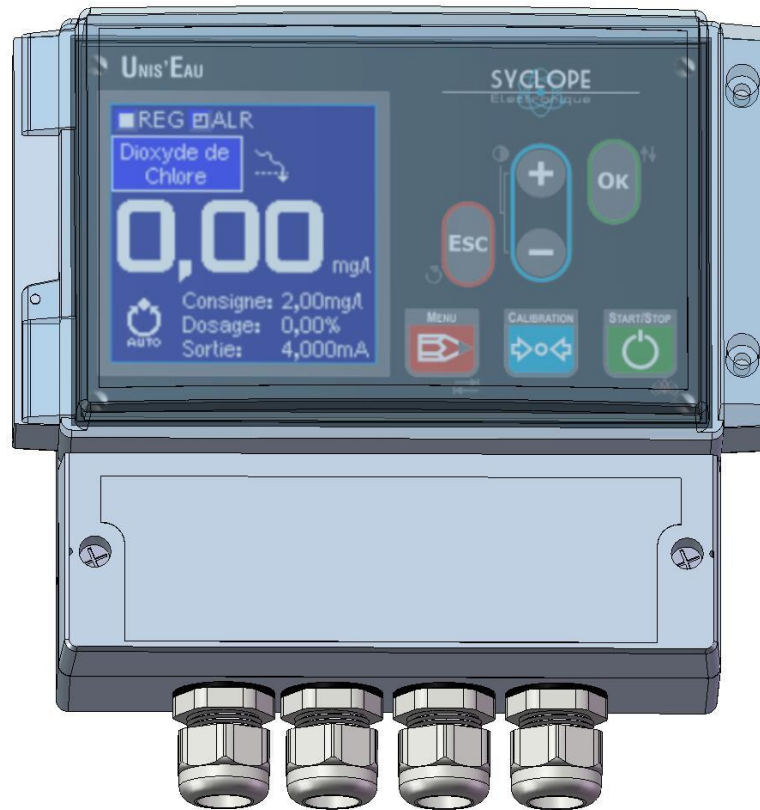


SYCLOPE UNIS'EAU® controller for industrial applications (Part 1)



Installation and starting instructions



Parts of the general documentation

- Part 1 : Installation and starting instructions
- Part 2 : Programming instructions
- Part 3 : Programming communication instructions

General informations :

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Professional controller for industrial applications **UNIS'EAU[®]**

Part 1 : Installation and starting instructions (Ref : DOC0098_en)

Editor :



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Contents

I.	General informations	4
1)	Field of applications.....	4
2)	Use of the document	5
3)	Symbols and signs.....	5
4)	Storage and transport.....	6
5)	Packaging	6
6)	Warranty	6
II.	Environment and safety procedures	7
1)	Use of the equipment	7
2)	User obligations	7
3)	Risk prevention	7
4)	Identification and localization of the identification plate	8
5)	Disposal and conformity.....	9
I.	Technical specifications and main functions.....	10
1)	Technical specifications.....	10
2)	Main functions.....	10
3)	Parameters and scales of measurement.....	11
II.	Installation and connections	14
1)	Requirements of installation	14
2)	Installation of the wall-mounted controllers.....	14
3)	Opening/Closing the transparent door	15
1)	Opening/Closing connection cover	15
2)	Identification of electrical connections	16
3)	Changing internal fuse of powered relay output P1	16
4)	Connecting primary power supply.....	18
5)	Connecting self-powered relay P1	18
6)	Connecting electronic pulse relay R1	19
7)	Connecting free of potential relay R2	19
8)	Connecting high impedance potentiometric input J1	20
9)	Connecting analogical 0/4...20mA entries IN1 & IN2	20
10)	Connecting the voltage reference REF	22
11)	Connecting analogical outputs OUTA & OUTB (0/4...20mA).....	22
12)	Connecting the external control entry K1	23
13)	Connecting the communication port (RS485).....	24
IV.	Presentation of the Human/Machine Interface (HMI)	25
V.	Commissioning the SYCLOPE UNIS'EAU® controller.....	26
VI.	Maintenance.....	26

I. General informations

1) Field of applications

The controller/analyser of the **SYCLOPE UNIS'EAU®** range you have just purchased is an electronic device especially developed for water treatment in industrial applications. It has been carefully manufactured to ensure your greatest satisfaction in each needing situation where precision is requested.

Its remarkable capacity for adapting to different industrial conditions means it can be installed in the most difficult environments where controls and water treatment processes are decisive.

Designed according to the needs of the Client, the **SYCLOPE UNIS'EAU®** controller is equipped with isolated direct inputs for specific sensors used in general industrial applications and also, it includes many functions for controlling processes or for transmitting informations through relays, analogical or numerical outputs to a local PLC or to a service maintenance by internet.

The simplicity of operation of the **SYCLOPE UNIS'EAU®** controller, the user friendliness and the remarkable technical aspects of these controllers, will ensure you benefit from their many options, guaranteeing you full control and real supervision of your water treatments on the field.

The following instructions contain all the information required for the installation, use and maintenance of your new equipment.

- Installation
- Technical specifications
- Commissioning instructions
- Safety tips

If you would like to receive further information or if you encounter any difficulties not described in this manual, please contact your usual retailer or else directly contact the sales department of SYCLOPE Electronique S.A.S., either at the agency or at the office for your region, or the technical/quality departments of our establishments. We will do everything to help you and ensure you benefit from our advice and know-how in the field of measurement and treatment of industrial water.

Contact : service-technique@syclope.fr

2) Use of the document

Please read this entire document before starting to install, adjusting or commissioning your controller device, in order to ensure the safety of users, the processes and the equipment.

The information provided in this document must be strictly observed. SYCLOPE Electronique S.A.S. declines all responsibility in cases where failure to comply with the instructions of this documents is observed.

The following symbols and pictograms will be used to facilitate reading and understanding of these instructions.

- Information
- ▶ Action to be taken
- Item of a list or catalogue

3) Symbols and signs



Identification of a continue voltage or current



Identification of an alternative voltage or current



Protective ground



Functional ground



Risk of injury or accident. Identify a warning concerning a potentially dangerous risk. Documentation must be consulted by the user with each time the symbol is notified. If the instructions are not respected, that presents a risk of death, physical injuries or property damages.



Electric hazard. Identify a warning statement relative to a mortal electric danger. If the instructions are not strictly respected, that implies an inevitable risk of physical injuries or death.



Risk of incorrect operation or damage for the device.



Comment or particular information.



Recyclable element.

4) Storage and transport



It is important to store and transport your **SYCLOPE UNIS'EAU®** in its original packaging in order to minimize risk of damage.

Furthermore, the package must be stored in an environment that is protected against humidity and exposure to chemical products.

Environmental conditions for transport and storage:

Temperature: -10 °C to 70 °C

Air humidity: Maximum of 90% with no condensation

5) Packaging



The controller is delivered without electrical power cable.

The pre-holes of the box are drilled and equipped with according electrical glands in compliance with IP65 level protection. Cables must be adapted to the electrical glands to respect the level of protection.

Grounded cables for connecting pH and ORP (Redox) sensors are not provided.

Content of the packaging :

- ✓ One analyzer/controller **SYCLOPE ODISEA®**
- ✓ Installation and starting instruction notice
- ✓ Programming notice
- ✓ Communication notice (Option)

6) Warranty

The warranty is provided according to the terms of our general conditions of sale and delivery as long as the following conditions are met:

- Use of the equipment according to the instructions of this notice
- No modifications of the equipment which may modify its behavior and no incorrect manipulation
- Respect for the electrical safety conditions



Consumable material is no longer covered by the warranty when in use.

II. Environment and safety procedures

Please:

- Read this manual carefully before unpacking, installing or commissioning this equipment
- Take into account all the hazards and recommended precautionary measures

Failure to respect these procedures can result in serious injury to users or damage the device.

1) Use of the equipment

The **SYCLOPE UNIS'EAU®** system has been designed to measure and regulate temperature, pH, Redox potential, chlorine (or bromine), conductivity, etc... by means of sensors and controls of suitable actuators in the context of the possible uses described in this manual.



All other uses are considered to be non-conforming and must therefore be forbidden. SYCLOPE Electronique S.A.S. will not be responsible in any case for any damages that result from such uses.



Any use of sensors or interfaces not-in conformity to the features defined in this handbook must also be proscribed.

2) User obligations

The user undertakes not to allow its employees to work with the **SYCLOPE UNIS'EAU®** equipment described in this manual unless they:

- Are aware of the fundamental instructions relating to work safety and prevention of accidents
- Are trained in the use of the device and its environment
- Have read and understood these instructions, warnings and manipulation rules

3) Risk prevention



The installation and connection of the **SYCLOPE UNIS'EAU®** equipment should only be performed by personnel specialized and qualified for this task.
The installation must comply with current safety standards and instructions!



