



Installation and commissioning instructions



General informations :

SYCLOPE Electronique 2015® Manual of September 8th, 2015 Rev:2

Installation and commissioning instructions manual
(Ref : DOC0257)

Editor :



SYCLOPE Electronique S.A.S.

Z.I. Aéropole pyrénées

Rue du Bruscos

64 230 SAUVAGNON - France –

Tel : +33 559 337 036

Fax : +33 559 337 037

Email : syclope@syclope.fr

Internet : <http://www.syclope.fr>

© 2015 by SYCLOPE Electronique S.A.S.

Subject to modifications

Summary

I.	General informations	5
1)	Applicability	5
2)	Use of the document	6
3)	Symbols and signs.....	6
4)	Stockage et transport	7
5)	Packaging	7
6)	Warranty	7
II.	Environment and safety procedures.....	8
1)	Use of the devices	8
2)	User obligations	8
3)	Risks prevention.....	8
4)	Identification and localization of the identification plate	9
5)	Waste disposal and compliance	10
III.	Technical features and functions	11
1)	Technical features	11
2)	Temperature sensor ranges	11
IV.	Installation and wirings.....	12
1)	Installation conditions.....	12
2)	Installation of the communication gateway on wall-mounted	12
3)	Branchements électriques	13
4)	Localisations of the components and general connections.....	13
5)	Connection of the primary power supply	15
6)	Connections of the "free of potential" power relays	15
7)	Connection of the analog 4...20mA entry	15
8)	Connection of the "free of potential" entries.....	16
9)	Connection of the RS323C ports used to link the HYDRO controllers.....	16
10)	Connection of the RS485 communication bus.....	16
11)	Connection of the GSM, Wifi and Ethernet socket MODEM for internet access	17
12)	References of the HYDRO'Com® communication gateway with included modem.....	17
V.	Presentation of myHYDRO interface.....	18
1)	Login	18
2)	Main page.....	18
3)	Graphic page	21
4)	Alarm page	22
5)	Email page.....	22
6)	Programming page	23
7)	Programming control inputs	24
8)	Programming analogue input	25
9)	Programming of the time schedule	25
10)	Programming the slaves	26
11)	Programming the modem	27
VI.	Using the USB stick.....	29
1)	Configuring the device	29
2)	Updating the internal embedded software.....	29
3)	Blinking of the USB LED.....	29
VII.	Maintenance.....	30

I. General informations

1) Applicability

The **HYDRO'Com**® communication gateway you have just purchased is an electronic device allowing connections to Internet for the various SYCLOPE apparatuses used for the water management of private swimming pools. It has been carefully developed and manufactured to ensure your greatest pleasure and peace of mind.

The internal MODEM allows connection to Internet. The **HYDRO'Com**® communication gateway is then connected to the web site "**myHydro.com**" by internet in real-time according its internal programmed configuration.

Two RS232 ports and one RS485 port allow to establish a local communication with the different SYCLOPE devices in order to make the data acquisitions and to ensure the programming of the parameters. The **HYDRO'Com**® communication gateway can manage up to 5 slaves on the RS485 bus. Slaves connected to the **HYDRO'Com**® communication gateway by their RS485 ports and the RS485 link are also connected to the website <http://hydro.mysyclope.com/>, thus ensuring a total management and the monitoring of all parameters.

The **HYDRO'Com**® communication gateways are equipped with four programmable entries free of potential used to manage specific actuators in swimming pool water's treatments through four power relays with free of potential contacts. Four programmable real-time timers are also available and one 4...20mA entry for temperature measurement.

The simplicity of operation of the **HYDRO'Com**® communication gateway, the user friendliness and the remarkable technical aspects of these devices, will ensure you benefit from their many options, guaranteeing you full control and supervision of the quality of the water in your swimming pool.

The following instructions contain all the information required for the installation, the use and the maintenance of your new **HYDRO'Com**® communication gateway.

- 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 of your region, or the technical/quality departments of our establishments. We will do everything in our power to help you and ensure you benefit from our advice and know-how in the field of measurement and treatment of swimming-pool water.

Contact : service-technique@syclope.fr

2) Use of the document

Please read this entire document before starting to install, adjust or commission your controller device, in order to ensure the safety of swimmers, users and 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) Stockage et transport



It is important to store and transport your **HYDRO'Com**® communication gateway 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:

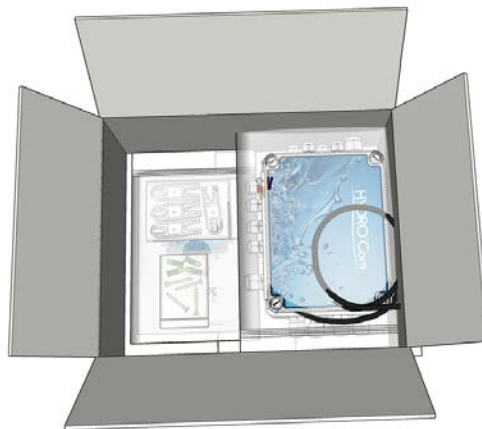
Temperature: -10 °C to 60 °C

Air humidity: Maximum of 90% with no condensation

5) Packaging



The apparatus is delivered without any cable other than that of primary power supply.



The communication gateway is already equipped with mounted cable glands. Additional cables used must be adapted to the latter to comply with the degree of protection IP65. A mounting kit is also provided.

Is included in the packaging:

- ✓ **HYDRO'Com**® communication gateway device,
- ✓ A complete fixing kit,
- ✓ The commissioning instruction.

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 devices

HYDRO'Com[®] communication devices have been designed to serve as a gateway to different **SYCLOPE** products or other devices compatible in the context of the possibilities of use described in this manual.



Any different use is considered improper and must be banned. **SYCLOPE Electronique S.A.S.** will not assume any liability and the damages resulting therefrom.



Any use of sensors or non-compliant interfaces to the specifications defined in the operating instructions must also be banned.

2) User obligations

The user undertakes not to allow its employees to work with the **HYDRO'Com**[®] communication device 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) Risks prevention



The installation and connection of the **HYDRO'Com**[®] communication gateway should only be performed by personnel specialized and qualified for this task.
The installation must comply with current safety standards and instructions!



Before turning the device on or manipulating the relay outputs, please, always disconnect the primary power supply!
Never open the appliance when powered on!
Maintenance operations and repairs must be performed by specialized and authorised personnel!



Take care when choosing the location for installing the **HYDRO'Com**[®] communication gateway according to the environment!
The **HYDRO'Com**[®] communication gateway 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.



With the exception of the relay outputs, all connections inputs and outputs must be connected to very low safety voltages. These tensions are generally provided by the device and does not exceed 24VDC.

