



PROGRAMMABLE INDICATOR

INL30L

CONFIGURATION AND UTILIZATION HANDBOOK

LOREME 12, rue des Potiers d'Etain
Actipole BORNLY - B.P. 35014 - 57071 METZ CEDEX 3
Telephone 03.87.76.32.51 - Fax 03.87.76.32.52
Contact: Commercial@Loreme.fr - Technique@Loreme.fr

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DIALOGUE - TERMINAL MODE

Numeric devices can converse with all terminal emulation mode systems. As the dialogue and configuration part are in device's memory, no software or specific interface are necessary for their configuration.

Two terminal emulation mode systems are presented: the PSION and the PC. Different procedures are enumerated below.

1) PSION serie 2:

First of all manipulation, plug in "COMMS LINK" on the PSION. To start up the PSION, push on the "ON" key.

The PSION displays this menu:

**RECH SAUV AGENDA
CALC PROG EFFACE**

Push on the "C" key until the menu "COMMS", and validate with "EXE".

The PSION displays this menu:

**TRANSMIT RECEIVE
SETUP TERM AUTO**

Push on the "T" key until the menu "TERM", and validate with "EXE" to obtain a empty screen. The PSION is now in terminal mode and you can link the PSION to the device, by plugging in the RS 232. The measure is displayed, to configurate, push on the "C" key.

2) PSION Workabout:

To start up the PSION push on the "ON" key.

At the presentation, push on 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 flashing. The PSION is in terminal mode. Plug in "RS232" on PC. The measure is displayed and, to configure, push "C" on keyboard.

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

3) PC with DOS:

The terminal emulation mode software with DOS "IBM®-PC KERMIT-MS V2.26" is available at simple request. After the PC has booted, type "a: K" then press "ENTER". The PC is in terminal mode and uses COM port 1.

If you want to use the second serial communication port (COM2), type:

- "A:KERMIT" and "ENTER" to launch the program,
- "SET PORT 2" and "ENTER" to select COM2,
- "SET BAUD 9600" and "ENTER" to select speed,
- "CONNECT" and "ENTER", to enter in the terminal mode.

The PC is now emulating a terminal and may be connected to the device by plugging in the RS 232 link cable.

Measure is now displayed and configuration's acces allowed by a press on "C" key.

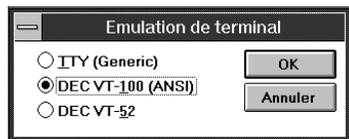
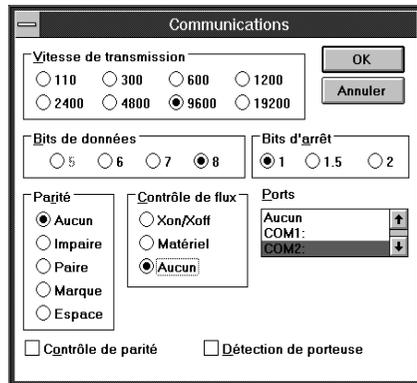
To quit kermit, press "CTRL-\$" then press the key "C". When the message KERMIT-MS appears, type "QUIT" to return to MS-DOS commands.

4) PC with WINDOWS 3.11:

Start WINDOWS and in "ACCESSOIRES" group, double-click on  icon wich get access to terminal mode.

In "PARAMETRES" menubar, click on "COMMUNICATION" sub-menu. We access to the following windows. Configure communication parameters, 9600 bauds, no parity, 8 data bits, 1 stop bit, no flow control and validate.

Begin terminal emulation by click on "PARAMETRES", then on "EMULATION TERMINAL". the following board is displayed.



Choose terminal mode DEC-VT-100(ANSI) and validate. The PC is in terminal mode, connect it to device by plugging the RS232 link cable. Measure is now displayed and to access at configuration, press on "C" key.



5) PC with WINDOWS 95/98:

To start up terminal program:

- 1 - Cliquez on button "START",
- 2 - Tick off "PROGRAMS", "ACCESSOIRES", and "HYPER TERMINAL",
- 3 - Click twice on 

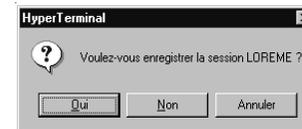
Hypertrm.exe

The following window is displayed. Enter a name for a new connection and validate, the hereunder window will appear



Choose a communication port and validate. The belowing windows is displayed

Configure communication parameters, 9600 bauds, no parity, 8 data bits, 1 stop bit, no flow control and validate. The PC is in terminal mode, connect to device by plugging in the RS232 link cable. Measure is now displayed and to access at the configuration, press on "C" key .