Before switching on the controller or manipulating the relay outputs, remember always to off the primary power supply!
Never open the controller when it is powered on!
Maintenance operations and repairs should only be performed by trained, specialized personnel!



Take care when choosing the location for installing the equipment according to the environment!
The **SYCLOPE UNIS'EAU®** electronic box should not be installed in a hazardous environment and should be protected against splashing with water or chemical products. It should be installed in a dry, well-ventilated location, isolated from corrosive vapors.

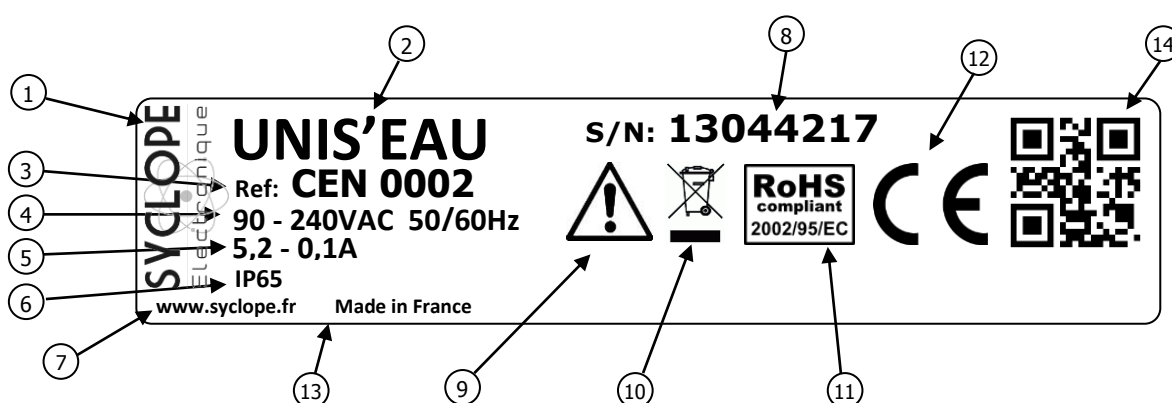


Make sure that the chemical sensors used with this device correspond well to the chemicals used. Refer to the individual technical note of each sensor. Chemistry of water is very complex, in case of doubt, contact immediately our engineering service or your approved installer/reseller.



Chemical sensors are sensitive elements using consumable parts. They must be supervised, maintained and calibrated regularly using specific calibrator systems not-provided with this equipment. In the event of defect, a surplus possible hazard of chemical injections can be noted. In the doubt, a service contract must be taken near your reseller/installer or failing this near our engineering services. Contact your approved installer/reseller or our business service for more information.

4) Identification and localization of the identification plate



① Label of the manufacturer	⑨ Particular risks. Read the notice
② Model of the product	⑩ Product which can be recycled
③ Reference of the product	⑪ Limitation of dangerous substances
④ Range of power supply	⑫ EC certified
⑤ Values of the maximum current	⑬ Country of origin
⑥ Classify protection	⑭ Manufacturer square code
⑦ Identification of the manufacturer	
⑧ Serial number	

Identification plate



5) Disposal and conformity

The recyclable packaging of the **SYCLOPE UNIS'EAU®** equipment must be disposed of according to current regulations.



Elements such as paper, cardboard, plastic or any other recyclable elements must be taken to a suitable sorting center.



According to European directive 2002/96/EC, this symbol means that as of 12 August 2005 electrical appliances cannot be thrown out together with household or industrial waste. According to current regulations, consumers within the European Union are required, as of this date, to return their used devices to the manufacturer, who will take care of disposing them at no extra expense.



According to European directive 2002/95/EC, this symbol means that the **SYCLOPE UNIS'EAU®** controller is designed in compliance with the restrictions on hazardous substances



According to low-voltage directive (2006/95/EC) and the electromagnetic compatibility directive (2004/108/EC), this symbol means that the device has been designed in compliance with the previously cited directives

I. Technical specifications and main functions

1) Technical specifications

General characteristics		
Type	Specification(s)	Marker(s)
Consumption	5 W Maxi. (Without equipment connected on P1)	-
Power supply	90-240 VAC 50 or 60Hz	-
Electric protection	Fuse 160 mA. Rearmament by power supply cut-off.	-
Operating temperature	-5 °C to 45 °C (23 °F to 113 °F)	-
Storage temperature	-10 °C to 70 °C (10 °F to 158 °F)	-
Humidity	Max. 90% without condensation	-
Case material	ABS or Polycarbonate (US and Canada)	-
Case dimensions	Length : 188 mm (7,4 inches)	-
	Width : 160 mm (6,3 inches)	
	Height : 106 mm (4,2 inches)	
Weigh of the case	800 g	-
Protection rating	IP 65	-
Display	LCD Screen 128x128 with back-light (White/Blue)	-
Entries		
Measurement inputs	1x potentiometric input +/- 1000mV 2x 4...20 mA entries powered 24V or 12V	POT IN1 and IN2
Control inputs	1x Flow-meter or flow-switch entry On/off or pulse technology	K1
Outputs		
Relays outputs	1x powered relay outputs max. 2A/250 VAC 1x Electrical pulse output 1x Free potential dry contacts	P1 R1 R2
Analogical outputs	2x 0/4...20mA outputs Max 500 Ω	OUTA OUTB
RS485 bus line	1x Communication port RS485 type for compatible software protocol type "MODBUS RTU"	RS485
Electrical protection for powered relay output	Quick-fuse 5A Glass 5x20mm.	F2

2) Main functions

Main functions		
Function	Specification(s)	Remarque(s)
Control	Control for only one parameter	Type of control according model of device
Type of actuator	1 Powered relay output 90-240V 1 Free of potential relay 1 Electronic pulse output 1 0/4...20 mA analogic output	On/off control PWM control Pulse control from 1 to 500 cps/min
Alarms	Low, high, overdose, defect sensor or fault of water circulation.	Expressed in real value of measurement Alarm thresholds high and low.
Process	Flow control	Control of injections to an external contact from a flow switch or a pulse flow-meter.
Maintenance	Assistance with maintenance	Control of each output

3) Parameters and scales of measurement

Available sensors « really connected »

	0,01...0,5mg/L	0,1...1mg/L	0,02...2mg/L	0,1...5mg/L	0,2...10mg/L	0,4...15mg/L	0,2...20mg/L	0,5...50mg/L	1...100mg/L	2...200mg/L	20...2000mg/L	Client*
Free chlorine (DPD1)	•		•	•	•	•	•	•	•			•
Active chlorine (HOCl)			•		•							•
Total chlorine (DPD4)	•		•	•	•							•
Chlorite	•		•									•
Chlorine dioxide	•		•		•							•
Peroxide								•		•	•	•
Bromine (BCDMH)			•		•	•						•
Bromine (DBDMH)		•		•	•							•
Free bromine		•		•	•							•
Peracetic acid										•	•	•
Ozone			•									•
Dissolved Oxygen					•		•					•
PHMB									•			•

(*) : The Client sensor can be define with a scale range from 0 to 2000.0 (ppb, ppm, µg/L, mg/L, g/L or %)

	0,2...100NTU	Client*
Turbidity	•	•

(*) : The Client sensor can be defined with a scale range from 0 to 2000.0 (NTU or FNU)

	0...5mS/cm	0...10mS/cm	0...20mS/cm	0...50mS/cm	0...100mS/cm	0...200mS/cm	Client*
Conductivity	•	•	•	•	•	•	•

(*) : The Client sensor can be defined with a scale range from 0 to 2000.0 (µS/cm² or mS/cm²)

	-5...+45°C	Conv. PT100	Client*
Temperature	•	•	•

(*) : The Client sensor can be defined with a scale range from -100 to 1000 (Kelvin, °C, °F or °Ra)

	0...20l/min	0...50l/min	0...200l/min	0...10m3/H	Client*
Flow rate (4...20mA)	•	•	•		•
Flow rate (impulsion)	•		•	•	•

(*) : The Client sensor can be defined with a scale range from 0 to 2000.0 (L/min, L/H ou m3/H) through pulse or analog interface.

	pH 1...12	pH 0...14	Conv. PH_V1	Conv. ISOCAP	Conv. UNISO	Client*
pH (Direct entry)	•	•				•
pH (4...20mA)			•	•	•	•

(*) : The Client sensor can be defined with a scale range from de -1 to 15 (pH)

	+/- 1000mV	Conv. RH_V1	Conv. ISOCAP	Conv. UNISO	Client*
RedOx (Direct entry)	•				•
RedOx (4...20mA)		•	•	•	•

(*) : The Client sensor can be defined with a scale range from de -2000 to +2000 (mV)

Computed parameters from combination of real measurement sensors

Parameters	Sensors							
	pH	Temperature	Conductivity	Free chlorine	Active chlorine	Total chlorine	Free bromine	Active bromine
pH	•	•						
Conductivity		•	•					
Salinity		•	•					
TDS		•	•					
Free chlorine	•	•			•			
Active chlorine	•	•		•				
Chloramine						•	•	
Free bromine	•	•						•
Active bromine	•	•					•	

UNIS'EAU controller is only one parameter controller. It measures and controls only one parameter at the same time.