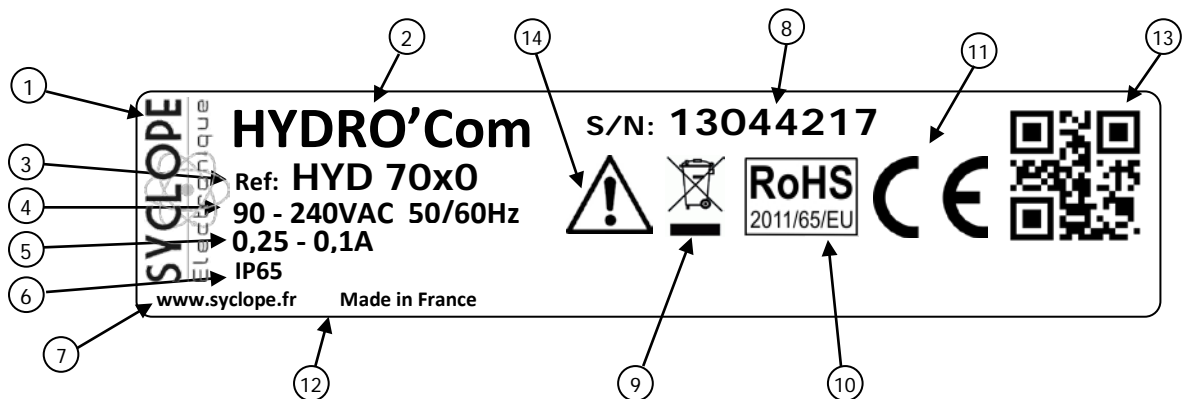


Make sure that the chemical sensors used with this device correspond well to the chemicals used. Refer to the individual technical note of each sensor. Chemistry of water is very complex, in case of doubt, contact immediately our engineering service or your approved installer/reseller.



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	⑧ Serial number
② Model of the product	⑨ Product which can be recycled
③ Reference of the product	⑩ Limitation of dangerous substances
④ Power supply range	⑪ CE compliance
⑤ Maximum current input	⑫ Country of the manufacturer
⑥ Protection class	⑬ Manufacturer square code
⑦ Manufacturer identification	⑭ Particular risks. Read the manual

Identification plate

Safety instruction sticker



5) Waste disposal and compliance

The recyclable packaging of the **HYDRO'Com**® devices 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.



WEEE : 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.



RoHs2 : According to the European directive 2011/65/CE, this symbol means that the **HYDRO'Com**® communication gateway is manufactured in compliance with the restriction of hazardous substances.



CE : According to low-voltage directive (2014/35/UE) and the electromagnetic compatibility directive (2014/30/UE), this symbol means that the **HYDRO'Com**® communication gateway has been manufactured in compliance with the previously cited directives.

III. Technical features and functions

1) Technical features

General characteristics		
Type	Specification(s)	Mark(s)
Consumption	0,25A Maxi. (90VAC) to 0,1A Maxi. (240VAC)	-
Power supply requirements	Between 90 to 240VAC +/-10%	-
Voltage category	Class II	
Temporary overvoltage	Accept temporary overvoltage from the power supply system.	
Electric protection	Fuse 315 mA Time-lag 5x20 Miniature type TR5	F1
Maximum temperatures of operation	-5 °C to 45°C	-
Storage temperature	-10 °C to 60°C	-
Humidity	Max. 90% without condensation	-
Altitude	Use lower than 2000m	-
Material	ABS	-
Dimensions	Length : 190 mm (7.5 inches)	-
	Width : 140 mm (5.5 inches)	
	Height : 70 mm (2.75 inches)	
Weight	0,5 kg	-
Protection rating	IP 65	-
Entries		
Measurement input	1x 4...20 mA current input generating 24VDC	T°C
Control inputs	4x Isolated control input free of potential	E1 to E4
Outputs		
Relay outputs	4x Relays free of potential Max. 2A/250VAC	S1 to S4
Communications		
BRS485 Bus	1x Communication port RS485 type for compatible software protocol type "MODBUS RTU" or "MODBUS ASCII".	RS485
Modem (Option)	1x Slot for GSM or WiFi or Ethernet socket MODEM	-
RS232 Ports	2x Communication port RS232C for connecting SYCLOPE HYDRO® controllers.	RS232-1 RS232-2
USB	1x USB port for memory stick	USB

2) Temperature sensor ranges

Measurement and control		
Parameter	Range(s)	Accuracy
T°C	-5 to 45°C	± 0,5 %
	0 to 100°C	± 0,5 %

IV. Installation and wirings

1) Installation conditions



To guarantee the users safety and to ensure correct operation of the **HYDRO'Com**® communication gateway, please observe strictly the following instructions:

- Install the controller in a dry location.
- The communication gateway must be protected against rain, frost and direct sunlight.
- The room temperature must range between -5°C and 45°C, with no condensation.
- Choose an installation location free of vibration, on a suitable support and with no deformation.
-



If these instructions are not observed:

- The communication gateway is at risk of being damaged
- The measurements and communications can be disrupted
- The warranty is not applicable!

2) Installation of the communication gateway on wall-mounted



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

The IP65 protection's indice is only guaranteed when the closing cover is closed and when the cable glands match to the diameters of the cables and are correctly sealed.

- ▶ Drilling four holes (Ø 5-mm) according to the following drilling-plan,



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

3) Branchements électriques



The electrical installation must be performed in accordance with current regulations by an authorized personnel!

A 30 mA differential circuit breaker must be installed!

A breaker circuit of maximum 2A must be installed near the controller and easily accessible to stop the primary power supply. It must be identified as a circuit-breaker for the communication gateway!

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



Use multicore cables if possible!

If it is not possible, always use a special wiring tip to be sure that no wire makes a contact together!

Protect the wirings by using electrical clamps.



Internal protection:

The **HYDRO'Com**® communication gateway is protected by a TR5 time-lag fuse type of 315 mA over-current and by a varistor against voltage surges over 275 V.

