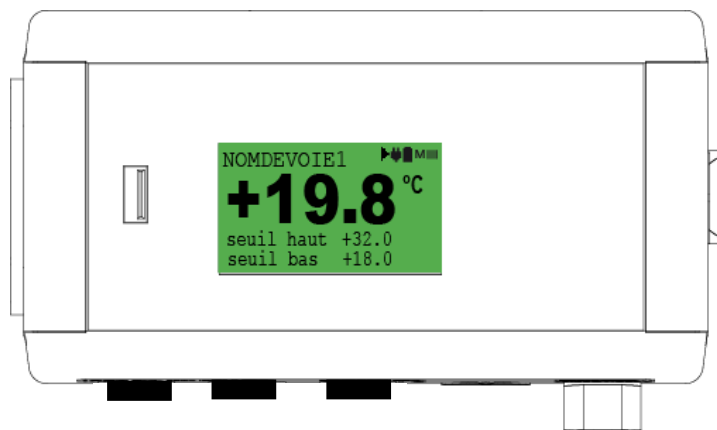




## USB/PDF RECORDER SPY TOUCH

### USER MANUAL



09959L

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# I. PRESENTATION

## 1) Presentation

You just purchased an innovative and high quality recorder from JRI's range and we thank you for that.

The device is a T° or T° and RH% recorder with two inputs and able to manage local or remote alarms and deliver automatically a PDF report. Equipped with a color touch sensitive screen, the recorder allows to configure the device and display the information from it. It is also possible to configure the device as well as transferring recorded measurements to a computer equipped with Sirius Lite software thanks to a USB flash drive.

Using the USB flash drive supplied with the device, it is possible to configure the recorder or to upload recorded measurements to a PC to save and manage data with the Sirius software range and also to edit the PDF report. In the USB Flash drive you will find a special Sirius Lite Limited Edition dedicated to USB recorders.




The recorder is compatible with Sirius Lite 2.0, Sirius storage 2.1 software used with the RF recorders: SPY RF range.

## 2) Equipment :

- 1 recorder
- 1 PT100 or no sensor depending on the model
- 1 USB flash drive including :
  - the device user manual,
  - the software user manual
  - 1 Sirius Lite Limited Edition software
  - Language files

**Make a copy of these files to prevent losing them.**

## 3) Symbols

	RECYCLING: do not throw in a rubbish dump or in a domestic waste container. Comply with the regulation to throw away the device.
220V-240V 50Hz-60Hz 0.2A	POWER SUPPLY: this device is powered with alternative voltage in 230VAC. Comply with the security and utilization regulations of electric power. Use an electric installation complying to these regulations
100-130V 50Hz-60Hz 0.2A	POWER SUPPLY: this device is powered with alternative voltage in 117VAC. Comply with the security and utilization regulations of electric power of USA. Use an electric installation complying to these regulations
	CE MARKING: this equipment is certified to comply with the European regulation for the electric security, inflammability, disturbing radiation emission and immunity to surrounding electric disturbances.
	INTERNAL FUSE: 0.25A. Cut off power L250V

#### 4) Technical features

Designation	USB recorder U without sensor	USB recorder U with sensor	USB recorder N
Measurement range	-196 to +184°C -320.8°F to +363.2°F	-55 to +120°C -67°F to +248°F	T°: -196 to +80°C / TH : -30 to +70°C / 0 to 100%RH non condensed T°: -320,8°F to +176°F and TH : -22°F to +158°F / 0 to 100%RH
Accuracy	±0.2°C full range + sensor MPE ±0.36°F Full range + sensor MPE	±0.3°C from -20 to 50°C / ±0.5°C outside ±0.6°F from -4 to 122°F / ±0.9°F outside	T: ±0,3°C from -20 to +30°C & ±0,5 outside T: ±0.6°F from -4 to 86°C / ±0.9°F outside Deep Freeze: -196 to 0°C / ±0,5 below Deep Free: -320°F to 32°F / ±0,9°F outside RH at 23°C: ±2%RH from 20 to 80%RH, ±4% above
Rated operating conditions	+5°C to +40°C (+41°F to 104°F) & from 0 to 80% RH		
Resolution	0,1°C		
Inputs	PT100 + On or Off	Flat cable PT100 connected and adjusted + On or Off	1 Digital T +On or Off 2 Digital T° (without On or Off)* 1 Digital T and 1Digital RH (without On or Off)
Output	Relay dry contact 30V~CAT I NO/NC (Normally Open or Close)		
Power supply	Europe: Main power supply 220-240VAC – 50Hz-60Hz 0,2A - Maximum voltage switching 300V CAT II USA : Main power supply 100-130VAC – 50-60Hz 0,2A Maximum voltage switching 300V CAT II		
Power backup	Battery type: 9V 6LR61* Battery life : 6H Alkaline / 100H Lithium (option)		
Interval of measurement	10s to 120min		
Memory	40000 data per input		
Alarm	Sound and visual		
Dimensions	161x84x60mm		
Protection degree	IP 20		
Compliance	EN 12830		
Storage and transportation conditions	-20°C to 60°C (5°F to 140°F) and 0 to 80% RH		
Max height of use	< 2000m		

\*Not supplied

#### 5) Connecting sensors

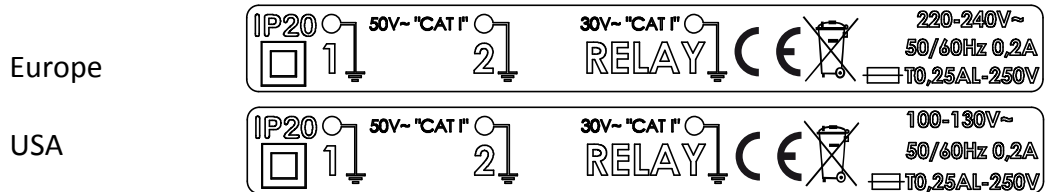


Connection or opening the device must be done by a technical with electrical ability

It is absolutely necessary to cut the main power supply of the device before connecting the output.

If the cutting system is a plug, it must be accessible. Otherwise a cutting system must be installed close to the device (circuit breaker with 1A 250VAC 50Hz cutting power.