This parameter can result:

- From a specific sensor
- From a combination of one or more connected sensors.

II. Installation and connections

1) Requirements of installation



To guarantee user safety and ensure correct operation of your **SYCLOPE UNIS'EAU®** please observe the following installation instructions:

- Install the controller in a dry location
- The controller must be protected against rain, frost and direct sunlight
- The room temperature must range between 0°C and 50°C, with no condensation.
- Choose an installation location free from vibration, on a suitable support and with no deformation



If these instructions are not observed:

- The controller is at risk of being damaged
- The measurements can be disrupted
- The warranty is not applicable!

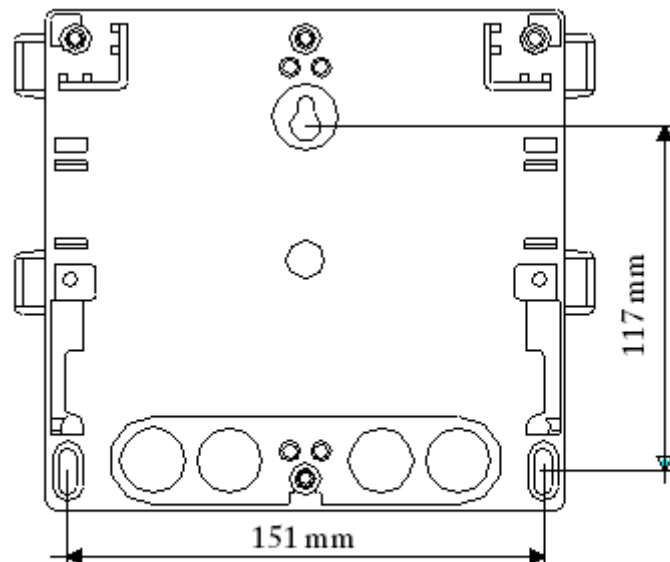
2) Installation of the wall-mounted controllers



Before performing the installation and electrical connections, remember to turn off the power!

The rating of IP65 is only guaranteed when the closing cover and the glass of the electric box are closed and when the cable glands match the diameters of your cables and are correctly sealed

- ▶ Drilling three holes (∅ 5-mm) according to the following drilling plan



- ▶ Insert the 5-mm plugs using a hammer
- ▶ Insert the upper screw (top screw) first without completely tightening it
- ▶ Insert the lower screws and tighten them
- ▶ Use a spirit level to check for correct and accurate fixing to the wall.

3) Opening/Closing the transparent door



To ensure IP65 protection class, the transparent door must be closed after usage and being sure of the O-ring quality each time.

The controller box is equipped with an automatic lock system which must be understood to manipulate it.

For opening the transparent door:



Locked ...



Raise the lock and pull forward it.

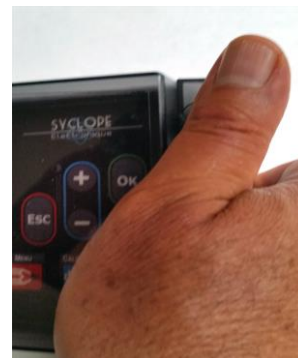


Opened!

For opening and locking transparent door:



Pass the fingers behind the lock and bring the door with the inch ...



With the palm of the hand, press on the transparent door and tighten with the hand to lock.



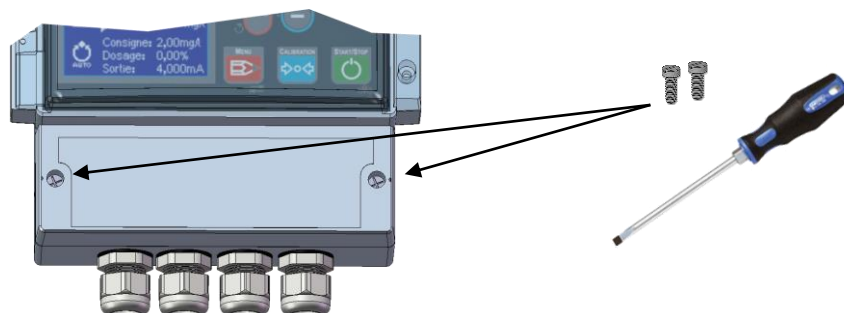
Locked!

1) Opening/Closing connection cover



To ensure IP65 protection class, the connection cover must be closed after usage and the O-ring must be checked each time.

Use a specific screwdriver to remove the two screws for opening the cover.



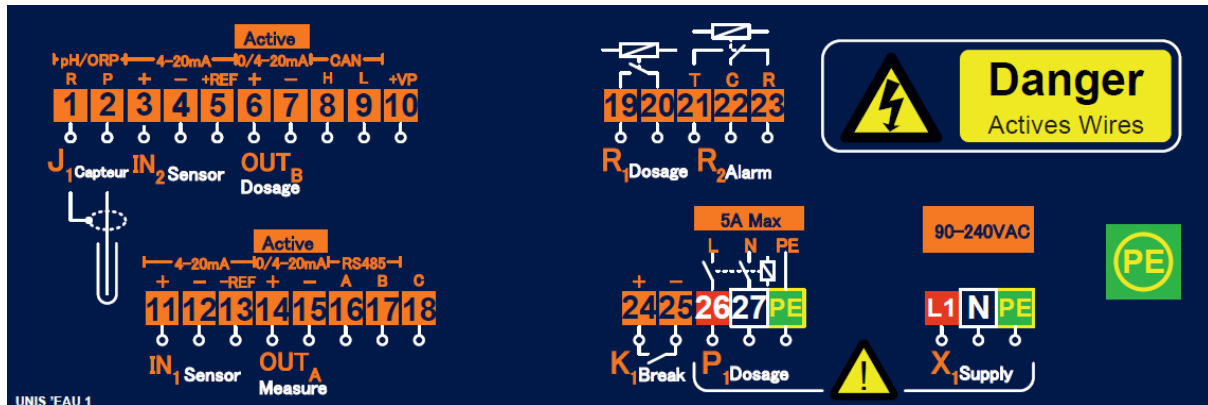
2) Identification of electrical connections

Electrical installation must be performed in accordance with current standards by authorized personnel!

A 30 mA differential circuit breaker must be installed!

A breaker circuit of maximum 6A must be installed near the controller and easily accessible to stop the main power. It must be identified as a circuit-breaker for the controller!

Before performing the connections, remember to turn off the power!

**Internal protection:**

UNIS'EAU controller is protected against short-circuits by an automatic restart fuse of 160mA and against surges by a varistor of 275V.



Powered relay output P1 is protected by a glass quick-fuse of 5A max. 250V.

Reference	Name
FUS5X20R5000	Quick-fuse 5A 5x20 Glass



In case of fuse burned, check that the card is not burnt out. In this case, complete electronic card must be changed!

In case of varistor destroyed, please return the controller to our technical after-sales department for repairing!

3) Changing internal fuse of powered relay output **P1**

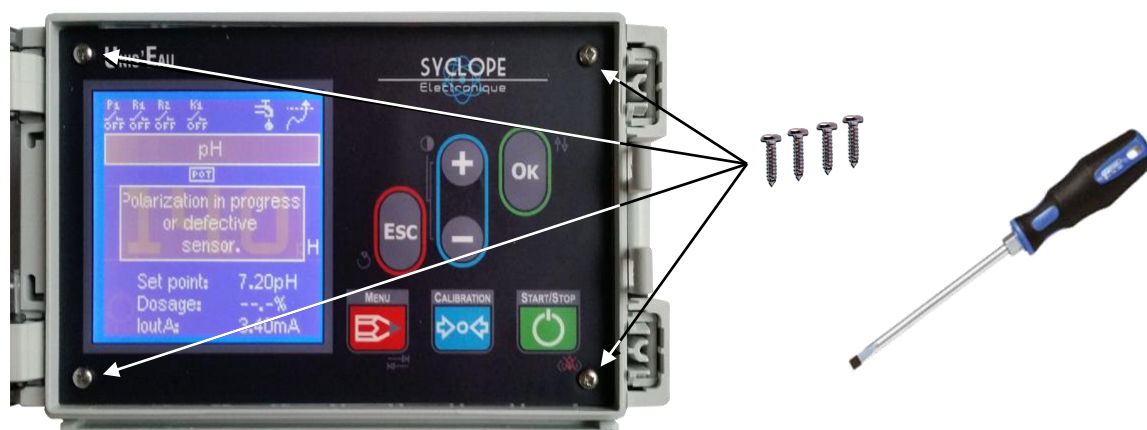
Before changing the fuse, be sure power supply is disconnected!