Reference	Name
FUS1013	Miniature 315 mA time-lag TR5 type fuse

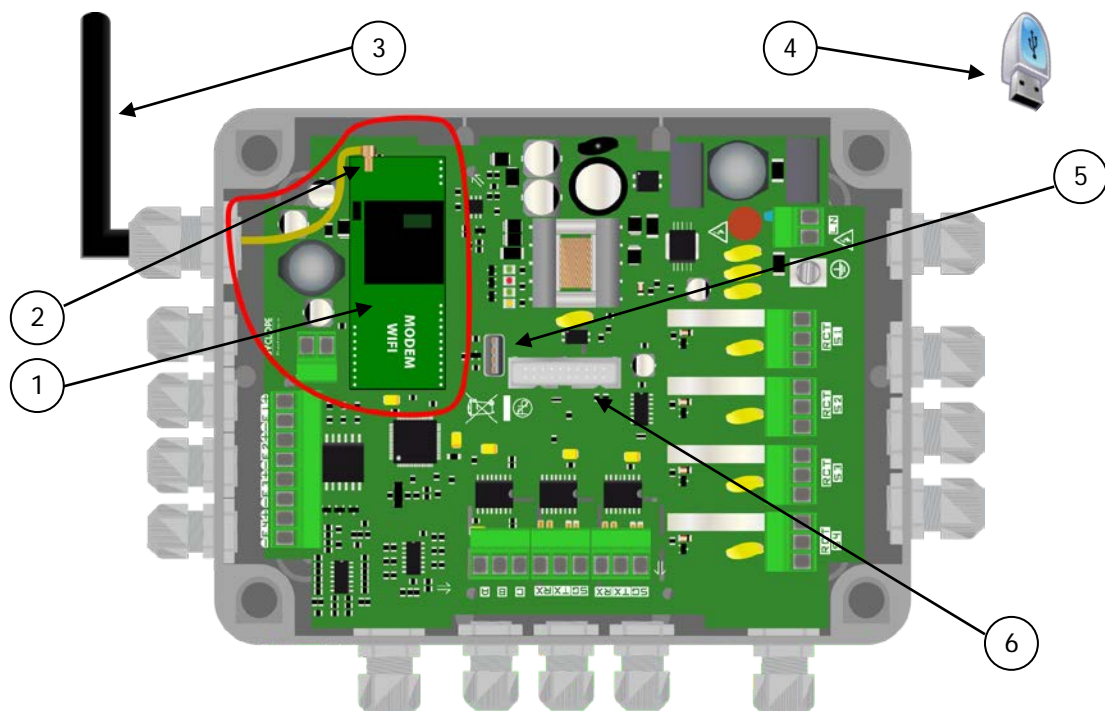


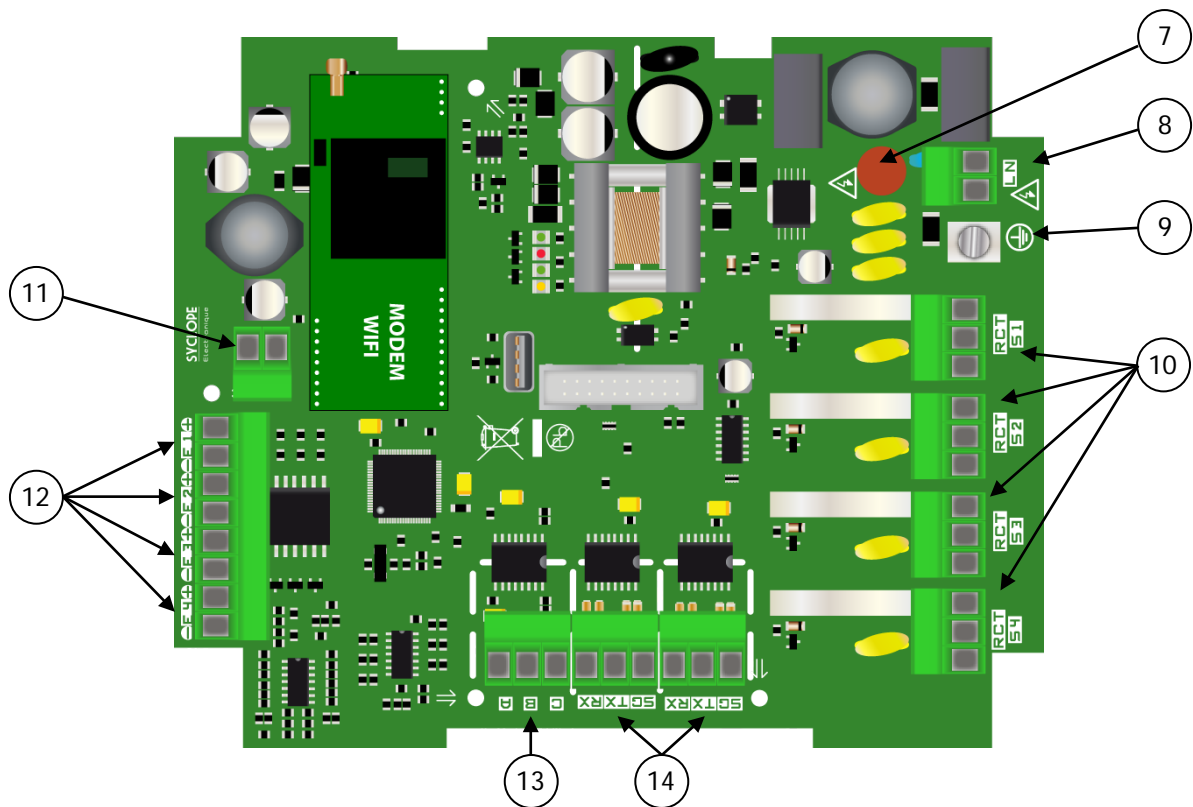
In case of fuse destroyed, check the card if it is not burnt out. In case of this, the complete card must be changed!

In case of varistor burned, please return the communication gateway to our technical after-sales department for repairing!

4) Localisations of the components and general connections

a) Localisation of the additional components



b) General electrical connections

- ① Socket MODEM location
- ② Antenna connector
- ③ External GSM or WiFi antenna
- ④ USB key for programming and stoking
- ⑤ USB Connector for eternal stick
- ⑥ Programming connector
- ⑦ Fuse (315 mA Time-lag fuse type TR5)
- ⑧ Terminal block for primary power supply connection
- ⑨ Ground connector
- ⑩ Relays outputs
- ⑪ 4...20mA entry for Temperature sensor
- ⑫ Isolated control inputs
- ⑬ RS485 connector with MODBUS protocol
- ⑭ RS232C connectors for linking HYDRO controllers

5) Connection of the primary power supply



The **HYDRO'Com**® communication gateway 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 minimum** 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 to "L" and the neutral to "N" of the terminal block
- ▶ Wire the ground to contact "⊕" with the help of an M4 eyelet terminal
- ▶ Tighten the cable gland to ensure tightness

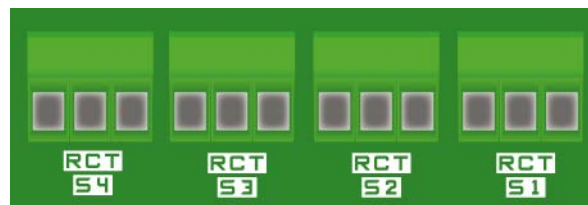


The **HYDRO'Com**® communication gateway does not have its own independent power supply switch. It is directly powered when connected to the main power supply.

