PROGRAMMABLE
NUMERIC INDICATOR

LOREME

CONFIGURATION AND UTILIZATION

95000L BCD

REV0a.2a - 13/03/06

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Device Presentation

The purpose of this configuration handbook is to allow to become familiar with the functions supplied by the device.

95000L BCD is a numerical indicator allowing to display a BCD value composed of 1 to 3 digits 1/2 unsigned or 1 to 3 digits signed. The personalization of the indicator, number of digits, sign, and input process configuration, active (voltage level) or passive (dry contact), allow to meet appliance majority. More, a configurable analogical output adds to indicator an analogical/numerical converter function.

USER INTERFACE
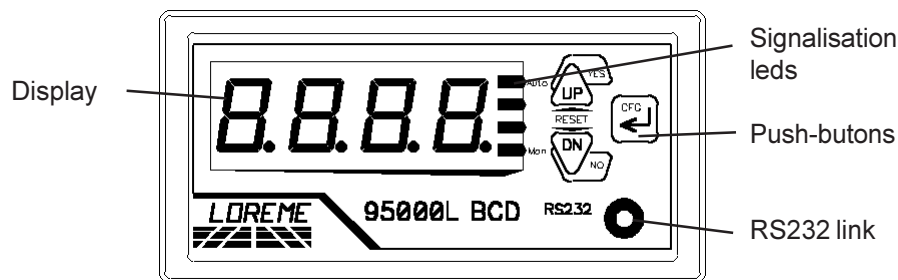
The 95000L BCD front side is composed of:
- 1 display of 3 digits 1/2 (2000 pts) for input vizualisation,
- 4 signalisations leds (function avaible subsequently),
- 1 jack 3.5 plug for RS 232 link,
- 3 push-buttons (function avaible subsequently).

RS232 Configuration

The whole of the configuration parameters can be visualized and modified with any system emulating a terminal and equiped with RS232 link. The dialog and configuration parts being resident in device memory, no software or specific interface is necessary for their configuration. Two systems of terminal emulation are presented, the PSION WorkAbout and the PC. Different procedures are enumerated below. The link is freely supplied on simple request.

PSION Workabout: (portable terminal)

To start up the PSION push the **"ON"** key.
At the presentation, push the **"MENU"** key.
Select **"SYSTEME SCREEN"** mode and validate by **"ENTER"**.
Icons display: **DATA CALC SHEET PROGRAM COMMS**

Select icon **"COMMS"** and validate by **"ENTER"**, on display, a cursor is flashing.
The **PSION** is now in terminal mode, and it's necessary to check his parameters.

For this, press the **"MENU"** key, then go to item **"Spec"**, **"Port"** and validate with **"ENTER"**.
Here, parameters should be: - Port: A   - Baud rate: 9600
Then, go to menu **"Parameters..."** and validate by **"Tab"**
Here, parameters should be: - Data bits: 8   - Stop bits: 1
                                          - Parity: None   - Ignore parity: Yes
Validate now by pushing **"ENTER"** twice.
Press again **"MENU"**, then select **"Handshakes"** and validate with **"ENTER"**.
Here, put all parameters in **"Off"** state.

The terminal is now totally configured. plug the terminal to the device with RS232 link.
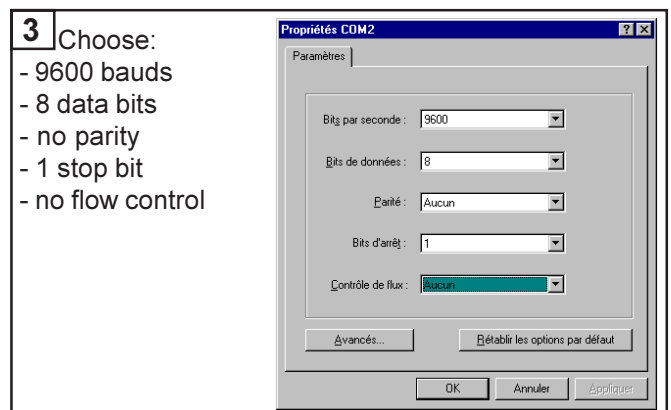The measure is displayed and, to configure, push **"C"** on keyboard.

