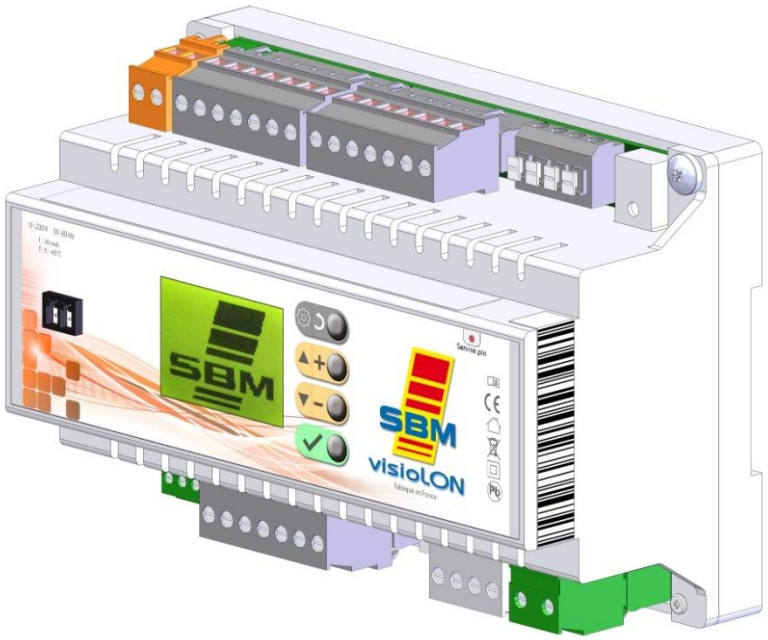
EN

Technical instructions

VisioLON - InterLON

Nr 05000635/7



Heating control module for SBM radiant heaters.
Specifically designed for gas heating system in industrial, commercial and livestock buildings.
This system is guaranteed provided that it is installed in accordance with the technical instructions.

Manufacturer :

SBM
3, cottages de la Norge
21490 CLENAY
FRANCE

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CE

SUMMARY

1. TECHNICAL DESCRIPTION

1.1 Technical specifications

Mechanic characteristics :
- Material ABS V0
- Dimensions Width 143 x Height 95 x Depth 71 mm
- Weight 300g

Electrical characteristics :
- Power supply 100 to 240V / 50 to 60Hz
- Power on stand-by 1,2W
- Maxi 4A

Common inputs for all references :
- 4 inputs for Safety inputs (*) and Override (**) **E1**, **E2**, **E3** and **E4**.
- 2 Sensor inputs **C1** and **C2** (Only one sensor type A1, supplied with the module)
- 2 0-10V inputs **E5** and **E6**.

Network connections:
- 4 DALI connections double connection without polarity
- 2 LonWorks® connections **A** and **B**.

Common outputs for all references :
- 3 relays outputs **S1**, **S2** and **S3** : 230V - 4A (***)
- 1 dry contact **NO C** maximum resistive power of 1kW with I_{max} 5A (16A maximum when starting)
- 4 TRIAC outputs **Y1**, **Y2**, **Y3** and **Y4** : 230V - 1A (***)
- 2 0-10V outputs : 2mA max **Y7** and **Y8**.
- 1 output 5V 200mA Maxi

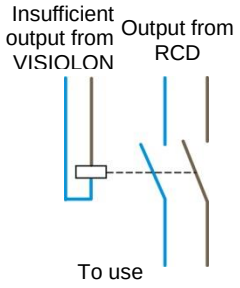
Connectors :
Removable terminals block with screw except for DALI connection and the dry contact **NO C**
dielectric strength between the circuits : reinforced insulation : 3780VAC

Equipment operating conditions :
- Operating temperatures 5°C to +45°C
- Stock temperatures -20°C to +70°C
- Relative humidity +20% to +90% without condensation

Applicable standards :
- Directive 2014/35/EU LOW VOLTAGE
- Directive 2011/55/EU ROHS DIRECTIVE
- Directive 2014/30/EU ELECTRO-MAGNETIC COMPATIBILITY

(*) Safety switch : connection of a sensor allowing or prohibiting the lighting of the heating system. Setting of the safety switch: see 3.2.6.6 page 31.

(**) External override : connection to an external contact allowing managing the heating system according to the defined settings (see 3.2.6.5 page 30).
Permit to activate the heating system without an access to the module.
It also exist an override accessible from the menus of the module (see 3.2.1 page 24)



(***) In case of insufficient capacity, install a power relay on the concerning output.

1.2 Radiant heating types

This heating control module is designed to manage heating installation using SBM appliances. There are 4 VisioLon types available :

VisioLOn Ind-T
- Radiant heaters with **thermocouple** flame safety device for **industrial** or commercial heating (ex: SX, XLA-T, XFR, XD ...).

VisioLOn Ind-T DE
- Radiant heaters with **thermocouple** flame safety device for **industrial** or commercial heating in Germany (ex: KOMFORT, XLA-T, XFR, XD ...).

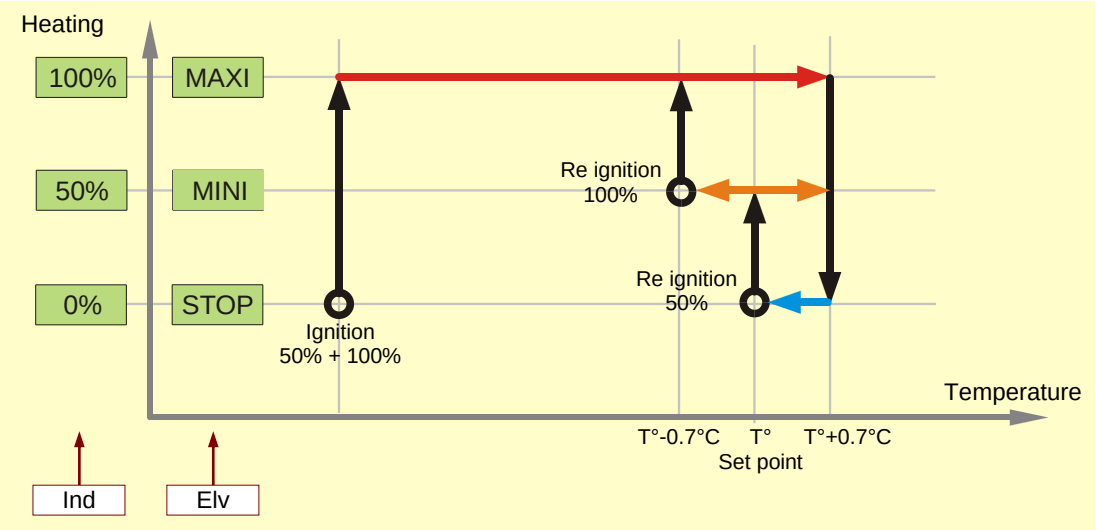
VisioLOn Ind-I
- Radiant heaters with **ionization** flame safety device for **industrial** or commercial heating. (ex : RI, RI-KOMFORT, XLA-I, XFR-I, XDI, HYPERTUBE ...).

VisioLOn Elv-T
- Radiant heaters with **thermocouple** flame safety device for **poultry/livestock** heating (ex: ZRFS, ZRFA, XLS, XLA, HPS ...).

The control module is adjusted in our factory following the radiant heating type.
However, in case of bad configuration, it is possible to change the mode by going into the hidden menu "Radiant type" (see 3.4.1 page 36)

1.3 Operating diagram

This diagram represents the operating cycle of the module.
It shows the heating status depending on the temperature measured by the sensor..



2. INSTALLATION

2.1 Safety requirements:

- This equipment must be installed on a 35 mm DIN rail and in watertight enclosure.
- Installation should comply with current local standards.
- Any installation or work of any nature should be carried out by a certified professional.
- The equipment must feature a residual current device (RCD).
- The installation must be properly grounded.
- The power supply should be switched off prior to any work being carried out on the equipment (including cleaning).

2.2 Correspondence table of terminals

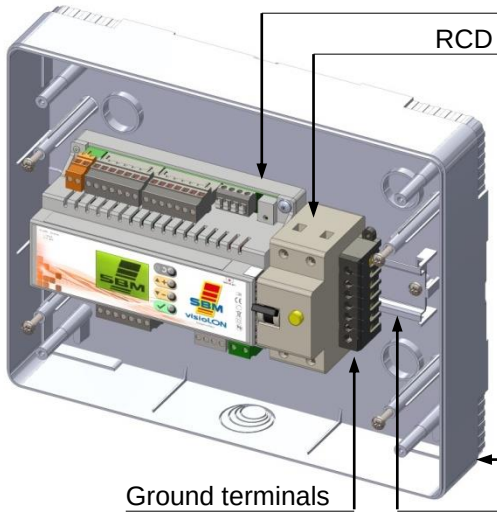
		INPUTS								OUTPUTS									
		Zone A				Zone B				Zone A					Zone B				
		E1 - Safety switch A	E3 - Override A	C1 - STemp. sensor A	E5 - 0-10V input A	E2 - Safety switch B	E4 - Override B	C2 – Temp. sensor B	E6 - 0-10V input B	S1	S2	Y1	Y3	Y7 – 0-10V	S3	NO C	Y2	Y4	Y8 – 0-10V
RADIANTS TYPES	INDUSTRY Thermocouple (VisioLON Ind-T)	✔	✔	✔	✔	✔	✔	✔	✔	BA 100%	BA 50%	EV	-	✔	BA 50%	BA 100%	EV	-	✔
	INDUSTRY Thermocouple Germany (VisioLON Ind-T DE)	✔	✔	✔	✔	✔	✔	✔	✔	EV 100%	EV 50%	BA	-	✔	EV 50%	EV 100%	BA	-	✔
	INDUSTRY Ionization (VisioLON Ind-I)	✔	✔	✔	✔	✔	✔	✔	✔	EV 100%	EV 50%	-	-	✔	EV 50%	EV 100%	-	-	✔
	LIVESTOCK Thermocouple (VisioLON Elv-T)	✔	✔	✔	✔	✔	✔	✔	✔	BA	EV 2	EV 1	-	✔	BA	EV 2	EV 1	-	✔

BA : BA blocks of radiant heaters with thermocouple
BA 100% : BA blocks of the line 100%
BA 50% : BA blocks of the line 50% (*)
EV : main solenoid valve of the heating zone
EV 100% : individual solenoid valve of the line 100%
EV 50% : individual solenoid valve of the line 50% (*)
EV 1 : Solenoid valve EV1 of the gas panel G6A/G10A
EV 2 : Solenoid valve EV2 of the gas panel RG6/RG10 or G6A/G10A

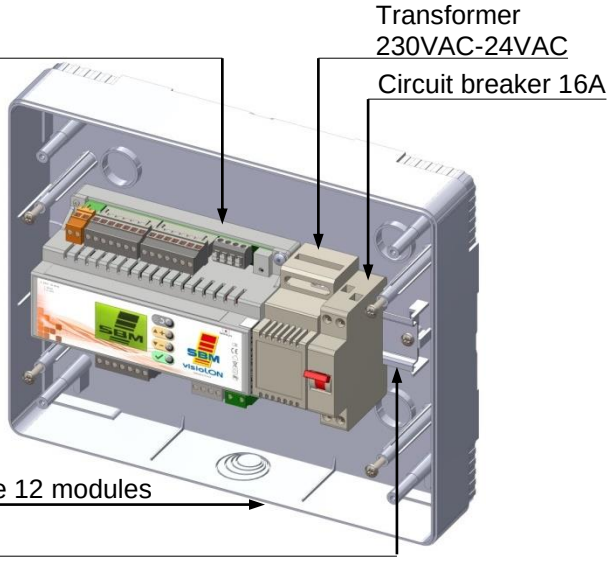
(*) only for double speed operation.

2.3 Implantation of module

Industry and Livestock



Livestock with HPS brooders



2.4 Electrical diagrams

On all the following electrical diagrams, the location of the terminals does not reflect the reality.

2.4.1 VisioLON Ind-T

Diagram zone A

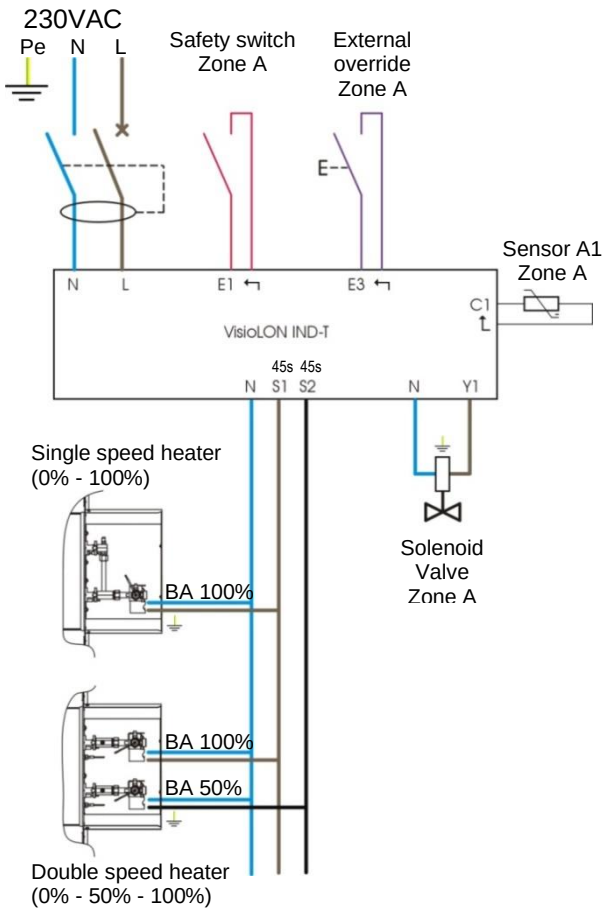
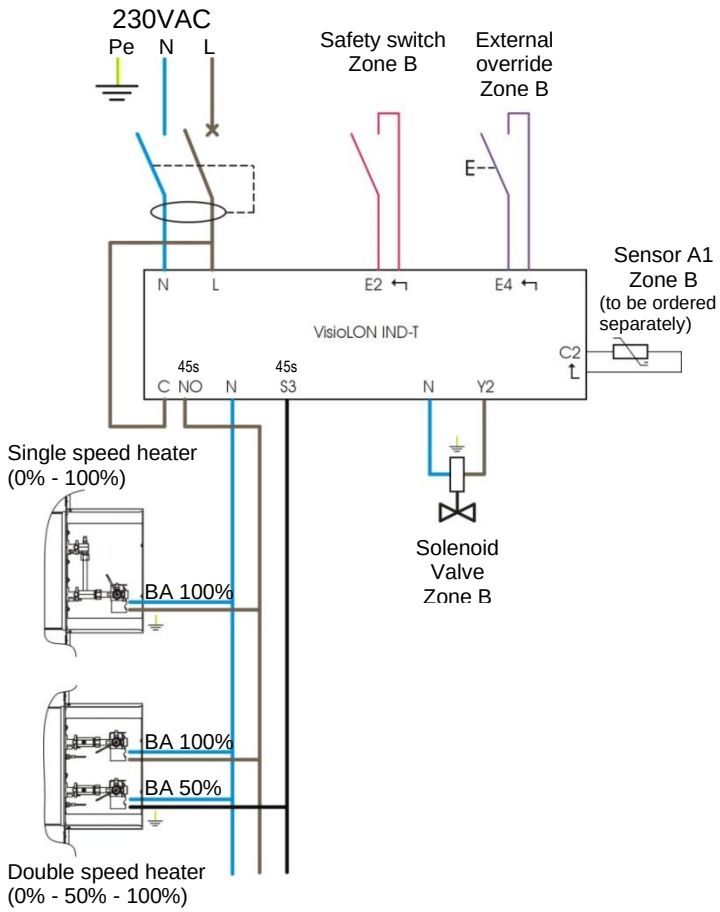


