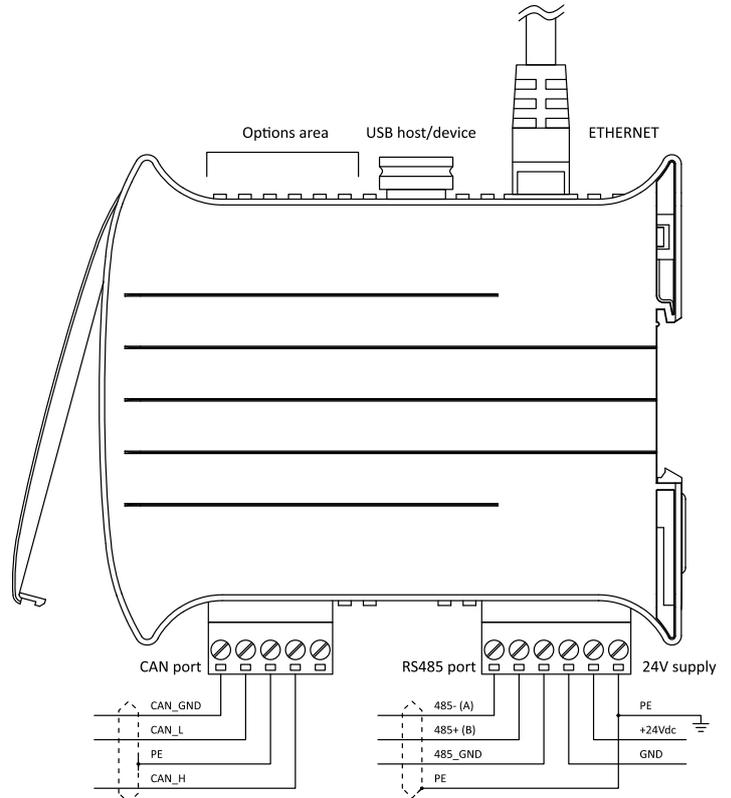## 1 - CONNECTIONS

1. Connect **Ethernet** port to the router/switch on the LAN or directly to a PC (in this case, use a crossover network cable).

2. Connect any used ports (**CAN** and **RS485**) via twisted pair cables and shielded.

3. Set the **DIP-Switch** for ports configuration inserting the terminating resistor only at the ends of the connection line:

DIP Switch		
	OFF	ON
1	CAN max speed 400kb/s	CAN max speed 1Mb/s
2	CAN disconnected resistor	CAN connected resistor
3 4	RS485 disconnected resistor	RS485 connected resistor

4. Connect the cable for **24Vdc power supply** (0.5A min) to the appropriate terminals.

5. When the device is mounted on a metal panel, connect the Protective **Earth** terminal directly to it, by using a short cable and with larger cross-section as possible.

6. Turn on the power. Check the **POWER** green led on the front panel.

CAUTION
Before powering up the device carefully check all the connections.
Do not apply the power voltage at the terminals of RS485 port.

Options area   USB host/device   ETHERNET

CAN port   RS485 port   24V supply

CAN_GND   485- (A)   PE
CAN_L   485+ (B)   +24Vdc
PE   485_GND   GND
CAN_H   PE

Ref. WP240_manual_EN.pdf

2 - SOFTWARE INSTALLATION

1. Download the complete software package:

   IEC-line_package_V23.9.xx.x.zip

2. Extract from zip file the two setup programs.

3. Install **CoDeSys** tool by running **CoDeSys_v239xx.exe** setup program.

   Install only the following components:

   • CoDeSys V2.3

   • CoDeSys base component

   • CoDeSys Gateway Server

   • CoDeSys OPC Server

4. Install the **IEC-line** package that includes all CoDeSys support files for the specific PLC, example programs and documentation. Thus the **IEC-line_V239xxx.exe** setup program must be executed.

5. Type in the Web browser the following address:

   192.168.1.101/admin/admin.html

   Username: **web_user0**

   Password: **web_password0**

6. Browse the various sections for any configuration changes. In particular in the **Network** page a new device address can be configured. After a modification the device must be rebooted.

Ref. Software-Installation-and-Configuration_EN.pdf

3 - EXAMPLE PROGRAM

1. Create a specific project **folder** on PC to store the files of the application program.

2. Run CoDeSys and open the program (preset for the WP240) provided as an example:

    File > New from template

    ...\IEC-line\WP240\Examples\WP240_Template.pro

3. Check in the menu

    Online > Communication Parameters

    that the network address matches the one assigned to the device. To change this, edit the Value field and press Enter key inside the box.

4. Save the starting program in the project folder assigning it a new name:

    File > Save as

    MyProgram.pro

5. Attivate the **Login** using the Online menu or the appropriate button on the toolbar. The program is first **compiled** and then **downloaded** to the PLC.

6. Activate the **Run** of program with the Online menu or with the toolbar button.

    Ref. Getting-Started-CoDeSys-Program_EN.pdf

4 - WEB VISUALIZATION

1. Download the Java software from the following Web page and install it on the PC used for the visualization:

    www.java.com/en/download/index.jsp

2. Enter the following address in the Web browser:

    192.168.1.101

Username:	**web_user0**
Password:	**web_password0**

3. The initial page, created into application program with CoDeSys tool, appears in the browser.

    NOTE: the administration pages of the PLC are always reachable in the ADMIN subfolder of Web server by adding **/admin/admin.html** to the IP address. To differentiate the access username/password refer to the WEB page.

5 - SOFTWARE UPDATE

1. If the software includes a new version of **CoDeSys** tool, repeat the complete installing procedure, else update only the **IEC-line** package. Is not necessary the uninstalling of previous version.

2. Establish an **FTP** connection to the PLC (server) device with the Client available inside **CHIPTOOL** utility:

Host address:	**192.168.1.101**
Username:	**ftp_user0**
Password:	**ftp_password0**

    NOTE: use the currently set parameters. After update, the default ones mentioned above will be valid again.

3. Overwrite the A: disk of PLC with the entire content of folder:

    ...\IEC-line\WP240\Disk_A_recovery\Disk_A_Image

It's allowable also the deleting of the disk before this transfer. However the PLC_PRG folder can not be removed as it blocked by the Run Time System until the next reboot.

4. Reboot PLC via the power supply or the RESET button.

To update the software on PLC side it is possible the using, as alternative to the FTP connection, of a **SD card** or **USB key** memory. For this procedure refer to the informations inside folder:

...\IEC-line\WP240\Disk_A_recovery

NOTE: after updating the TSP, opening an existing project, a warning can be displayed in the case that any used library has been updated. In that case, recompile the project.

For more details see the specific manuals in the "Documentation" folder.