

# CLARINE RACK 121 MONITORING SYSTEM

Engine, industry and marine application



## Principle

CLARINE system allows monitoring (alarm generation when overstepping threshold) and display on LCD colour screen of parameters transmitted on a CAN network. It processes up to 600 channels per device (analogue or ON/OFF) for which several parameters may be designed (2 thresholds, their values, their natures -high or low-, their potential inhibitions possibility with regard to conditions another channels, their alarm conditions, etc.). Each analog channel can be displayed with a graphic indicator (vertical or horizontal bargraph, dial type indicator, digital indicator...).

Besides monitoring, this system offers following functions :status recording and storage. Many possibilities of extension are available.

## Applications

CLARINE Rack121 has been designed for Marine or any industrial application in harsh environmental conditions.

Approved by main Marine Classification Societies, this unit is used as local or general monitoring system on board, included for unmanned class requirements.

Clarine Rack65, Rack 101 and Rack121 are fully compatible with each other.

## Advantages

**Easy to use :** Neither keyboard nor mouse is used in normal operation : intuitive graphics and clear monitoring allow a quick, clear and unambiguous reading of important data.

**Easy to configure :** Parameters can be intuitively configured with keyboard and mouse through « dialog boxes ».

**Easy to install :** The network allows to use only one cable between acquisition units and CLARINE monitoring unit(s). This system is modular and extendable.

# CLARINE RACK 121 MONITORING SYSTEM

## FUNCTIONS

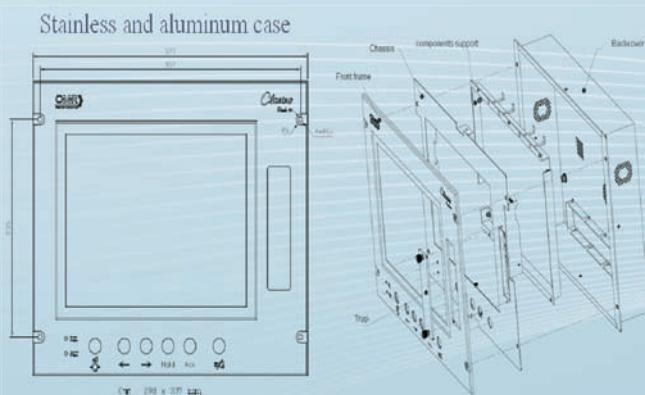
Main tasks performed by the monitoring software are the following :

- Acquisition and processing of data from CAN bus, CANopen protocol
- Processing of alarms
- Acknowledgement of alarms
- Display of information by means of graphic screen pages
- Printing of
  - ↳ Screen copy
  - ↳ Alarm list
  - ↳ Logbook
  - ↳ Channels inhibited by process
  - ↳ Manually inhibited channels
  - ↳ Time-delayed channels
- Display of status records (logbook)
- Protection by password for the system configuration
- VDR supported.

It also allows :

- To perform several monitoring control functions on output relays
- System failure detection by WatchDog function
- To configure the system integrally, particularly by using the CANopen master functions (number of channels, inputs types, type of display, number of pages, organization of pages,...)
- To manage the users and their access levels so as to protect the critical parameters, CMR is able to give an access level, which allows to totally personalize the securization according to the customer's needs.

Stainless and aluminum case



## SPECIFICATIONS

- Rackable unit
- Power supply : 24 Vcc,
- Input range : 18-32 Vcc
- Consumption Max : 2 A @ 24Vcc
- Power failure detection
- Internal temperature measurement, with output relays
- 1 LCD 12.1" Screen
- 1 Processor LX800-500Mhz
- 1 Compact Flash 128 à 512 Mb
- Double CAN bus for data acquisition
- RJ45 Ethernet network
- 2 USB
- 1 RS232

## ENVIRONMENTAL CONSIDERATIONS

- Operating temperature : 0°C - 55°C
- Storage temperature : -20°C - 85°C
- Vibrations : 0,7g, 2 à 100 Hz
- Ingress Protection : Front IP65, Back IP44
- Humidity : Up to 95% HR
- Protection : EMC, lightning....

## MARINE CLASSIFICATION

- BV, GL, LR, DNV, NKK
- Other certifications on request

## MISCELLANEOUS

- Weight : 5,2 Kg
- Dimension (mm) : 377 x 318 x 70
- Front panel :
  - Colour screen LCD 12.1"
  - Resolution (pixels) 800 x 600
  - Brightness 400 cd/m<sup>2</sup>
  - Push Buttons 6
- Back panel :
  - Output relay 10 outputs
  - On removal connector
  - Option : output 30 outputs by flat cable 36pins
  - Inhibition input 1
  - Alarm Ack input 1
  - Power supply removal connector 3 pins
  - CAN 1 & CAN 2 2 x Sub-D9 - Female