1 INDEX

1 INDEX

2 CONFORMITY

2.1 DECLARATION OF CONFORMITY (94/9/CE, All. VII) 22

3 GENERAL WARNINGS 22

4 SAFETY INSTRUCTIONS 23

4.1 FIRST AID RULES 23

4.2 GENERAL SAFETY RULES 24

4.3 PACKAGING 25

4.4 PACKAGE CONTENTS/PRE-INSPECTION 26

4.5 MACHINE AND MANUFACTURER IDENTIFICATION 26

5 TECHNICAL FEATURES 27

6 OVERVIEW 28

7 INSTALLATION 28

7.1 FIXING TO THE WALL 29

7.2 WIRE CONNECTION 29

7.3 LED & CONNECTORS 31

7.4 GETTING STARTED 32

7.5 NAVIGATION 34

7.6 NETWORK TAB 34

7.7 SYSTEM TAB 35

7.8 RS485 TAB 35

7.9 PROCEDURE TO RESTORE FACTORY SETTINGS 36

8 DISPOSAL 37
2 CONFORMITY

2.1 DECLARATION OF CONFORMITY (94/9/CE, All. VII)

The Manufacturer:

PIUSI S.p.A
Via Pacinotti 16/A  z.i. Rangavino
46029 Suzzara - Mantova - Italia

HEREBY STATES under its own responsibility, that the equipment described below:
Description: PW-LAN module
Model : PW-LAN 2.0 - LAN Kit for OCIO 2.0 MCBOX 2.0
Serial number: refer to Lot Number shown on CE plate affixed to product
Year of manufacture: refer to the year of production shown on the CE plate affixed to the product

is in conformity with the legal provisions indicated in the directives:
- Low-Voltage Directive 2006/95/EC

The documentation is at the disposal of the competent authority following motivated request at Piusi S.p.A. or following request sent to the email address: doc_tec@piusi.com

The person authorised to compile the technical file and draw up the declaration is Otto Varini as legal representative.

Suzzara, 01/01/2014

Otto Varini
legal representative.

3 GENERAL WARNINGS

Important precautions
To ensure operator safety and to protect the pump from potential damage, workers must be fully acquainted with this instruction manual before performing any operation.

Symbols used in the manual
The following symbols will be used throughout the manual to highlight safety information and precautions of particular importance:

ATTENTION
This symbol indicates safe working practices for operators and/or potentially exposed persons.

WARNING
This symbol indicates that there is risk of damage to the equipment and/or its components.

NOTE
This symbol indicates useful information.

Manual preservation
His manual should be complete and legible throughout. It should remain available to end users and specialist installation and maintenance technicians for consultation at any time.

Reproduction rights
All reproduction rights are reserved by Piusi S.p.A. The text cannot be reprinted without the written permission of Piusi S.p.A.

THIS MANUAL IS THE PROPERTY OF Piusi S.p.A.
ANY REPRODUCTION, EVEN PARTIAL, IS FORBIDDEN.
4 SAFETY INSTRUCTIONS

4.1 FIRST AID RULES

Persons who have suffered electric shock

Disconnect the power source, or use a dry insulator to protect yourself while you move the injured person away from any electrical conductor. Avoid touching the injured person with your bare hands until he is far away from any conductor. Immediately call for help from qualified and trained personnel. Do not operate switches with wet hands.

NOTE Please refer to the safety data sheet for the product.
4.2 GENERAL SAFETY RULES

Essential protective equipment characteristics

Wear protective equipment that is:
- suited to the operations that need to be performed;
- resistant to cleaning products.

Personal protective equipment that must be worn

- safety shoes;
- close-fitting clothing;
- protection gloves;
- safety goggles;
- instructions manual

DANGER

The Device is not an anti-explosive type
The device must be installed outside areas at risk of explosion
Do not install in areas where flammable vapors may be present

DANGER

The device must be installed under a roof or in any environment, protected from rain

ATTENTION

The device must be mounted vertically with the grommets facing down

DANGER

Installation operations are carried out with the box open and accessible electrical contacts. All these operations have to be done with the unit isolated from the power supply to prevent electrical shock!
All work related to electrical installation must be performed by qualified installer electrical or electronic.
Wear insulated gloves for electrician.