##### a) Descriptive



##### b) Types of inputs

Voies	1	2
Product		
USB Recorder U	PT100 PT100	- On or OFF (NO - NC - OFF)
USB recorder N	TH digital sensor* T or Deep Low T digital sensor T or deep low T digital sensor	- On or OFF (NO - NC - OFF) T or deep low T digital sensor

NO= normally open NC= normally closed

\*Metal digital TH probe only

c) Entrées / Sorties

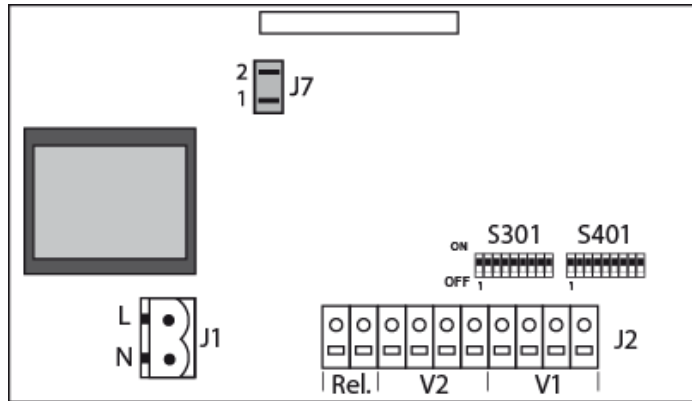
Recorder USB U



Recorder USB N



➤ *Wiring plan*



➤ *Inputs configuration*

Input 1 (S401)

PT100	PTC	T Num	TH Num Voie T

Input 2 (S301)

Entrée TOR	T Num	TH Num voie H

By default « USB Recorder N » are configured in for 2 digital T°C.

➤ *PT100 sensor (Input 1)*

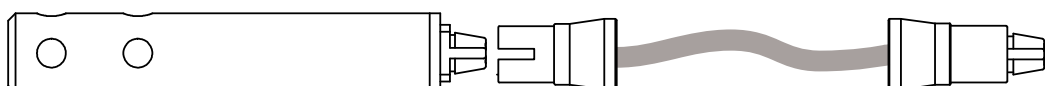


➤ *Digital temperature or Deep low sensor*

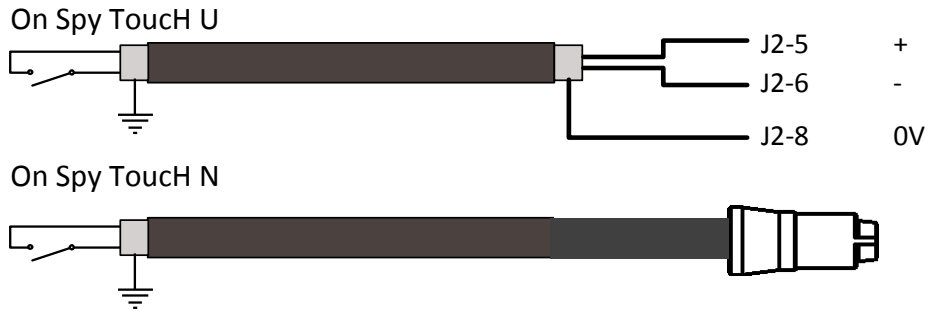


➤ *Digital RH sensor*

To measure the temperature and humidity, the TH digital metal probe\* is connected to the channel 1 connector, thanks to the 10cm cable supplied, but the 2 channels of the recorder are used. It is impossible to connect anything on channel 2. (The white TH sensor is not compatible anymore)



➤ *Switch sensor*



Use black and brown wires to connect the switch

➤ *Relay output*

The recorder is equipped with a relay output to send remote alarms

Contact characteristics:

Maximum switching voltage 30VDC

Maximum switching current: DC: 1A

DC: 0.5 A L/R=7ms

Minimum admissible: 0.01mA for 10mVDC



➤ *Power supply:*

A 1A 250V cut out is necessary on the 230VAC 50 Hz power supply of the device.



## 6) Réserve de courant:

The battery will take over when there is power outage. This battery is 6LR61 9V alkaline type. The battery life is 50 hours and the Spy Touch changes its operation mode (sleeping) to reduce energy consumption. Then:

- the icon is displayed mains failure,
- LCD screen freezes and displays the last value,
- the backlight turns off,
- if the buzzer stops en route,
- the no longer detects the USB key,
- the Spy Touch is awakening every 5 minutes,
- the measurement period is 5 minutes if it was 10s or 1 minute audela she rest unchanged.
- the displayed value is refreshed every 5 minutes and the battery level indicator.
- if the buzzer sounded before the power failure, the buzzer will sound (about 2s) at each awakening.
- the alarm relay operates normally during a power outage.

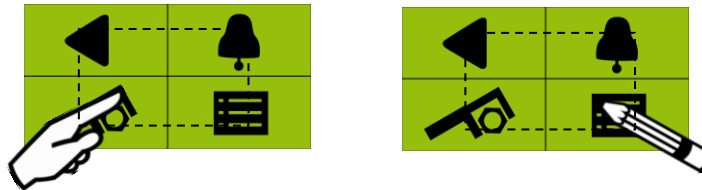
Optionally it is possible to obtain a battery life of 100h using a lithium battery 9V 6LR61.

## II. DEVICE USE

### 1) Principle

The recorder is equipped with a touch sensitive screen. To configure the recorder or consult the measurements it is enough to touch the screen with the finger or a pen point on the desired area to switch from one choice to another.

The screen is divided into 4 different areas

















The most sensible part of the screen is close to the center each areas.

