GateSWing PZZ-EA

Level crossing

- **Automatic activation by an approaching train**
- **Failsafe and reliable system meeting SIL4 requirements according to CENELEC**
- **Failsafe remote control**
- **Failsafe contact/data interface to station interlocking system**
- **High reliability and availability**
- **Local and remote diagnostics can be centralized to DiagSWing LDS-03**

GENERAL DESCRIPTION

The level crossing system GateSWing PZZ-EA (further PZZ-EA) is designed to protect level crossings of roads with a single or multiple-track railway line. Information on the level crossing state (open/closed) can also be transmitted to barrage/protection signal.

Failsafe transmission of indications and commands to the station is carried out by means of the Control unit.

Control unit can be connected to an interlocking system (e.g. StationSWing ESA-44) through data/voltage interface providing then control and indications of PZZ-EA.

PZZ-EA can be used on following lines:

- single or double track
- with activation and deactivation by line elements
- with activation by intermittent elements and deactivation by axle counters
- with/without barrage signals
- with/without line signalling

PZZ-EA can be used in stations:

- controlled by station interlocking without using respective activation/deactivation elements
- controlled by station interlocking with the use of activation/deactivation elements

BASIC TECHNICAL DESCRIPTION

The safety concept of PZZ-EA is based on redundant configuration with application of inverse algorithms. Result of the algorithm input data processing is a determination of level crossing state.

PZZ-EA power supply part consists of accumulator batteries, charger and protection elements. According to the local conditions PZZ-EA can be placed to the interlocking room or to level crossing shed.

Compatibility with ERTMS/ETCS Level 2 system is provided by means of Control unit and interlocking system. ETCS Level 1 can be connected directly to PZZ-EA core (Control computer).

Internal PZZ-EA diagnostics can be connected to DiagSWing LDS-03 diagnostic system.

PZZ-EA can be also provided in design for adverse climatic condition.

BASIC TECHNICAL PARAMETERS

Supply voltage	230 V ± 10 %, 50 Hz	
Maximum input (at battery charging)	according to a charger	
Supply voltage of electronic device	21,6 V to 30 V DC	
Operating input (without wayside elements and charger)	150 W	
Max. number of warning boards	with positive signal and without acoustic signalling supervision	8
	without positive signal and acoustic signalling supervision	12
	with positive signal and acoustic signalling supervision	6
	without positive signal and with acoustic signalling supervision	8
	with LED warning lamps GateSWing PVL-1xx	16
Number of barrier drives	0 to 8	
Max. number of tracks	at open line	2
	at stations	unlimited
Max. number of barrage signals	2	
Max. number of repeating barrage signals	2	
Service life	> 25 years	
Temperature range	–25 °C to +70 °C