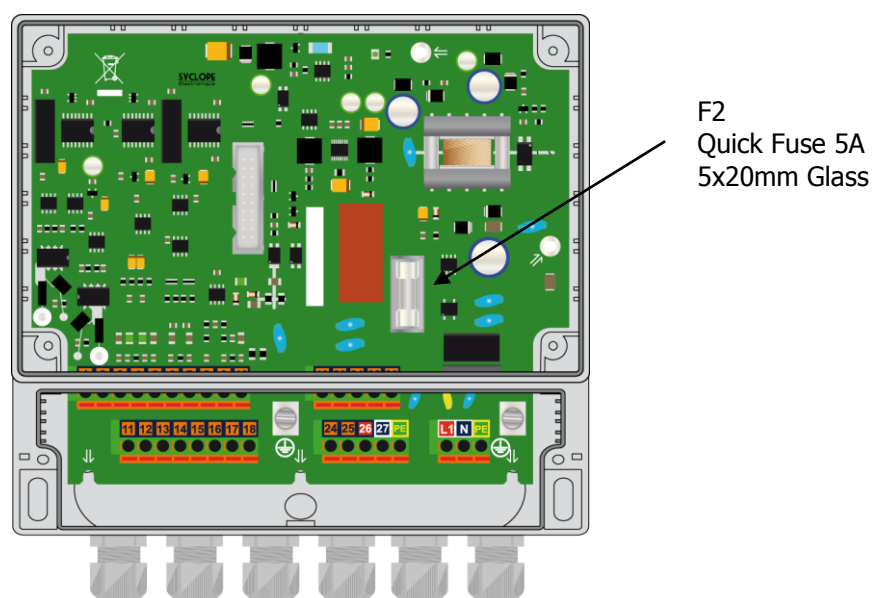
Use only an original fuse. Don't replace it by another one with higher protection value.

Open the transparent door and unscrew the 4 screws of the front face with a compatible screwdriver.

Disconnect the flat cable between the 2 electronic plates ...



Localise the fuse on the bottom electronic card ...
 Remove the protection cover on the fuse ...
 Change the fuse and replace the protection cover.



Reconnect the flat cable between electronic cards and replace the 4 screws to fix the front face.
 Don't screw them hardly because the electronic box is made in plastic material.

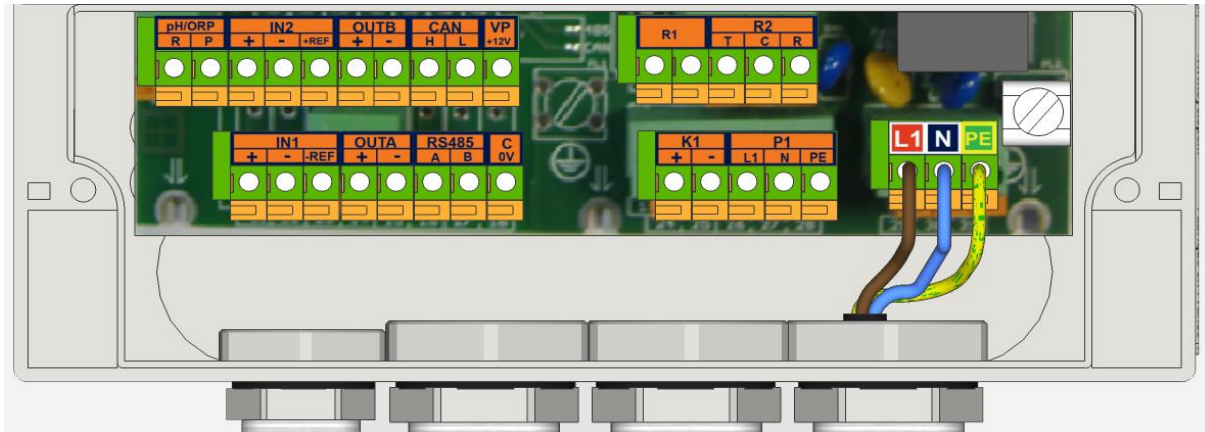
4) Connecting primary power supply



The **SYCLOPE UNIS'EAU®** controller is equipped with a switching power supply. It is therefore able to be supplied by AC voltage comprised between 90V to 240V - 50/60Hz.



- ▶ Use a 3-point 1.5 mm² cable to wire the power supply
- ▶ Strip the 3 wires for 7 mm
- ▶ Pass the 3-point cable through a cable gland
- ▶ Wire the live cable to **L1**, the neutral to **N** and the ground to **PE** located "X1 supply"
- ▶ Tighten the cable gland to ensure tightness when done.



The **SYCLOPE UNIS'EAU®** controller does not have its own independent power switch. It is directly powered when connected to the main power supply.

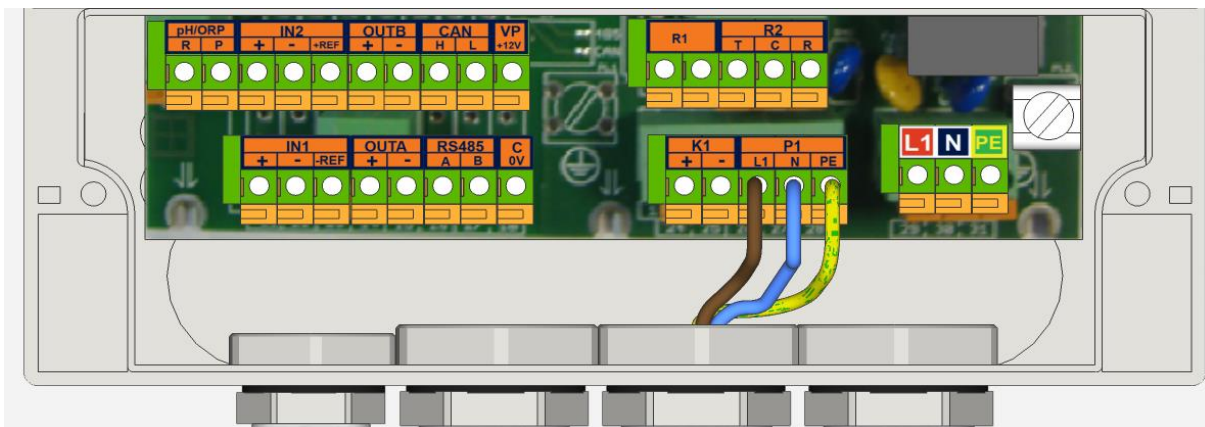
5) Connecting self-powered relay P1

The powered relay (Entry voltage = output voltage) is used either to drive a dosing pump, a magnetic valve or to use lighting or sound alarms.

The dosing signal output could be programmed to "On/off", PWM or pulse command. The last one is not recommended.



- ▶ Strip the 3 wires of dosing/alarm equipment for 7 mm
- ▶ Pass the 3-point cable through a cable gland
- ▶ Wire the live cable to **L1** (26) and the neutral to **N** (27) located on "P1 dosage"
- ▶ Wire the ground cable to **PE** (28) located on **P1**
- ▶ Tighten the cable gland to ensure tightness when done.

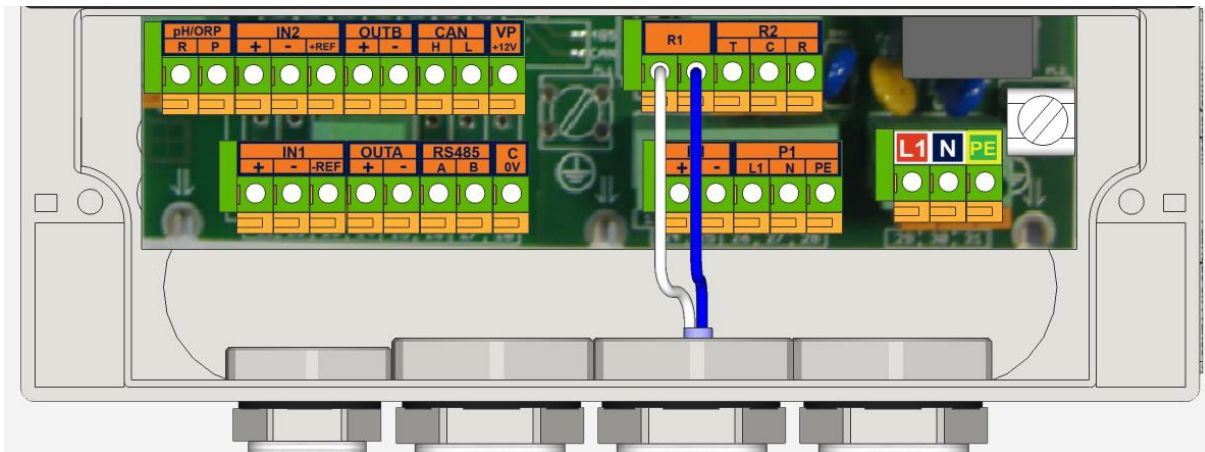


6) Connecting electronic pulse relay **R1**

The electronic pulse output (Photo-coupler) is used to drive a dosing pump by his direct electronic pulse entry.