6) Connections of the "free of potential" power relays

The « free of potential » internal power relays named S1, S2, S3 and S4 are used for driving actuators for lights, robot, recirculating pump, warmer, etc...

These relay outputs are full programmable.



R : Rest
C : Common
T : Treatment

7) Connection of the analog 4...20mA entry

The 4...20mA analog entry is only used for temperature measurement. The temperature probe is not polarised. It can be connected freely on the terminal block X5.



Ex(+) : 24V
Ex(-) : Entry



The analog entry is self-powered and must not be supplied by an external power supply!
No claim will be accepted in case of un-respect this warning!

8) Connection of the "free of potential" entries

The control entries named E1 to E4 are "free of potential". An external switch must be used for activating or deactivating the function entry.

The entries are not powered!



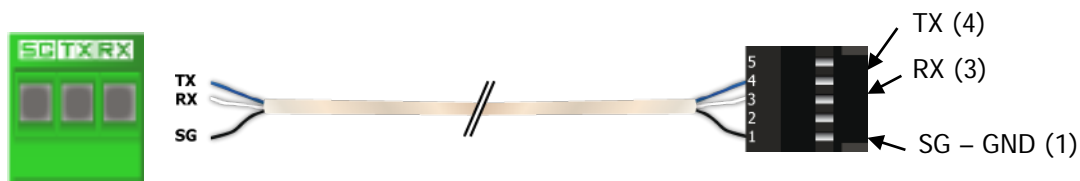
Ex(+) : Switch

Ex(-) : Switch

9) Connection of the RS232C ports used to link the HYDRO controllers

The **HYDRO'Com**® communication gateway has two RS232C ports (Speed : 9600 bauds) exclusively dedicated to the link with **SYCLOPE HYDRO**® controllers and others compatible controllers. The speed communication is fixed to 9600 bauds with even parity.

Connect one or two **SYCLOPE HYDRO**® controller(s) on to one of the two RS232C port using the special link cable.



References of the RS232C link cables (Not provided with the communication gateway):

Reference	Name
CAB 1037	RS232 link cable HYDRO'Com ® <-> HYDRO 5m Std
	RS232 link cable HYDRO'Com ® <-> HYDRO 10m
	RS232 link cable HYDRO'Com ® <-> HYDRO 2m

10) Connection of the RS485 communication bus

The RS485 communication bus of the **HYDRO'Com**® communication gateway has two functions:

- Realizing the general communication with up to 5 slaves for reading data and sending us via internet to the web site www.mysyclope.com .
- Allows the user to use any laptop connected to internet for using dedicated SYCLOPE softwares for other controllers (**Odicom**®, **Evacom**®, **Tercom**®, ...).

The used communication protocole is « MODBUS RTU ».



A : RS485(+)

B : RS485(-)

C : GND



Respecter les polarités de branchement du bus.

11) Connection of the GSM, Wifi and Ethernet socket MODEM for internet access

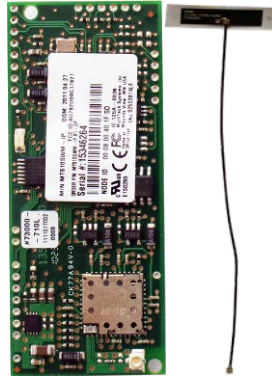
The **HYDRO'Com**® communication gateway can accept several type of socket Modems to establish communication away with internet site www.mysyclope.com.

Connecting to the website "myHydro" allows to program the **HYDRO'Com**® communication gateway. All the data are transmitted to the website "mysyclope.com" and allow the user to manage and to control his equipment.

GSM Modem kit



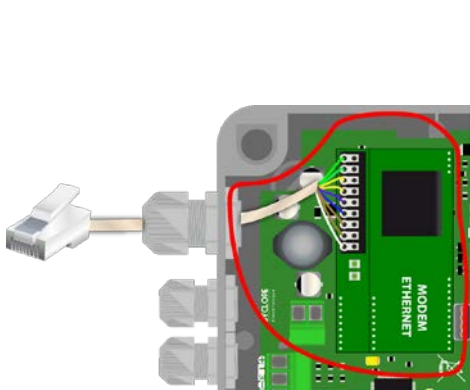
WIFI Modem kit



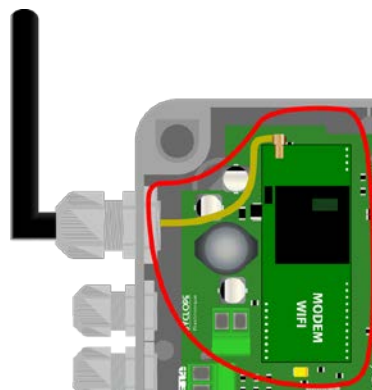
Ethernet Modem kit



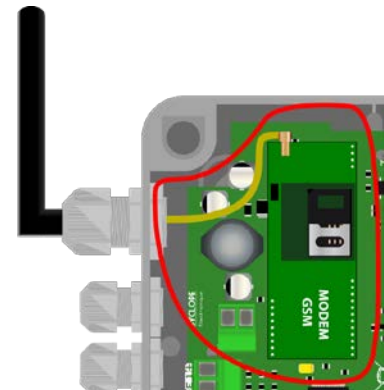
The socket modems must be connected as indicated below. This procedure must be executed with no power supply.



Connection of Ethernet socket modem



Connection of WiFi socket modem



Connection of the GSM socket modem

12) References of the HYDRO'Com® communication gateway with included modem

Reference	Name
HYD 7000	HYDRO'Com ® communication gateway type GSM
HYD 7010	HYDRO'Com ® communication gateway type ETHERNET
HYD 7020	HYDRO'Com ® communication gateway type WIFI

V. Presentation of myHYDRO interface

1) Login



The programming interface is available directly with your browser by the URL: <http://hydro.mysyclope.com>. A login and a password are necessary to access the application.

