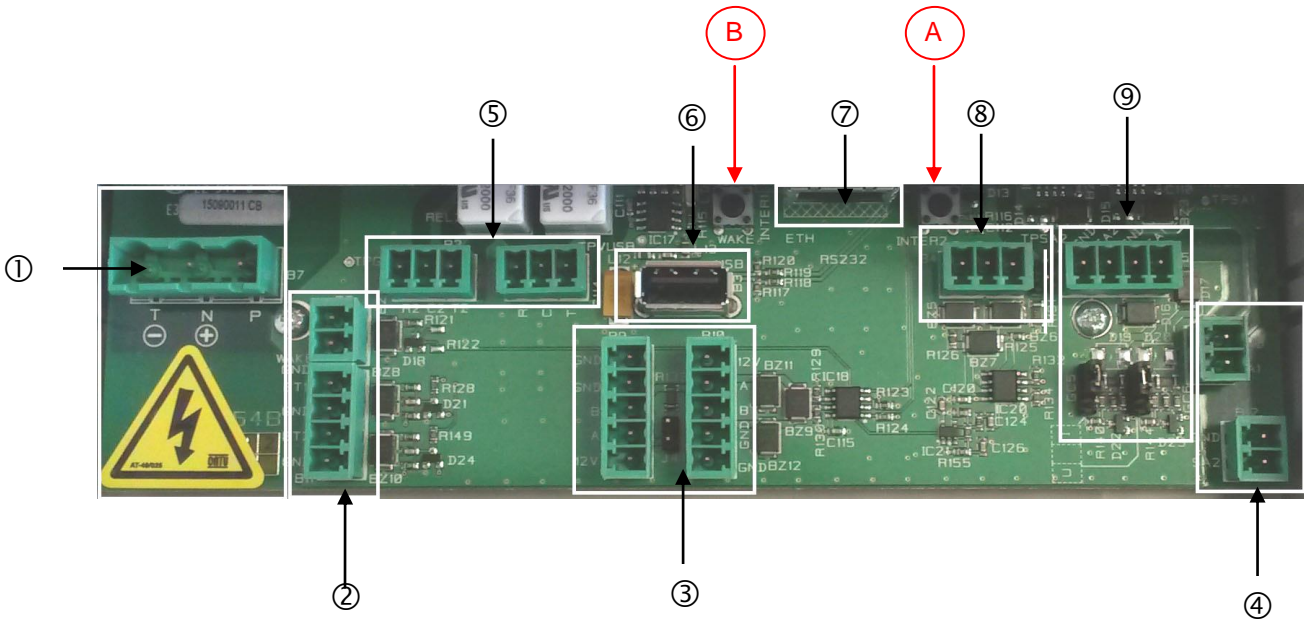> ➤ **Cabling description.**
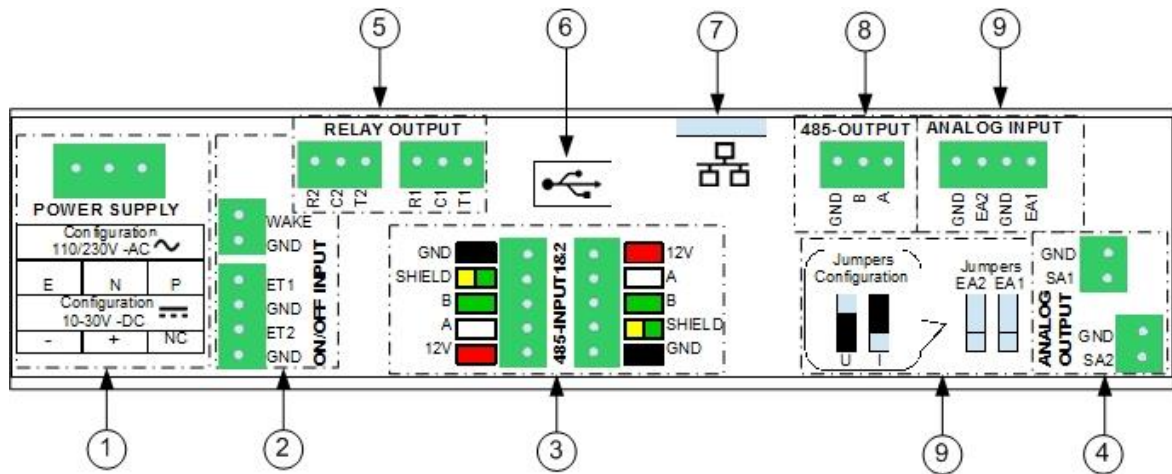

Scheme 1 : Terminal block (electronic card)

Scheme 2 : Terminal block bottom cover (label)