Diagram zone B



2.4.2 VisioLON Ind-T DE

Diagram zone A

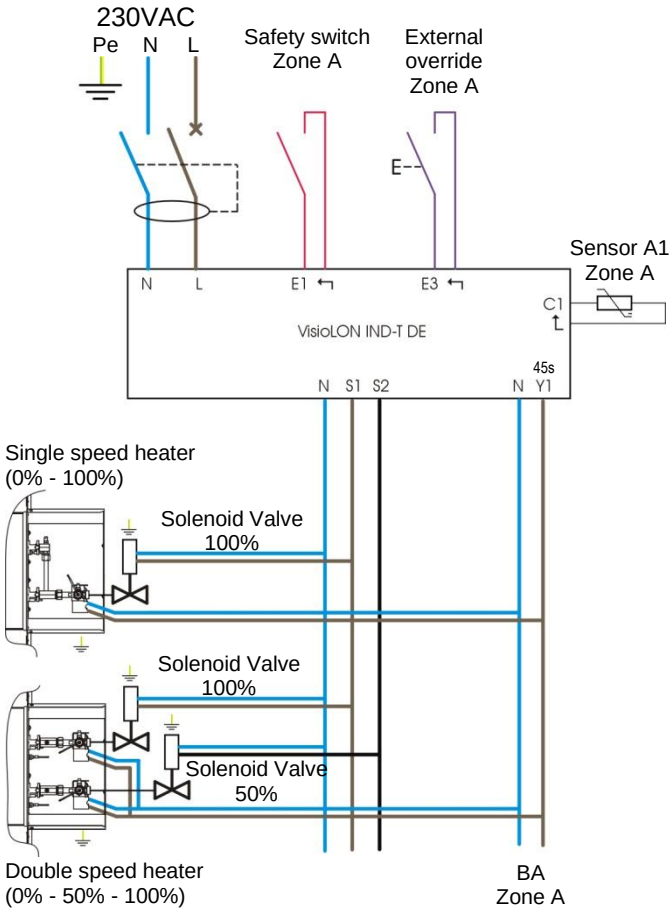
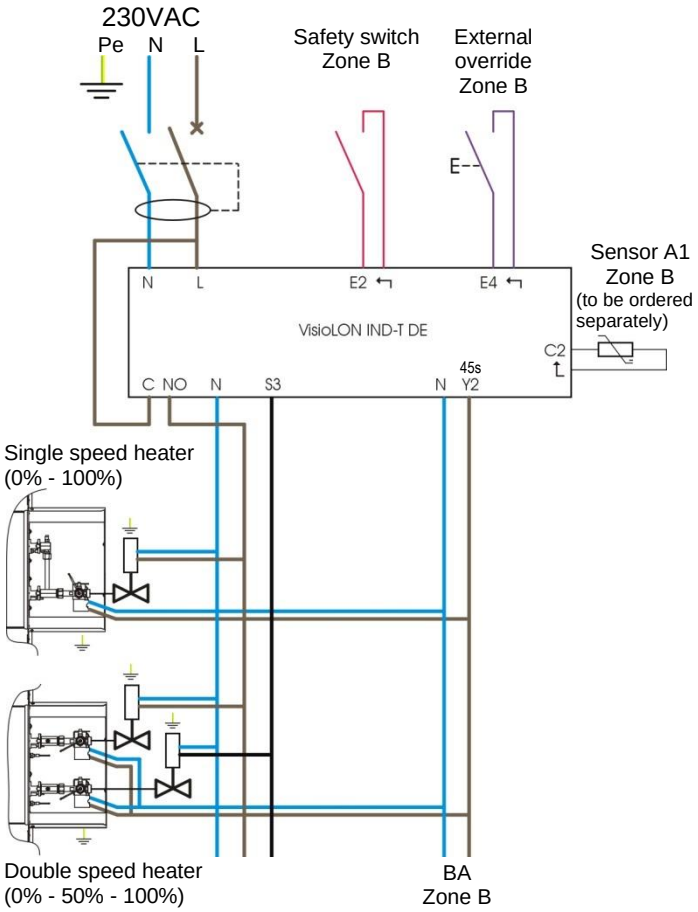


Diagram zone B



2.4.3 VisioLON Ind-I

Diagram zone A

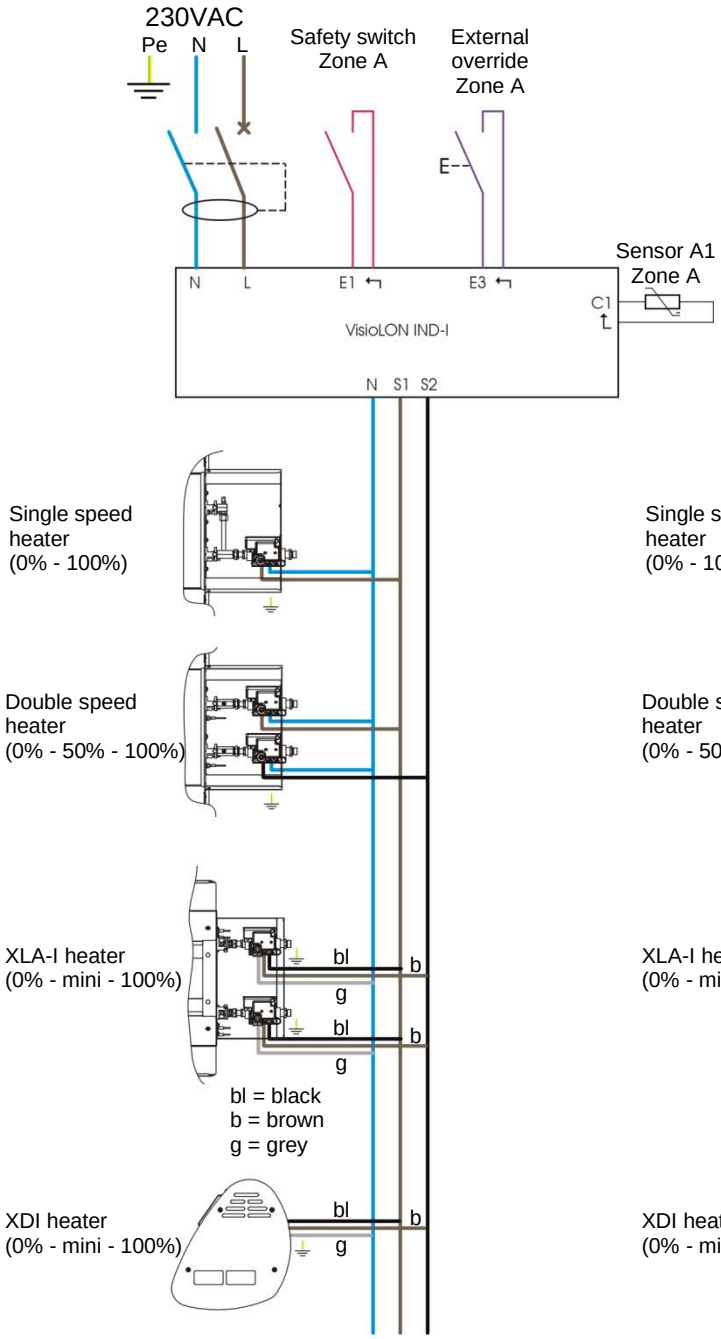
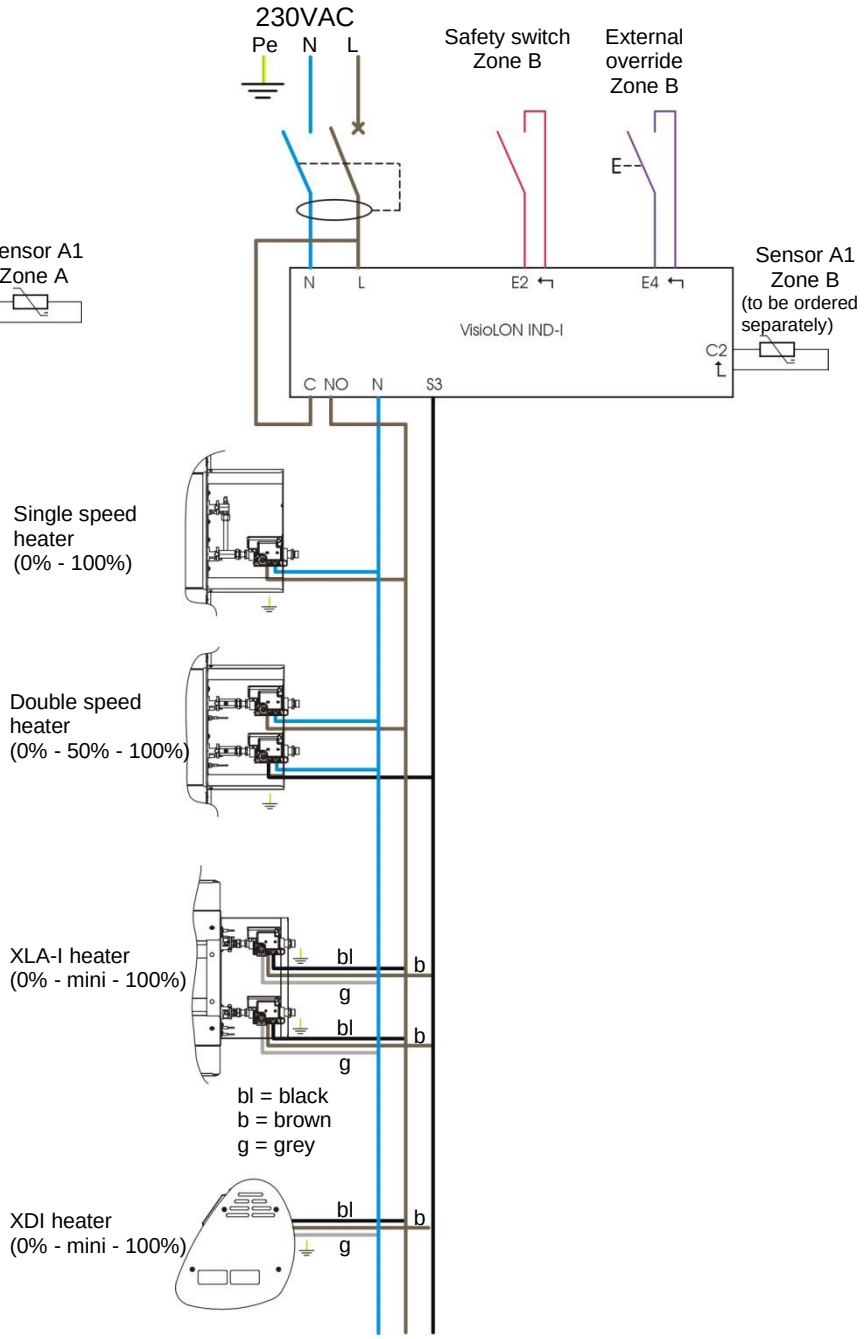
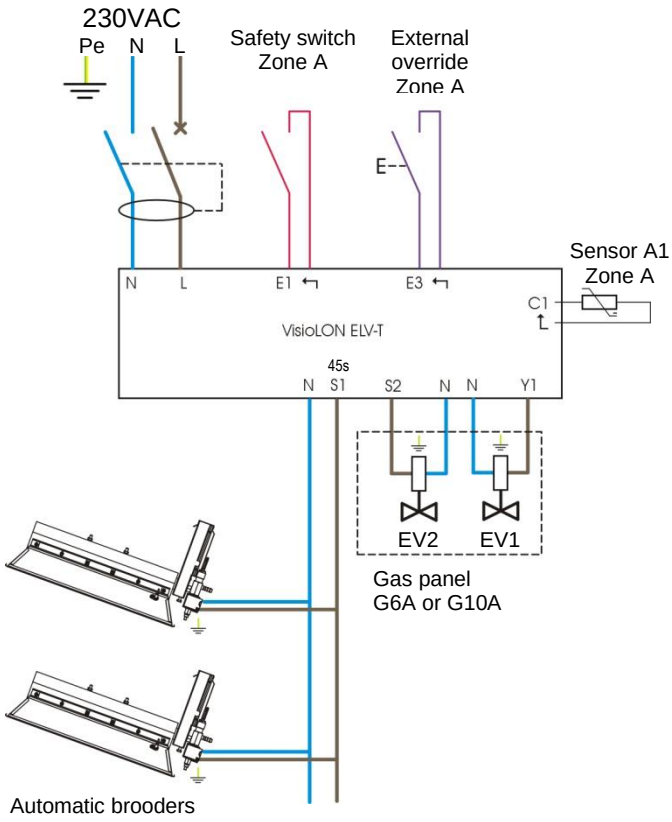