2) Main page

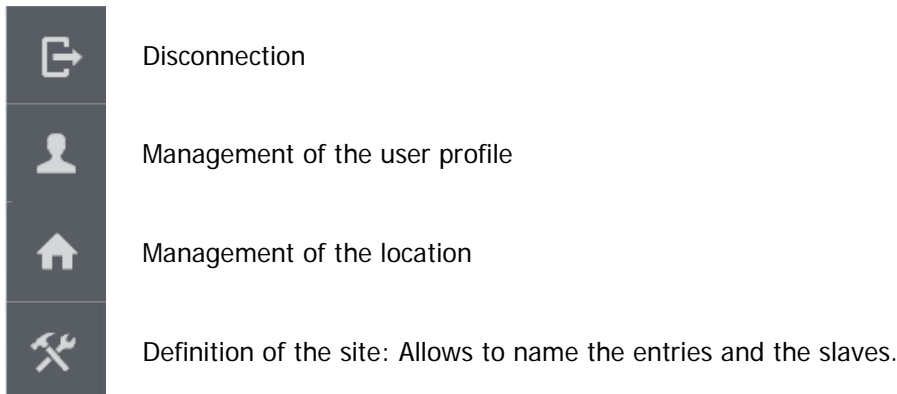
As soon as connected, the main page of "myHydro" application appears as, for example, the following page:



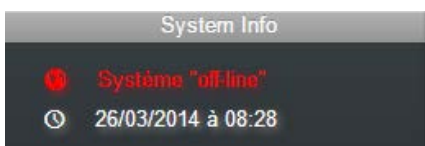
Immediately, the user is able to see the complete state of the **HYDRO'Com**® communication gateway and all the **SYCLOPE HYDRO**® devices connected. The left band represents:

a. User Menu :

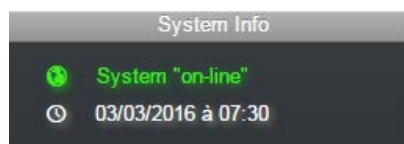
Allows to define the profile of the user and the location of the connexion.

b. System informations

Allows the user to check if the **HYDRO'Com®** communication gateway is connected and to precise the last sending of data pack.



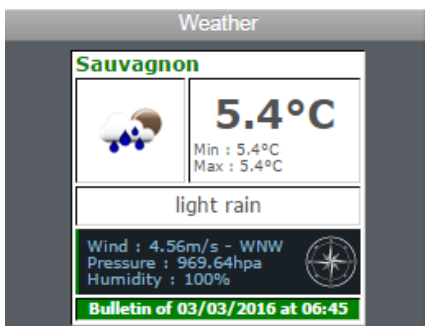
HYDRO'Com® is disconnected.



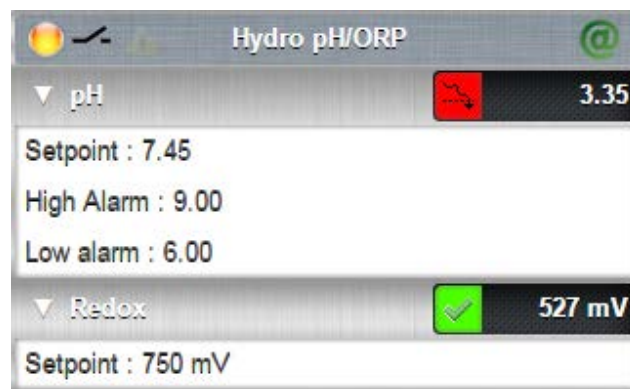
HYDRO'Com® is connected.

c. List of the sites

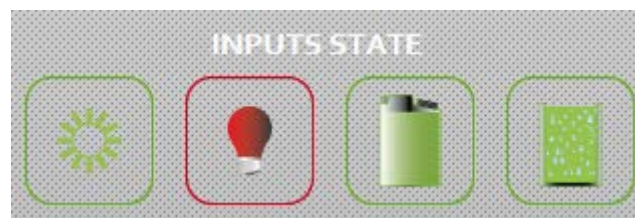
"MyHydro" application is able to manage multiple **HYDRO'Com®** communication gateways with the same user login. To change the site, just click on the window name of the site.

d. Local Weather

Allows the user to know the local weather.

e. Informations about connected HYDRO controller

Informations about the HYDRO pH/ORP controller connected to the first RS232C port.

f. Statutes of the entries

A red contour means the entry is activated (the opposite of the programmed "rest" state). It is possible to associate this state to another "alarm" state.

g. Statutes and conditional entries

A green contour of the symbol means the entry is activated. (The associated relay is activated and a light will be on if the function is selected).

No back-light means the entry is deactivated!

In this case, it is possible to activate or deactivate this command by clicking on the button directly from the website.

h. Bandeau de navigation

On the right of the screen, a band of commands allows to enter into the different function of the "MyHydro" application.



Allows to show the main page of the site



Allows to access to the graphic mode



Allows to access to the alarm definitions

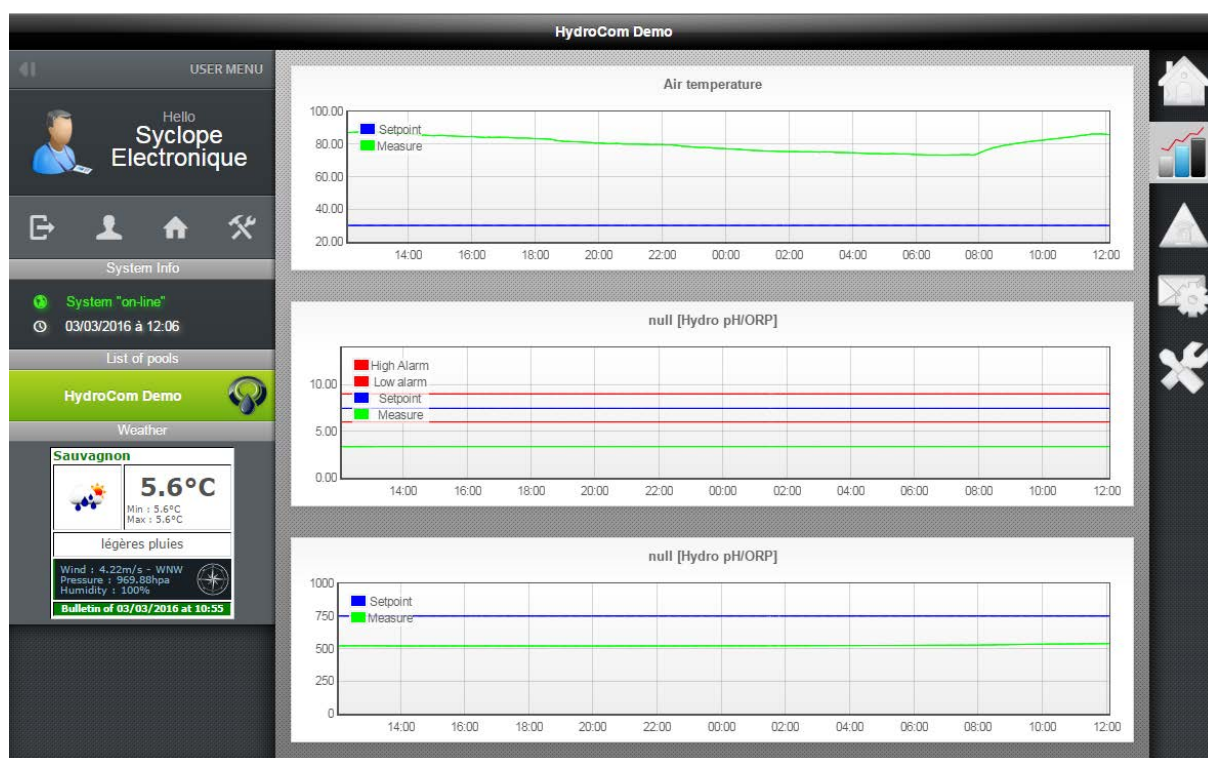


Allows to access to the email sending's



Allows to access to the general programming

3) Graphic page



In this section, the user can see all the graphs from data of connected HYDRO controllers and the internal temperature entry of the **HYDRO'Com®** communication gateway if it is activated.