The dosing signal output could be programmed to "On/off", PWM or pulse command.

- ▶ Strip the 2 wires of dosing equipment for 7 mm
- ▶ Pass the 3-point cable through a cable gland
- ▶ Wire the two wires to (19) and (20) located on **R1**
- ▶ Tighten the cable gland to ensure tightness when done.

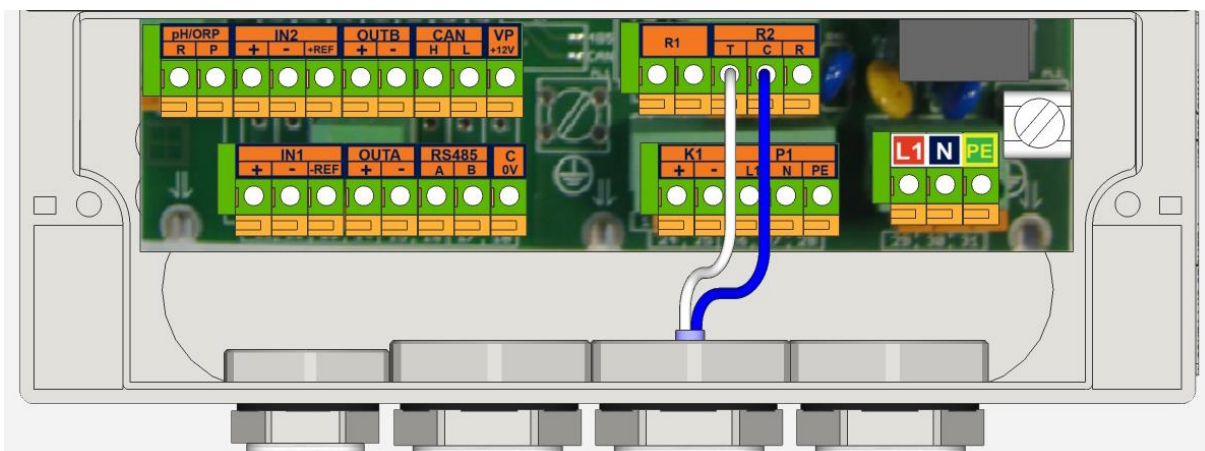


7) Connecting free of potential relay **R2**

The "free of potential" output relay (NO and NC contacts) is used to control dosing equipments or to drive lamps or siren for alarm informations.

The dosing signal output could be programmed to « on/off », PWM or pulse command.

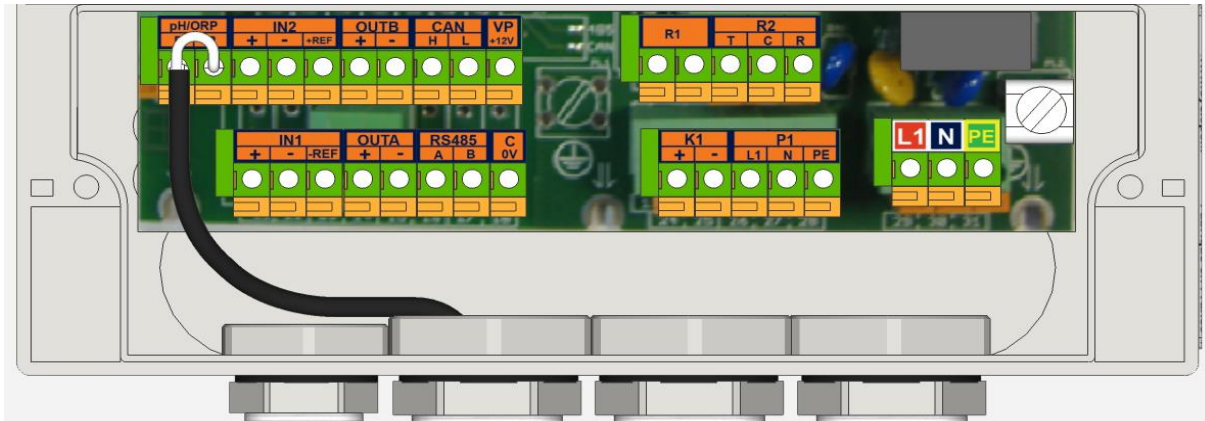
- ▶ Strip the 2 wires of dosing or alarm equipment for 7 mm
- ▶ Pass the 2-point cable through a cable gland
- ▶ Wire the common point wire to **C** (22) located on **R2**
- ▶ Wire the NO (Normally Open) command to **T** (21) when needed, if not ...
- ▶ Wire the NC (Normally Connected) command to **R** (23)
- ▶ Tighten the cable gland to ensure tightness when done.



8) Connecting high impedance potentiometric input **J1**

This entry allow you to connect pH or RedOx (ORP) potentiometric sensor.

- ▶ Strip carefully the coaxial cable and separate the shield cable to obtain 2 distinct wires
- ▶ Pass the 2-points coaxial cable through a free cable gland
- ▶ Wire the shield part to **R** (1) and the hot wire to **P** (2) located on **pH/ORP J1**
- ▶ Tighten the cable gland to ensure tightness when done.



9) Connecting analogical 0/4...20mA entries **IN1 & IN2**

These two entries allow you to connect specific sensors for main measurement or for computing another parameter.

These entries could be connected as a passive (Sensor) or active element (Recorder, PLC, etc...)

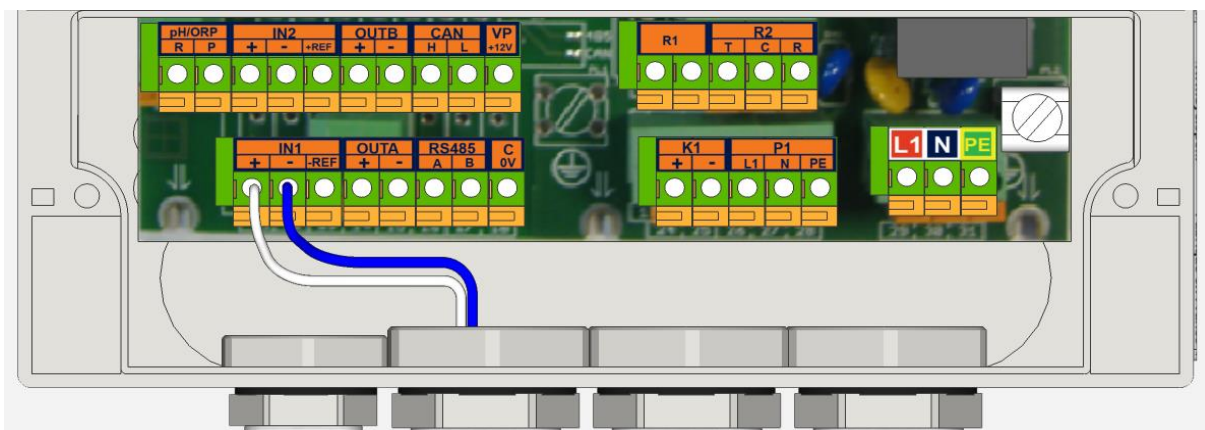


In case of using passive element (Sensor), take care to select the good internal power supply according to the characteristics of the sensor. (12V or 24V DC). Refer to the programming notice of this device.

