



GateSWing SIRIUS-LC

Level crossing

- Automatic activation by an approaching train
- Failsafe and reliable system meeting SIL4 requirements according to CENELEC
- Architecture 2x2oo2
- Control computer (core) for up to 15 level crossings
- Integrated axle counter
- High reliability and availability
- Remote control from station
- Possibility of centralized power supply
- Failsafe contact/data interface to station interlocking system
- Local and remote diagnostics can be centralized to DiagSWing LDS-03



GENERAL DESCRIPTION

GateSWing SIRIUS-LC (further SIRIUS-LC) is microprocessor based level crossing system designed to protect level crossings of roads with a railway line.

SIRIUS-LC architecture is designed as centralized control system with remote peripherals using the data communication (Ethernet) for control and supervision. Smart peripherals – couple of object controllers controls LED warning board and GateSWing PZA-100 barrier drive.

BASIC TECHNICAL DESCRIPTION

SIRIUS-LC Control computer (core) consists of SIRIUS-CORE cabinet located in interlocking room/level crossing shed. SIRIUS-CORE cabinet consists of couple of vital computers with implemented functional algorithms, technology for backed-up communication with remote peripherals, centralized diagnostics (for station and open line level crossings) and main power supply sources.

NDC cabinet of local power supply and control is located in the place of each level crossing and consists of battery, power supply and communication elements and object controllers for local control.

Object controllers of warning boards and barrier drives working in architecture 2x2oo2 are connected to NDC cabinet. Object controllers control and supervise light and acoustic signalling for road users and barrier drive.

SIRIUS-LC Control computer (core) can control up to 15 level crossings and maximum 200 smart peripherals (warning boards, local control, wheel sensors, data/relay interfaces to superior system).

Compatibility with ERTMS/ETCS Level 2 system is provided by interface between SIRIUS-LC Control computer (core) and interlocking system or RBC. ETCS Level 1 can be connected directly to SIRIUS-LC Control computer (core).



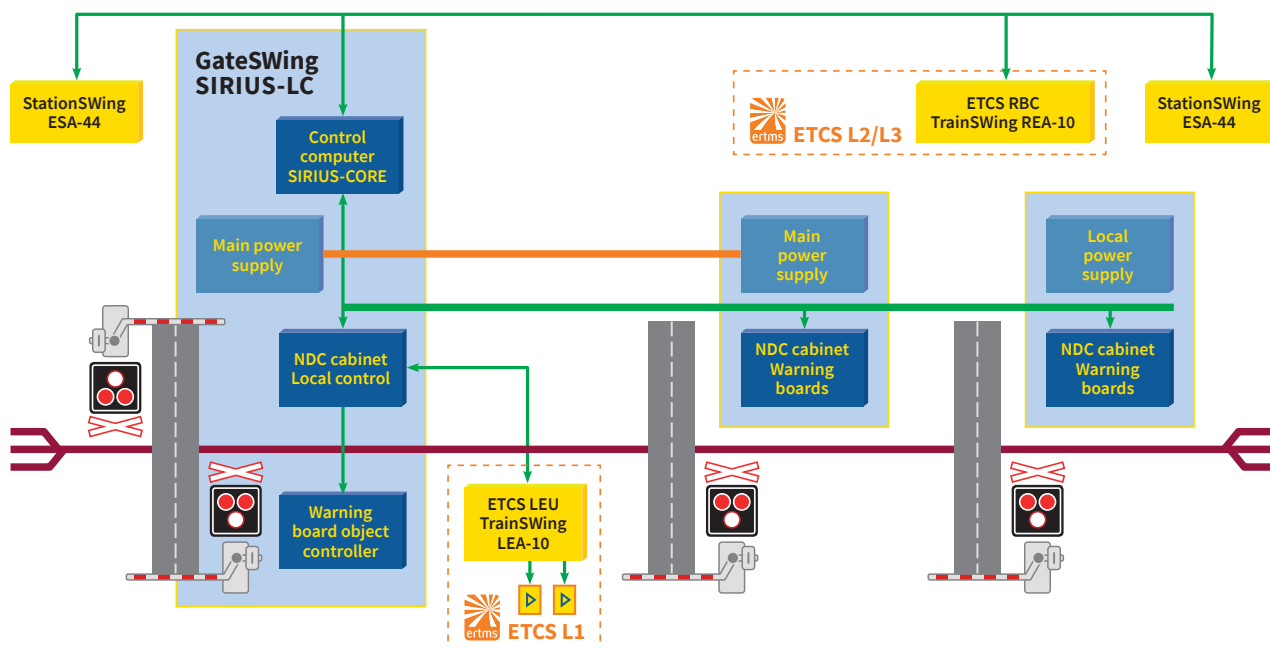
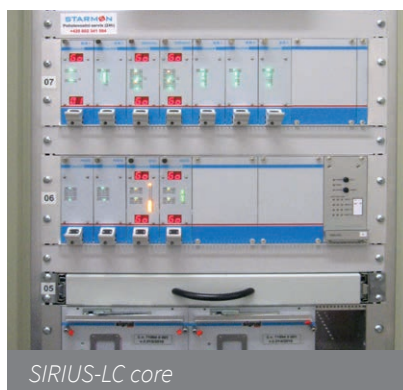
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BASIC TECHNICAL PARAMETERS

Supply voltage		100–253 V/45–80 Hz
Max. number of warning boards for single SIRIUS-LC		20 pcs.
Max. number of barrier drives for single SIRIUS-LC		8 pcs.
SIRIUS-CORE cabinet	Max. input (without main power supply)	100 W
NDC cabinet	Input (permanent/peak)	50 W/300 W
	Input (without barrier drive, no warning)	20 W
Warning board (object controller)	Max. distance (NDC cabinet – warning board)	150 m
	Electric strength	4 kV
Service life		more than 25 years
Temperature range		–40 °C to +80 °C



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