ATTENTION

As a general rule of electrical safety is always recommended to power the device protecting the line with:
- Switch / breaker with adequate ampacity to the power line
- RCD (Residual Current Device) of 30 mA

ATTENTION

Devices must be professionally installed by qualified and authorized installer and it is the professional installer’s responsibility to make sure the device is operated within local country law and regulatory requirements

ATTENTION

The device is intended for use only by professional staff and authorized
**DANGER**

The cable must be adapted to the current capacities of the device. 
Never touch the plug and socket with wet hands 
Unsuitable extension cable can be dangerous. 
In accordance with current regulation only extension cable that are labelled for outdoor use and have a sufficient ampacity should be used outdoor. 
The connection between plug and socket must stay away from water. 
Before each use, check that the power cable for damage. Replace immediately the cable connection to the network if it is damaged.

**ATTENTION**

The maintenance of the electrical parts can be done only by qualified installer electrical or electronic. 
Wear insulated gloves for electrician. 
Before performing any maintenance make sure to unplug the device from the power supply to turn it off and isolate it from the mains. 
If the device is sold without cable to provide periodic verification of the circuit grounding in accordance with current regulations.

### 4.3 PACKAGING

**FOREWORD**
The appliance comes packed in a cardboard box bearing the following markings:

1 - contents of the package 
2 - weight of the contents 
3 - description of the product
4.4 PACKAGE CONTENTS/PRE-INSPECTION

**FOREWORD**
To open the packaging, use a pair of scissors or a cutter, being careful not to damage the dispensing system or its components.

**NOTES**
*In the event that one or more of the components described below are missing from inside the package, please contact Piusi inc technical support.*

**WARNING**
*Check that the data on the plate correspond to the desired specifications. In the event of any anomaly, contact the supplier immediately, indicating the nature of the defects. Do not use equipment which you suspect might not be safe.*

4.5 MACHINE AND MANUFACTURER IDENTIFICATION

**FOREWORD**
PW-LAN 2.0 comes with an identification plate; this is attached externally and contains the following information:
- Model
- Lot number / Production year;
- Technical data;

**ATTENTION**
*Before installing, always make sure the type of dispensing system is correct and suitable for the available power supply (Voltage/Frequency.) Make sure that the plate does not deteriorate or become detached over time.*

**NOTE**
*Should this situation arise, please contact our support department and arrange to have the damaged or missing plates sent back and replaced where necessary.*

The plates are the following:
1 - Front plate  
2 - Technical Data Plate  
3 - CE mark  
4 - CE plate / Lot / Year
# 5 TECHNICAL FEATURES

<table>
<thead>
<tr>
<th>Dimensions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Length (A)</td>
<td>180 mm</td>
</tr>
<tr>
<td>Depth (B)</td>
<td>60 mm</td>
</tr>
<tr>
<td>Height (C)</td>
<td>160 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>330 g</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Technical Specifications</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>100 - 230 Vac</td>
</tr>
<tr>
<td>Frequency</td>
<td>50 Hz / 60 Hz</td>
</tr>
<tr>
<td>Max. power</td>
<td>15 W</td>
</tr>
<tr>
<td>Protection grade</td>
<td>IP54</td>
</tr>
</tbody>
</table>
Welcome to PW-LAN 2.0 – the new solution which allows you to connect Piusi devices to your LAN network. The PW-LAN 2.0 provides:

- Instant conversion from RS485 to Ethernet signal
- IP Fallback function
- DHCP compatible
- 100% compatibility with Piusi Softwares

The PW-LAN 2.0 is an advanced device capable of powerful and different signal conversion features, built upon a simple and intuitive user interface foundation. This User Guide describes the PW-LAN 2.0 operating system version 3.0, which is integrated into the device.

Supported Products
PW-LAN 2.0 supports the following Piusi products:

- MC-BOX 2.0
- OCIO 2.0

SYSTEM REQUIREMENTS
OPERATING SYSTEM
Microsoft Windows XP
Windows Vista
Windows 7
Windows 8

WEB BROWSER
Mozilla Firefox
Apple Safari
Google Chrome
Microsoft Internet Explorer 8 (or above)

ATTENTION
The installation operations are performed with door open and power contacts accessible. All these operations must be performed with the appliance isolated from the power mains to avoid any risk of electric shocks!

All the following operations must be performed by skilled electro-technical or electronic experts

The use of accessories that are unsuitable and were not provided with the system is strictly prohibited. Piusi S.p.A. accepts no responsibility for damage to persons, property or the environment caused by failure to comply with this requirement.

INSTALL THE APPLIANCE WITH CABLE GLANDS FACING DOWN AND PROVIDE A PROTECTIVE COVER.
7.1 FIXING TO THE WALL

**FOREWORD**

Remove the front cover to fix the PW-LAN 2.0 on the wall

To fix on the wall, use No. 2 M4 screws

7.2 WIRE CONNECTION

**FOREWORD**

Removing the frontal case it is possible to make all the necessary wiring.