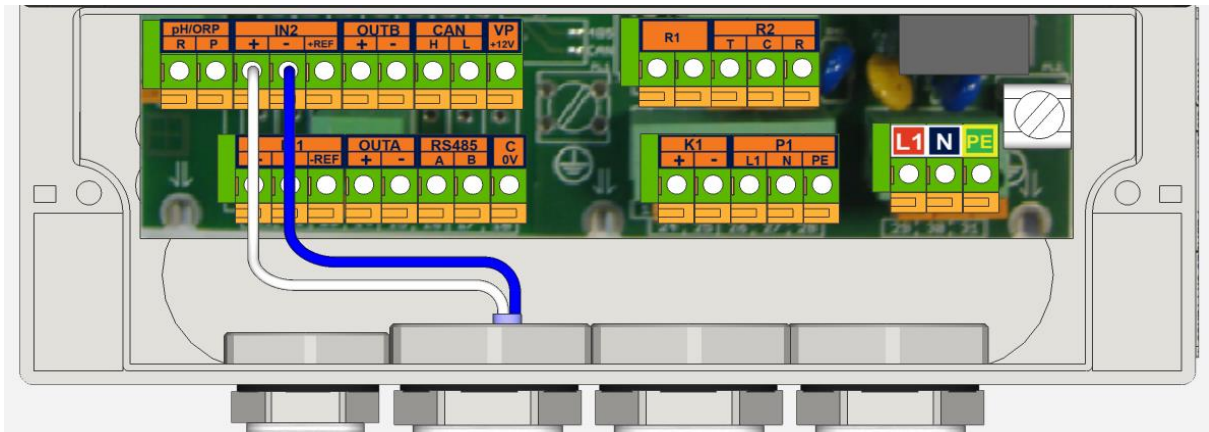
No claim will be accepted in case of failure of the sensor by a wrong power-supply!!

Connecting a passive element:

- ▶ Strip the 2 wires of the cable sensor for 7 mm
- ▶ Pass the 2-points cable through a free cable gland
- ▶ For **IN1** input, wire the positive wire of the sensor to **IN1+** (11) and to **IN1-** (12) for the negative wire.

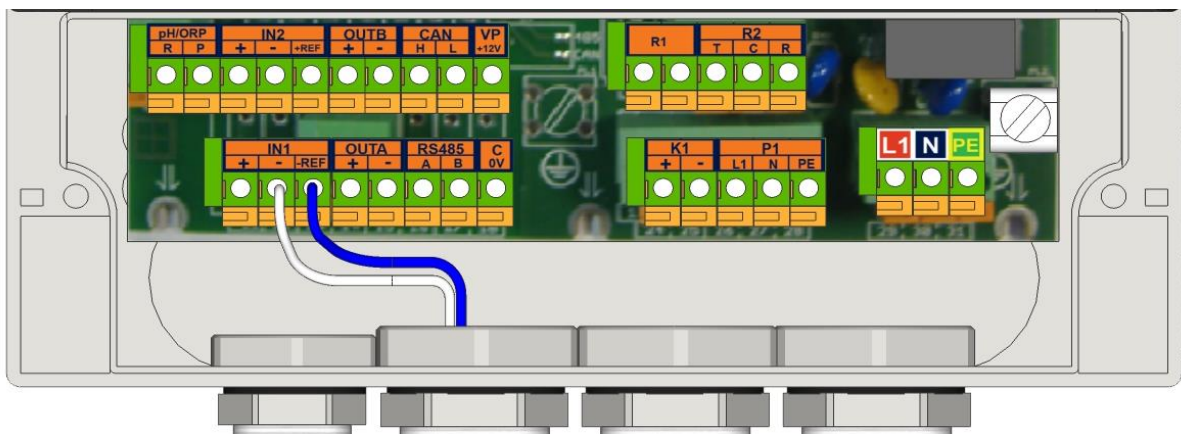


- For **IN2** input, wire the positive wire of the sensor to **IN2+** (3) and to **IN2-** (4) for the negative wire.
- Tighten the cable gland to ensure tightness when done.

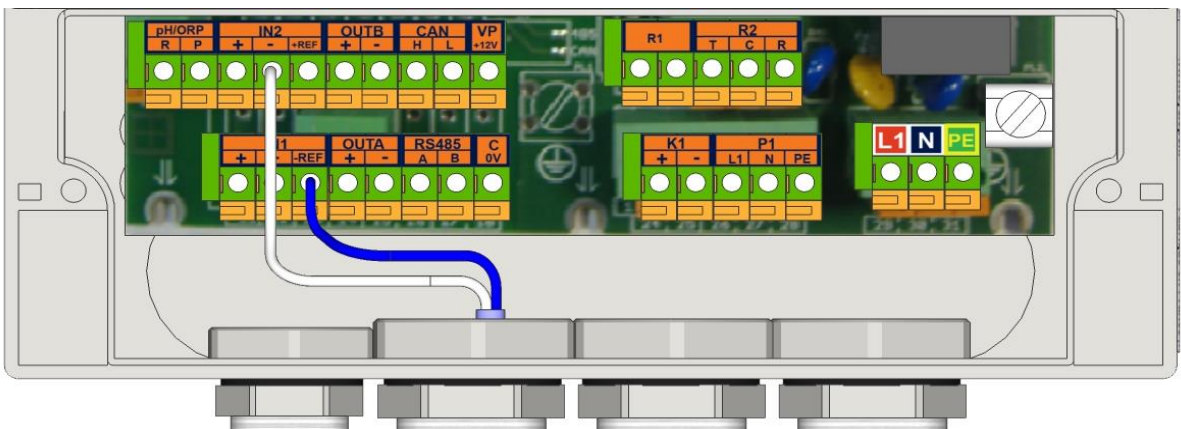


Connecting a passive element:

- Strip the 2 wires of the cable sensor for 7 mm
- Pass the 2-points cable through a free cable gland
- For **IN1** input, wire the emitter connection to **IN1-** (12) and to **-REF** (13) for the reference connection.



- For **IN2** input, wire the emitter connection to **IN2-** (4) and to **-REF** (13) for the reference connection.

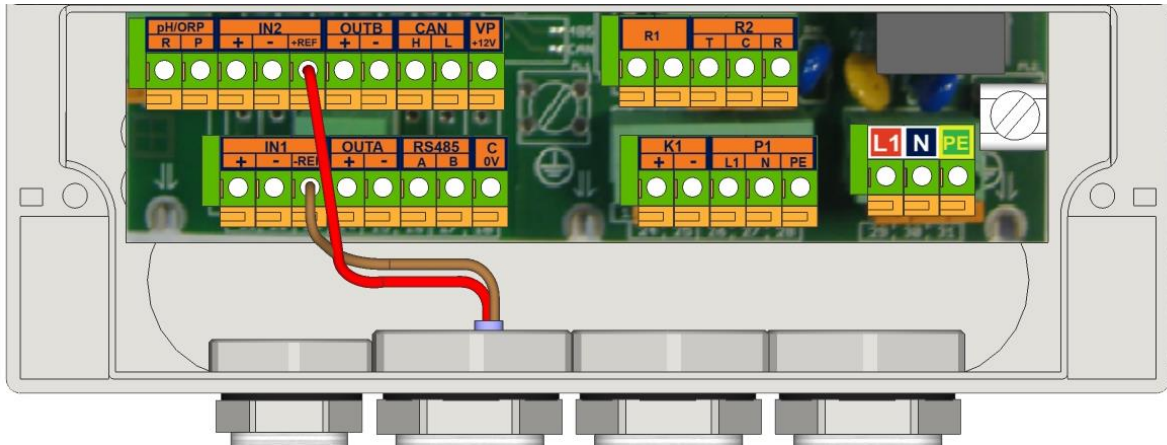


- Tighten the cable gland to ensure tightness when done.

10) Connecting the voltage reference REF

The voltage reference allow you to power the external electronic converters. It is programmable to deliver 12V or 24V according the characteristics of the converters.

- ▶ Strip the 2 wires of the cable sensor for 7 mm
- ▶ Pass the 2-points cable through a free cable gland
- ▶ Connect to **+** (5) the positive wire of the converter
- ▶ Connect to **-** (13) the negative wire of the converter
- ▶ Tighten the cable gland to ensure tightness when done.