To quit terminal mode and switch off PSION, push the **"OFF"** key. When you start the **PSION** again, it start automaticaly and directely in terminal mode without re-start configuration.

PC with WINDOWS:

To start up terminal program:

0	1 - Clic on button **"START"**
	2 - Tick off **"Programs \ Accessories \ Communication \ Hyper Terminal"**
	3 - Clic on **"Hypertrm.exe"**

1 Enter a name for the new connection

2 Choose a communi-cation port

3 Choose:
- 9600 bauds
- 8 data bits
- no parity
- 1 stop bit
- no flow control

4 PC is now in terminal mode, connect to device by plugging the RS232 link cable.
Measure is now displayed and to access configuration, press **"C"** key .

5 When leaving HyperTerminal, the following window will appear.
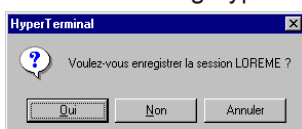
By accepting the reccording of the session, terminal mode will be able to be started again without using this procedure.

Thus, the short cut LOREME.ht will permit to communicate with all LOREME devices.

Note: to modify parameters of terminal mode whereas this one is already started, it is necessary, after having carried out the modifications, to close the terminal and to open it again so that the modifications are effective.

En raison de l'évolution constante des techniques et des normes, LOREME se réserve le droit de modifier sans préavis les caractéristiques des produits figurant dans ce document.

VISUALIZATION:

When switching on, device is automatically put in measure mode.
2 informations are avaibles on terminal:

800	BCD Input value
11.99 mA	Output value (95000LBCD/S)

CONFIGURATION:

This manual recapitulates a detailed account of several configuration possibilities: BCD input, analog output.
To access configuration mode, type on **"C"** key.

1) Method:

At configuration, several question types are asked. For each of them, several answers are possible. Here is the description of each of them:

1.1) Menu selection:
Example: BCD INPUT
                 Y - N
The choice is done by typing on **"Y"** or **"N"** keys.
This choice allows access to different configuration menus.

1.2) Parameter selection:
Example: ACTIVE INPUT   or   ACTIVE INPUT
                 (Y-N) YES   (Y-N) NO

Previous choice = YES: - push on **"Y"**   =>   validation, choice = YES,
                         - push on **"Enter"** =>   validation, choice = YES,
                         - push on **"N"**   =>   change, choice = NO.

Previous choice = NO: - push on **"N"**   =>   validation, choice = NO,
                         - push on **"Enter"** =>   validation, choice = NO,
                         - push on **"Y"**   =>   change, choice = YES.

Choices are made by pushing on **"Y"** or **"N"** keys, and validation by pushing on displayed answer (**"Y"** for YES and **"N"** for NO) or by **"Enter"**. Pushing on **"Enter"** key without modification allows to validate previous answer.

1.3) Value acquisition:
Example: LOW SCALE
                 4 mA

Two possibilities:
- The validation without modification by pushing on **"Enter"**,
- The modification with simultaneous display followed by validation with **"Enter"** key.

Remarks on value acquisition:
- It is possible, when a mistake is made during a value acquisition, before validating it, to go back by pressing on
  "**DEL**" key. This re-displays the message without taking notice of the mistake.
- In configuration mode, if there is no action during 2 minutes, device goes back in operating mode without taking
  notice of the modifications made before.
- In configuration mode, if you want go back to measure mode without taking notice of modifications made before,
  just press "ESC".

2) BCD Input:

Before to use device, it is necessary to configure input process.
Device can work on two differents modes.

     .active input, voltage level,
     .passive input, dry contact.

To define output working range on BCD input, it is necessary to configure low scale and high scale.
It is also possible to define the position of the decimal point on the display.