Diagram zone B

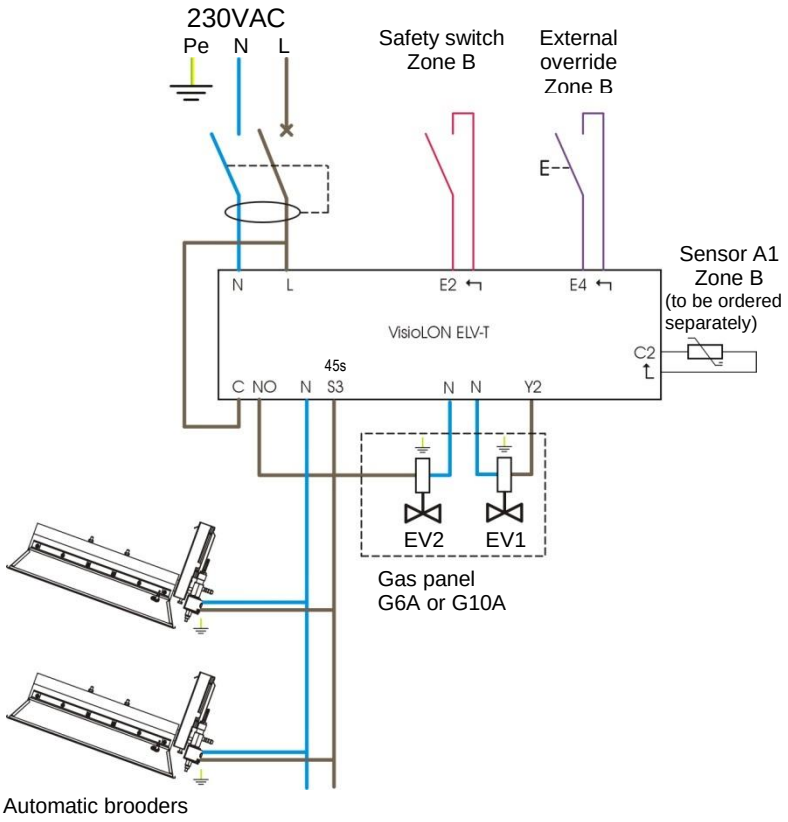


2.4.4 VisioLON Elv-T

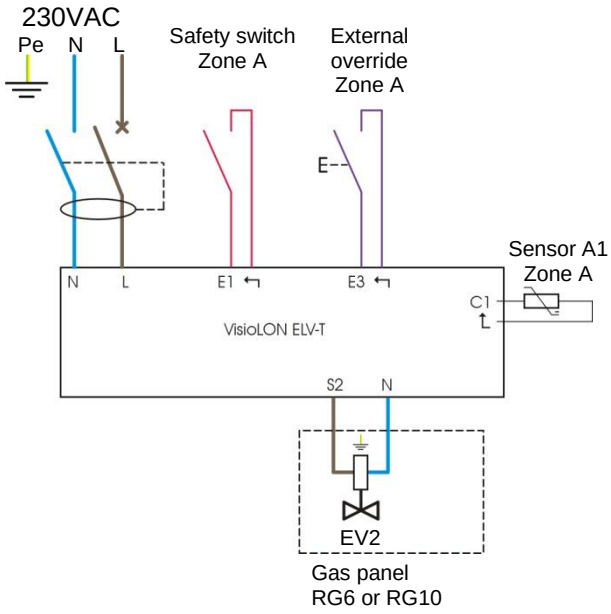
Automatic brooders
Diagram zone A



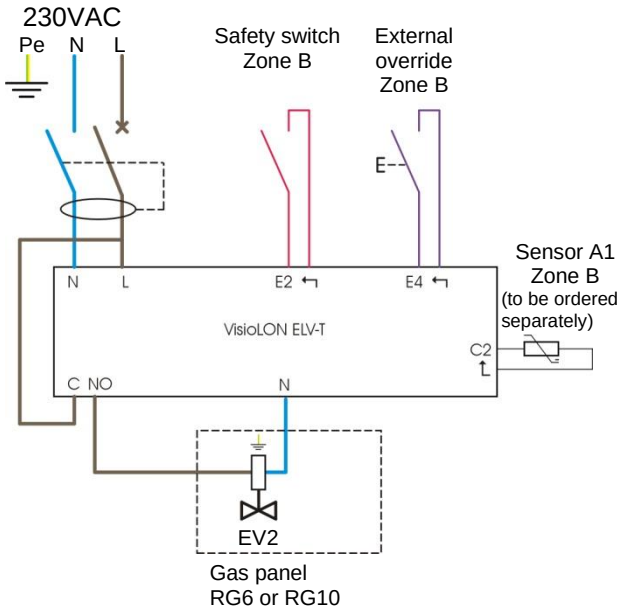
Automatic brooders
Diagram zone B



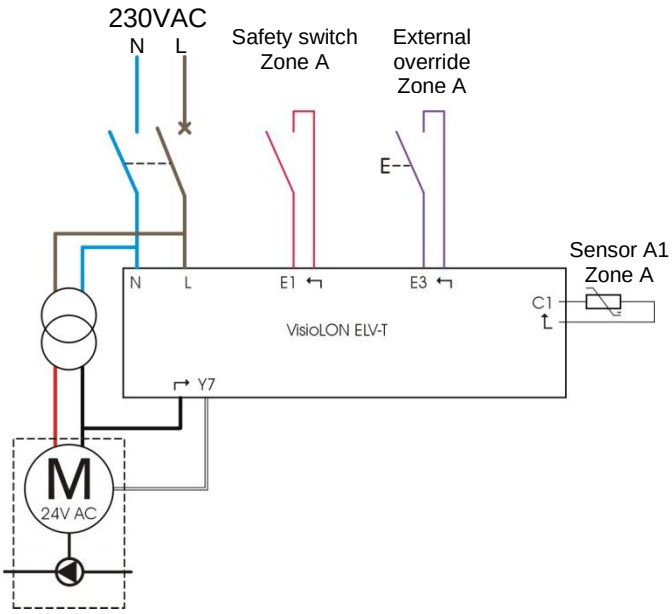
Semi-automatic brooders
Diagram zone A



Semi-automatic brooders
Diagram zone B

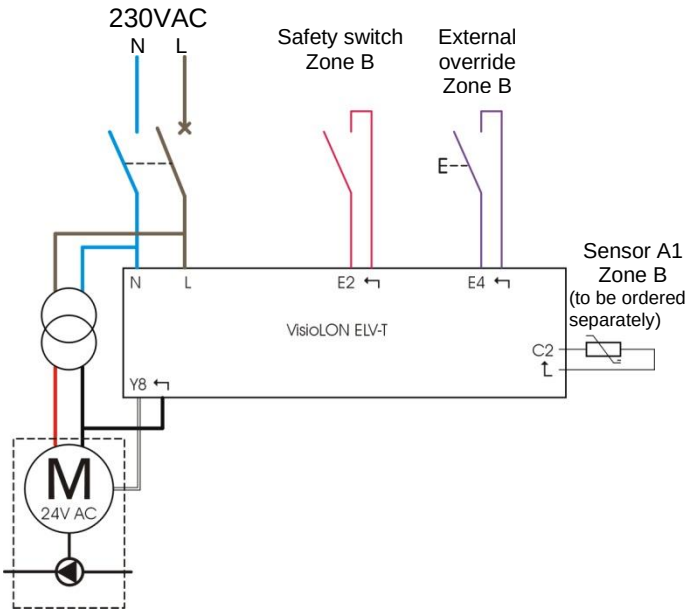


HPS Semi-automatic brooders
Diagram zone A



Gas regulator PGR 10

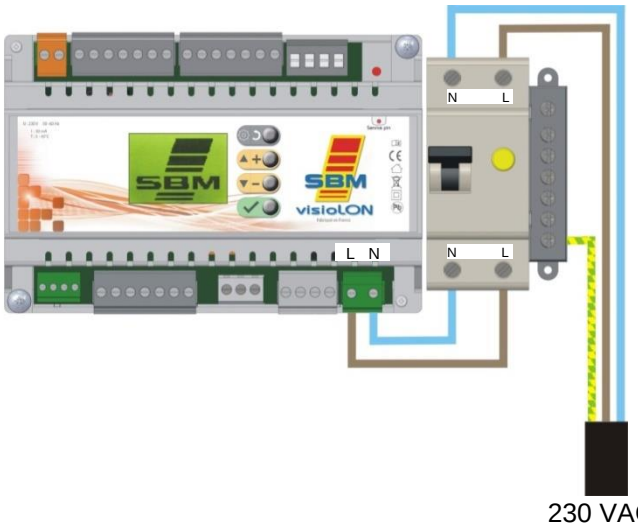
HPS Semi-automatic brooders
Diagram zone B



Gas regulator PGR 10

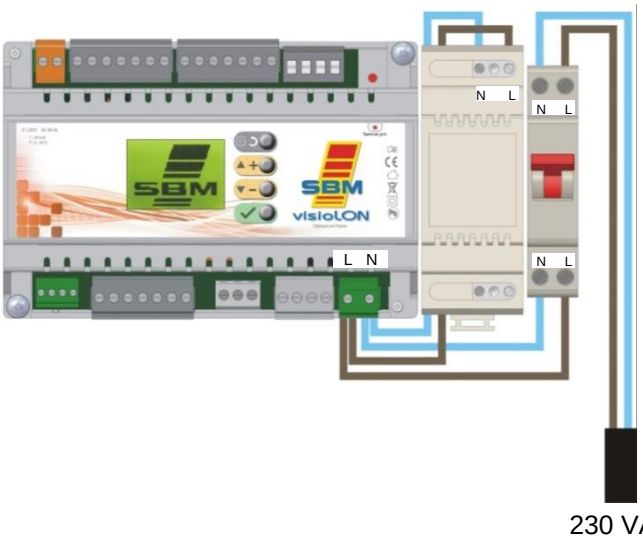
2.5 Wiring of power supply

Industry and Livestock



230 VAC

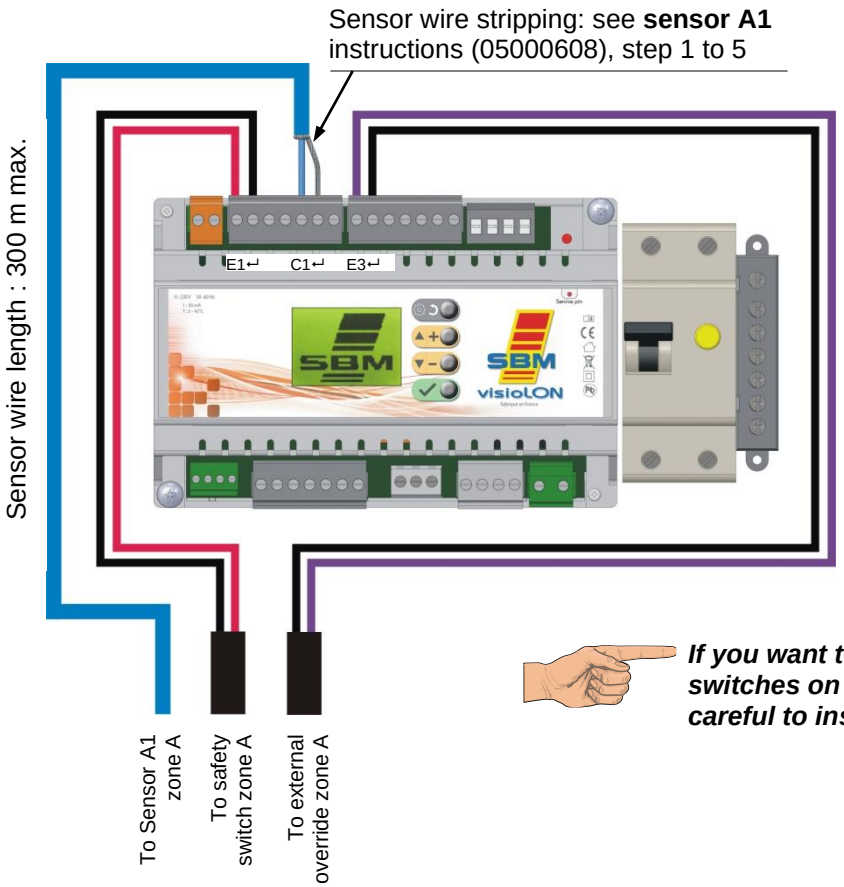
Livestock with HPS brooders



230 VAC

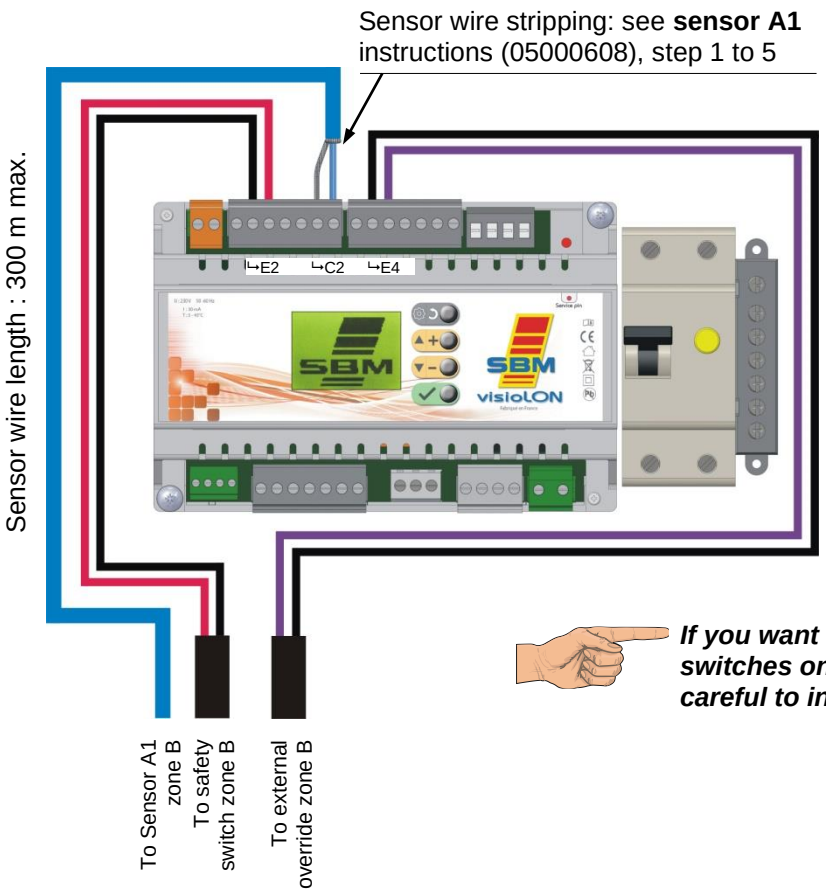
2.6 Wiring of inputs

Wiring zone A



If you want to use several safety switches on the same input, be careful to install them in parallel.

Wiring zone B

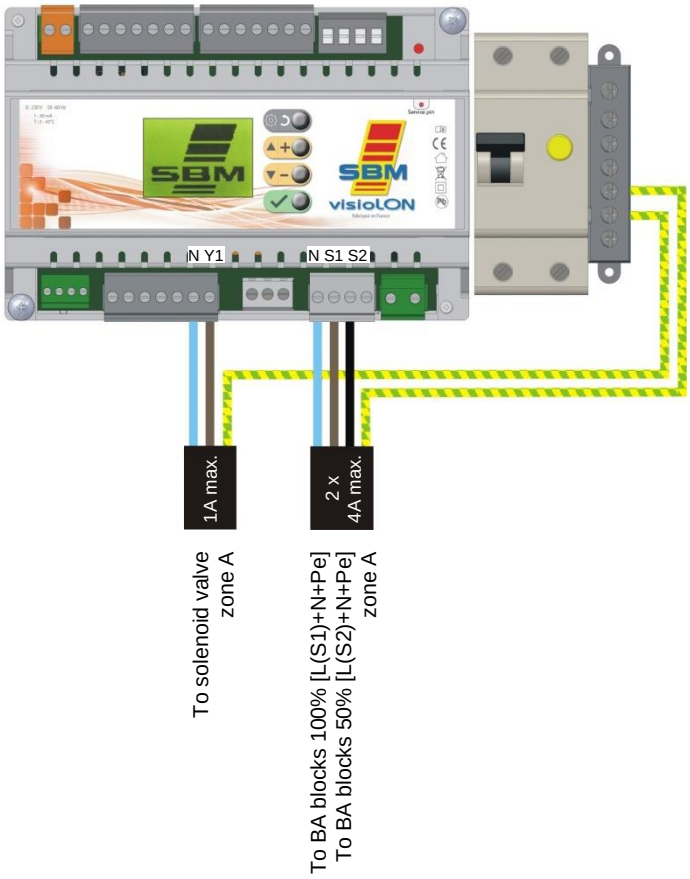


If you want to use several safety switches on the same input, be careful to install them in parallel.