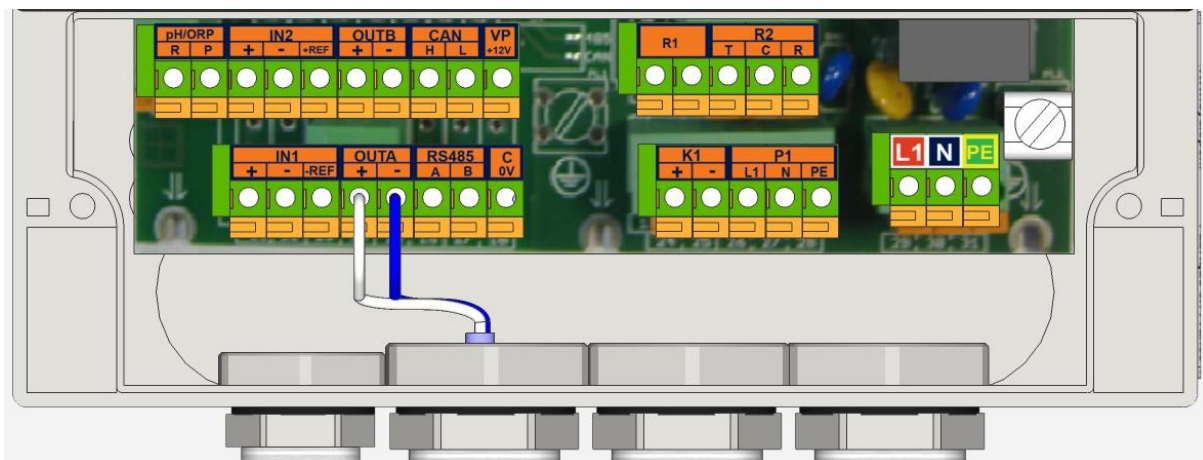


11) Connecting analogical outputs OUTA & OUTB (0/4...20mA)

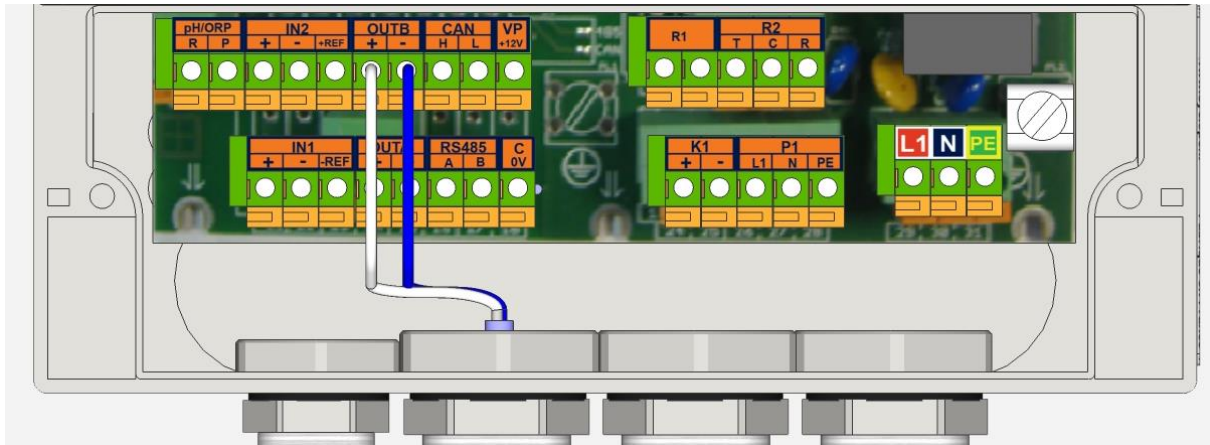
The assignment of the analogical outputs are fixed :

- **OUTA** allow you to transmit the measurement value to a recorder or PLC ...
- **OUTB** allow you to drive a dosing pump or other dosing system by the means of his analogical input.

- ▶ Strip the 2 wires of the cable sensor for 7 mm
- ▶ Pass the 2-points cable through a free cable gland
- ▶ For the analogical output **OUTA**, wire the positive connection of the recorder to **+** (14) and to **-** (15) for the negative one.



- ▶ For the analogical output **OUTB**, wire the positive connection of the recorder to **+** (6) and to **-** (7) for the negative one.



- Tighten the cable gland to ensure tightness when done.

12) Connecting the external control entry **K1**

The external control entry allows you to connect two types of equipment:

- Either, a general switch for stopping the dosing systems,
- Either, a pulsed flow-meter for controlling proportional dosing according to the flowrate.



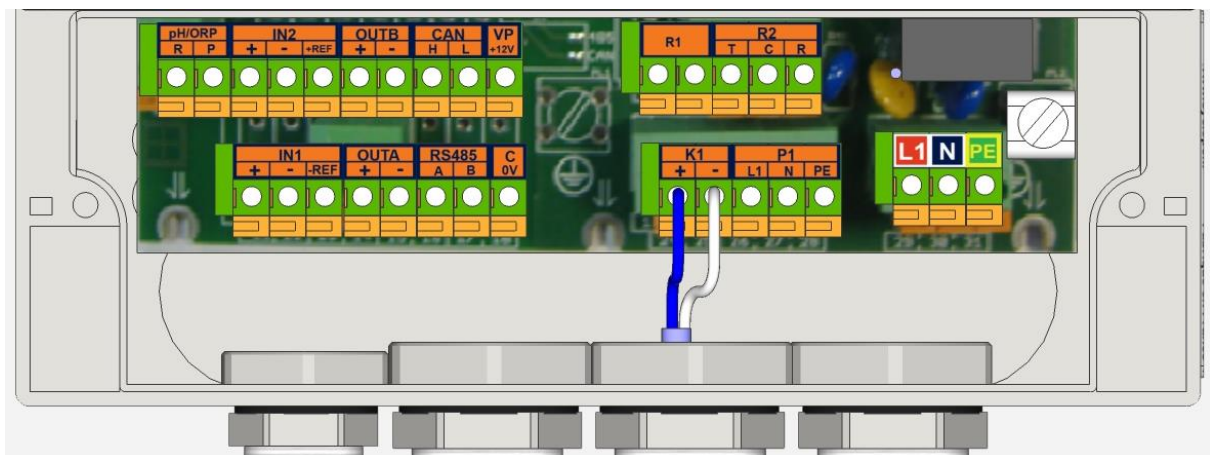
It is very important to pause your controller when the main process is stopped!



K1 entry is implanted into this device to receive a compatible switch either with NO (Normally Open) contact or NC (Normally Connected) contact configuration.

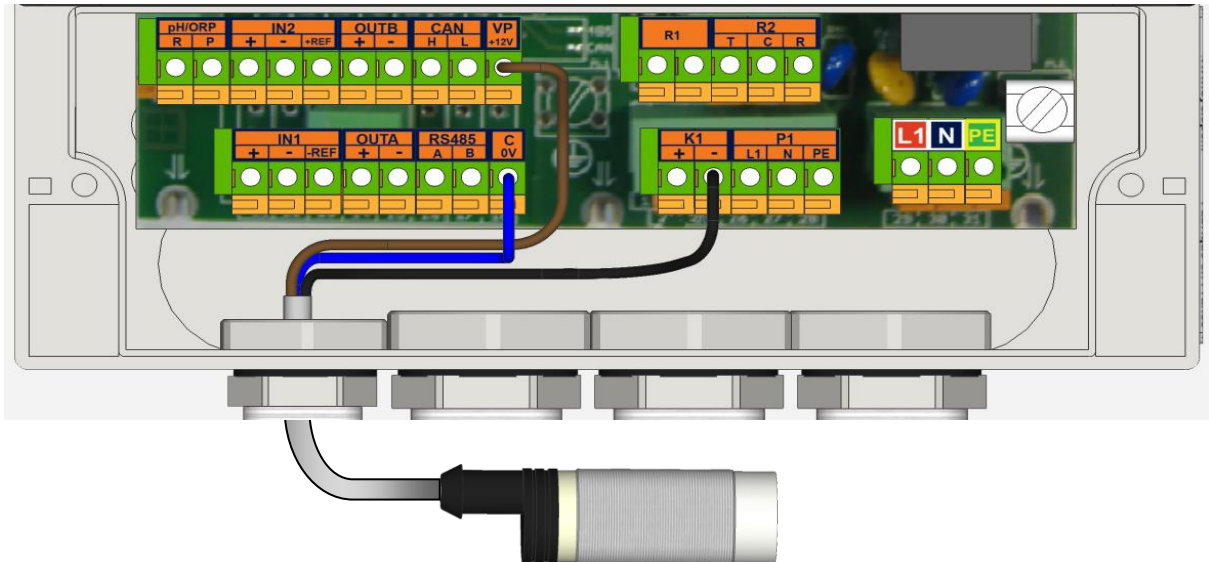
Connecting a free of potential switch:

- Strip the 2 wires of the external switch for 7 mm
- Pass the 2-points cable through a free cable gland
- Connect the two wires of the switch or flow-meter to **+** (24) and **-** (25)
- Tighten the cable gland to ensure tightness when done.