To do a proper operation, perform the following steps:

1. Fix the RS485 twisted cable as shown below.

2. Fix the three power supply cable as shown below - Input 100-240 Vac 50/60 Hz.
Plug in the Ethernet cable

**ATTENTION**

**RS485 CABLE**
Using a certified cable for rs485 you can reach 1200 meters

**ETHERNET CABLE**
Use a shielded cable, category 5 or higher. The max. distance that can be reached is 90 metres. The maximum distance is also affected by the existing network architecture

**WIRED PW-LAN 2.0**

**ATTENTION**
Fix the power cord with the clip provided so that any separation of the cable from the terminals does not lead to dangerous voltages other cables connected to the outside.
7.3 LED & CONNECTORS

1. RESET button to restore factory defaults
2. Ethernet connector
3. RS485 connector
4. Power 100/240Vac 50/60 Hz connector

<table>
<thead>
<tr>
<th>LED</th>
<th>FLASHING</th>
<th>EQUIVALENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1</td>
<td>OFF</td>
<td>No traffic from RS485</td>
</tr>
<tr>
<td></td>
<td>SLOW FLASH</td>
<td>Traffic from RS485</td>
</tr>
<tr>
<td>D2</td>
<td>OFF</td>
<td>DCHP Disabled, Customized IP (different from 192.168.2.10)</td>
</tr>
<tr>
<td></td>
<td>SLOW FLASH</td>
<td>DCHP Enabled</td>
</tr>
<tr>
<td></td>
<td>FAST FLASH</td>
<td>DCHP Enabled, No IP from DHCP server, Fallback IP 192.168.2.10</td>
</tr>
<tr>
<td>D4</td>
<td>ON</td>
<td>Standard IP 192.168.2.10</td>
</tr>
<tr>
<td>D5</td>
<td>ON</td>
<td>LAN signal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Power ON</td>
</tr>
</tbody>
</table>
7.4 GETTING STARTED

FOREWORD
This is the scheme of a typical site structure.

ACCESS
To access the PW-LAN 2.0 Configuration Interface, perform the following steps

1. Make sure that your host machine is connected via Ethernet to the Piusi device.
2. Configure the Ethernet adapter on your computer with a static IP address on the 192.168.2.x subnet (for example, IP address: 192.168.2.150 and subnet mask: 255.255.255.0).
3. Configure internet options of your browser WITHOUT proxy server.
4. Launch your Web browser. Enter the default IP address of your device in the address field. Press Enter (PC) or Return (Mac).

<table>
<thead>
<tr>
<th>Device</th>
<th>Default IP Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>PW-LAN 2.0</td>
<td>192.168.2.10</td>
</tr>
</tbody>
</table>

5. Enter admin in the Username and piusipass in the Password fields and click Ok.
Per visualizzare questa pagina devi accedere a questa area su 129.0.1.182:80:
Embedded WEB Server
La password verrà inviata in chiaro.
Nome:  
Password:  
☐ Memorizza la password nel portachiavi

Annulla  Login
The PW-LAN 2.0 Configuration Interface contains three main tabs, each of them provides a Web-based management page to configure a specific aspect of the Piusi device:

**NETWORK**
The "Network Tab" configures the network operating mode; Hostname; Internet Protocol (IP) settings; DHCP; Subnet Mask; Gateway; Primary and Secondary DNS Server.

**SYSTEM**
The "System Tab" controls administrator account management, firmware update, and configuration backup.

**RS485**
The "RS485 Tab" configures the RS485 conversion system, it is possible to choose a Piusi product or to set the parameters manually.

### 7.6 NETWORK TAB
The Network tab allows to configure TCP/IPv4 parameters.

#### ITEM/SETTING

<table>
<thead>
<tr>
<th>Item</th>
<th>Setting</th>
<th>Case DHCP Client</th>
<th>Case Static IP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Device Name</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Management IP Address</strong></td>
<td>DHCP Client</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Current IP</strong></td>
<td>192.168.2.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fallback IP</strong></td>
<td>192.168.2.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Netmask</strong></td>
<td>255.255.255.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gateway IP</strong></td>
<td>192.168.2.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Primary DNS IP</strong></td>
<td>1.1.1.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Secondary DNS IP</strong></td>
<td>1.1.1.1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DEVICE NAME**
Specifies the host name

**MANAGEMENT IP ADDRESS**
You choose the formality of management of the IP of the device among 2 options:
- DHCP Client: that it means that in the lan network exist a DHCP server that assigns a dynamic IP to the PW-LAN 2.0, an address IP of the Gateway and an address DNS to the device
- Static: that means that the administrator of net assigns a fixed static IP to the PW-LAN 2.0.