3) Analog output:

Output possesses differents parameters witch configuration is necessary for a good working:
- Output type: .current output (mA),
                .voltage output (V).
with for each output type the choice of low and high scale.

- Limitation: this function limits the output signal excursion to configured
                scale whatever the input signal value.

EMC CONSIDERATION

LOREME

1) Introduction:

IIn order to satisfy its policy as regards EMC, based on the Community directive 89/336/CE, the LOREME company takes into account the standards relative to this directive from the very start of the conception of each product.

As the devices are devised to work in industrial environments, the various tests are carried out in the sight of the EN 50081-2 and EN 50082-2 standards, in order to make out a statement of conformity.

As the devices lie in certain typical configurations during the tests, it is not possible to secure the outcomes in any possible configuration. To ensure the best functionning of each device, it would be judicious to comply with several recommendations of use.

2) Recommendations of use:

2.1) General remarks:

- Comply with the recommendations of assembly indicated in the technical sheet (direction of assembly, spacing between the devices, ...).
- Comply with the recommendations of use indicated in the technical sheet (temperature range, protection index).
- Avoid dust and excessive humidity, corrosive gas, considerable sources of heat.
- Avoid disturbed environments and disruptive phenomena or elements.
- If possible, group together the instrumentation devices in a zone separated from the power and relay circuits.
- Avoid the direct proximity with considerable power distance switches, contactors, relays, thyristor power groups, ...
- Do not get closer within fifty centimetres of a device with a transmitter (walkie-talkie) of a power of 5 W, because the latter can create a field with an intensity higher than 10 V/M for a distance fewer than 50 cm.
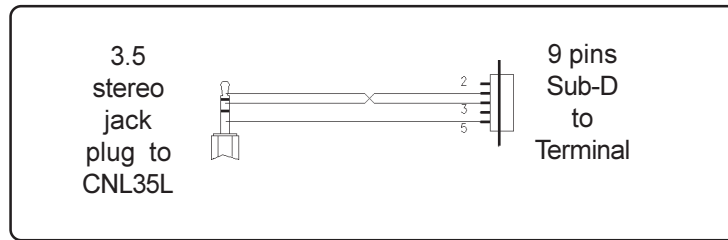
2.2) Power supply:

- Comply with the features indicated in the technical sheet (power supply voltage, frequency, allowance of the values, stability, variations ...).
- It is better that the power supply should come from a system with section switches equipped with fuses for the instrumentation element and that the power supply line be the most direct possible from the section switch.
- Avoid using this power supply for the control of relays, of contactors, of electrogates, ...
- If the switching of thyristor statical groups, of engines, of speed variator, ... causes strong interferences on the power supply circuit, it would be necessary to put an insulation transformer especially intended for instrumentation linking the screen to earth.
- It is also important that the installation should have a good earth system and it is better that the voltage in relation to the neutral should not exceed 1V, and the resistance be inferior to 6 ohms.
- If the installation is near high frequency generators or installations of arc welding, it is better to put suitable section filters.

2.3) Inputs / Outputs:

- In harsh conditions, it is advisable to use sheathed and twisted cables whose ground braid will be linked to the earth at a single point.
- It is advisable to separate the input / output lines from the power supply lines in order to avoid the coupling phenomena.
- It is also advisable to limit the lengths of data cables as much as possible.

WIRINGS

3.5 stereo jack plug to CNL35L

9 pins Sub-D to Terminal

WIRING DIAGRAM

Power supply:		terminal 1
		terminal 2
Output:	-	terminal 3
	+	terminal 4
Input ground:		terminal E1
Input sign:		terminal E2
1/2 Digit 4:	A	terminal E3
Digit 3:	D	terminal E4
	C	terminal E5
	B	terminal E6
	A	terminal E7
Digit 2:	D	terminal E8
	C	terminal E9
	B	terminal E10
	A	terminal E11
Digit 1:	D	terminal E12
	C	terminal E13
	B	terminal E14
	A	terminal E15