

SIMAN

SAFETY INTELLIGENT MANAGER



IS AN INTELLIGENT SYSTEM OF SAFETY MANAGEMENT FOR THE HYDRAULIC BRAKING SYSTEMS

This safety management system monitors all the operation parameters of the Hydraulic Power Pack that provides the hydraulic pressure to open the emergency brakes.

It pilots the brakes opening and closing, indicates and records, if they occur, all operation faults or inconsistencies.

It can be associated with all types of Hydraulic Power Packs, whatever their functionalities (lowering, braking delay, soft braking, MOPS, etc..).

Benefits include

- Reliable safety solution with:
 - according to NF EN ISO 13849-1 standard, a performance level PLd, with a SIMAN SAFETY configuration: category 2 system, MTBF = high, DC = high
 - a long service life of 1 million ON/OFF cycles
- Compliance with the EMC directives
- Independent and complete solution: easy use
- Compact design
- Association with all types of Hydraulic Power Packs
- Enable the monitoring of all the HPP operation parameters, even if the HPP includes particular features for specific applications requirements.



Applications

- Steel Industry
- Port Cranes
- Mines - Conveyors
- Nuclear Cranes
- Mass Transport
- Hoisting Applications



SIMAN

TECHNICAL DATA

Siman is an intelligent system for monitoring and management of the good operation of Hydraulic Power Packs whatever their functionalities.

It drives the HPP motor pump and the solenoid valves.

To ensure safety, with a SIMAN SAFETY configuration, it controls:

- the good operation of the solenoid valves
- the oil return to the tank.

For optimal operation, with a SIMAN ADVANCED configuration, it monitors:

- the number of starting-up
- the rotation time of the motor
- the pressure (over / under-pressure detection)
- all internal faults
- the state of the motor contactor
- the oil temperature and level
- the clogging of the return filter.

Conformity:

- NF EN ISO 13489-1 standard

Operating conditions:

- Ambient temperature: -30°C to +60°C
- Relative humidity < 95%

Service life:

- According to NF EN ISO 13849-1: Performance lever PLd with a SIMAN SAFETY configuration: category 2 system, MTTFd = high, DC = high
- 1 million of ON/OFF cycles

HPP options:

- Lowering
- Speed regulation or deceleration
- Brake closing delay
- Soft-braking
- Manual Operation Protection System MOPS
- Indicators of oil level, oil temperature and filter clogging

HPP versions:

- Number of solenoid valves: 1 to 5
- Pressure switch: with 2 thresholds or analog (0-10V, 0-20mA or 4-20mA)
- Solenoid valves coil voltage: 24VDC, 48VDC, 48VRAC, 96VDC, 110VRAC, 205VDC and 230VRAC

Block diagram of inputs and outputs