4) Alarm page

HydroCom Demo

USER MENU

Hello Syclope Electronique

System Info

System "on-line"

03/03/2016 à 12:15

List of pools

HydroCom Demo

Weather

Sauvagnon

5.6°C

Min : 5.6°C
Max : 5.6°C

légères pluies

Wind : 4.22m/s - WNW
Pressure : 969.88hpa
Humidity : 100%

Bulletin of 03/03/2016 at 10:55

Designation	Start Time	End time
Filtration	02/03/2016 à 21:02	-----
Heating	02/03/2016 à 21:01	03/03/2016 à 06:58
Nouveau cuve pH	18/12/2015 à 13:56	18/12/2015 à 14:33
Nouveau cuve pH	18/12/2015 à 13:53	18/12/2015 à 13:55
Nouveau cuve pH	18/12/2015 à 13:30	18/12/2015 à 13:52

Designation	Start Time	End time
- Basse	25/02/2016 à 13:57	-----
- Technique	24/02/2016 à 09:38	25/02/2016 à 13:54
- Basse	19/02/2016 à 15:59	24/02/2016 à 09:38
- Technique	18/02/2016 à 14:52	19/02/2016 à 21:14
- Basse	12/02/2016 à 11:58	18/02/2016 à 14:52

The alarm page shows the recording of the last five alarms registered by the **HYDRO'Com®** communication gateway as well as for the two external HYDRO controller if connected. The alarms in red lighting represent the current alarms in progress.

5) Email page

HydroCom Demo

USER MENU

Hello Syclope Electronique

System Info

System "on-line"

03/03/2016 à 12:23

List of pools

HydroCom Demo

Weather

Sauvagnon

5.6°C

Min : 5.6°C
Max : 5.6°C

légères pluies

Wind : 4.22m/s - WNW
Pressure : 969.88hpa
Humidity : 100%

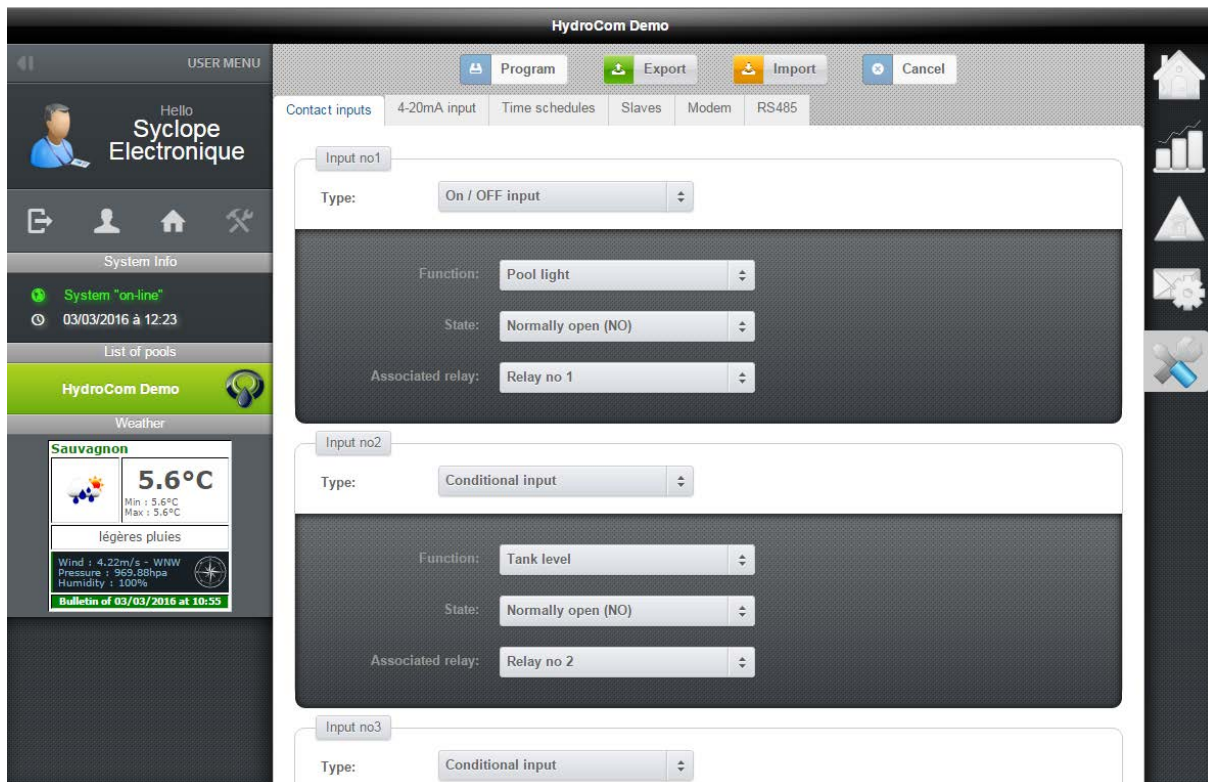
Bulletin of 03/03/2016 at 10:55


Editer	Désignation	Envoie d'Email
	Nouveau cuve pH	✓

Editer	Désignation	Envoie d'Email
	E01: pH	✓
	SWITCH Off	✓
	Alarme pompe 1	
	Alarme pompe 2	

Editer	Désignation	Envoie d'Email
	E01: pH	
	SWITCH Off	
	Alarme pompe 1	
	Alarme pompe 2	

This page allows to program emails.

6) Programming page

A simple click on  logo allows to access to the programming page. During the loading of the page, the application "MyHydro" requests a reading of the **HYDRO'Com**® communication gateway configuration. The programming page is shown as below:

The superior band allows to confirm the programming and to save all parameters into the device.



Allows to program the current configuration of the device.



Allows to save the current configuration into a .cfg file in case of programming the device with a USB stick or to reload the same configuration later using the "Import" function.



Allows to load a configuration from a .cfg file previously generated by the "Export" function.