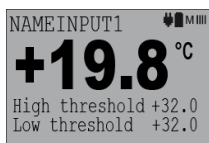


**It is not necessary to press strongly on the screen, especially with a pencil, not to damage it.**

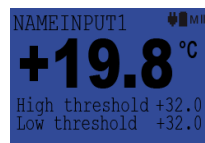
### 2) Symbols meaning

-  Back to main screen / Back to previous screen
-  Configuration
-  Alarm setting
-  History
-  Profile choice
-  Recording in progress (visible 3 sec at each measurement interval)
-  Device powered (main supply)
-  Device under battery backup (Backlight is off to save battery)
-  Battery Level
-  Choice Selection / next letter or number
-  Choice Selection / previous letter or number
-  Validation
-  Stop sound alarm
-  Memory filling up

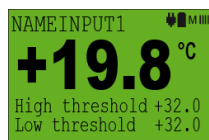
### 3) Display



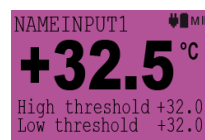
Power supply off



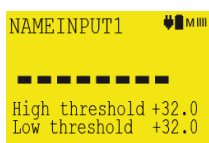
Inhibited alarm



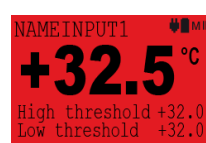
OK



alarm delay in progress



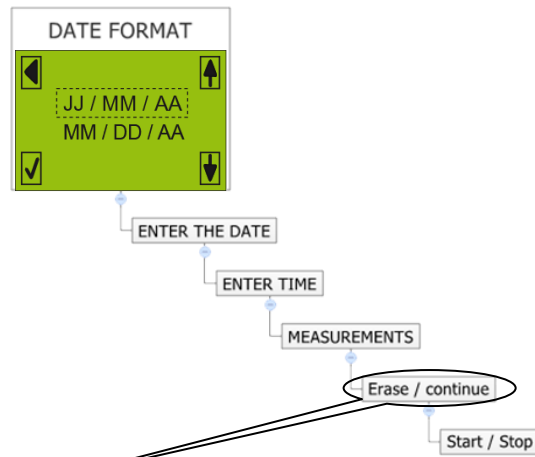
Technical alarm  
and  
probe error








thershold overstepped alarm

**Beware:** When the Spy TouchH is powered for the first time it invite the user to choose the date format (dd/mm/yy or mm/dd/yy). Once the choice is made, the only way to change it again is to remove any power supply (main and battery).

a) **First use**



Using 	
	Column 1
	Back to précédent screen
	Select choice / Previous number or letter
	Select choice / next number or letter
	Validation

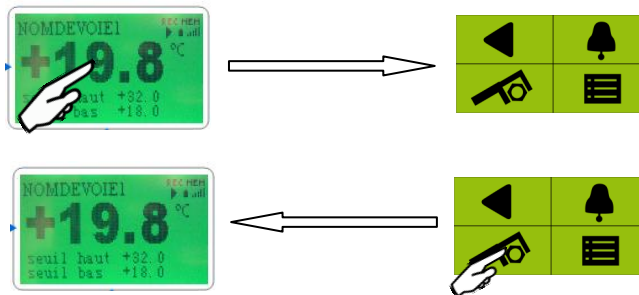
**Erase** : Erase the memory at the next start of recording

**Continue** : records the new measurement after the existing ones in the memory

➤ *Changing language*

After entering date and time, insert the USB flash drive in the device USB port and enter the administrator code (1111). Then follow the instruction (see USB Flash drive section)

b) **Access to the configuration menu**



c) **Configuration Menu**



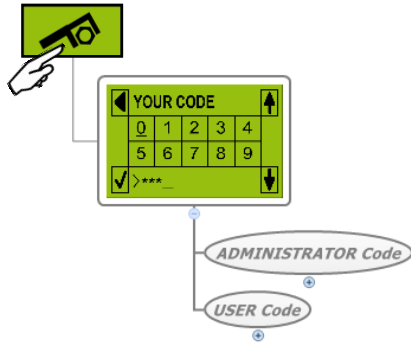
To access to the choices press the relevant icon

d) **Access rights**

- Administrator : all rights for modifications or actions
- User : Upload data with USB flash drive  
Configuration of user password  
Alarm acknowledgement