**CURRENT IP**
it is the dynamic address that is automatically assigned by the DHCP file server of the lan network to the PW-LAN 2.0

**FALLBACK IP**
it is the address IP that of default is associated to the PW-LAN 2.0 if these facts happen:
- the PW-LAN 2.0 is configured as DHCP Client MA
- after a certain time from the turning of the device the DHCP file server has not succeeded in assigning a dynamic IP and then the PW-LAN 2.0 configure itself with the IP of FallBack
**STATIC IP**

It is the static IP that the administrator of net manually inserts in the field IP.

**NETMASK**

When the netmask is expanded into its binary form, it provides a mapping to define which portions of the IP address range are used for the network devices and which portions are used for host devices. The netmask defines the address space of the device's network segment. The 255.255.255.0 (or "/24") netmask is commonly used on many Class C IP networks.

**GATEWAY IP**

Typically, this is the IP address of the host router, which provides the point of connection to the Internet. This can be a DSL modem, cable modem, or WISP gateway router. The device directs data packets to the gateway if the destination host is not within the local network.

**PRIMARY DNS IP**

Specify the IP address of the primary DNS (Domain Name System) server.

**SECONDARY DNS IP**

Specify the IP address of the secondary DNS server. This entry is optional and used only if the primary DNS server is not responding.

### 7.7 SYSTEM TAB

**FOREWORD**

The "System Tab" controls the administrator account management.

**NETWORK | SYSTEM | RS485**

- **New password**
  - 
- **Verify new password**
  -

[Change | Undo]

**NEW PASSWORD**

Enter the new password for the administrator account.

**VERIFY NEW PASSWORD**

Re-enter the new password for the administrator account.

### 7.8 RS485 TAB

**FOREWORD**

The "RS485 Tab" configures the RS485 conversion system

1) Case choice Products Piusi
   - Configuration Default and choice other products Piusi

2) Case Other products
   - Setting others Parameters RS485

**PW-LAN 2.0**

**NETWORK | SYSTEM | RS485**

- **Piusi product**
- **Custom product**

- **Self / MC / Octo - 2.0**
  -

[Change | Undo]

**PIUSI PRODUCT**

PIUSI PRODUCT: Preset configuration. Choose one of the products in the list.

**MANUAL CONFIGURATION**

Manually enter the RS485 parameters.

**CUSTOM PRODUCT**

This is a four-step procedure:

- **Choose the Baudrate**
- **Choose Databit**
- **Choose the Parity**
- **Choose Bit Stop**
If you are no longer able to access the device and you want to reset the factory settings, a special Reset procedure should be applied. **ATTENTION**

*The procedure must be done only by staff experienced on the dangers of the electrical power!*

*The staff must wear insulating gloves in order to*

The procedure is as follows:

1) Remove supply voltage to the device
2) Open the box with the 4 screws
3) Locate the RESET button as shown in the previous paragraph
4) Press and hold the RESET button while you power

**ATTENTION**

*This procedure is very dangerous because you are near points with dangerous voltage on the board. Use insulating gloves for electricians!*
| **Foreword** | If the system needs to be disposed, the parts which make it up must be delivered to companies that specialize in the recycling and disposal of industrial waste and, in particular: |
| **Disposing of packing materials** | The packaging consists of biodegradable cardboard which can be delivered to companies for normal recycling of cellulose. |
| **Metal Parts Disposal** | Metal parts, whether paint-finished or in stainless steel, can be consigned to scrap metal collectors. |
| **Disposal of electric and electronic components** | These must be disposed of by companies that specialize in the disposal of electronic components, in accordance with the indications of directive 2002/96/CE (see text of directive below). |
| **Information regarding the environment for clients residing within the European Union** | European Directive 2002/96/EC requires that all equipment marked with this symbol on the product and/or packaging not be disposed of together with non-differentiated urban waste. The symbol indicates that this product must not be disposed of together with normal household waste. It is the responsibility of the owner to dispose of these products as well as other electric or electronic equipment by means of the specific refuse collection structures indicated by the government or the local governing authorities. |
| **Miscellaneous parts disposal** | Other components, such as pipes, rubber gaskets, plastic parts and wires, must be disposed of by companies specializing in the disposal of industrial waste. |