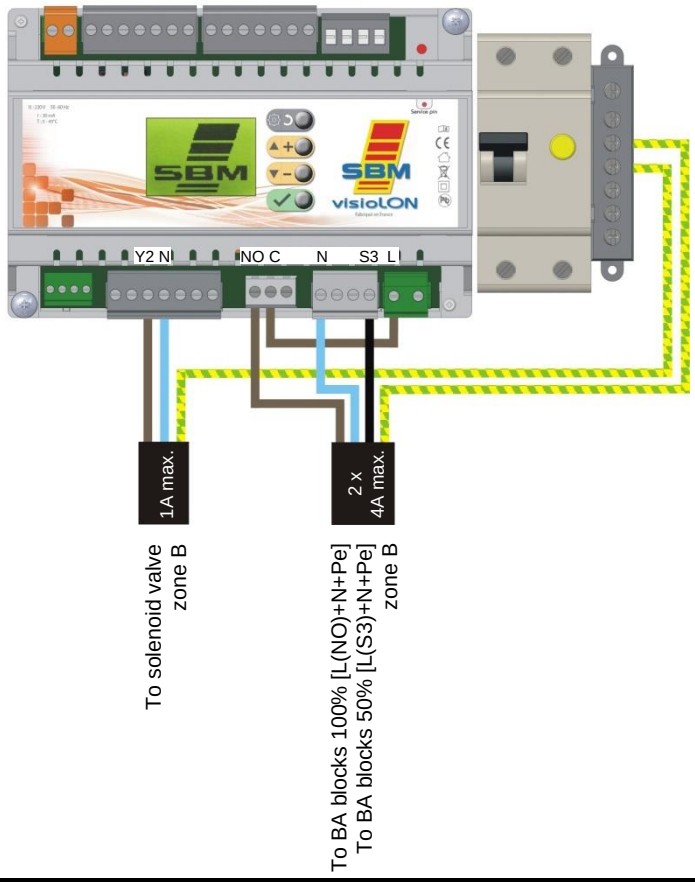
2.7 Wiring of outputs

2.7.1 VisioLON Ind-T

Wiring zone A

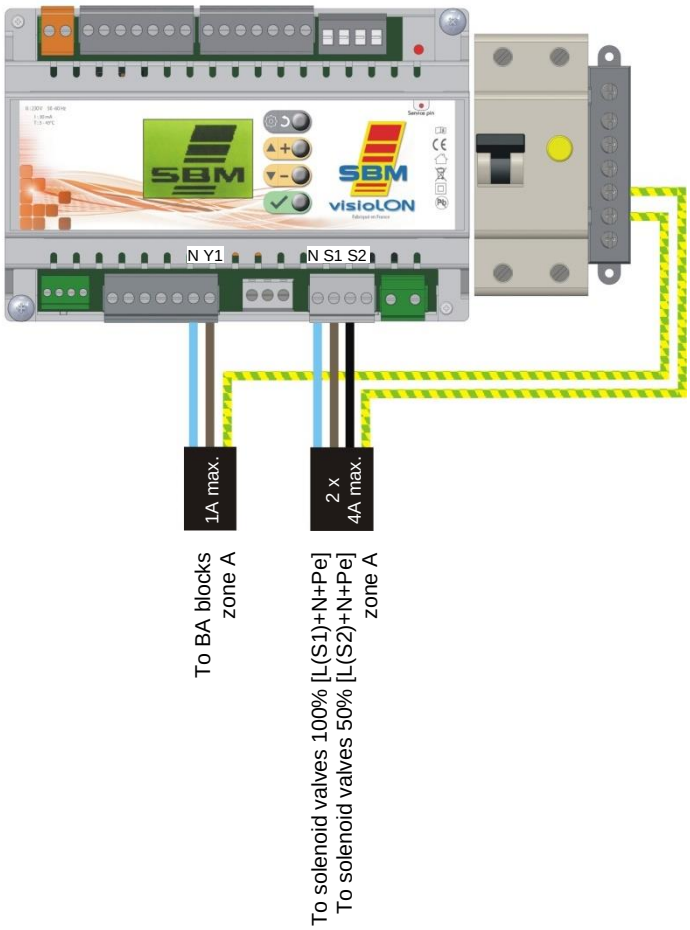


Wiring zone B

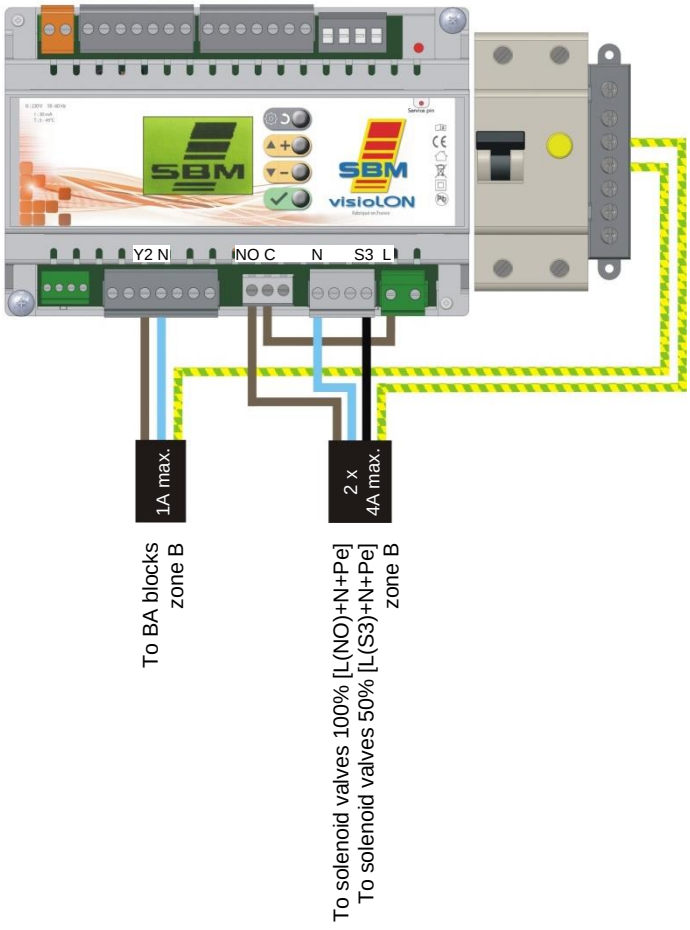


2.7.2 VisioLON Ind-T DE

Wiring zone A

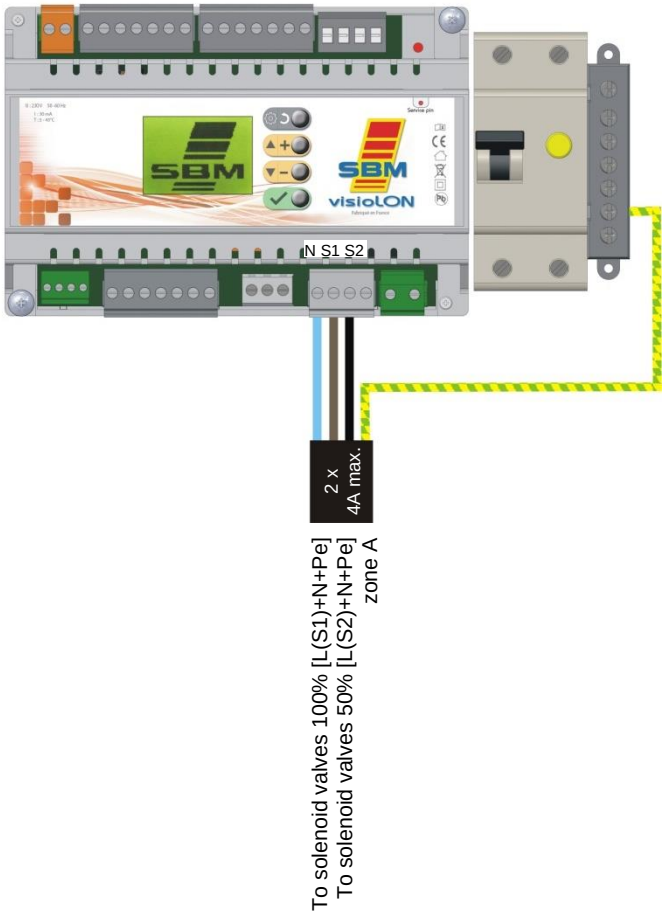


Wiring zone B

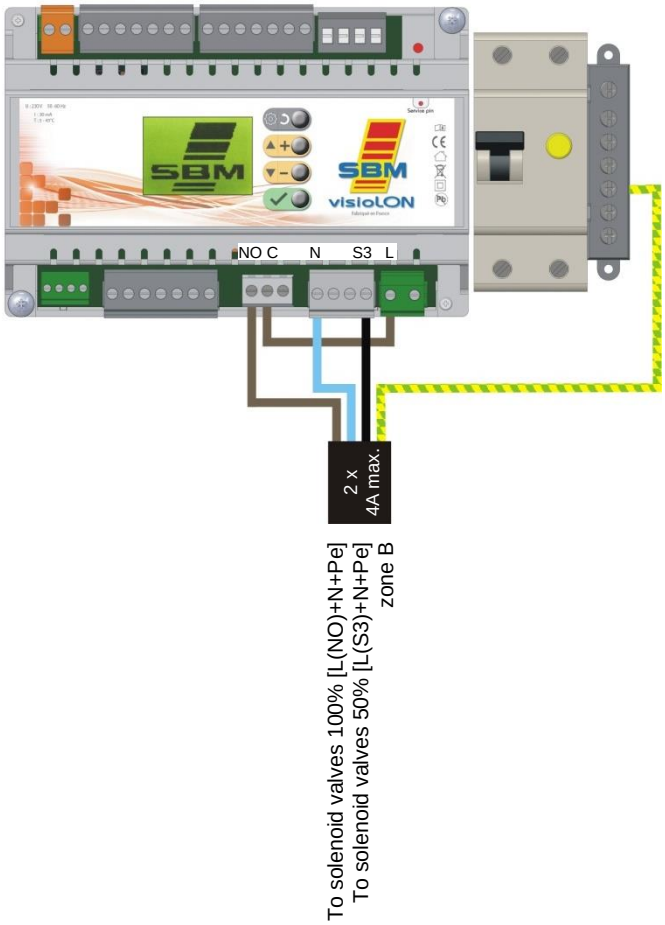


2.7.3 VisioLON Ind-I

Wiring zone A

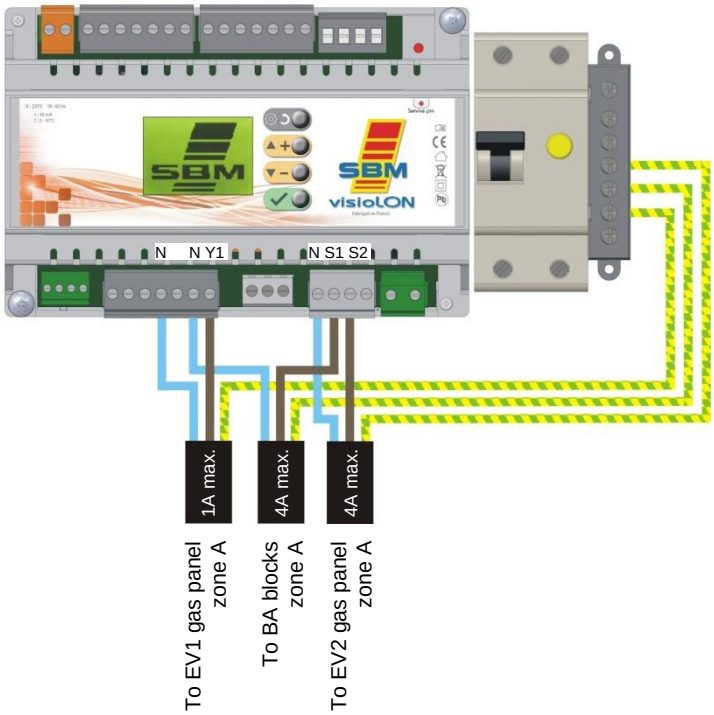


Wiring zone B

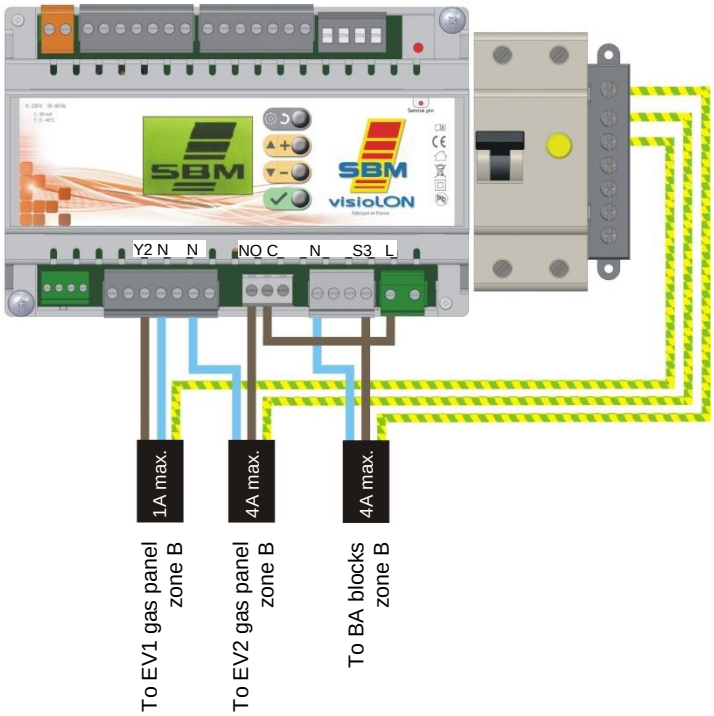


2.7.4 VisioLON Elv-T

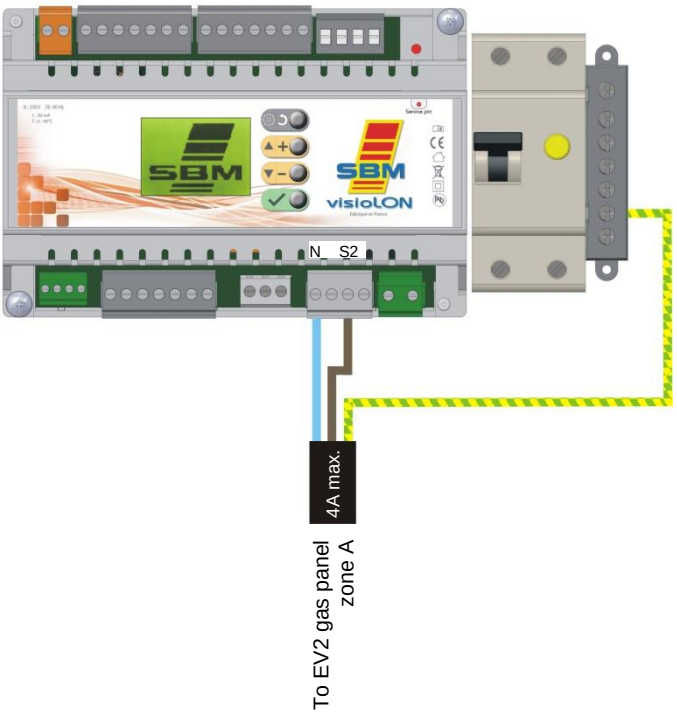
Automatic brooders - Wiring zone A



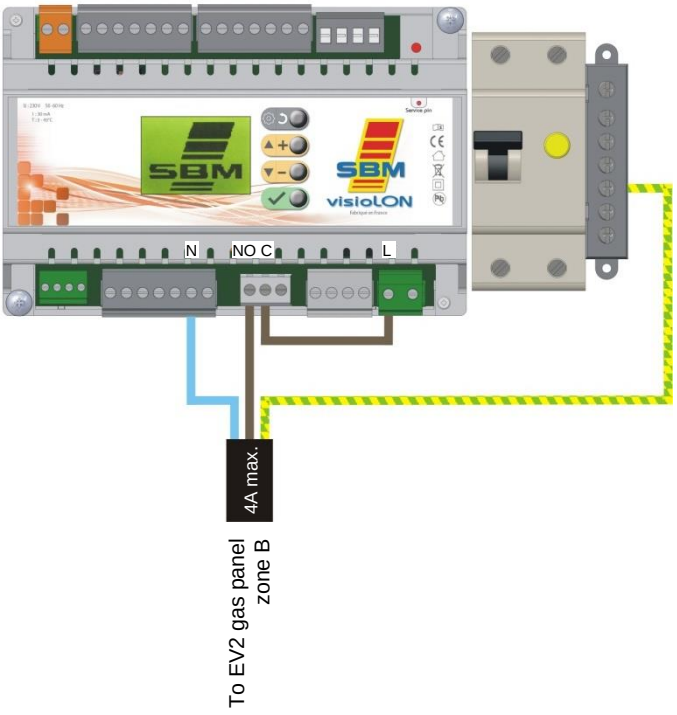
Automatic brooders - Wiring zone B



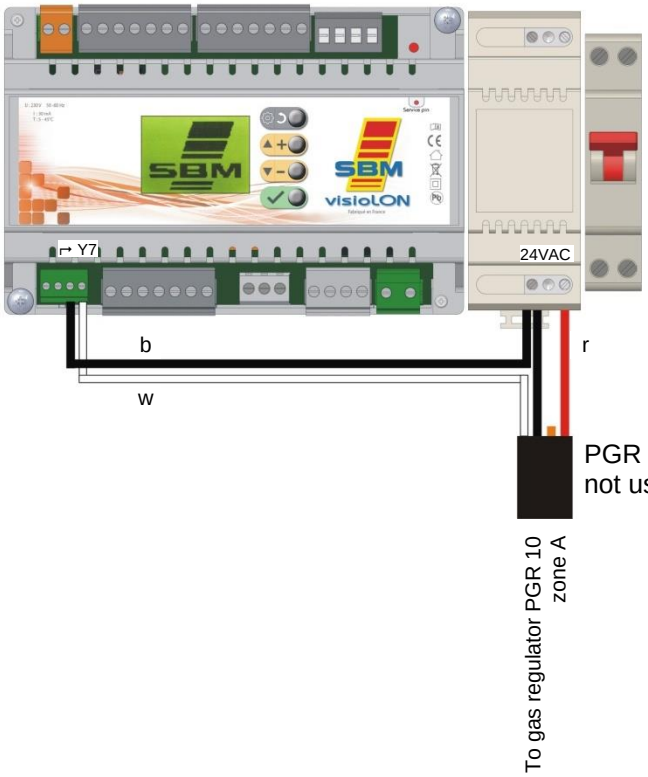
Semi-automatic brooders - Wiring zone A



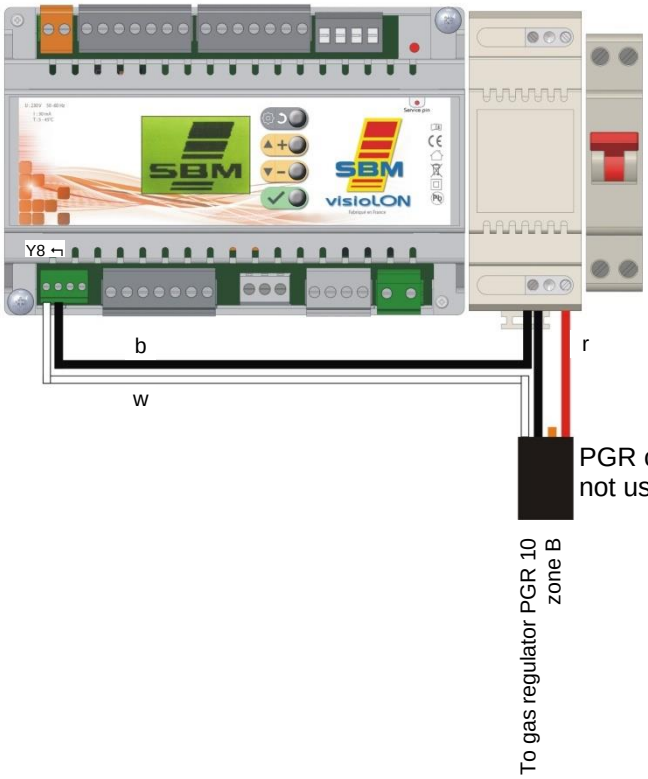
Semi-automatic brooders - Wiring zone B



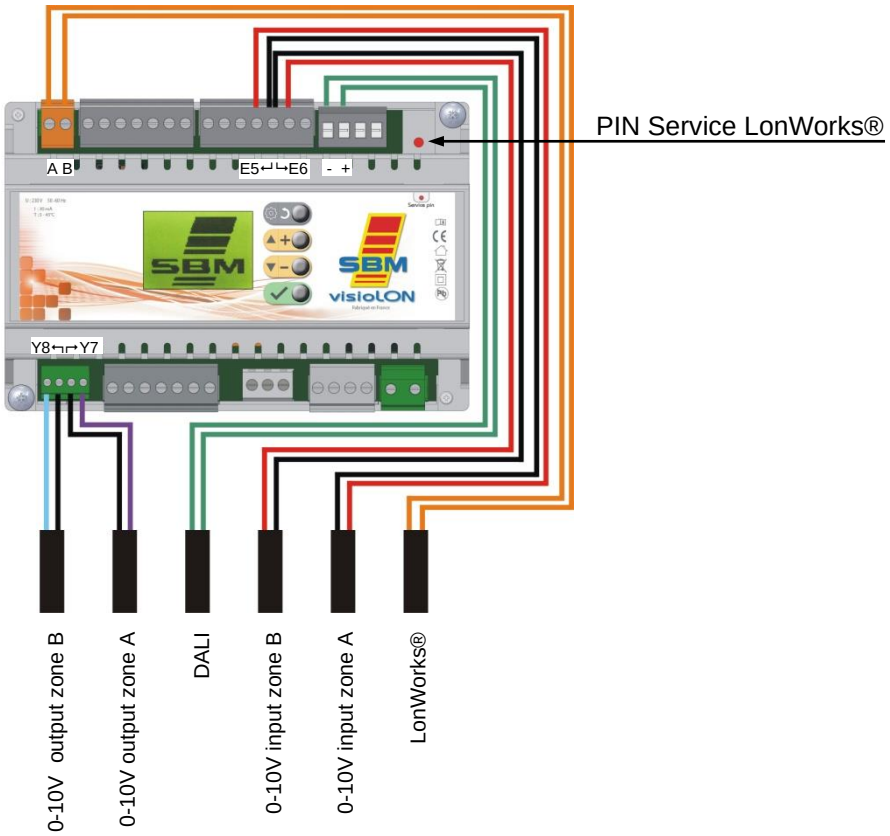
HPS semi-automatic brooders - Wiring zone A



HPS semi-automatic brooders HPS - Wiring zone B



2.8 Wiring of networks



2.9 Exhaust fan control

2.9.1 Principle

It is possible to control one or several exhaust fans with the VisioLON and InterLON controllers.
In order to do that, connect a power contactor to the appropriate output
(see the schemes below and on the next page)
The pressure switch P1, from the exhaust, fan V1 is connected on the safety input of the controller.
In case of several fans on the installation, all the pressure switchs are connected in parallel.