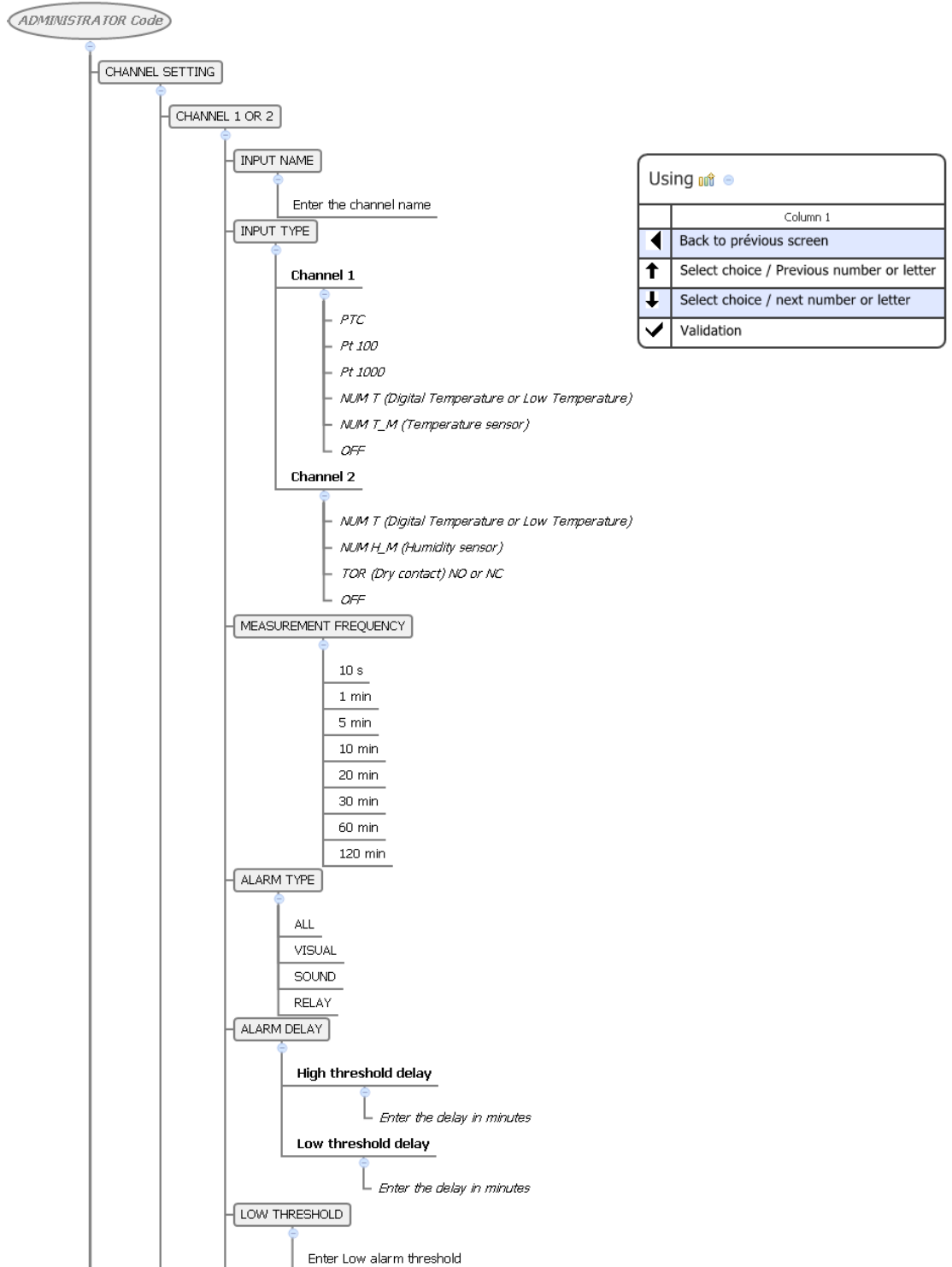
## e) Configuration

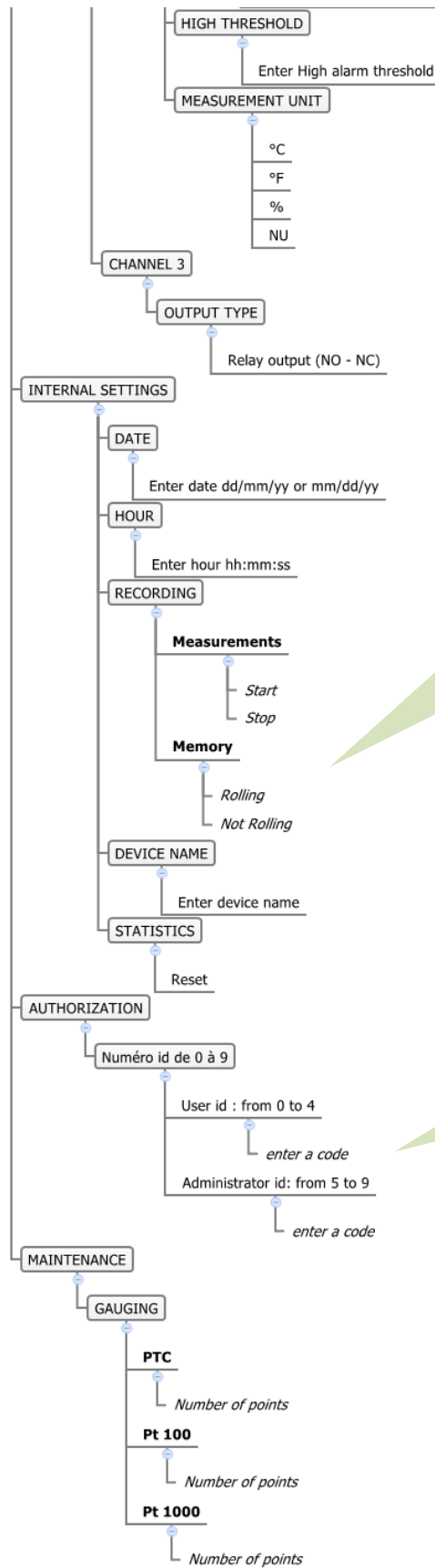


To enter the code choose the number using the arrows and validate digit by digit.

### ➤ Administrator mode

The configuration of the recorder is only possible using administrator rights





Using

Column 1	
◀	Back to précédent screen
↑	Select choice / Previous number or letter
↓	Select choice / next number or letter
✓	Validation

**Rolling memory :**

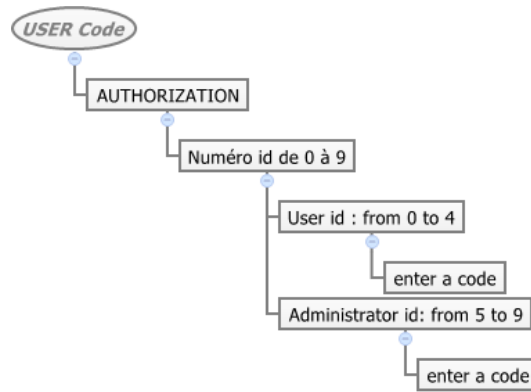
The recorder will never stop. The oldest values re replaced by the new one. Up load regularly the memory to prevent losing data

**Not rolling memory :**

The recorder stops when the memory is full

The administrator can create 10 different users (id=0 to 9). He can define 5 administrator profiles and 5 user profiles. This allows tracing acknowledgement in Sirius

➤ *User Mode*



f) **Access code management**

A password allow to identify a person so each password is individual and can't be used twice. If necessary, the password can be change. To change the password proceed as following:

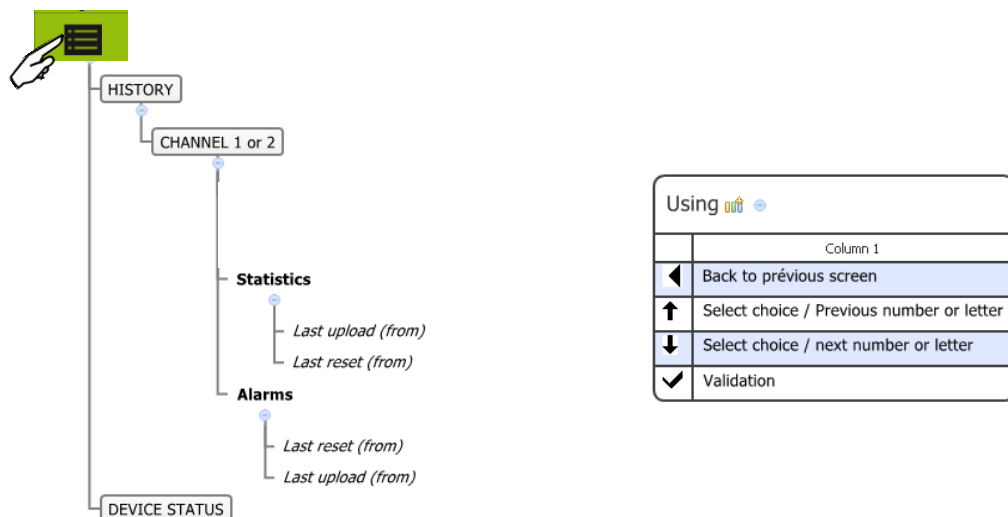
- Select the id number of the user and validate
- Enter the current user password and validate
- Enter the new password and validate
- Then confirm the new password and validate

