

NETWORK CONVERTER

CRL20

CONFIGURATION

AND

UTILIZATION HANDBOOK

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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 directely 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.

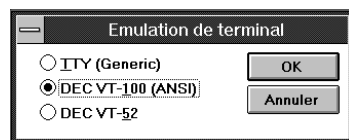
To quit kermit, press "CTRL-\$" then press the key "C".
When the message KERMIT-MS appears, type "QUIT" to return to MS-DOS commands.

4) PC with WINDOWS 3.11:

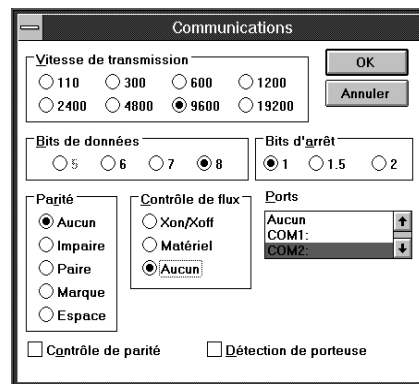
Start WINDOWS and in "ACCESSOIRES" group, double-click on  icon wich get access to terminal mode.

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

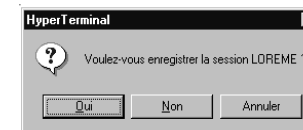
The following window is displayed. Enter a name for a new connection and validate, the hereunder window will appear



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.

Measures visualization on 2 lines:

1/ 1.015 % 12.06 mA	Measure n° 1 Output n° 1
2/ 2.123 bar 18.15 mA	Measure n° 2 Output n° 2
3/ 10.28 kg 5.03 mA	Measure n° 3 Output n° 3
4/ 28.52 % 16.08 mA	Measure n° 4 Output n° 4

DEVICE PRESENTATION

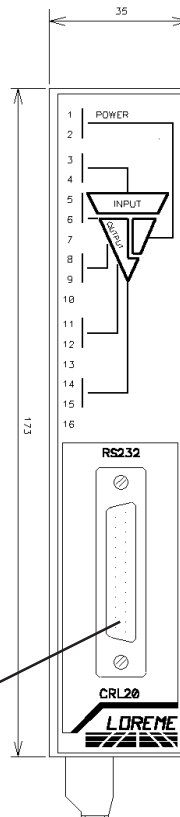
The purpose of this handbook is to allow to become familiar with the different device function.

Device allows, thanks to his RS485 numerical link, to read and convert 4 numericals measures to 4 analogs results.

For that, device dispose of 1 ASCII Modbus/ Jbus RS485 numerical link and 4 analogs outputs fully configurable.

On front side, a RS232 link allows to configure all device parameters.

RS232 link



CONFIGURATION

This manual recapitulates a detailed account of several configuration possibilities: communication, output 1, output 2, output 3, output 4. 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) Communication:

Communication parameters are following:

- **speed**, 600, 1200, 2400, 4800, 9600, 19200 or 38400 bauds,
- **parity**, odd, even or none,
- **timeout**, 0 to 10000 ms.

3) Sorties:

Device dispose of 1 to 4 analogs outputs, fully and independently configurable. Configuration possibilities are the same for all outputs. Parameters are following:

- **slave adress** to request, 1 à 247,
- **data adress** to read, 0 à 65535,
- **measure range**, low scale, high scale, unit, allowing to define input range,
- **output type**, current or voltage,
- **output scale**, low scale, high scale, allowing to define output range,
- **security value**, output value at timeout,
- **filter**, allowing to realize a numerical filter smoothing analogical output,
- **limitation**, allowing, for all measures, to peak clip output signal swing at scale configuration.

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:

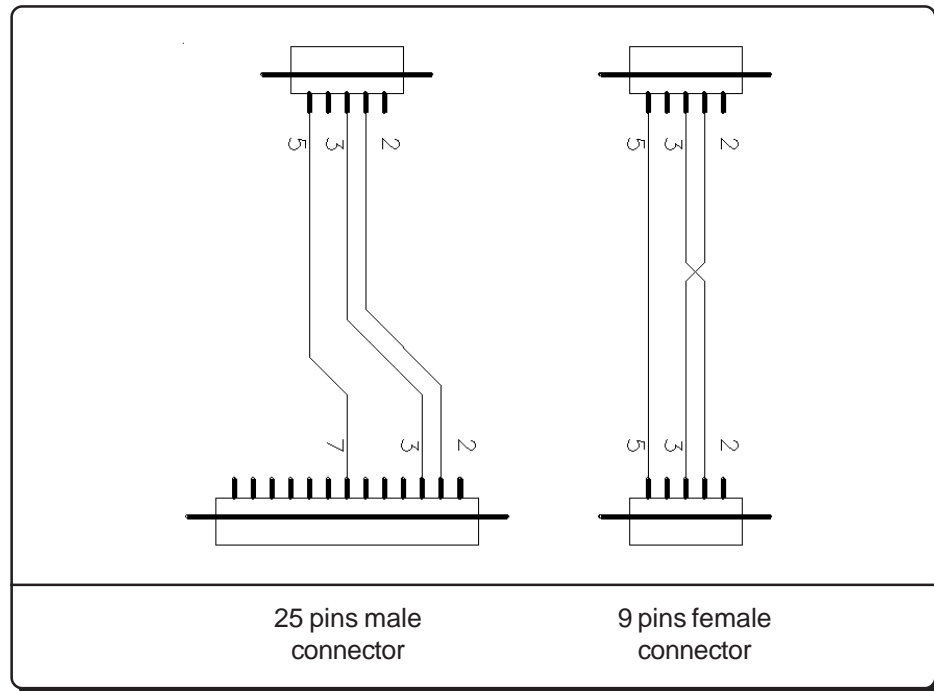
- Comply with the features indicated in the technical sheet (power supply voltage, frequency, allowance of the values, stability, variations ...).
- It is better that the power supply should come from a system with section switches equipped with fuses for the instrumentation element and that the power 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.

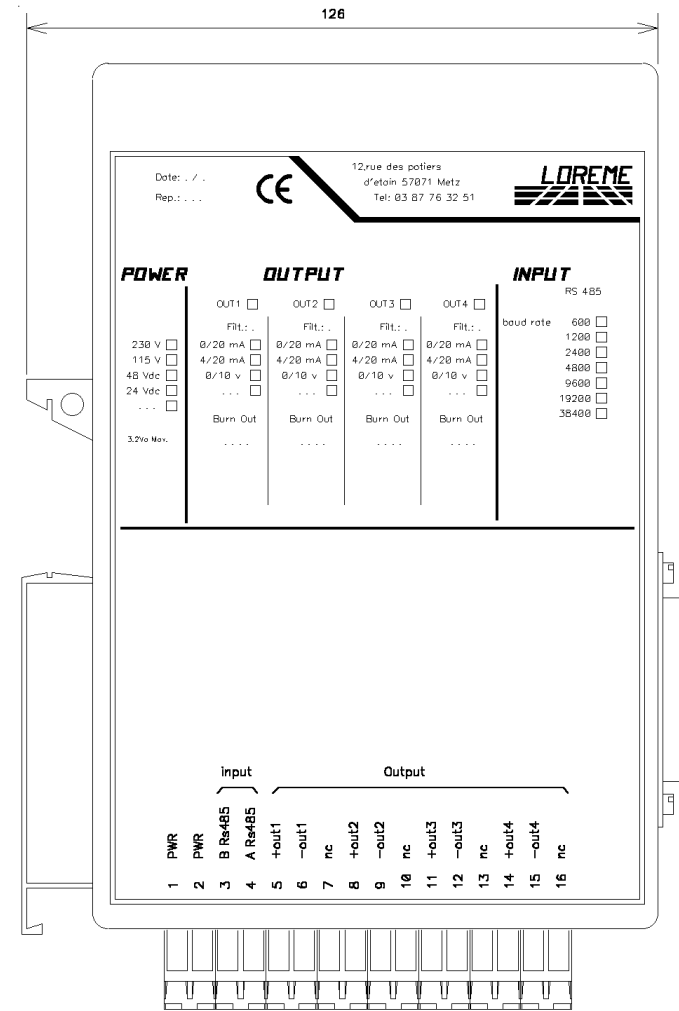
2.3) Inputs / Outputs:

- 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 CONNECTIONS



Power supply

terminal 1 and 2

RS485 link

terminal 3 (A) and 4 (B)

Output 1

terminal 5 (+) and 6 (-)

Output 2

terminal 8 (+) and 9 (-)

Output 3

terminal 11 (+) and 12 (-)

Output 4

terminal 14 (+) and 15 (-)