Set the safety contact of the VISIOLON (see 3.2.6.6 page 31)

2.9.2 Operation

When the heating system is starting, the safety input is disactivated for 30 seconds in order to let the exhaust fans start and the pressure switches toggle.
After this temporisation, the safety contact is effective.
If one fan is blocked when the system is starting or during the operation of heaters, the safety contact is shutting down the heating system.

On all the following electrical diagrams, the location of the terminals does not reflect the reality.

2.9.3 Electrical diagrams for VisioLON Ind-T

Diagram zone A

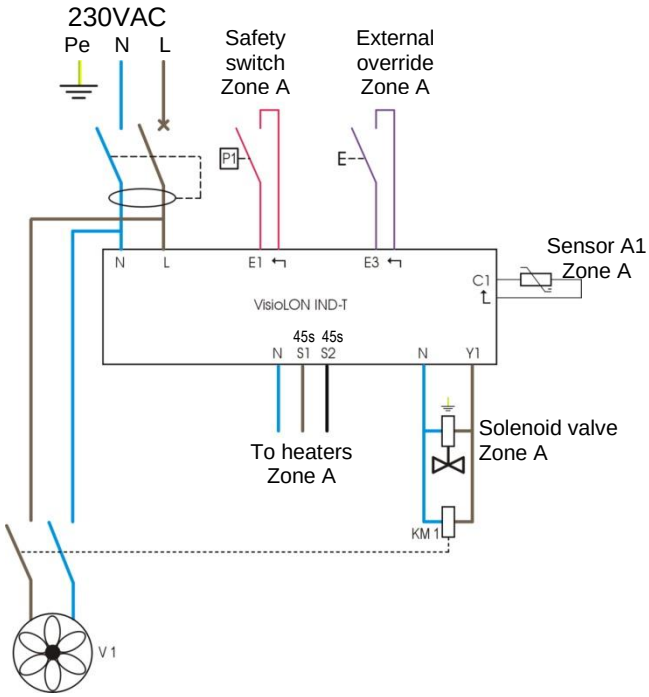
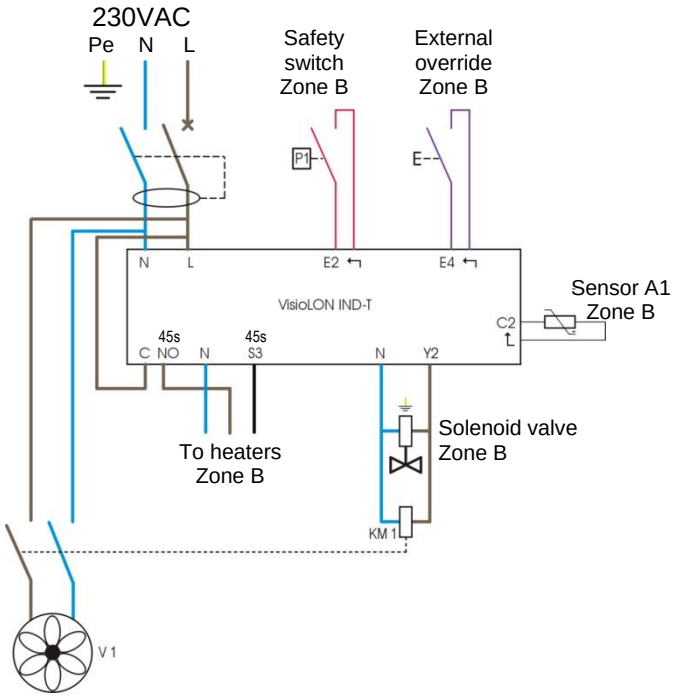


Diagram zone B



2.9.4 Electrical diagrams for VisioLON Ind-T DE

Diagram zone A

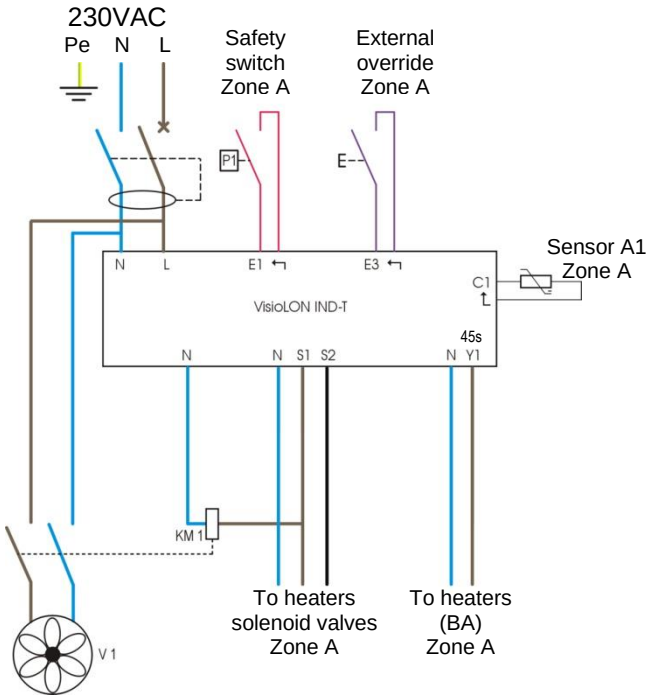
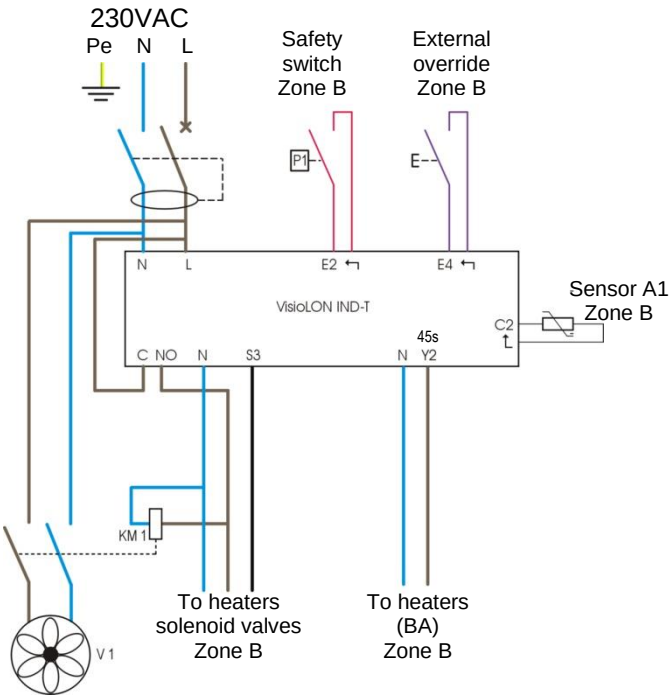


Diagram zone B



2.9.5 Electrical diagrams for VisioLON Ind-I

Diagram zone A

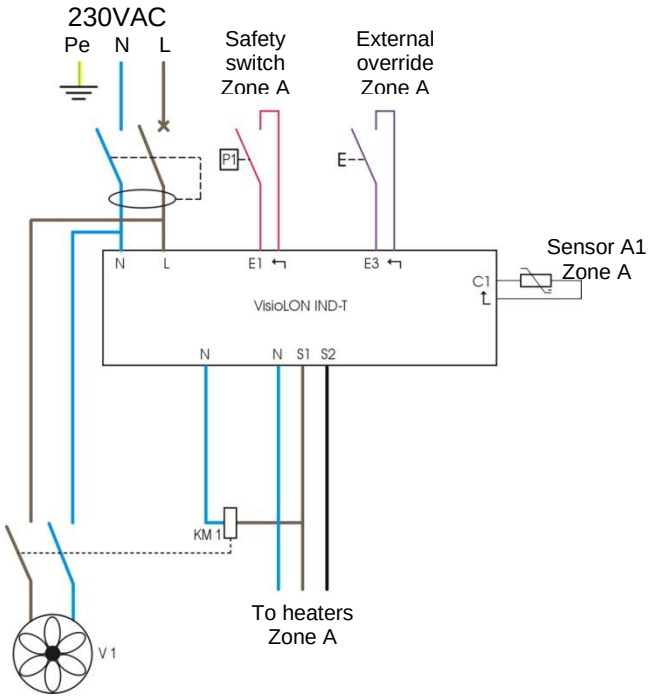
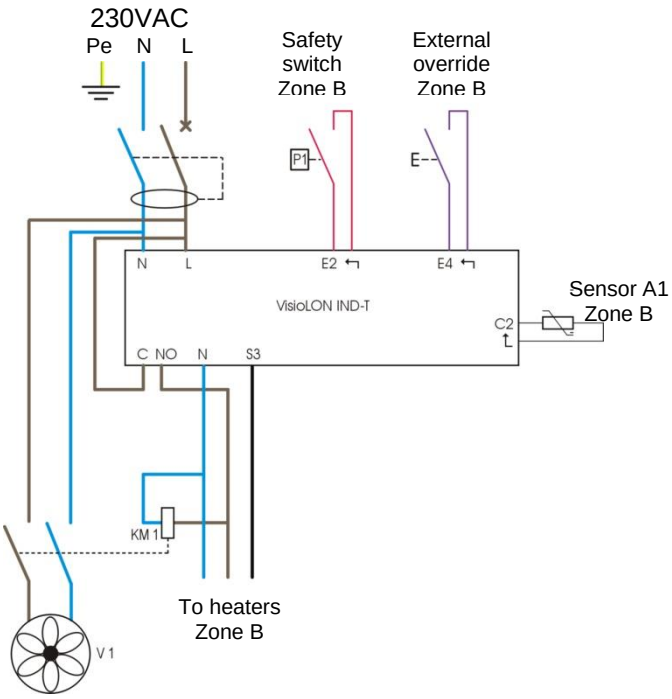


Diagram zone B



3. MENUS VISIOLON

3.1 Main screen

One heating zone

Two heating zones

Regulation mode : [AUTO] (according to weekly program) or
[MF] (override) + remaining time (hours:minutes)

Heating level : ☐☐ 0 (off) or ☐■ 50 (mini) or ■■ 100 (maxi)

The backlight is turning red if the safety contact is activated (see 3.2.6.6).