There is 2 default password in the Spy TouchH

User : Id "0" pwd 0000  
 Administrator : id "5" pwd 1111

g) **History of measurements**

History of measurement is accessible without any password



A PDF report is generated when transferring data on the USB stick. The history of the measurements is no longer available on the Spy Touch

Historical statistics can be displayed either since the last dump or since the last reset . The display will show:

➤ *For stats history*

The date and time of the last dump or the last reset

The number of measurement since the last dump or last reset:

- Max 26000 last mesures rotating memory mode (if memory turned)
- Max 40000 last mesures rotating memory mode (if memory has not turned) or memory full stop mode

The Min, Max and Average

➤ To alarm history

The date and time of the last dump or the last reset

The alarm time entered in years / months / days / hours / minutes / seconds.

### III. DISPLAY

#### 1) One channel display

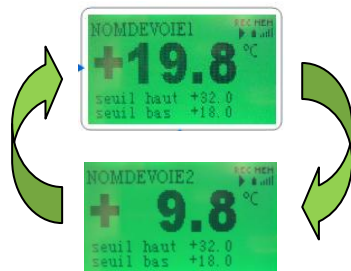
If the channel 2 configuration is set « OFF »



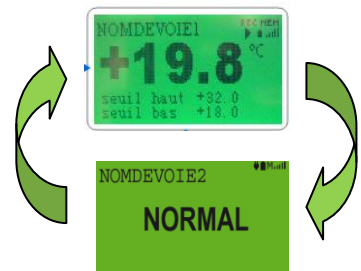
The screen displays channel 1 continuously

#### 2) Two Channel display

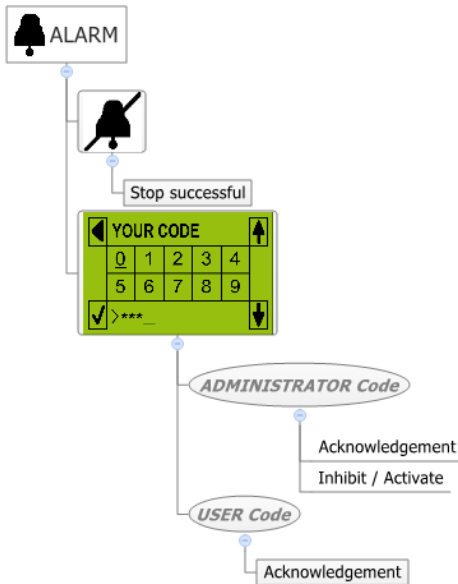
Channel 2 configured for T or H measurement



Channel 2 configured for dry contact



### IV. ALARM MANAGEMENT



Using	
	Column 1
◀	Back to précédent screen
↑	Select choice / Previous number or letter
↓	Select choice / next number or letter
✓	Validation

#### 1) Alarm working

The Recorder manages two types of alarms:

Threshold alarms

Technical alarms. **Technical alarms have priority on threshold alarms**

A color code is dedicated to each alarm types:

Red = Alarm following a threshold overstep

Yellow = Alarm following Technical alarm release.

The other colors of screen backlight are:

Green = Temperature OK / Normal status / visual alarm activated

Blue = alarms inhibited

Violet = Alarm delay in progress

White = No alarm programmed or no visual alarm programmed

## 2) Threshold alarm management

### Glossary

HT : High Threshold



S : Sound

R : Relay



~~S~~ : Sound off (stop buzzer)

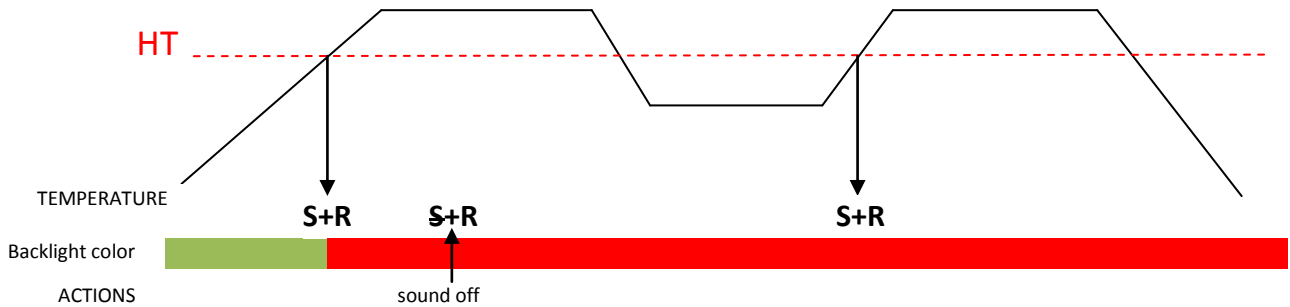


~~R~~ : Relay off

### a) Stop buzzer

#### ➤ Threshold overstep

The 3 alarms are activated: visual (backlight on), sound (buzzer on), and Relay



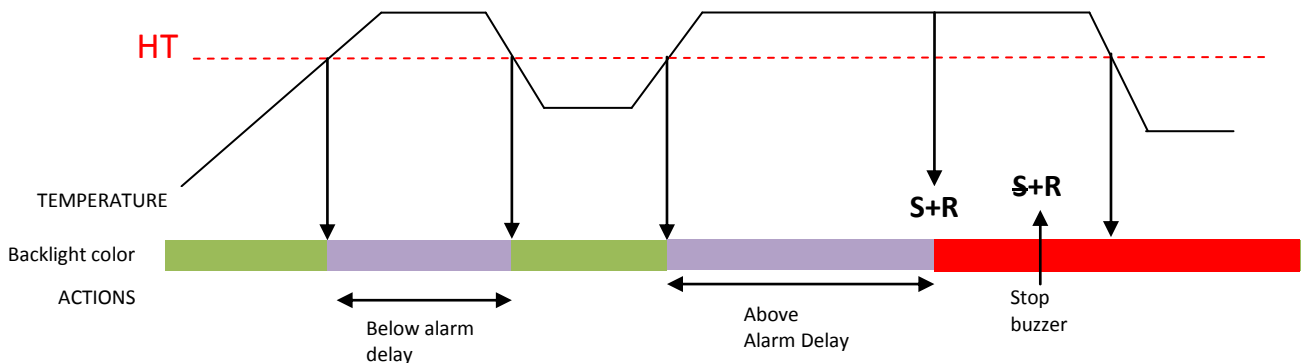
Conclusions :

The buzzer stops after pressing , but turns on again if the temperature oversteps the threshold again. It is the same for the low threshold.