When quitting HyperTerminal will be displayed the following window. To dialog with all LOREME devices without re-start all the method, click on "OK"

To load LOREME session directly:

- 1 - Click on button "Start".
- 2 - Tick off "Programs", "Accessories", and "HyperTerminal".
- 3 - Click twice on the icon 

LOREME.ht

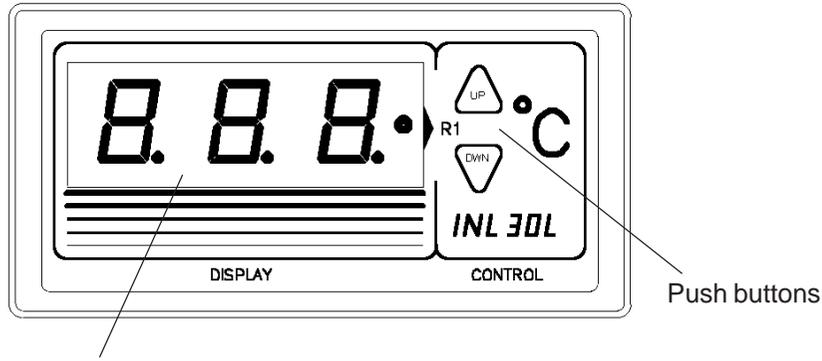
6) Visualization:

When switching on, the analyzer is automatically put in operating mode. The user will be able to visualize the measure on this forms: 125.2 DC

DEVICE PRESENTATION

The purpose of this handbook is to allow you to become familiar with the different device function.

The INL30L is a low cost programmable indicator for Pt100 input. It is made to realise a single measure to meet to the user's specific requirement at a lowest price.



2 digits 1/2 display

The device front side is composed of:

- 1 display of 2 digits 1/2, 200 points resolution,
- 2 push buttons:

-  A punctual push on one of these two buttons allows to displays the alarm threshold. When threshold value is displayed a prolonged push on the "up" button or on the "down" button allows to increment or decrement the alarm threshold. If the buttons aren't pressed during few second, the adjustment is automatically validated and the device switch in measure mode.
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CONFIGURATION

This manual recapitulates a detailed account of several configuration possibilities.

To access configuration mode, type on "C" key.

1) Method:

At configuration, several question types are asked. For each of them, several answers are possibles. Description of each of them:

1.1) Menu selection:

Example: 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: VOLTAGE or VOLTAGE
(Y-N) YES (Y-N) NO

- Previous choice = YES:
- push on "Y" => Validation of choice = YES,
 - push on "↵" => Validation of choice = YES,
 - push on "N" => Change of choice = NO.
- Previous choice = NO:
- push on "N" => Validation of choice = NO,
 - push on "↵" => Validation of choice = NO,
 - push on "Y" => Change of choice = YES.

Choices are made pushing on "Y" or "N" keys, and validation by pushing on "↵" (PC) / "EXE" (PSION) when the answer "Y" or "N" is displayed. Pushing on the key "↵" / "EXE" without modification allows validate previous answer.

1.3) Value acquisition:

Example: LOW SCALE
4 mA

Two possibilities:

- The validation without modification by pushing on "↵" / "EXE",
- The keyboard value modification (simultaneous display), then the validation by "↵" / "EXE".

Note concerning the value acquisition:

- It is possible, when a mistake is made during a value acquisition, before validating it, to go back pressing "DEL" key (only on PSION), which re-displays the message without taking notice of the wrong value.
- In configuration mode when there is any action during two minutes, the device exits of this mode without to take of modifications into consideration.
- In configuration mode, if you want to shift to measure mode without taking notice of the modifications made before, you just have to press "ESC" (PC) or "SHIFT + DEL" (PSION) key.

2) Relay:

As Pt100 input is fixed, only relay can be configured by RS232 link.

The relays configuration is presented through 2 rubrics:

- Detection type:

- breaking detection,
- threshold detection.

The breaking detection activates the alarm on sensor breaking or on measure range overflow.

The threshold detection activates the alarm on threshold overstepping. It is necessary to choose the threshold type (high or low), threshold and hysteresis values.

The two **detections types** can be chosen simultaneous.

The **threshold detection** works in this way:

- **high threshold** detection:

- . alarm is activated when measure goes above threshold,
- . alarm is removed when measure goes below threshold less hysteresis.

