

Safety Speed Indicators •





Badge Readers

Trainborne Recorders





Tone Generators

SIL2 PWM Traction/Brake Controllers





SIL2 Safety Displays

ERTMS iBox SIL2 Gateway



http://www.logiplus.com info@logiplus.com

Aéropole de Charleroi 1, rue Clément ADER B-6041 Gosselies - Belgium

Phone: 00 32 71 44 44 66 Fax: 00 32 71 43 95 74



A range of single- or double-needle speed indicators with galvanometers, servo-control motors or liquid crystals.



### SIL<sub>2</sub>

### **Speed measurement Board**

When installed in a SIL2 Safety Display, this board allows to display the real speed issued from the ATESS system on the SNCF network.

LogiPlus offers a range of speed indication devices for Automatic Train Protection. In addition to the train actual speed, various items of information are relayed to the driver, such as, for example, target-distance, target-speed, and instantaneous speed instructions.



## **Safety Speed Indicators**



These indicators are designed to make access to more secure speed information by means of sophisticated back-reading devices. These specific requirements are especially imposed for train traffic on the SNCF network, which has incidentally sanctioned several of our indicators.



## Cab Displays













Robust data entry terminals specifically designed for the railway onboard environment: compact design, large liquid crystal screen with shockprotection, robust backlit keys, etc.



### **Tone Generators**

#### **RAILTONE NG**

The Railtone NG is a fully static digital sound generator for train cabs. Twelve universal logic inputs are used to control the sounds generation. Onboard reprogrammable by means of a USB Memory Stick.

A RS485/RS422 serial link, a CAN link and an Ethernet link allow the full remote control of the Railtone NG. Optional SD memory card.

Railtone NG is directly powered from the train battery. A Power Over Ethernet (PoE) version is also available.



## **Data Entry Terminals**



A range of electronic "Tone Generator" devices replacing with advantage the electromechanical noise-makers (bells, buzzers, etc) in the driver cabs; reduced dimensions, excellent reliability, faithful tone reproduction, easy programming and volume adjustment.



## Remote I/O Module

The RIOM has 12 universal logic inputs, 3 serial links (RS422, RS485 and RS232 for service), 1 CAN interface, 1 Ethernet connection, SD Card and Realtime clock, 1 relay output.











GPS synchronised clock for accurate time display. Local time base with power back-up.

Automatic setting for summer and winter time. Displays time and day of the week

Current loop link NF F-69010 and serial link RS485. GPS information such as Speed and position are made available on the serial link for use by other onboard equipments. GPS Antennas for use with GPS Clock or Juridical Recorder (please refer to website).

### **GPS Clocks and Antennas**



## SIL2 Access on board for Passengers in wheel-chair



The system automatically detects the platform height in the station and activates the right step for the access to the train.

For the "high level" platforms, the system authorizes the sliding of the upper step called 'gap filler' that fills the space between the platform and the train and allows access on board with a wheel-chair

A range of SIL2 or SIL0 PWM Traction/Brake controllers to set the speed of the train according to the traction/brake effort value imposed by the driver and regulate the train speed in cruise control mode.

Full control of the air brake.

Redundant equipment with 'coupling-decoupling' and 'car-wash' functions.

## SIL2 PWM Controllers Traction and brake control













## **Badge Readers**





Badge reader system for access control and driver identification.

The system is composed of a central unit and up to four base stations located near the train doors or in the dashboard.

Contacless RFID technology @ 125 kHz or 13,56 MHz. Ethernet connection, SD Card 2 GB for black list and log book management. Voltage free contacts for door gate control,...



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## DMI's

In partnership with Bachleitner&Heugel Elektronik, Logiplus offers a range of Driver-Machine interfaces specifically designed for the railway onboard environment.

These devices have a powerful PC-type or ARM-type architecture and can support various operating systems, including DOS, WINDOWS, LINUX, QNX and VRTX.











## **SIL2 Safety Displays**

Installation of DMI in 'compact mode' with CPU unit attached to the Display unit or in 'split mode' with CPU installed in a remote (15 meters) 6U rack.

Video input, Integrated Wireless LAN for update of software, Ethernet, Profibus, MVB, etc.

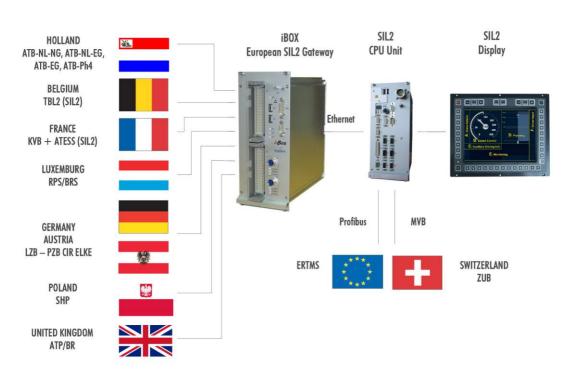
Modular SILO or Patented SIL2 architecture with SIL2 at reduced additional cost.

Display of vital information such as speed, target-speed, air brake pressure, etr



## iBox European SIL2 Gateway

iBox interfaces with most national Automatic Train Protection systems and ERTMS; it concentrates the driving information on a single SIL2 display or a SIL2 displays network.











The ARR (Automatische Rit Registratie) unit is a trainborne recording unit fully compliant with RnV-Normblad M-002 Version 3.0.

This standard is mandatory for trains operating with ATBNG or ATBL-NL since the dedicated signals to be recorded are available

# ERTMS Trainborne Recorders



### **Trainborne Recorders**



The Trainborne Recorder Unit (TRU) is a universal Ethernet-based product that records in one unit various train information such as ERTMS signalling data, general signalling data, train diagnostic data or even video information.

Linux based product, ethernet backbone, two Ethernet train links for IPTCOM or CIP communication, integrated Crash Protected Memory Module, optional SSD static disk. Webbased user interface.

Profibus, MVB, CAN, Voice-recording, Analog and Logic inputs interfaces.



The Crash Protected Memory Module (CPMM) fulfils world standards such as the European EEIG 97E461.3, the British GM/RT2472 and IEEE1482.1 standards for the Juridical Recording Unit (JRU).

2GB of NOR flash memory, 10/100 Mbit/s Ethernet link, Power over Ethernet, Simultaneous recording of multiple sources.

Designed for stand-alone use in Ethernet-based trains.













### A few words about us...

LogiPlus designs and manufactures railway and industrial electronic equipment. Since our constitution in 1988, several thousands equipments delivered for the rolling stock of the major European networks. Our design team masters safety, reliability and availability in the design techniques. We operate a long-term after-sales service for our equipment, especially for railway products that can last for more than 25 years.

Our products operate in a strongly challenged environment: extreme temperatures, damp, dust, sustained vibration, chemically hostile milieu, strong electromagnetic disturbances, etc.





LogiPlus is ISO9001 certified for design, production and long-term maintenance since 1998. LogiPlus masters the supply chain for all items required for equipment manufacture. The traceability of delivered products is perfectly organised.

### Our location



LogiPlus is located 40 km south of Brussels, next to the Charleroi Brussels South Airport, in the heart of the Aéropole science and technology park, one of Wallonia's most important financial hubs, and one of Belgium's key assets.

Aéropole is a centre of excellence for Life Sciences, Information and Communication Technologies, Technology, Aviation and Services dedicated to companies.





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