#### ➤ Delayed alarm

The 3 alarms are activated: visual (backlight on), sound (buzzer on), and Relay

The delay of alarm is programmable through the configuration menu from 0 to 90 minutes



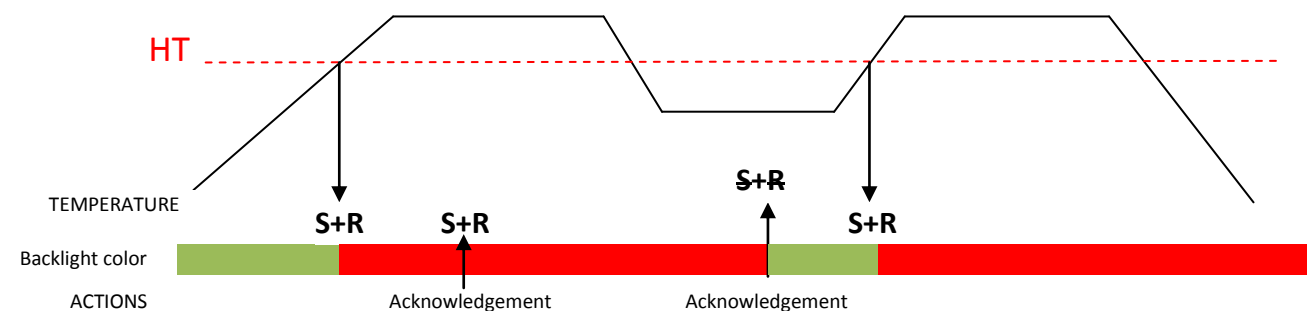
Conclusions:

The Alarm delay is identified by a violet backlight color (no sound, no relay). After an acknowledgement, the backlight turns to green less than 1 second if the temperature is still above the high threshold.. It is the same for the low threshold.

### b) Acknowledgement

#### ➤ Threshold overstep

The 3 alarms are activated : visual (backlight on), sound (buzzer on), and Relay

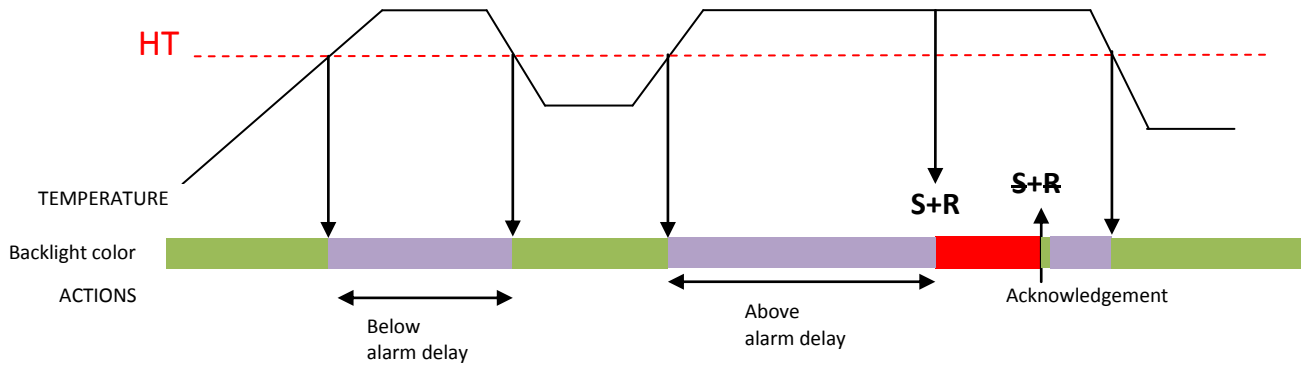


**Conclusions:**

After the acknowledgement, the recorder comes back to normal but only if the problem has been corrected and the temperature has returned below the high threshold. It is the same for the low threshold.

➤ *Delayed alarms*

The 3 alarms are activated: visual (backlight on), sound (buzzer on), and Relay  
 The delay of alarm is programmable through the configuration menu from 0 to 90 minutes

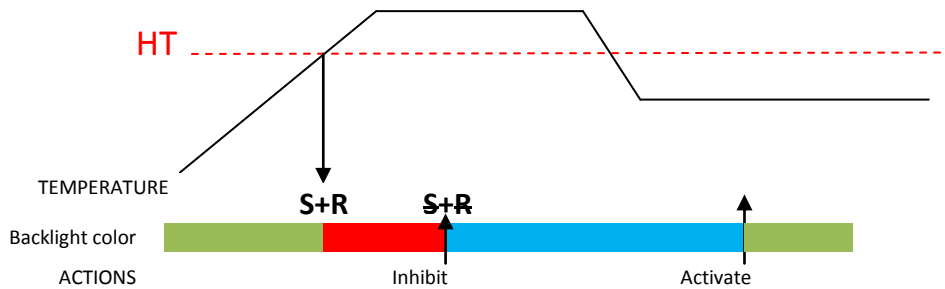


**Conclusions:**

The Alarm delay is identified by a violet backlight color (no sound, no relay). After an acknowledgement, the backlight turns to green less than 1 second if the temperature is still above the high threshold. It is the same for the low threshold.

**c) Inhibit**

The 3 alarms are activated: visual (backlight on), sound (buzzer on) and Relay



**Conclusions:**

Inhibit stops all the activated alarms. Activation must be done to restore normal settings and remove alarm inhibitions. It is the same for the low threshold.

