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POWER LINE DETECTOR



● Overhead lines detection

The overhead MV and HT lines are each year a source of work accidents...

- ✓ Because overhead lines are of long standing, field operators will not notice them anymore.
- ✓ Because the height of mechanical excavators, cradles, tractors continue to increase, the number of electrocution accidents is growing each year.
- ✓ Because each day the operators take lot of risks at work near electrical overhead lines...
- ✓ Protect your people an vehicles.
- ✓ Experience of 15 years on the cement market.
- ✓ 60 % of the cement pump use MADE systems.
- ✓ Customer references : Inter Service Pompe, Cemex, Theam, Orange, Cuma and fire brigade SDIS, etc.

Used as a driving aid, our detectors warn users of the proximity of an overhead MV-HV power line, but do not exempt them from following local applicable regulations
In all circumstances, the operator must maintain control of his vehicle.

● Reminder on MV & HV lines

➤ THE DIFFERENT OVERHEAD LINES

MEDIUM VOLTAGE



< 1000 V

HIGHT VOLTAGE



1000 à 50000 V

HIGHT VOLTAGE



> 50000 V

➤ SAFETY DISTANCES

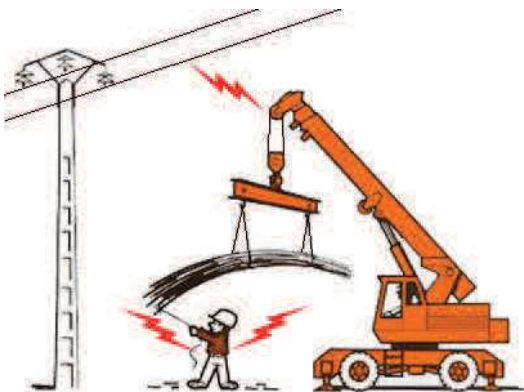
Until 50000 volts : 3 m



More than 50000 volts : 5 m



➤ RAPPEL



Electrocution can occur without touching the line !

● DETECT LINE NG for conveyor belt, concrete pump, etc. —

Detection of high voltage overhead electric lines

DETECT LINE NG is a system dedicated to the prevention of accidents due to overhead power lines.

It consists of a control and processing module, connected to a sensor, which detects the proximity of a medium or high voltage overhead line around a vehicle.

➔ PRESENTATION

DETECT LINE NG is composed of a central processing unit connected to an antenna. The processing unit is usually installed with in the cabin. The sensor antenna must be placed on the roof of the cabin. Two boxes of visualization and acknowledgment are installed inside and outside the cabin.

➔ OPERATION

DETECT LINE NG senses the electric field around a high voltage power line. DETECT LINE NG alerts the user with an audible signal and a warning light when the vehicle enters a danger area (20 to 30 meters configurable distance from a high voltage power line). After the system has detected an electric line, it can be acknowledged on the central unit, using one of the two visualization and acknowledgment boxes, and set in "vigilance" mode. A sound alert will then be emitted at regular intervals to indicate the danger. This mode will maintain the operator's vigilance as long as the vehicle stays in the danger area.

➔ TECHNICAL CHARACTERISTICS

- Factory adjustable detection thresholds of a high voltage line from 20 m to 40 m.
- Measurement accuracy: +/- 4 m for a moving speed of 1 m/s.
- Supply : 24 VDC ou 12 VDC.
- Size 85 x 100 mm (sensor), 160 x 130 x 60 mm (central unit), 145 x 85 x 90 mm. (Inside box of visualization) et 120 x 80 x 70 mm (outside box of visualization).
- IP65.
- Operating temperatures : -20°C to +60°C.
- System auto test at power on.
- Sensitivity limits of the system do not allow the detection of 230 V - 380 V line.
- The system does not detect DC voltage.

Our systems are available for all types of vehicles subjected to a risk to work near electrical MV and HV overhead lines (mechanical excavators, cradles, tractors...)



SKY NG RADIO

Protect persons and property thanks to high voltage overhead electric lines detector !

SKY NG RADIO is a high voltage line detector : medium voltage (< 50 kV) and high voltage (> 50 kV). SKY NG RADIO operates on a proximity detection principle using several sensors, depending on the number of arms on the machine. It warns the operator by an audible signal and a warning light when the high lift equipment enters a high risk zone, with a warning distance that can be configured between 3 to 6 meters (10 to 17 feet) from a high voltage line. SKY NG RADIO is designed for concrete belts, pumps, mixer-pumps, auxiliary cranes, etc.