Allows to cancel a previous operation in progress.

When the configuration is established with "MyHydro" application, the user can program the device under two manners :

- Either in-line with the "Program" button : At the end of the programming phase, a message appears for informing the user of the success or of the wrong operation.
- Either off-line with a USB stick : In this case, the user must export the configuration to the USB stick and to connect it into the device when power supply is off, then... apply the power supply when done. (See : Using USB stick)

7) Programming control inputs

This window allows to configure the four control inputs.
First, the user must choose of the type of entry needed.

On/OFF input is equal to a simple switch. It can be “open” or “closed”.

Pulse input is equal to a “push button”. It starts a timer when pushed.

- One pulse of minus 4 seconds activates a programmed timer,
- One pulse over 4 seconds deactivates the entry.

Conditional input means to realize a “AND” function.

a. Case of ON/OFF input

The user chooses the function of the input.

He must define the active state of the switch. NO (Normally open) or NC (Normally closed).

Then, the user associates the function to an output relay.

b. Case of pulse input

The procedure is identical to the ON/OFF function. The user must add the maximum time value of the activated function.

c. Case of conditional input

The procedure is strictly identical to the ON/OFF function.

8) Programming analogue input

First, the user must choose the type of temperature measurement: "Air temperature" or "Water temperature". Then, the corresponding programming window appears:

Measuring input 4-20mA

Measure: Air temperature

Number of decimal(s): 2

Value for 4mA: -20

Value for 20mA: 120

Setpoint: 30

Direction: Up

Associated relay: None

Max. duration: 502 second(s)

The user must enter the following parameters:

- The number of decimal after the comma must be defined according the choice of the user for displaying the measured value.
- "Value for 4mA" corresponds to the minimum value read by the temperature sensor.
- "Value for 20mA" corresponds to the minimum value read by the temperature sensor.
- "Set point" is the temperature value wishes par the user.
- "Direction" is the direction of the process for adjusting temperature.
- "Associated relay" corresponds to the output relay where the heater is located.
- "Max. duration" correspond to the maximum of time when the relay is engaged.

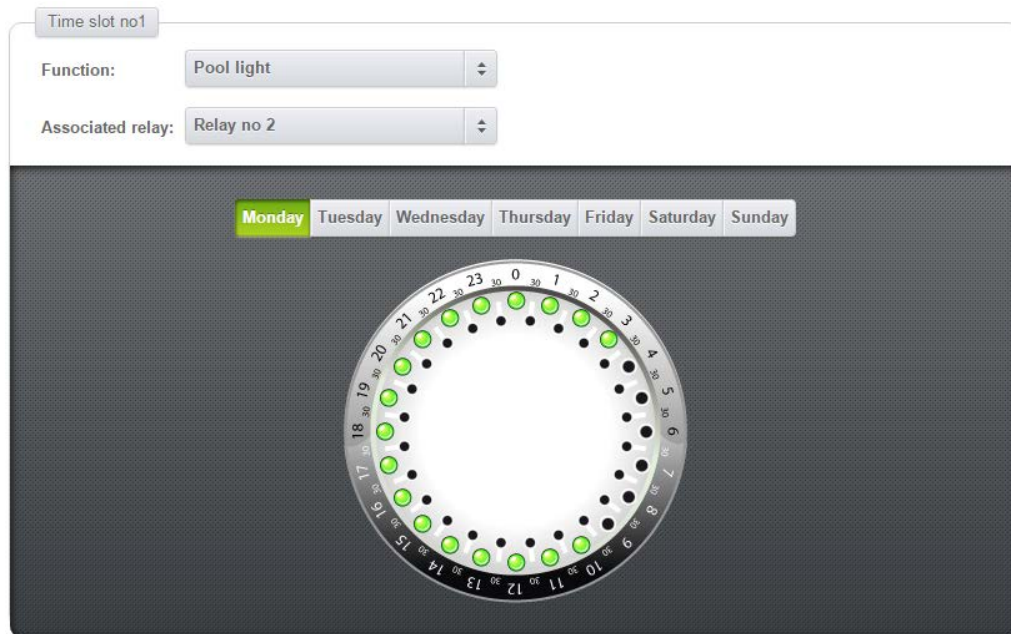
When all the values are entered, the user must record the programming by pressing "Program" key.

9) Programming of the time schedule

First, the user must choose a function affected to the calendar and he associates a relay output.

Then, select each period of time for each day of the week.

When the green mark is on, the relay output affected to the timer is activated during the current thirty minutes.

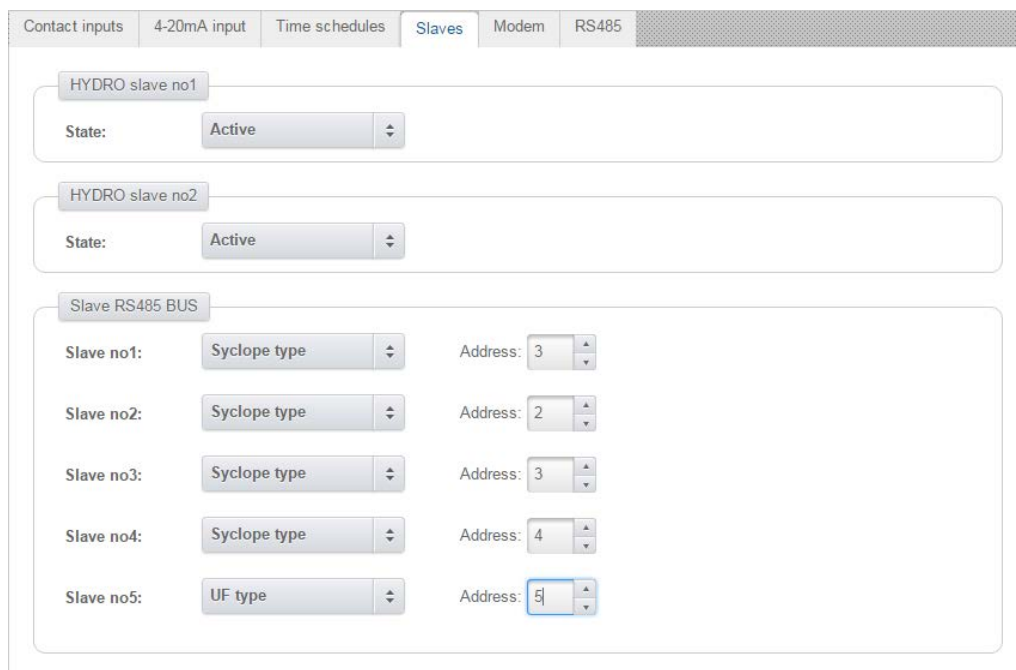


When all periods of time are programmed, the user must record the programming by clicking on "Program" key.