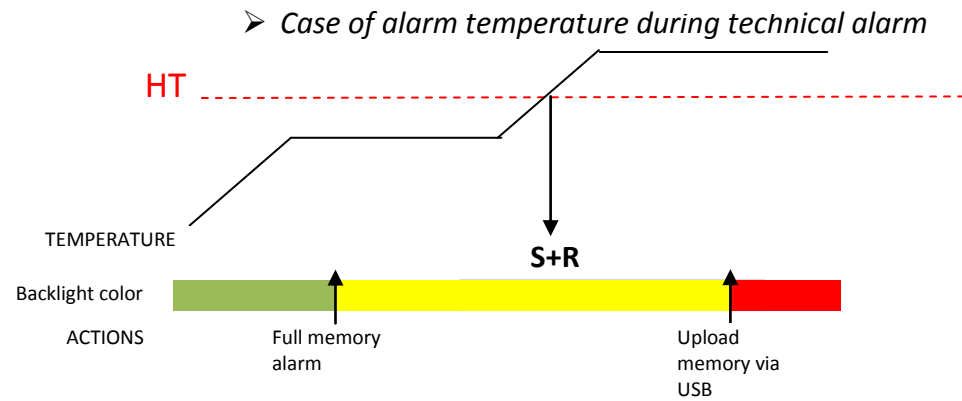
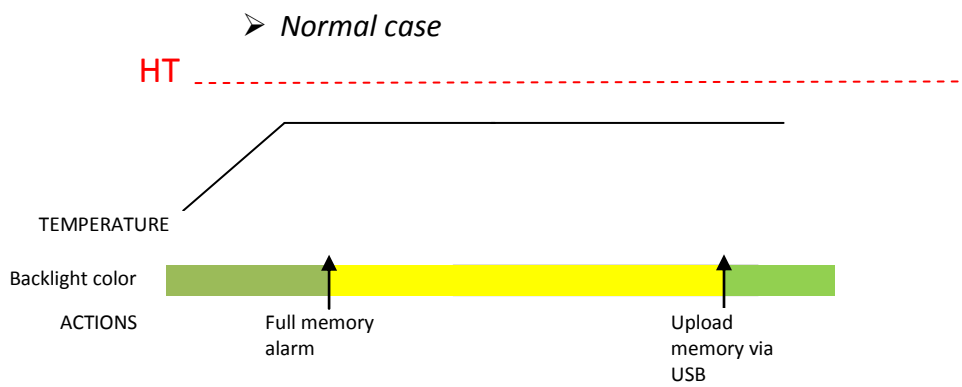
**3) Technical alarm**

The 3 alarms are activated: visual (backlight on), sound (buzzer on) and Relay

Technical alarms are:

- |                |                   |
|----------------|-------------------|
| NO_SENSOR_CH1  | PARAM_TAB_DEFAULT |
| NO_SENSOR_CH2  | NO_GAUGING        |
| BATTERY_ALARM  | MEMORY_FAILURE    |
| FULL_MEM_ALARM |                   |

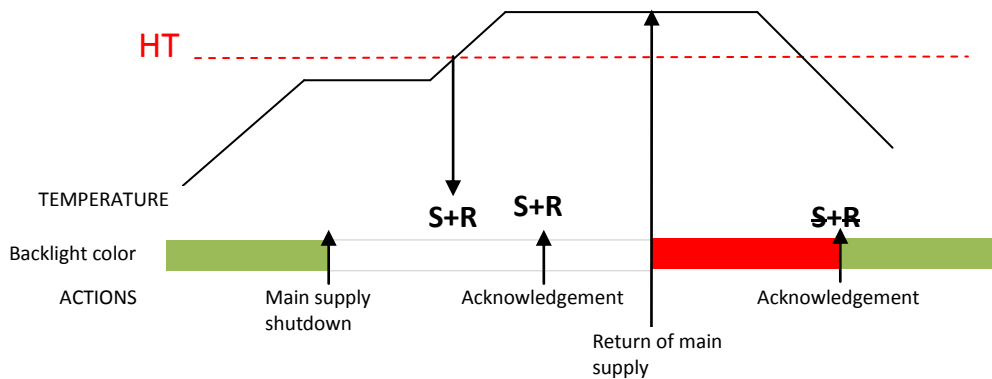
Alarm management for no sensor on ch1 or 2, full memory, no gauging and memory failure alarms:



**Conclusions:**

Priority is given to technical alarms and is deleted only if the reason of alarm has disappeared. In the example of full memory alarm the yellow backlight will change when the memory has been uploaded. It is the same for the low threshold.

**4) Main power supply alarm :**



**Conclusions:**

For the power supply alarm, the backlight turns off to save the battery backup energy but the sound and relay alarms run correctly. It is the same for the low threshold.

**V. START AND STOP RECORDING**

To start or stop recording of measurements, go through “Configuration...Internal settings” then select start or stop recording.

**VI. CLEANING**

The device can be cleaned with a dry duster. Do not humidify the device.

## VII. REPLACING BATTERY

Open the battery housing and replace the battery (6LR61 9V). Do not remove the recorder power supply to keep the data stored inside the memory.



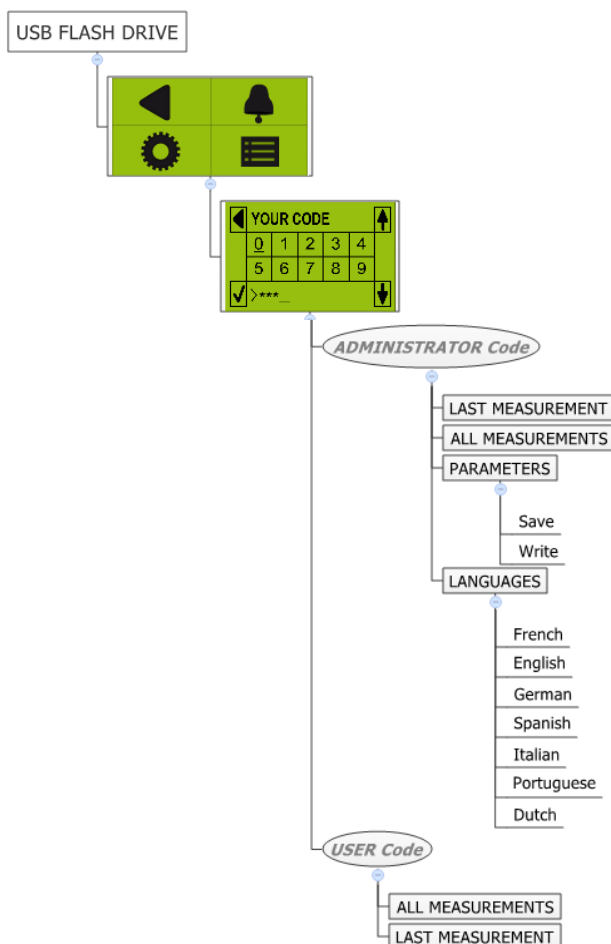
**We recommend to replace the battery as a preventive every 12 month or after 1 hour main supply cut off.**