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Identification	Description	Terminal electronic board	Terminal bottom cover (label)
1 – Power Supply	*supply110-230 VAC* Yellow and green - Ground Blue - Neutral Brown - Phase	 T (-) N (+) P	 E N P
Option	*Power supply 10-30V DC* Black Red	 T (-) N (+) P	 - + NC
2 – ON/OFF INPUT	*2 Inlet dry contact*	WAKE – Not used GND – Not used ET1 GND ET2 GND	WAKE – Not used GND – Not used ET1 GND ET2 GND
3 – Digital sensors **RS485 - INPUT**	*2 Inlet digital sensors* Power supply V- : black Shielding – Yellow and green RS485 - Green RS485 - White Power supply V+ : Red	GND GND B A 12V	GND SHIELD B A 12V
4 – ANALOG OUTPUT	*2 analog output* 0-20 mA or 20-0 mA or 4-20 mA or 20-4 mA Outlet 1 : - Outlet 1 : + Outlet 2 : - Outlet 2 : +	 GND SA1 GND SA2	 GND SA1 GND SA2
5 – RELAY OUTPUT	2 Relay output Output 1 : In the rest by default NC Output 1 : Switch Output 1 : Work by default NO Output 2 : NC Output 2 : Switch Output 2 : NO	R1 C1 T1 R2 C2 T2	R1 C1 T1 R2 C2 T2
6 – USB	USB port Unloading of the data	USB	⯇⎓⯈
7 – Ethernet	Option Ethernet	ETH	
8 – 485 OUTPUT	*1 OutputRS485* RS485 (-) RS485 (+)	 G B A	 GND B A
9 - ANALOG INPUT	*2 Analog input* Analog Input 2 Input 2 : - Input 2 : + Analog Input 1 Input 1 : - Input 1 : + Jumpers of sélection *Voltage or Current*	 GND EA2 GND EA1 U I	 GND EA2 GND EA1 U I
A - RESET	Touch of RESET	RESET	/
B- WAKE	Touch not to be active	WAKE	/

Table 1 : description of the electric connexion

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➢ *Electrical connexion digital sensor :*

Scheme below present the electrical connections of the digital sensors in the case of lengthes of cable lower or equal to 15 M and in the case of length of cable superior to 15 M . In the case of the sensor CTZN, whatever is the length of cable the plan of cabling will correspond to that of the cabling on a length of cable superior to 15 Meter.
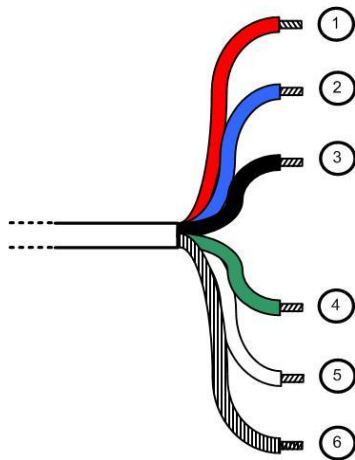
1- red	Power supply, V+
2 - blue	SDI-12 – not used
3 - Black	Power supply V-
4 - Green	B " RS-485 "
5 - White	A " RS-485 "
6 - Yellow/Green	Shield

RED YELLOW ORANGE PURPLE PINK	Power supply, V+
2- bleu	SDI-12 – not used
3 - Noir	Power supply V-
4 - Vert	B " RS-485 "
5 - Blanc	A " RS-485 "
6 – Vert/jaune	Shield

Cabling beyond 15 M

Scheme 3 : Schema Connecting sensor length of cable lower than 15 M and strictly superior to 15 M.