- **low threshold** detection:

- . alarm is activated when measure goes below threshold,
- . alarm is deactivated when measure goes above threshold more hysteresis.

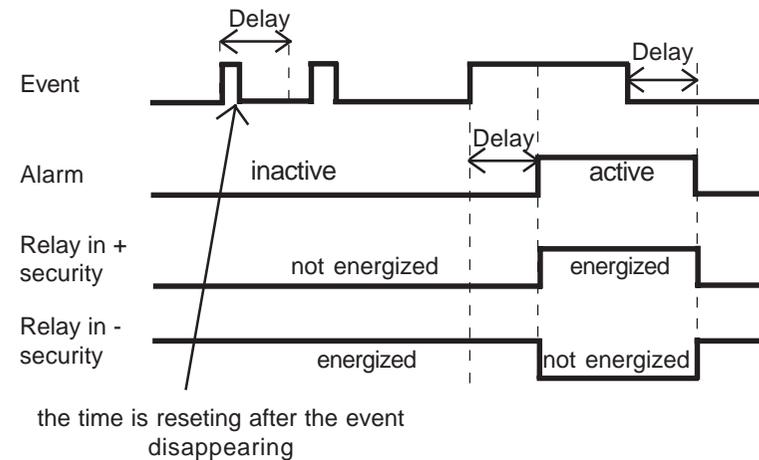
- Relay parameters:

- security,
- delay,
- adjustment.

The **security** works in this way:

- in positive security, relay is energized when alarm is active,
- in negative security, relay is energized when alarm is inactive.

The **delay value** (in second), determines the time above which alarm changes his statement after event detection. The delay is active at the appearance and disappearance of the event.



When alarm is using in threshold detection, it's possible to access at **threshold control** by **press button**. This possibility can be desactivate on configuration.

OFFSET

Sometimes, it may be interesting to modify measure by a keyboard intervention. It can be used in many situations as a sensor's degradation or to calibrate the input with magnifying effect to obtain a better accuracy in the measure window.

To shift the measure, it is necessary:

- to be in measure mode,
- type on "+" or "-" to access at the function,
- the display on terminal is:
105.2 DC measure value with offset,
OFFSET 1.5 offset function, offset value.
- use keys "+" and "-" to regulate the offset, the measure is directly modify.
- type on "ENTER" to save the offset.

When the device is not supplied or in configuration, the offset is active. To reset the offset, it is necessary to start the "OFFSET" function, to put this value to zero by keys "+" and "-", then validate by "ENTER". In offset control mode when there is no action on keys "+", "-", or "ENTER" during 15 s, the device exits of this mode without to take of the executed control into consideration.

EMC CONSIDERATION

1) Introduction:

In 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 functioning possible 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.

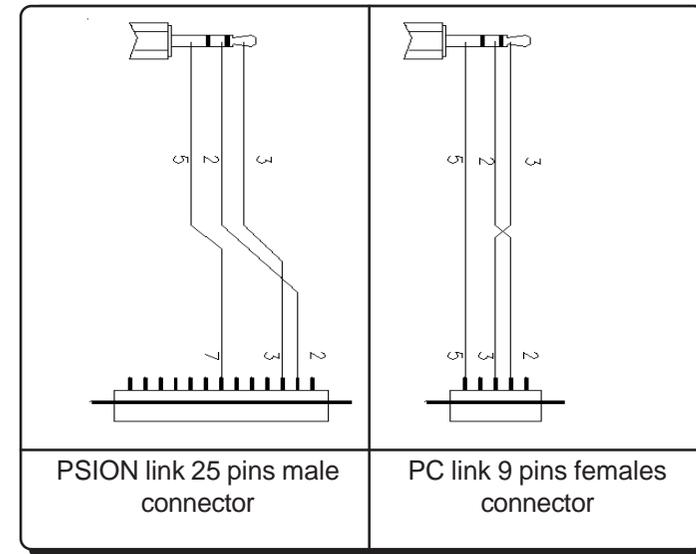
- It is also important that the installation should have a good earth system and it is better that the voltage in relation to the neutral should not exceed 1V, and the resistance be inferior to 6 ohms.

- 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.

TERMINAL - DEVICE LINK



DIAGRAMS OF CONNECTION

Power supply: terminal 2 et 5
3 wires Pt100 input: terminal 10, terminal 11, terminal 12
Relay: terminal 14 (T), terminal 15 (R), terminal 16 (C)

Connection on 6.35 mm FASTON terminal connector

