

- Interface point for the driver and maintenance personnel.
- Monitors the status of the train, the alarms and equipment settings.
- Diagnosis, recording and monitoring functions (alarms and log recordings).



## DESCRIPTION

The **HMI** is the operations and display centre of the COSMOS system, as well as the central unit where all the events that each item of equipment connected to the bus may generate.

The HMI monitors the information regarding the bus: statuses of the equipment (open/closed), regulation of specific equipment, alarms, warnings, etc. All of this information is monitored via a graphic application. A user friendly graphic application, arranged on various screens where the well-being of the end user is obtained by means of a combination of texts and graphics.

A *Standard Graphic* application is included together with the supply of the COSMOS system, which includes both driving screens and maintenance screens. At the customer's request, a specific graphic application can be provided according to each customer's requirements.

*\*See Services sheet*

The HMI also records a **log** of all the events that occur during train operation on a memory. The log characteristics (such as storage time, signals to be stored, etc.) **can be set**. These logs can be studied using analysis and diagnosis tools and this facilitates the train maintenance and supervision tasks.

*\*See Services sheet*



## CHARACTERISTICS

- Colour TFT monitor:
  - > 10.4" screen and 640x480 resolution.
  - > 12.1" screen and 800x600 resolution.
- Keyboard on the front of the display, or touch screen.
- Pentium compatible processor.
- Real time operation system.
- RAM Memory: from 64 Mb to 1Gb.
- Compact Flash: from 128 Mb to 4Gb.
- USB port, two RS-485 connections and video output possibility.
- Equipment designed in accordance with IEC 61375-1 and EN50155.
- Reliability:
  - >MKBF: 5.229.605 km (based on on site experience).
  - >MTBF: 174.320 hours (based on on site experience).
- Operating temperature: -25 to 85 °C (T3).
- Battery voltage: 24-110 VDC.
- Consumed power: < 30 W.
- IP 65 (front part).
- Interfaces: MVB, RS485, USB, Ethernet.
- Natural ventilation.

## DIMENSIONS AND WEIGHT

- Dimensions: 345 x 227 (width x height) for 10.4" screen
- Weight: 5Kg.