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➢ **User Interface**

The figure below present the main screen of measure when 2 sensors are connected to the ACTEON 5000. In this case the sensors of PH / temperature and the sensor of oxygen are connected to the ACTEON 5000.
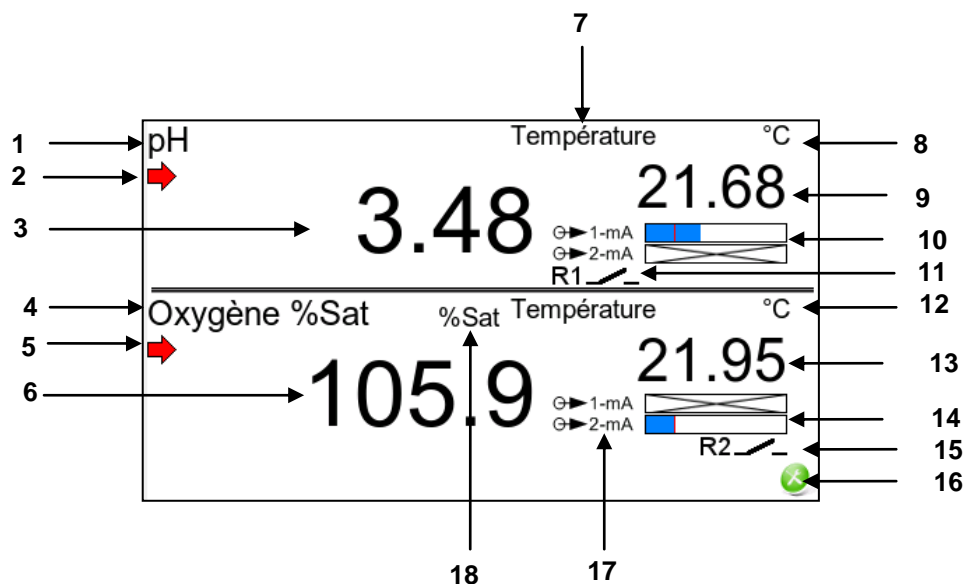
1	Main parameter of the sensor 1	10	State of 2 analog output: on this example the analog output 1 is allocated to the sensor N°1. The red mark indicates 4 mA.
2	Indicator of stability for the main measure of the sensor 1	11	State of the Relay 1. In this example the relay 1 is allocated to the sensor 1 and is in position opened.
3	Real time value of the main parameter of the sensor 1	12	Unit of the secondary parameter of the sensor 2
4	Main parameter of the sensor 2	13	Real time value of the secondary parameter of the sensor 2
5	Indicator of stability for the main measure of the sensor 2	14	State of 2 analog output: on this example the analog output 2 is allocated to the sensor N°2. The red mark indicates 4 mA.
6	Real time value of the main parameter of the sensor 2	15	State of the Relay 2. In this example the relay 2 is allocated to the sensor 2 and is in position opened.
7	Secondary parameter of the sensor 1	16	Icon of navigation allowing to enter the general menu
8	Unit of the secondary parameter of the sensor 1	17	Logos representatives the analog exits
9	Real time value of the secondary parameter of the sensor 1	18	Unit of measure of the main parameter of the sensor 2

Table 2 : description of the main screen

If a unique sensor is connected to the ACTEON 5000, on the bottom of the display it appears lines at the level of the parameters, the units of measure.

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➢ Icon of navigation

The device being equipped with a touch-sensitive screen, the movement in the various menus of programming is made via icons of navigation which are listed in the table below.

Icon	Feature
	Icon allowing to move the cursor of navigation downward.
	Icon allowing to move the cursor of navigation upward.
	Icon allowing to pass in the preceding screen.
	Icon allowing to reach the General Menu containing all the main functions of programming of the equipment. This Icon is present on the main display screen.
	Icon allowing to return to the main display screen.
	Icon allowing to cancel an action and to return to the preceding screen.
	Icon allowing to validate a selection and to reach a new screen
	Icon allowing to validate a programmation /an action.
	Icon allowing to reach on the menu of addressing of the digital sensors to modify the Modbus addresses.
	Icon indicating a remarkable situation with an information to be consulted. On the screen of measure he indicates that the sensor has a special status which can be consulted by pressing on the posted(shown) value.
	Icon allowing to transfer data towards a key USB
	Icon indicating that the screen is locked.

Table 3 : Feature of the icons of navigation

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➢ **Main menu**

From the main screen, reach the general menu via the icon .

| Icon	Features
	Menu dedicated to the digital sensors PONSEL and allowing to configure 2 including digital input: the function of detection of the sensors (SCAN), the configuration of the parameters measured by the sensors, the calibration of the sensors, the configuration of the Modbus addresses of the sensors..
	Configuration of 2 input TOR on wash functions, Event, Alert
	Configuration of the Analog input in Voltage or Current.
	Menu dedicated to the configuration of the ACTEON 5000 and allowing to adjust: the configuration of the screen, to consult the version of material / soft and the journal of events, to adjust the date / hour and the language, to return to configurations manufactures and to parametrize a password..
	Menu de paramétrage de la sortie numérique Ethernet optionnelle et de la fonctionnalité MODBUS
	Configuration of the 2 relay output in mode : alarm, failing, on thresholds or in test mode
	Configuration of 2 analog output on functions of connection 0/4-2 mA
	Configuration of the recording mode, export towards the USB key.

