Sirio-OD

Automatic Detection of Obstacles on the Track

Sirio-OD is a radar-based system for the automatic detection of objects which have fallen on to railway tracks in high-risk zones such as overpasses, tunnel entrances and exits, and zones prone to landslides. Sirio-OD has been designed to ensure the highest safety standard (CENELEC EN 50129, SIL4).

STARS: Safe Track with Automatic Radar Systems

STARS
RAILWAY SYSTEMS

Sirio-OD

Benefits

- Detects any dangerous objects which have fallen on to the track
- Prevents train accidents by providing an instantaneous alarm to the signaling system
- Works effectively in any weather condition, day and night
- Flexible installation for monitoring areas of different shapes (close to overpasses, bridges, tunnels, landslide zones etc.)
- Low maintenance costs

Features

- Highest level of safety: SIL 4 (CENELEC 50129 standards)
- High Reliability: MTBF > 10 years
- Train detection (0/350 km/h) to avoid reporting a train as an obstacle
- Sophisticated self test procedure
- Interfaces directly with the railway signaling system

Technical Characteristics	
Minimum Detectable Obstacle Size	Sphere of 60 cm diameter
Train Speed Range	0 - 350 km/h
Reliability	MTBF > 10 years
Output Interface	+ 48 Vcc 0.5W, or open close contact
Safety Requirements	CENELEC EN 50129, SIL4
Power Supply	220 Vac

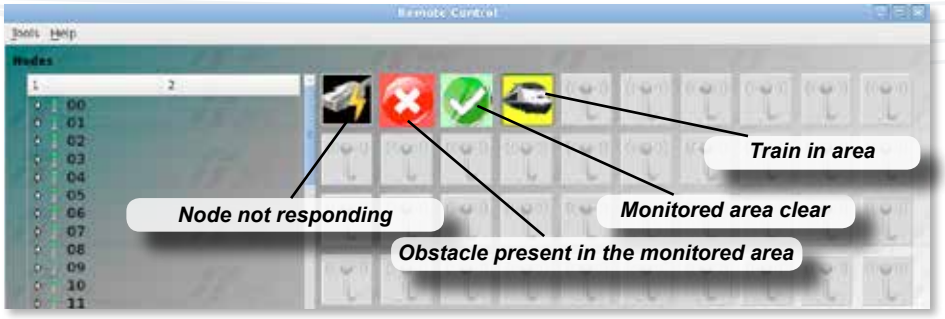
Monitoring tracks under overpasses or outside tunnels

Sirio-OD Architecture

A Sirio-OD node is composed of 2-4 radar sensors (RSR Radar) and one outdoor cabinet.

It is possible to install more nodes on the track, each node being independent and directly connected to the signaling system. Each node transmits information to a Remote Control Unit via LAN or GSM-R.

Radar for obstacle detection



Remote control system GUI

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