10) Programming the slaves

The window of programming the slaves allows to declare the slaves devices connected to the **HYDRO'Com**® communication gateway.

The programming window is shown as below:



For connecting HYDRO Controllers, the user must specify if the first controller (i.e. The HYDRO controller connected to the RS232C n°1) is activated or not. The same thing for the second HYDRO controller.

For the other slaves connected to the RS485 bus, the user must specify if it is a SYCLOPE controller or an UF gateway and must program the corresponding slave address.

11) Programming the modem

Before anything, the user must choose the type of Modem for connecting internet. Ethernet, Wi-Fi or GPRS modems are available for the **HYDRO'Com**® communication gateway.

When the modem is chosen, the configuration must be operated according the following windows:

The image displays three screenshots of the 'Modem Configuration' window, each showing different configuration options based on the selected 'Modem type'.

- Ethernet Modem Configuration:**
 - Modem type:** Ethernet
 - Internet connection:**
 - Server: www.mysyclope.com
 - Port: 18880
 - IP settings:**
 - DHCP: ☒ ON
 - IP: 0.0.0.0
 - Subnet mask: 255.255.255.0
 - Gateway: 0.0.0.0
 - DNS settings:**
 - Preferred: 0.0.0.0
 - Alternate: 0.0.0.0
- WiFi Modem Configuration:**
 - Modem type:** WIFI
 - Internet connection:**
 - Server: www.mysyclope.com
 - Port: 18880
 - IP settings:**
 - DHCP: ☒ ON
 - IP: 0.0.0.0
 - Subnet mask: 255.255.255.0
 - Gateway: 0.0.0.0
 - DNS settings:**
 - Preferred: 0.0.0.0
 - Alternate: 0.0.0.0
 - WiFi settings:**
 - SSID: WL-HDD-FRED
 - Speed: Auto
 - Channel: 11
 - Country code: ETSI - Europe
 - Mode: Infrastructure
 - Security: Off
 - Key:
- GPRS Modem Configuration:**
 - Modem type:** GPRS
 - Internet connection:**
 - Server: www.mysyclope.com
 - Port: 18880
 - GPRS configuration:**
 - APN:

The first group of parameters "Internet connection" is common to the three types of modem. It is composed of two fields:

- The field "Server" is the address of the server
- The field "Port" is the communication port number between the server and the client.

The users of the router must think to open the corresponding port to be sure the **HYDRO'Com**® communication gateway is able to connect the server by internet.

The second group is common to the WiFi and Ethernet modems. It allows to configure the device with a DHCP server or with a static IP.

The third group is also common to the WiFi and Ethernet modems. It allows to precise the addresses of the DNS servers in case of not provided by the DHCP.

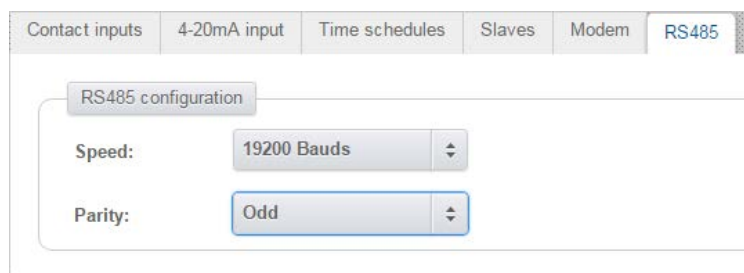
For the WiFi modem, the last group must be specified by the user to complete the connection and the fields below must be written absolutely:

- SSID : Name of the network
- Speed : Speed of communication
- Channel : WiFi Channel
- Country code: Regulations according to the country

- Mode : Type of network
- Safety : Encoding of the network
- Key : Word or code of encoding the network

Specifically for the GSM modem, into the GPRS group, the field "APN" must contain the name of the GPRS provider.

d. Programming the RS485 bus



The screenshot shows a software interface with a tabbed menu at the top. The tabs are: 'Contact inputs', '4-20mA input', 'Time schedules', 'Slaves', 'Modem', and 'RS485'. The 'RS485' tab is selected and highlighted in blue. Below the tabs, there is a section titled 'RS485 configuration'. Inside this section, there are two settings: 'Speed:' with a dropdown menu showing '19200 Bauds' and 'Parity:' with a dropdown menu showing 'Odd'. Both dropdown menus have up and down arrows on their right sides.

This window allows to program the RS485 communication port. (Speed and parity).

VI. Using the USB stick

The USB stick allows two types of using:

- Configuring the **HYDRO'Com**® communication gateway
- Update of the internal embedded software

The USB stick must be formatted in FAT format.

1) Configuring the device

For configuring the **HYDRO'Com**® communication gateway with the USB stick, the user must proceed as follow:

- Generate the configuration file from the MyHydro application,
- Copy the configuration file into the root of the USB stick,
- Connect the USB stick onto the main printed board of the **HYDRO'Com**® communication gateway when no power supplied is present,
- Apply power supply on the gateway,
- Wait during loading ... The USB led stays fixed.
- When done, the USB led blinks after a period of 500ms.
- Switch off the gateway.
- Remove the USB stick.

In case of error, see paragraph 3!

2) Updating the internal embedded software

For updating the internal embedded software, the user must proceed as follow:

- Copy the .bin file into the root of the USB stick.
- Connect the USB stick directly onto the printed board with powered
- Waiting the end of loading ... the USB led stays fixed.
- When done, the USB led blinks after a period of 500ms.
- Remove the USB stick.

In case of error, see paragraph 3!

3) Blinking of the USB LED

The USB led allows the user to know the statute of transfer into the bus. See below a complete comment about the different states:

- LED Off : No USB stick connected
- LED On but fixed : Loading in progress ...
- LED blinks isophased : Loading is finished with success.
- LED blinks and stops during one second : No configuration file or no program file.
- LED blinks two time and stops during one second : File corrupted. The user must regenerate the file by restarting the programming procedure.
- LED blinks three time and stops during one second : The version of the file is the same of the internal embedded software.

VII. Maintenance.

The device has no particular maintenance.

Repairs must be performed by specialized technician and must be executed in our factory.

For any problem or councils in water treatment or in software or in any case of doubts, please contact our after sales service.

NOTES

[illegible]

[illegible]



SYCLOPE Electronique S.A.S.

Z.I. Aéropole pyrénées

Rue du Bruscos

64 230 SAUVAGNON - France –

Tel : (33) 05 59 33 70 36

Fax : (33) 05 59 33 70 37

Email : syclope@syclope.fr

Internet : <http://www.syclope.fr>

© 2015 by SYCLOPE Electronique S.A.S.