Connecting a NPN transistor switch (Inductive sensor for example):

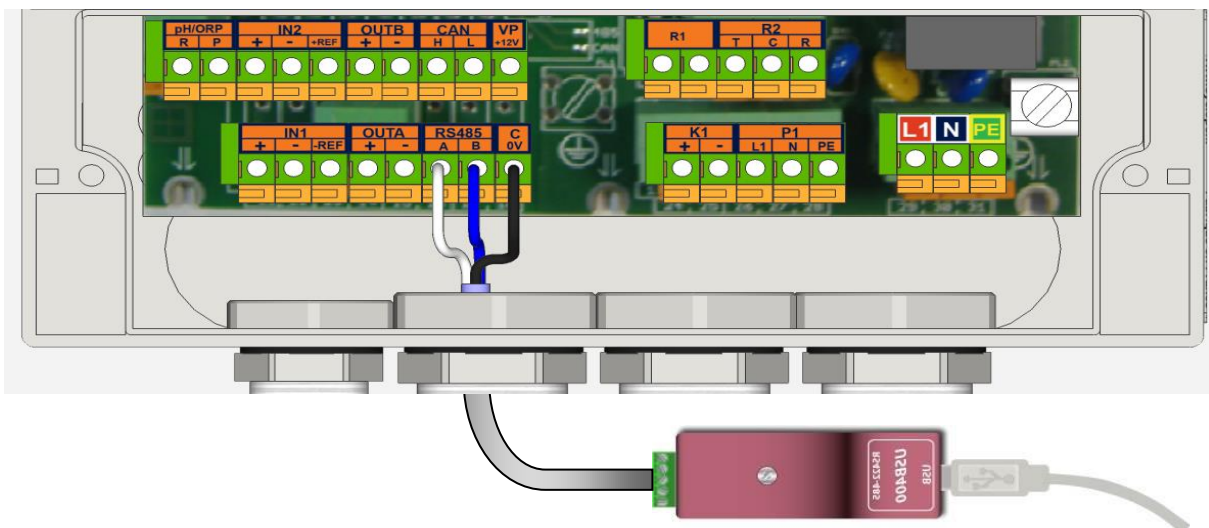
- ▶ Strip the 3 wires of the external switch for 7 mm
- ▶ Pass the 3-points cable through a free cable gland
- ▶ Connect the brown cable to **VP+** (10) (Power supply line)
- ▶ Connect the blue cable to **C** (18) (GND)
- ▶ Connect the black cable **-** (25) (Open collector - Signal)

**13) Connecting the communication port (RS485)**

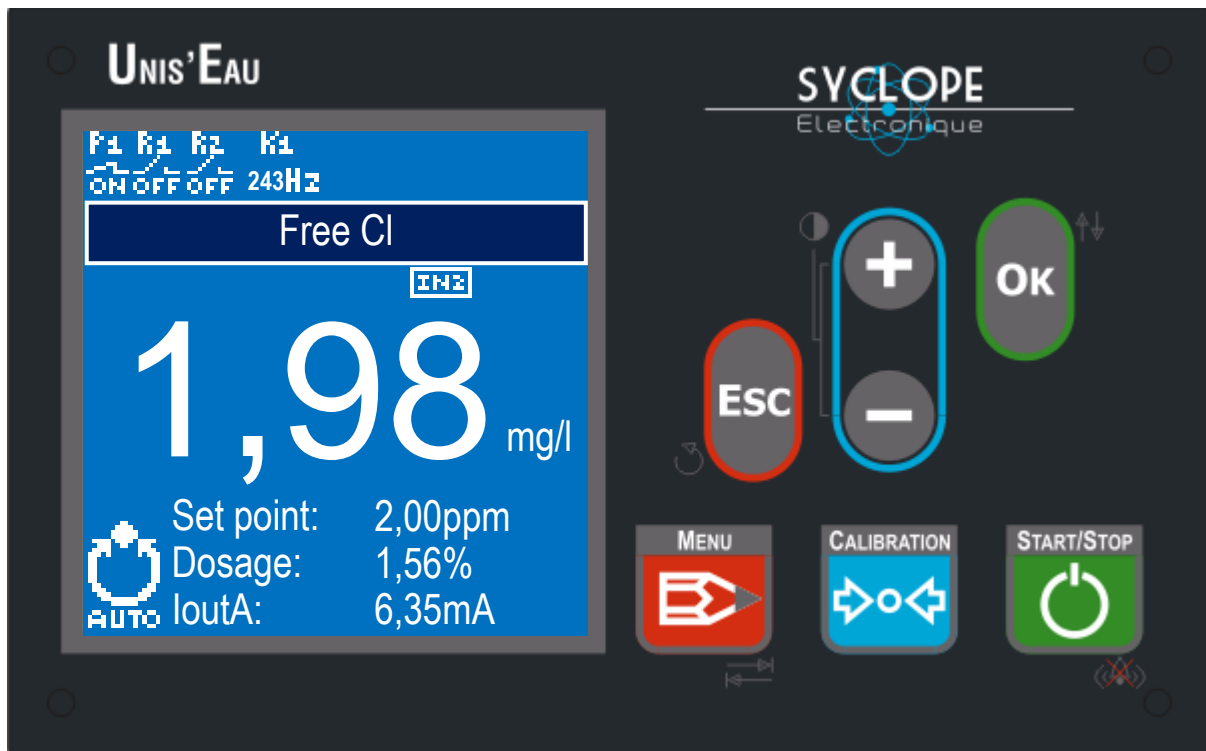
The RS485 communication port allows you to connect the device to a local RS485 bus by using Modbus® protocol. By the means of a personal computer using specific program, the programming and maintenance of the device is available.

Connecting a USB<>RS485 converter :

- ▶ Strip the 3 wires of the external switch for 7 mm
- ▶ Pass the 3-points cable through a free cable gland
- ▶ Connect RS485 converter terminal AA' (N°3) to **A** (16)
- ▶ Connect RS485 converter terminal BB' (N°4) to **B** (17)
- ▶ Connect RS485 converter terminal GND (N°5) to **C** (18)



IV. Presentation of the Human/Machine Interface (HMI)



Menu Key:

- A short touching allows you to access to the parameter menu (set-points, alarms, level of flow-rate ...).
- A long touching allows you to access to the configuration menu (Choices of entries, sensors, etc ...).



Calibration Key:

- A short touching allows you to calibrate the main controlled parameter.
- A long touching allows you to calibrate one of the sensors used.



START/STOP Key:

Allows you to activate or deactivate the controls and to clear alarms.



Esc Key:

- A short touching allows you to return from the menus.
- A long touching allows you to stop the waiting time for polarizing the sensors.



OK Key:

Allows you to validate an action or to move into the menus.



"+" Key:

Allows you to increase a value or to increase the contrast of the LCD screen.

"-" Key:

Allows you to decrease a value or to decrease the contrast of the LCD screen.

V. Commissioning the SYCLOPE UNIS'EAU® controller

You have just finished to connect the power cable, the dosing equipments and the sensors. You are ready to start the commissioning of your **SYCLOPE UNIS'EAU®**.



► **Power on the device.**

► **Check if no fail seems appear and if you have light on the LCD display. Check if no disturbance appear on other equipment of the installation.**



The controller does not start automatically the dosing processes at the first power-on. The user is the own responsible for starting the treatments after checking again the complete programming according his needs.

This controller is full programmable. At the power up, the measurements are displayed and all processes are stopped!



The controller is delivered with a factory setting. The user must check it and to change it if necessary. To modify the settings, please refer to the programming notice of this device.

At the first power-on, the measurement parameter defined by the factory setting is:

- Measurement : Free chlorine
- Scale : 0-10ppm
- Power supply of the sensor: 24V.

VI. Maintenance

No specific maintenance is needed.

His good working depends of the good programming and all of the peripheral equipments (Sensors, dosing systems, etc...). Take informations about the maintenance of each of them and be sure to do them to ensure the good working of your process.

Repairs of the controller must be done by agreed technicians and must be done exclusively in our factory.

In case of any doubts concerning your device, don not hesitate to contact our technical after-sales service.

EC Certificate of conformity

Designation of the products: UNIS'EAU and INDIG'O

Declaration :

SYCLOPE Electronique SAS, Z.I. Aéroport Pyrénées in SAUVAGNON - France -, hereby certifies by the present that the following models "UNIS'EAU and INDIG'O", controllers for the analysis and controls of physicochemical measurements are in conformity with the standards and safety as defined by the European directives 2006/95/EC (Low voltage directive), 2004/108/EC (Electromagnetic compatibility) and 2002/95/CE (RoHS directive).

The present declaration is valid for all of the specimens manufactured after the date of this certificate and according to the original documents of manufacture.

The following standards were used for the examination:

2006/95/EC: Harmonized standards EN61010-1:2001

2006/95/EC Low voltage directive,
Safety requirements for electrical equipment for measurement, control, and laboratory use
Test report n° 2008-29 of 2008, 26th June.

2004/108/EC: Harmonized standards EN61326-1:2006

EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8,
EN61000-4-11, EN61000-3-2 and EN61000-3-3
2004/108/EC Electromagnetic compatibility (EMC Directive)
Test report n° 2008-24 of 2008, 8th June.

2002/95/CE: RoHS Directive (Limitation of dangerous substances).

Date of the first sale: 2008, July.

The present declaration engages the responsibility of :



SYCLOPE Electronique S.A.
Z.I. Aéroport Pyrénées
64 230 SAUVAGNON

Represented by :

Georges BRETON
President and General Manager

Sauvagnon : 2008/09/09





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