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➢ **Initial set up**

When the sensors are connected on the transmitter for the first time, it is necessary to proceed to the installation of these sensors by throwing a process of SCAN (scan of the addresses 1 - 243).
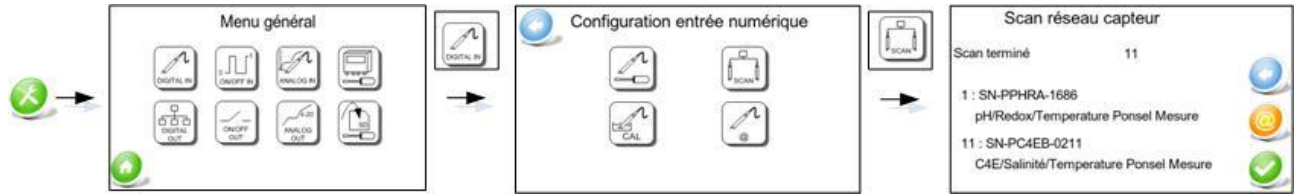
As soon as the transmitter detects a sensor it display its address, its serial number (which is also marked on the body of the sensor) and the description of the sensor.

In the example above the sensors pH and conductivity were detected: the sensor PH is at the address 1, the serial number of the probe is SN-PPHRA-1686 and the description of the probe is pH / Redox / temperature Ponsel Mesure. The sensor C4E is at the address 11, the serial number is SN-PC4EB-0211 and its description is C4E / Salinité / Température Ponsel Mesure.

The operation of SCAN can be stopped at any time by the operator by pressing on the icon .

If no sensor is detected, 2 sensors are for the same address (case of a conflict of address) or an error of communication is detected the equipment will dispaly a warning message accompanied with the icon

The icon allows to reach on the menu of addressing to modify the address of the sensor in case of conflict of address (if 2 sensors are for the same address).

Choice of the parameters

When the sensors were detected by the ACTEON, the parameters measured by the sensors must be configured.
For every sensor it is possible to select a main parameter as well as a secondary parameter.
To reach the configuration of the measure, follow the sequence below from the main screen:
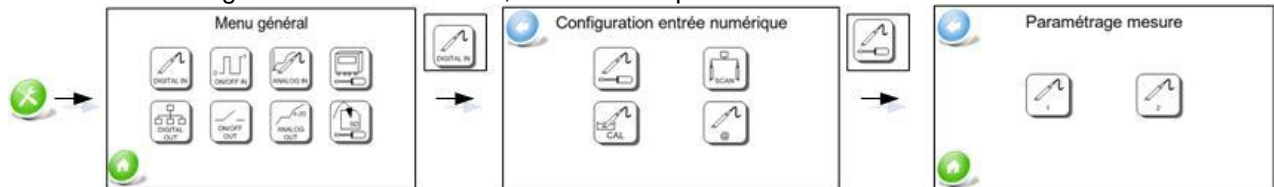
To configure the parameters (principal and secondary) on the sensor 1, select the corresponding icon.
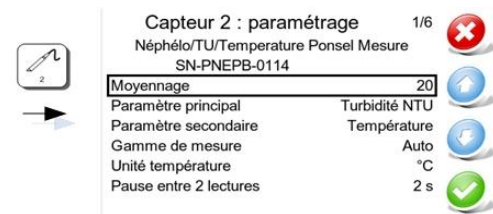
To move the cursor from top to bottom, use icons and .

Enter in the menu desired by means of the icon of validation .

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Line of configuration	Features
Averaging	Allows to configure a slippery average from 1 to 50 measures.
Principal parameter	Propose the possibility of selecting the main parameter for the sensor 1 which will then be shown on the high top of the screen (cf. legend 3 of the Table 2). The following screen proposes the listing of the parameters delivered by the sensor (until 4 parameters).
Secondary parameter	Will be shown in the upper right angle of the top of the screen (cf. legend 7 of the Table 3). The following screen proposes then the possibility of selecting a parameter among those measured by the sensor N°1.
Range of measure	The range of measure is customizable only for the parameters conductivity and Turbidity according to the description contained in the table below.
Unit of Temperature	Allows to select the unit associated with the parameter temperature (°C or °F.
Breack between 2 measures	Possibility of selecting a frequency of measure between 1 and 60 seconds.

Sensors can delivers until 4 measure according to the following description :

Sensor	List of the measured parameters	Choice of the range
OPTOD	Temperature Oxygen in % de Saturation Oxygen in mg/L Oxygen in ppm	
PHEHT	Temperature PH Redox in mV	
C4E	Temperature Conductivity in µS/cm or mS/cm Salinity in g/Kg TDS in ppm	Conductivity : Auto (Automatic Range) 0-200 µS/cm 0-2000 µS/cm 0-20 mS/cm 0-200 mS/cm
NTU	Temperature Turbidity in NTU Turbidity in FNU Turbidity in mg/L	Turbidity : Auto (Automatic range) 0-50 NTU 0-200 NTU 0-1000 NTU 0-4000 NTU
CTZN	Temperature Conductivity in mS/cm (parameter by default) Salinity in g/Kg Conductivity not compensated in temperature in mS/cm	

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