3.2 Menus

To access to the main menu, press on one of the four buttons when you are on the home screen  .

In all the menus, the buttons :

 and  allow a vertical navigation or increase/decrease a value.

 allows to valid your choice.

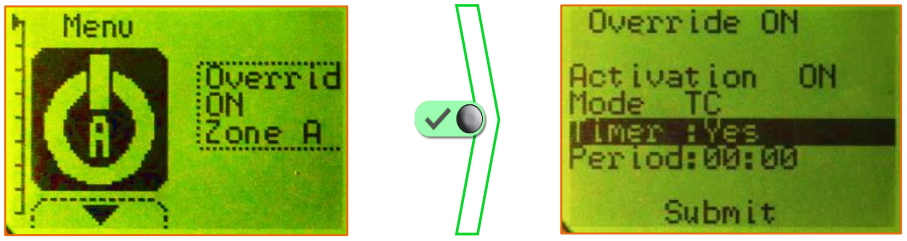
 allows to come back to the previous screen.

Menu organization :

Menu	Sub-menu	Description	See
[Override Zone A]		Activation and setting of the override from software	3.2.1
[Setpoints Zone A]	[Comfort]	Setting of the comfort temperature desired	3.2.2
	[Reduced]	Setting of the reduced temperature desired	3.2.2
	[Night]	Setting of the night temperature desired	3.2.2
[Weekly program Zone A]	[Setting]	Setting of the weekly program day by day	3.2.3.1
	[Copy weekday]	To copy one day on another of the same zone	3.2.3.2
	[Zone copy]	To copy all the weekly program from a zone to the other	3.2.3.2
[Override Zone B]		Activation and setting of the override from software	3.2.1
[Setpoints Zone B]	[Comfort]	Setting of the comfort temperature desired	3.2.2
	[Reduced]	Setting of the reduced temperature desired	3.2.2
	[Night]	Setting of the night temperature desired	3.2.2
[Weekly program Zone B]	[Setting]	Setting of the weekly program day by day	3.2.3.1
	[Copy weekday]	To copy one day on another of the same zone	3.2.3.2
	[Zone copy]	To copy all the weekly program from a zone to the other	3.2.3.2
[Exception]	[Program]	Setting of program for an exceptional date	3.2.4.1
	[Date]	Planning a date according to a program	3.2.4.2
	[Period]	Planning a period according to a program	3.2.4.2
[Counters]	[Zone A]	Counter for Zone A	3.2.5.1
	[Zone B]	Counter for Zone B	3.2.5.1
	[Setting]	Setting of total capacity for each zone	3.2.5.2
[System]	[Language]	Choice of language	3.2.6.1
	[Zone activation]	To activate or not a zone	3.2.6.2
	[Zone renaming]	To rename a zone	3.2.6.3
	[Date Hour]	Date and hour setting	3.2.6.4
	[Contact input]	Setting of the override contact input	3.2.6.5
	[Safety input]	Setting of the safety contact input	3.2.6.6
	[Preheating]	To activate or not the preheating mode	3.2.6.7
	[0-10V inputs]	Activation and setting of 0-10V inputs	3.2.6.8
	[0-10V outputs]	Activation and setting of 0-10V outputs	3.2.6.9
	[Downgrading]	Setting of downgrading mode	3.2.6.10
	[DST]	Activation of the DST	3.2.6.11
	[Reset]	Reset menu	3.2.6.12
	[Screen saver]	To activate or not the screen saver	3.2.6.13
	[Semi-auto mode]	To activate or not the semi-automatic operation mode	3.2.6.14

3.2.1 Override ON

Select the menu "**Override ON Zone A**" or "**Override ON Zone B**".
Choose to activate or not override ("**ON**" or "**OFF**").
Select the setpoint to apply during the override mode ("**TC**", "**TR**", "**TN**" or "**OFF**").
Choose to appply a timer or not (to define the length of the override mode) or not ("**Yes**" or "**No**")
Set the time length for the override (If Timer is "**Yes**")



Example : Override ON Zone A

Activation : [OFF] or [ON]
Mode : [TC], [TR], [TN] or [OFF]
Timer : [Yes] or [No]
Time length : [hours : minutes]

3.2.2 Setpoints : Comfort, Reduced and Night

Select the menu "**Setpoint Zone A**" or "**Setpoint Zone B**".
Select the setpoint to adjust ("**TC**", "**TR**" or "**TN**").
TC : **C**omfort
TR : **R**educed
TN : **N**ight
Adjust it to the desired temperature.
Repeat this operation for the other setpoints.

Example : Setpoints Zone A

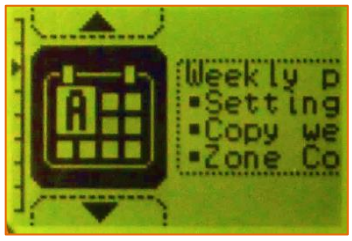
Setpoint : [TC], [TR], [TN]

Temperature adjustment
(a long press permit a quick scrolling)

3.2.3 Weekly (no available with the Elv-T type)

3.2.3.1 Adjustment

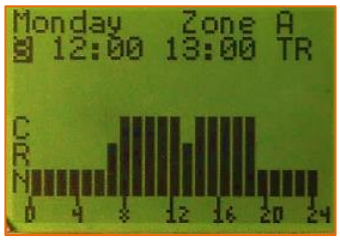
Select the menu "**Weekly program Zone A**" or " **Weekly program Zone B**".
Select "**Setting**" to program a week day.
Each day get a maximum of **7** programming ***steps*** numbered from **0** to **6**.
For each ***step***, set the start time and the end time and the setpoint desired ("**TC**", "**TR**", "**TN**" or "**OFF**").



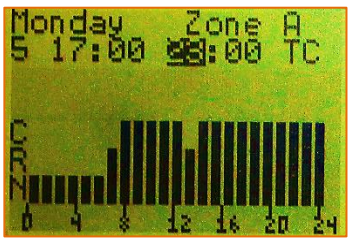
Example : Weekly program Zone A

Select **Setting**

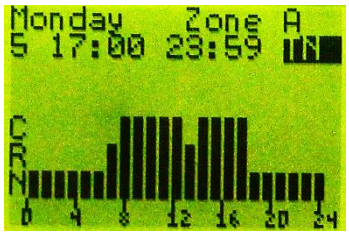
Select the **day** to program



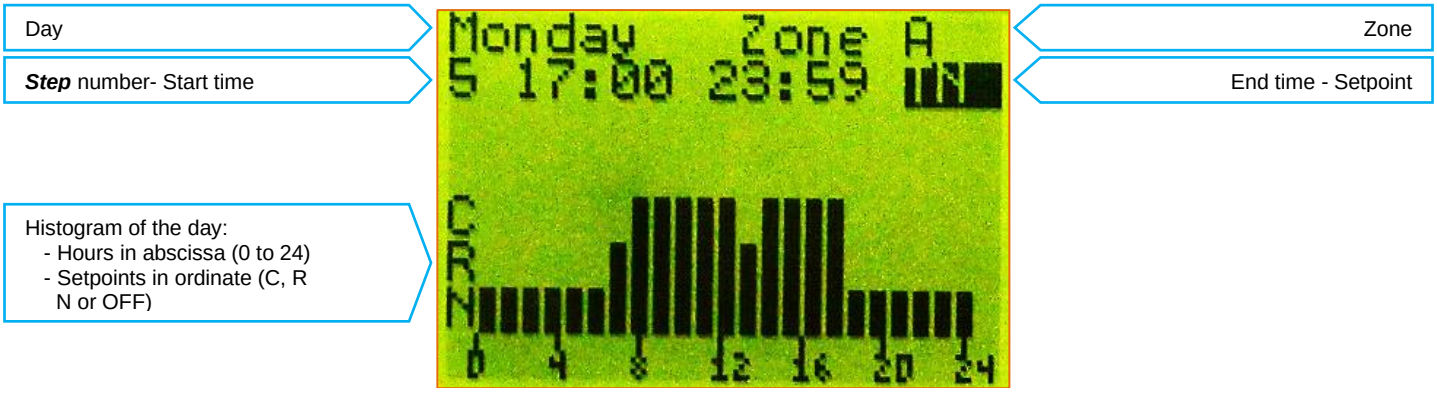
Select the ***step*** wanted from 0 to 6



Adjust the time of start and end.
(Start only for the step 0)



Choose the setpoint desired [TC : Comfort / TR : Reduced / TN : Night / OFF]
(after validation, the screen go to the next ***step***)

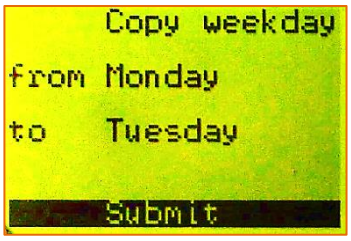


If the number of the last step is less than 6, confirm your program until going out by pressing the key

If the number of the last step is 6, confirm your program by pressing the key

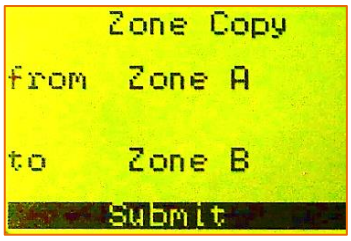
3.2.3.2 Weekday copy and zone copy

Select the menu "**Weekly program Zone A**" or " **Weekly program Zone B**".
Select "**Copy weekday**" to copy from one day to another day.
Select "**Copy Zone**" to copy from one zone to the other zone.



Choose the day to copy in the field "**from**".
Choose the destination day in the field "**to**".
Submit

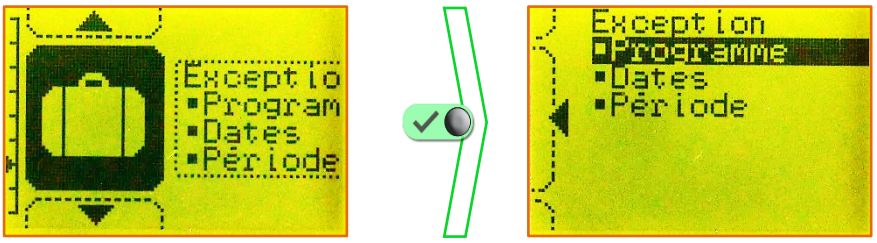
or



Choose the zone to copy in the field "**from**".
Choose the destination zone in the field "**to**".
Submit

3.2.4 Exceptions (no available with the Elv-T type)

Select the menu "**Exception**"
Select "**Program**" to create an exceptional program.
Select "**Date**" to create an exceptional date.
Select "**Period**" to create an exceptional period.



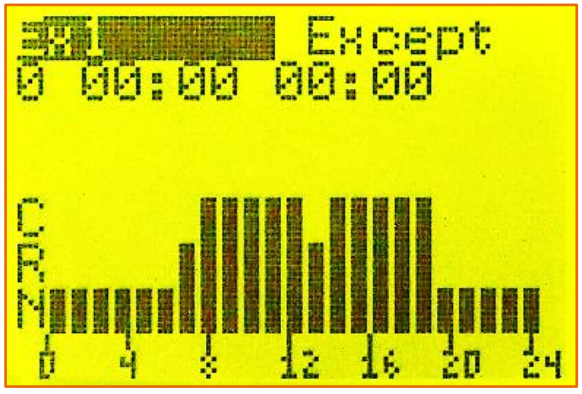
3.2.4.1 Program

Exceptional programs (maximum **3**) permit to create fictive day program intended to be assigned to an exceptional date or period.

Number of the exceptional program

Step number- Start time

Histogram of the day :
- Hours in abscissa (0 to 24)
- Setpoints in ordinate (C, R N or OFF)



End time - Setpoint

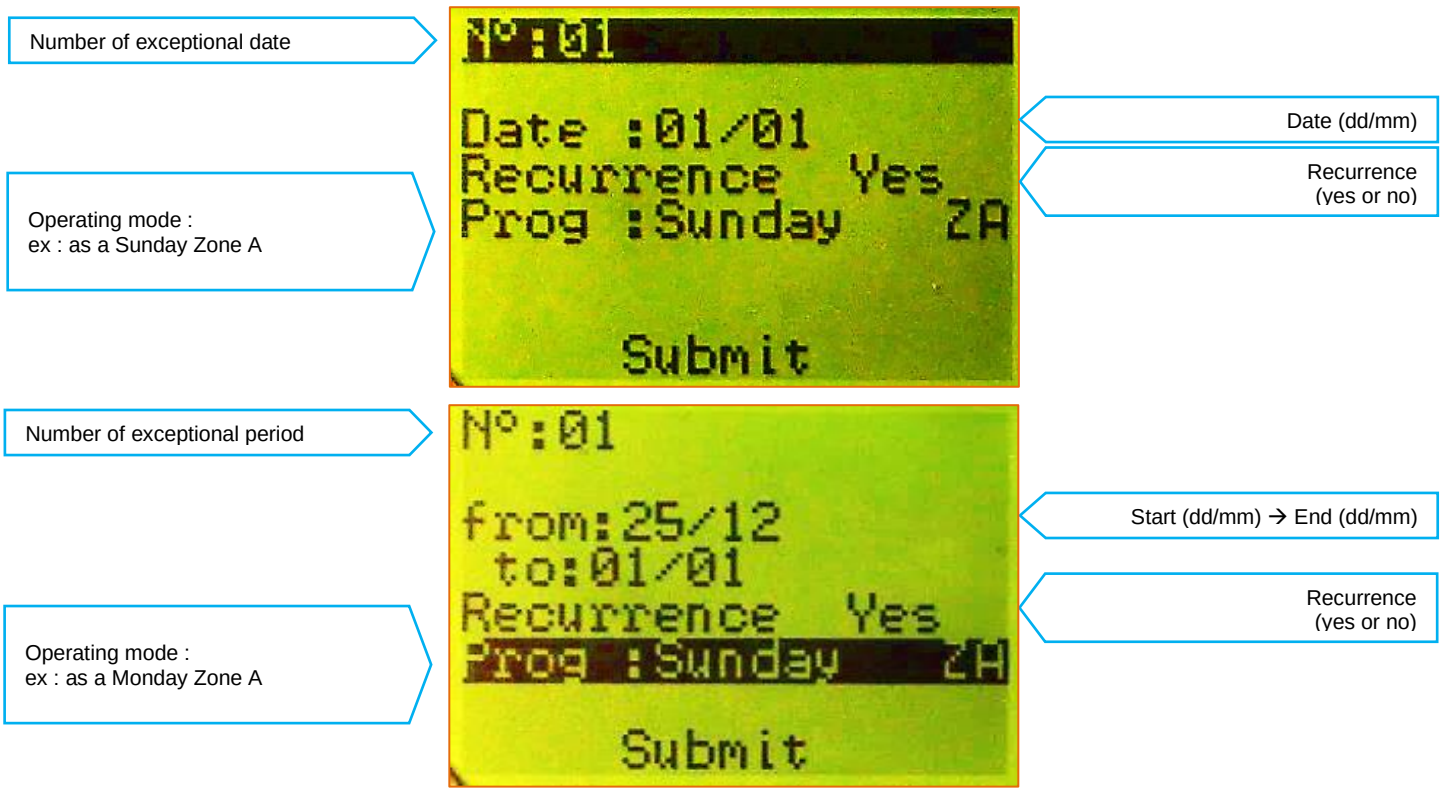
The exceptional program Ex1 is set as a weekday.
(see 3.2.3.1)

3.2.4.2 Date and period

Exceptional dates (maximum **20**) help to assign a different program as compared to the corresponding weekly program.
(For example, if the New Year's Day is on Tuesday, we will program the 01/01 such a Sunday).
So we can assign to this date, one of the 10 following program:
Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday, Ex1, Ex2 and Ex3.