➤ OPERATING

SKY NG RADIO activates when the power take-off is engaged. The electrical field detection activates the audible alarms and visual alarms and can cause the stop of the motion (with effective cabling). The driver can turn off the audible alarm and the motion stopping (if effective) features for an hour by pushing the button “call-back mode”. The buzzers and the flashing lights remain active. After an hour, the system resets.

➤ TECHNICAL CHARACTERISTICS

- For a multi-sensors configuration, the configurable detection threshold upon installation varies from 3 to 6 meters (10 to 17 feet) from a high voltage line.
- Measurement precision : ± 1 meter (3 feet) while moving, with a speed of 1 m/s (3.3 feet/s).
- Power supply : 24 VDC or 12 VDC.
- Size : 160 x 85 x 45 mm (sensor), 160 x 130 x 60 mm (central unit), 145 x 85 x 90 mm (inside box of visualization) and 120 x 80 x 70 mm (outside box of visualization).
- Waterproof standard : IP65
- Temperature range : -20°C to +60°C.
- Self-test system at each power-on.
- The sensibility limits of the device does not allow to detect 230 V to 280 V power lines.
- The system does not detect the presence of direct current voltage.

Our systems are available for all types of vehicles subjected to a risk to work near electrical MV and HV overhead lines (mechanical excavators, cradles, tractors...)

● DETECT LINE POMPIER



Detection of high voltage overhead electric lines



➔ APPLICATION

DETECT LINE NG is a system dedicated to the prevention of accidents due to overhead power lines. It consists of a control and processing module, connected to a sensor, which detects the proximity of a medium or high voltage electricity line around a vehicle.

➔ PRESENTATION

DETECT LINE NG is composed of a central processing unit connected to an antenna. The processing unit is usually installed inside the cabin. Two sensors antenna must be placed on both sides of the ladder. One box of visualization and acknowledgment allows to report the information on the instrument cluster, in front of the operator.

➔ OPERATION

DETECT LINE NG detects the electric field around medium and high voltage overhead power lines.

The buzzer and a warning light alert the operator when the fire engine enters in a danger area (40 meters distance from a high voltage power line).

➔ TECHNICAL SPECIFICATION

- Factory adjustable detection thresholds of a high voltage line from 40 m.
- Measurement accuracy : +/- 4 m for a moving speed of 1 m/s.
- Supply : 24 VDC ou 12 VDC.
- Size 85 x 100 mm (sensor), 160 x 130 x 60 mm (central unit).
- IP65.
- Operating temperatures : -20°C à +60°C.
- Self test.

● SKY NACELLE POMPIER

Detection of high voltage overhead electric lines



➤ APPLICATION

SKY NACELLE is a system dedicated to the prevention of accidents due to overhead power lines.

SKY NACELLE is used as a driving aid in complement with of our product DETECT LINE to protect the cradle.

➤ PRESENTATION

SKY NACELLE is composed of 3 sensors for detection of medium and high voltage overhead electric lines.

The sensors are installed around the cradle. The central processing unit is installed inside the cradle.

The accuracy of locating is between 10 and 15 m (± 1 m) for medium voltage.

➤ OPERATION

SKY NACELLE detects the electric field around a medium and high voltage overhead power lines.

The buzzer and a warning light alert the operator when the fire engine enters a danger area between 10 meters and 15 meters.

➤ TECHNICAL SPECIFICATION

- Limit detection : MV > 20 kV : 10 m < limit detection < 15 m.
- Measurement accuracy : ± 1 m dynamic, speed 1 m/s.
- Electronical Power : 24 VDC ou 12 VDC.
- Sensors Power : rechargeable battery
- Size : sensor 96 x 80 x 45 mm and unit processing 160 x 130 x 60 mm.
- IP65.
- Operating temperatures : -20°C à +60°C.
- Self test.

● The optional external radio report

Detection of high voltage overhead electric lines



➤ PRESENTATION

The optional external radio report unit is installed on the rear of the fire engine. It reports and shows the operator the same alerts informations than the SKY NACELLE and DETECT LINE.

➤ REMEMBER

- Sensitivity limits of the system do not allow the detection of 230 V - 380 V overhead power lines.
- The system does not detect DC voltage.
- In all circumstances, the operator must maintain control of his vehicle.