## VIII. USB FLASH DRIVE

The USB flash drive is a peripheral allowing to configure the device, to upload the memory, and to perform other operations like changing the language of the device menu. The different possibilities are accessible using a password.

To configure the Spy TouchH using the USB flash drive it must be equipped with Sirius Lite (Limited Edition stored in the Flash drive, Sirius Lite 2.0 or Sirius storage 2.0).

### 5) USB flash drive menu



Note : If an error code appears on the screen during flash drive use, then try the following operations :  
Check that it is not full. In this case download the files with Sirius Lite Limited Edition and try again  
If it is not full then replace the USB flash drive and try again



## IX. CAPACITY OF OPERATION DATA SHEET

### JRI - Maxant

#### FICHE D'APTITUDE A L'EMPLOI SELON LA NORME 12830

*Capacity of operation compliant to EN12830*

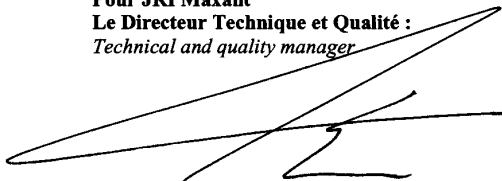
Modèle / model: **SPY TOUCH**  
 Type de matériel / equipment type : **enregistreur de température / temperature recorder**  
 Utilisation / application: **stockage / storage**  
 Classe de précision / accuracy class: **1**

**Tableaux des essais / Test table**

Essais	§ norme	Caract.	Documents ou rapports d'essais
Détermination de l'erreur de la mesure de la température.	5.3	±1°C	Procès verbal d'essais JRI REMTF10003 du 04/06/2010
Détermination du temps de réponse.	5.4	56 sec	Procès verbal d'essais JRI REMTF10003 du 04/06/2010
Détermination de l'erreur relative de l'enregistrement du temps.	5.5	0.004%	Procès verbal d'essais JRI REMTF10003 du 04/06/2010
Variation de la tension d'alimentation. Enregistreur soumis aux températures assignées	5.6.2	230Volts +10 % - -15%	Procès verbal d'essais JRI RECC09025 du 17/09/2009
Influence de la température ambiante. Enregistreur soumis aux températures limites	5.6.3.3	+5°C à +40°C	Procès verbal d'essais JRI REMTF10003 du 04/06/2010
Essai de température avec l'enregistreur en condition de stockage et de transport.	5.6.4	-20°C à +60°C	Procès verbal d'essais JRI REMTF10003 du 04/06/2010
Résistance aux chocs.	5.6.5	N/A	
Vibrations mécaniques.	5.6.6	N/A	
Degrés de protection procurés par l'enveloppe.	5.6.7	IP20 EN 60529	Procès verbal d'essais JRI RECC10007 du 07/06/2010
Sécurité électrique	5.6.8	EN61010-1 Ed 2001	Rapport d'essais EMITECH RL09101569-01-A
Rigidité diélectrique.	5.6.9	N.A.	
Compatibilité électromagnétique.	-	EN61000-6-1 EN61000-6-3 Ed 2007	Rapport d'essai CEM EUROCEM : RE-09-70259-1/A du 28/01/2010

Pour JRI Maxant  
 Le Directeur Technique et Qualité :  
*Technical and quality manager*

Date : 05/07/2010  
 date



**JRI Maxant**, société par actions simplifiée au capital de 4 000 000 €  
 Siège social : 116 quai de Bezons - BP 20085 - 95101 ARGENTEUIL Cedex - FRANCE  
 Tél : +33 (0)1 39 96 33 14 - Fax : +33 (0)1 39 96 33 33 - www.jri.fr - info@jri.fr  
 SIRET 380 332 858 00014 - APE 2651B - TVA FR 02 380 332 858

## **X. WARRANTY**

JRI products carry a one year warranty and guarantee against defects in their components or workmanship.

During this period if any product supplied by the Company proves on inspection to be defective, the Company will at its own option replace the same or refund to the Buyer the price of the product.

In no circumstances will JRI' liability exceed the price of the product paid by the buyer or the cost of replacement.

JRI shall not in any event be liable to the Buyer for any indirect or consequential loss or damage costs or expenses whatsoever which might arise out of or in connection with the supply of the product or its consequent use.

Consequently, the products warrantee and guarantee specified above, does not cover damage caused by fair wear and tear, abnormal storage conditions, incorrect use, accidental misuse, abuse, neglect, misapplication or modification, or use with non-JRI' hardware/software. No warranty of fitness for a particular purpose is offered and the user assumes the entire risk of using the product.

In line with our policy of continuous development, we reserve the right to amend our product specification without prior notice.

## **XI. ENVIRONMENT PROTECTION**

JRI recommends to our customers to throw away their measuring and recording devices which are unserviceable and/or beyond repair in a way that is appropriate to environment protection. Insofar as the production of waste cannot be avoided, it is best to re-use them by proceeding with adapted recycling depending on the material used and considering the environment protection.

### RoHS Directive

The ROHS European Directive rules and limits the presence of hazardous substances in electrical and electronic equipments (EEE).

In the article 2, the scope of this Directive excludes "9. Monitoring and Control Instruments" and our products are part of this category.

Nevertheless, our company has decided to apply the whole dispositions of this Directive for all our new electronic devices which will comply to this 2002/95/CE Directive.