Exceptional periods (maximum **20**) follow the same logic, but help to assign a period between two dates in place of only one date *(For example, for a week of closure between Christmas and the New Year's Day, we will program the period from 25/12 to 01/01 such a Sunday).*
We can assign to this period, one of the 10 following program:
Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday, Ex1, Ex2 and Ex3.

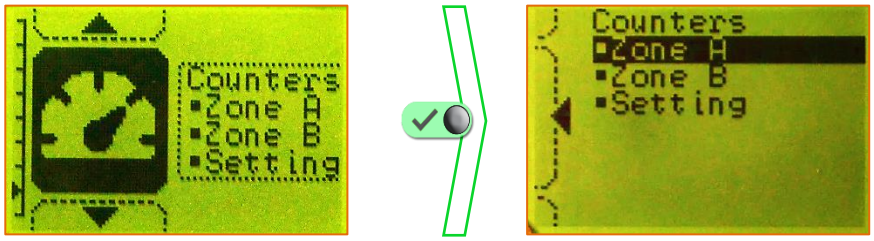
The exceptional dates and periods are the same for the 2 zones A and B.



3.2.5 Counters

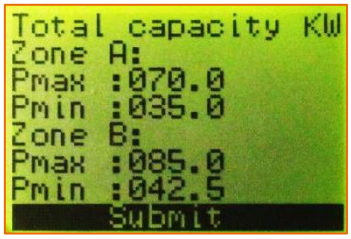
Select the menu "**Counters**".
This menu allows getting an ***estimation*** of the gas consumption for each zone on the last two months and also the sum.
This consumption is expressed in kWh.

To configure the counters, enter the capacity of your heating installation corresponding to the 50% line (**Pmin**) and on the 100% line (**Pmax**) for double speed installation.
For single speed installation the value Pmin shall be 000.0
This capacity is expressed in kW.



3.2.5.1 Setting

Select "**Setting**".
Enter, zone by zone **Pmax** and **Pmin**, beforehand calculated.

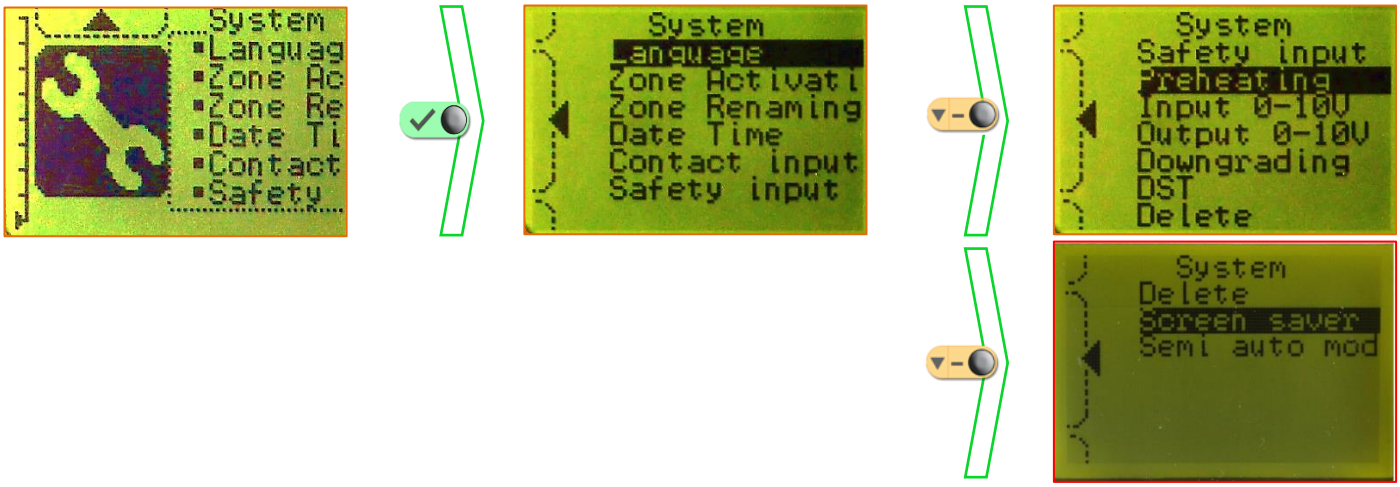


3.2.5.2 Zone counter

Select "**zone A**" to see the consumption of this zone.

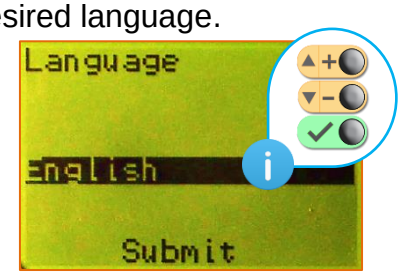
3.2.6 System

Select the menu "**System**".
This menu allows configuring the control module.



3.2.6.1 Language

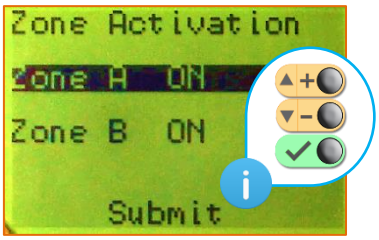
Select "**Language**".
Choose the desired language.



3.2.6.2 Zone activation

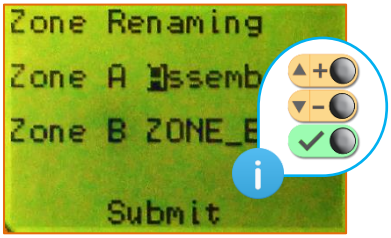
Select "**Zone Activation**".
Allow activating / deactivating the **display** of a heating zone.
Select the zone to activate / deactivate.

The deactivation of a zone does not modify its operation but only its display.



3.2.6.3 Zone renaming

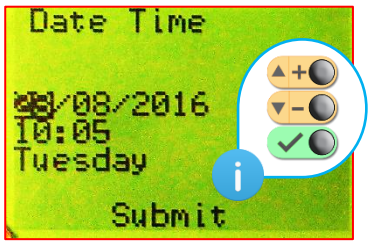
Select "**Zone Renaming**".
Choose the zone to rename.



Arrows allow to scroll the letters.
Submit to go to the next letter.

3.2.6.4 Clock and date setting

Select "**Date Time**".
Allow to modify the date, hour and the day of week.

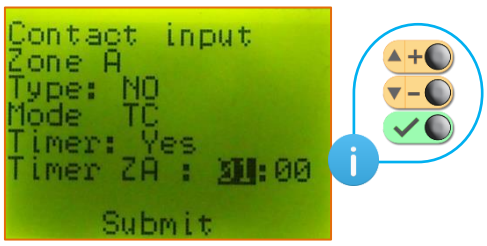


3.2.6.5 Contact input

Select "**Contact input**".
Permit to configure the override by external contact.
Choose the contact type:

NO : **N**ormally **O**pen
NC : **N**ormally **C**losed
Edge : *Do not use this type*

Choose the setpoint to apply during the override ("**TC**", "**TR**", "**TN**" or "**OFF**").
Choose to apply a timer (define the length of the override) or not ("**Yes**" or "**No**")
Set the length of the timer (If any)

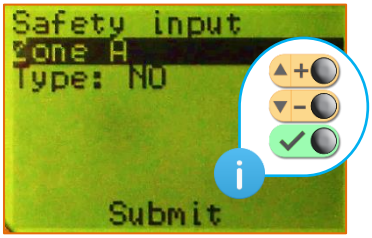


Zone : [A] or [B]
Type : [NO] or [NC]
Mode : [TC], [TR], [TN] and [OFF]
Timer : [Yes] or [No]
Timer ZA or **ZB** : [hours : minutes]

3.2.6.6 Safety input

Select "**Safety input**".
Allow to configure the safety input.
Choose the contact type:

NO : **N**ormally **O**pen
NC : **N**ormally **C**losed
Edge : *Do not use this type*



Zone : [A] or [B]
Type : [NO] or [NC]

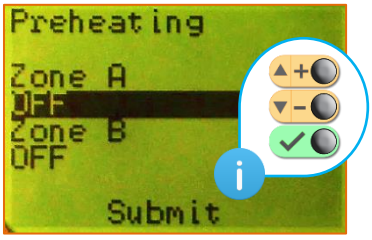
If a pressure switch of an exhaust fan is connected to the safety input, choose [Yes]
(see 2.9 page 20)

When the safety contact is activated :
- the backlight is turning red.
- the operation mode on the main screen is [SECU].
(see 3.1 page 22)
- the heating level on the main screen is [❑❑ 000].
(see 3.1 page 22)

3.2.6.7 Preheating

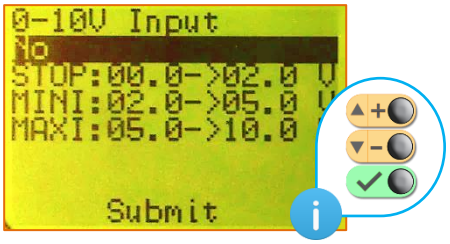
Select "**Preheating**".
Permit to configure the ignition of the radiant heaters.
When this option is **ON**, the heaters are turning on for **1** minute, then turning off **2** minutes then re-ignite. This is only true if the heaters were OFF more than the value setting into the menu “Preheating” of the hidden menu
(see 3.4.6 page 36).

To use only if there is a trouble of ignition in cold conditions on the heating installation



3.2.6.8 0-10V input

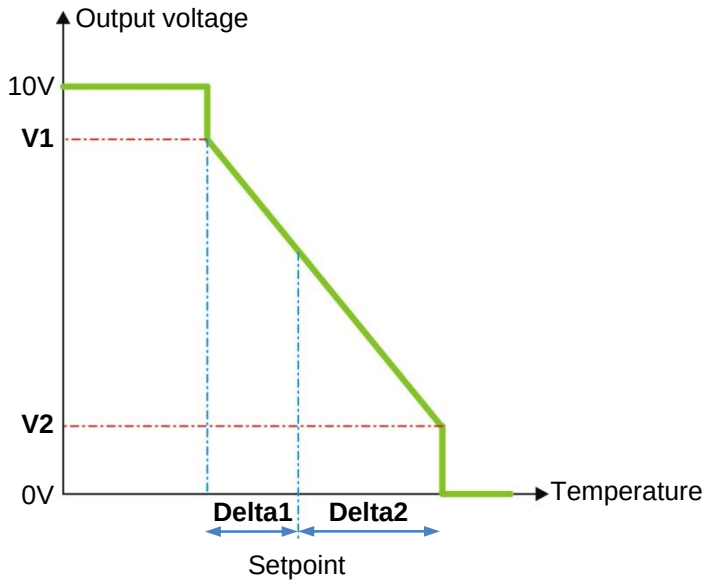
Select "**0-10V Input**".
Allow to manage the control module with a poultry house computer or a BMS using a 0-10V signal.
Select the zone **A** or **B**,
Choose "**Yes**" to activate the zone and "**No**" to disable it.
When the activation is done, enter the values of tension for each operation step according to the tensions requested.

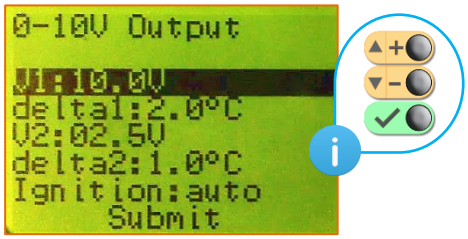


STOP : define the values mini and maxi of the 0-10V signal where the heating system will be off.
MINI : define the values mini and maxi of the 0-10V signal where the heating system will be on mini.
MAXI : define the values mini and maxi of the 0-10V signal where the heating system will be on maxi.

3.2.6.9 0-10V output

Select "**0-10V Output**".
This menu permit to manage heating systems thanks to a 0-10V signal.
Select the zone **A** or **B**,
Set the values of tensions and temperatures around the setpoint according to the system to manage.

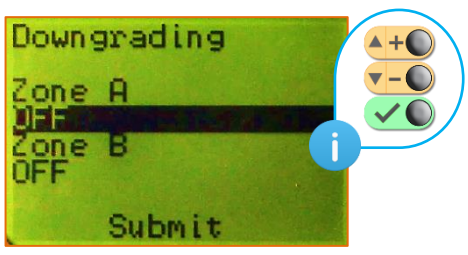




V1 : the voltage corresponding to a temperature measured equal to : *Setpoint - Delta1*.
Delta1 : gap front setpoint.
V2 : the voltage corresponding to a temperature measured equal to : *Setpoint + Delta2*.
Delta2 : gap next setpoint.
Ignition : [manual] or [auto]

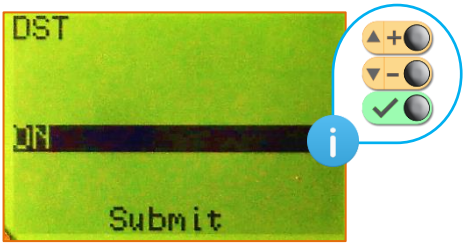
3.2.6.10 Downgrading

Select "**Downgrading**".
Allow to set the function of the heating system when the regulation is on the downgrading mode. This mode appears when a default happens : sensor disconnected, sensor faulty.
This option activated permit to continue heating the room, or not.
Select the speed "**OFF**", "**50%**" or "**100%**".



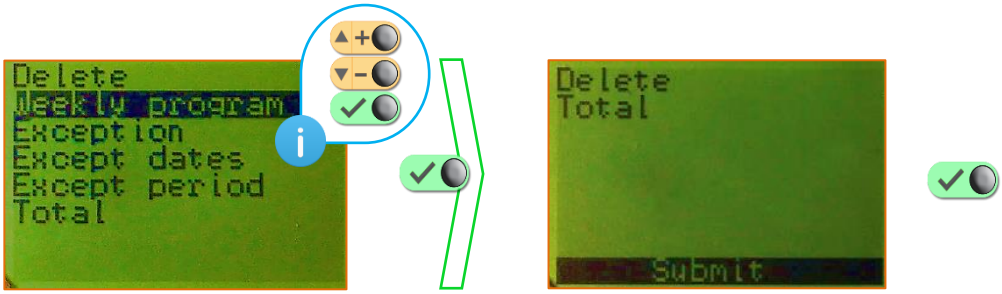
3.2.6.11 Daylight Saving Time

Select "**DST**".
Permit to activate "**ON**" or not "**OFF**", the DST function.



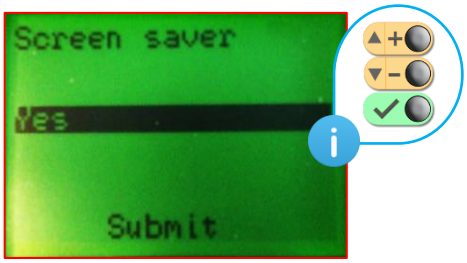
3.2.6.12 Delete

Select "**Delete**".
This menu can be used to delete in totality:
- Weekly programs.
- Exceptional programs.
- Exceptional dates.
- Exceptional periods
- All the programs, dates and periods.



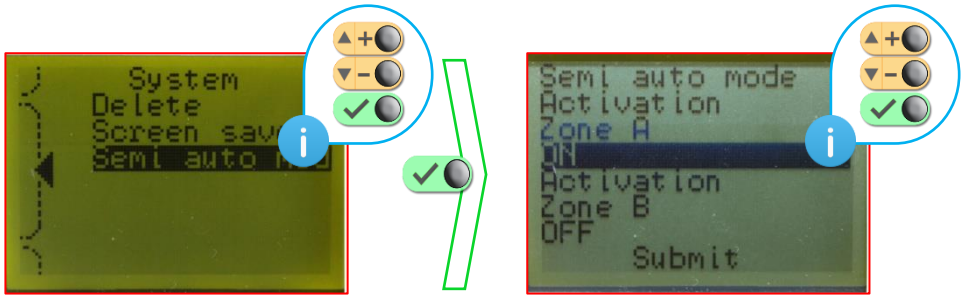
3.2.6.13 Screen saver

Select "**Screen saver**".
Permit to activate "**Yes**" or not "**No**", the screen saver.



3.2.6.14 Semi-automatic operating mode

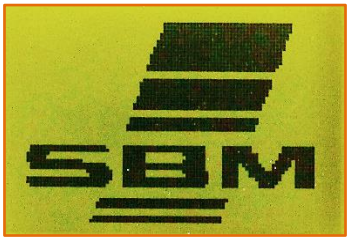
Select "**Semi auto mode**".
This menu allow to ban the heating stop stage with the VISIOLON Elv-T type. In this case, the automatic brooders for poultry houses will never stop unless in case of safety contact activation (see 3.2.6.6 page 31).
This mode is used at the beginning of the flock when the birds are young or when a risk of electric shutdown is announced.
Permit to activate "**ON**" or not "**OFF**", the semi-automatic operating mode.



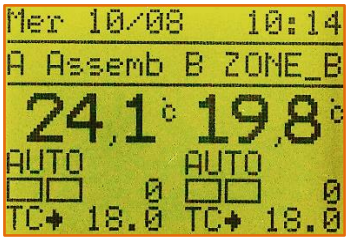
Activation Zone A :
[ON] or [OFF]
Activation Zone B :
[ON] or [OFF]

3.3 Stand-by screen

The screen saver appears after 1 minute without pressing any button.



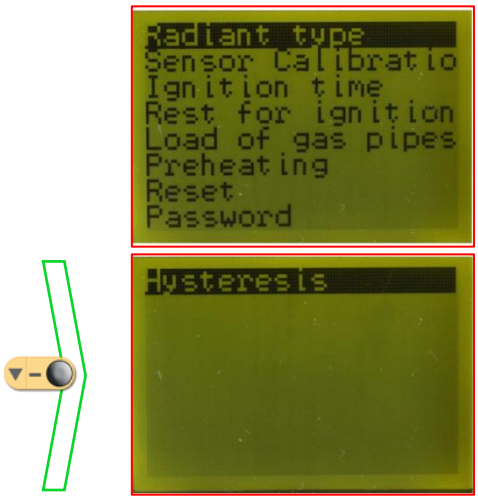
To go out and come back to the main screen, press any button.



3.4 Hidden menu

A hidden menu is available by pressing simultaneously on the buttons ▲+ and ▼- during 5 seconds, release then press again during 5 seconds.

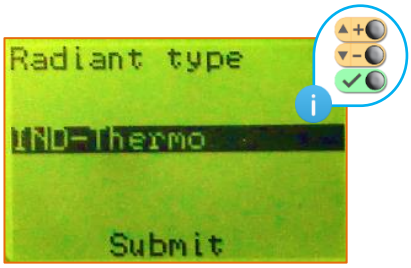
This menu allows accessing to advanced parameters.



3.4.1 Radiant type

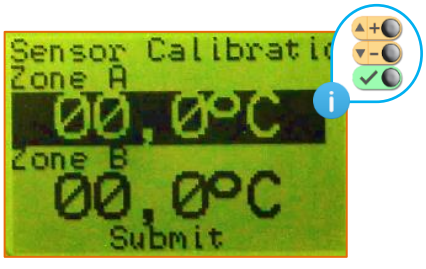
Select the menu "**Radiant type**".
This menu is useful if you need to modify the radiant type. (see 1.2 page 5)
Select :

- "**IND-Thermo**" (Industry thermocouple)
- "**IND-Ioni**" (Industry ionisation)
- "**ELV-Thermo**" (Livestock thermocouple)
- "**IND-Thermo DE**" (Industry thermocouple in Germany)



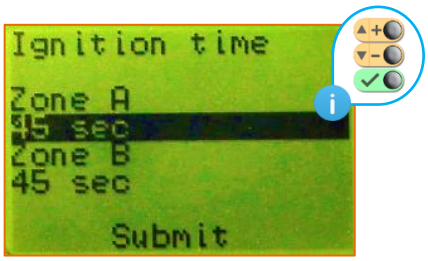
3.4.2 Sensor calibration

Select the menu " **Sensor calibration**".
This menu allows defining a gap between the temperature measured by the sensor and the temperature read. This gap can be positive or negative.
It can be done for each zone.
This option is useful in case of a loss of accuracy from the sensor.



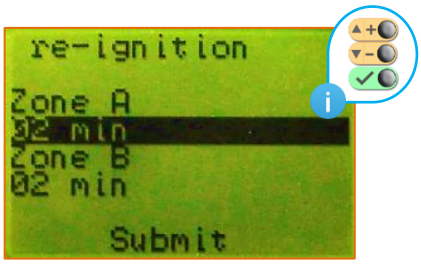
3.4.3 Ignition time

Select the menu "**Ignition time**".
This menu can be use if you need to modify the ignition time for thermocouple safety system (BA blocks).
This time can be set from **10** to **60** seconds.
To optimize the lifetime of the BA block and a proper ignition of the heaters, SBM recommends an ignition time of **45** seconds.



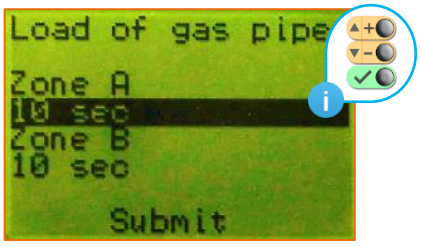
3.4.4 Time before re-ignition

Select the menu "**Re-ignition**".
This menu permits to adjust the time between the **extinction** and the **re-ignition** of the radiant heaters zone by zone.
This option can be used in case of noisy ignition of the heaters.
This time can be set from **0** to **15** minutes.



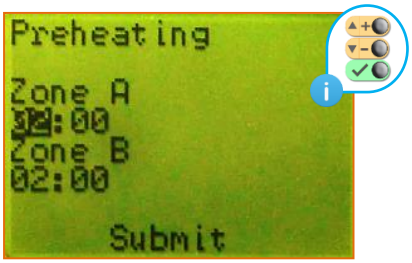
3.4.5 Load of gas pipes

Select the menu "**Load of gas pipes**".
Into this menu, it is possible to adjust the time between the supply of the solenoid valve of a heating zone and the supply of BA blocks.
This time allow to the gas pipes to be filled before the ignition of the heaters.
This time can be set from **1** to **60** seconds.



3.4.6 Preheating time

Select the menu "**Preheating time**".
This menu permits to set the minimum extinction time of the radiant heaters before a re-ignition for the preheating mode (see 3.2.6.7 page 29).
This time can be set from **15 minutes** to **24 hours**.



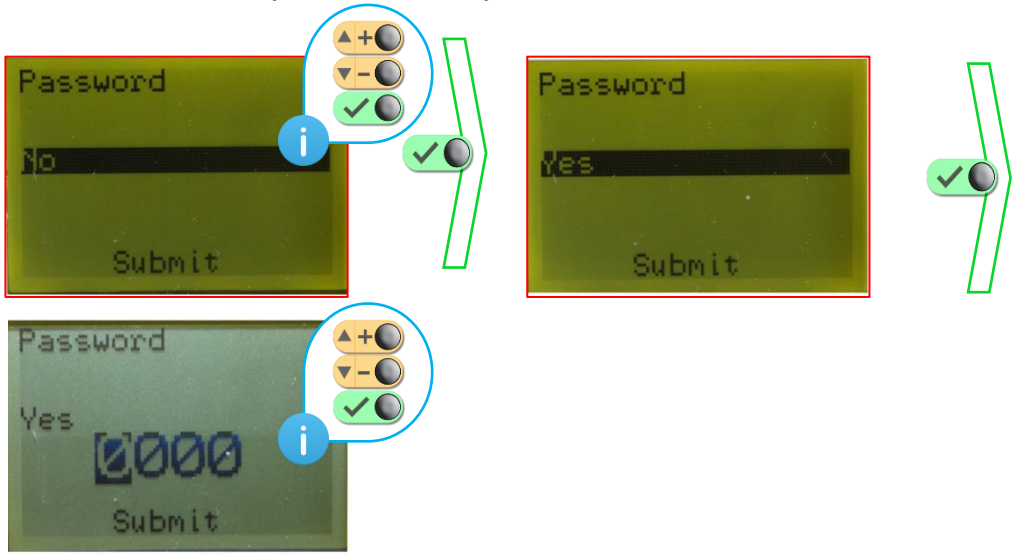
3.4.7 Reset

Select the menu "**Reset"**.
Allow to reset the VISIOLON at the factory state.

The reset drive to a loss of every settings of the control module !
After this operation, the radiant type become IND Thermo.

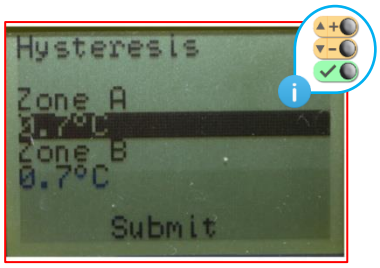
3.4.8 Password

Select the menu "**Password**".
This menu permit to set a password for the access to the VisioLON settings.



3.4.9 Hysteresis

Select the menu "**Hysteresis**".
This menu allows to modify the value of the hysteresis.
This value can be set between **0.5°C** and **2.0°C**.



3.5 Factory values and limits

The control module is set in factory according to the following parameters:

Parameters		Limits	Original settings
Language		French - English - German Spanish - Russian	Depends on the factory setting
Radiant type		IND-Thermo IND-Ioni ELV-Thermo IND-Thermo DE	Depends on the factory setting
Date			Depends on the factory setting
Time		00.00 => 23:59	Depends on the factory setting
Day		Sunday=> Saturday	Depends on the factory setting
Software override		ON - OFF	OFF
Setpoint		TC - TR - TN - OFF	TC
Time		No - Yes	No
Time length		00.00 => 23:59	00:00
Setpoint TC		-10°C => 35°C	18°C
Setpoint TR		-10°C => 35°C	12°C
Setpoint TN		-10°C => 35°C	05°C
Weekly :	Day Step Start time End time Setpoint	Monday => Sunday 0 => 6 00:00 => 23:59 00:00 => 23:59 TC - TR - TN - OFF	Monday 0 00:00 00:00 TC
Exception :	Number Step Start time End time Setpoint	Ex1 => Ex3 0 => 6 00:00 => 23:59 00:00 => 23:59 TC - TR - TN - OFF	Ex1 0 00:00 00:00 TC
Except. date :	Number Date Program Recurrence	01 => 20 Monday => Ex3 No - Yes	01 XX/XX Monday No
Except. period :	Number Start date End date Program Recurrence	01 => 20 Monday => Ex3 No - Yes	01 XX/XX XX/XX Monday No

Parameters		Limits	Original settings
Counters :	Pmax	000.0 => 999.9	000.0
	Pmin	000.0 => 999.9	000.0
Zone activation		ON - OFF	Zone A : ON - Zone B : OFF
Override contact input			
	Type	NO - NC	NO
	Setpoint	TC - TR - TN - OFF	TC
	Delay	No - Yes	No
	Delay value	00:00 => 23:59	12:00
Safety contact input			
	Type	NO - NC	NO
	Pressostat	No - Yes	No
Preheating		ON - OFF	OFF
0-10V inputs :	Activation	No - Yes	No
	STOP	0V => 10V	00.0V => 00.0V
	MINI	0V => 10V	00.0V => 00.0V
	MAXI	0V => 10V	00.0V => 00.0V
0-10V outputs :	V1	0.0V => 10.0V	10.0V
	delta1	0.0°C => 9.9°C	2.0°C
	V2	0.0V => 10.0V	2.5V
	delta2	0.0°C => 9.9°C	1.0°C
	Ignition	AUTO - MANUAL	AUTO
Downgrading		OFF - 50% - 100%	OFF
Daylight Saving Time		ON - OFF	ON
Screen saver		Yes - No	Yes
Sensor calibration		-05.0°C => 05.0°C	00.0°C
Ignition time		10 s => 60 s	45 s
Time before re-ignition		0 min => 15 min	1 min
Load of gas pipes		1 s => 60 s	10 s
Preheating time		00:00 => 12:00	02:00
Semi-Automatic mode		ON - OFF	OFF
Password :	Activation	No - Yes	No
	Code	0000 => 9999	0000
Hysteresis		0.5°C => 2.0°C	0.7°C

4. LONWORKS - INTERLON

4.1 LonWorks® profile

The underlying concept of the LONWORKS platform is that the information in a sensing, monitoring, or control application is fundamentally the same across markets and industries. A second concept underlying the platform is the knowledge that networks, regardless of their function, increase in power as nodes are added.

LonWorks® (local operating network) is a networking platform specifically created to address the needs of control applications.
The platform is built on a protocol created by Echelon Corporation for networking devices over media such as twisted pair, powerlines, fiber optics, and radio frequency.
It is used for the automation of various functions within buildings such as lighting and Heating, Ventilation and Air Conditioning (HVAC).

Two physical-layer signaling technologies, twisted pairs "free topology" and power line carrier are typically included in each of the standards created around the LonWorks® technology.

Additionally, the LonWorks® platform uses an affiliated Internet protocol (IP) tunneling standard in use by a number of manufacturers to connect the devices on previously deployed and new LonWorks® platform-based networks to IP-aware applications or remote network-management tools.

The complete profile is available at the following address:
http://www.sbm.fr/nt_visiolon

4.2 InterLon

The control module InterLon owns the same characteristics than the control module Visiolon, but it is equipped neither keys nor screen. It shall be manage by a BMS (Building Management System) through the network LonWorks®. For BMS with other type of networking platform, plan a Data Station Plus (DSP).