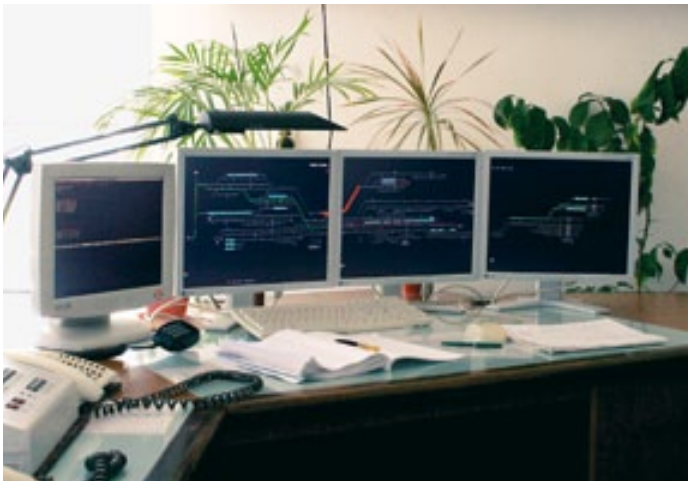
ELECTRONIC INTERLOCKING TYPE ESA® 11v, ESA® 11d – FOR SIDINGS AND MINE TRAINS

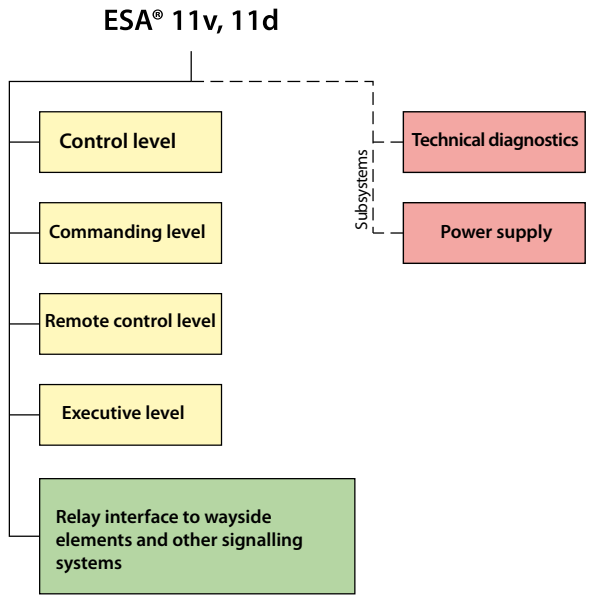
- Failsafe and reliable system meeting SIL 4 requirements according to CENELEC Standards
- Logical functions executed by 32-bits sophisticated computer
- Modular system, easy operation
- High availability, high reliability and low maintenance cost
- User friendly for operators and maintenance staff
- Complying with local operation specialities
- Lower requirements for building volume (by 30%-50% according to railyard configuration)
- Ability to control a railyard with approx. 200 points
- Remote control
- Diagnostics



General Description

ESA® 11v and ESA® 11d are new types of electronic interlocking from AŽD Praha production, designed for siding, plant railyard and mine operations. Mine equipment operation depends on fast pull-in of empty wagons and pull-out of loaded wagons.

More than 10 years of experience in development, implementation, and supply of modern equipment for sidings and mine train operation.



Block diagram

Basic Technical Description

ESA® 11v and ESA® 11d conception is based on ESA® 11 Station interlocking primarily designed for railway operation.

ESA® 11v is electronic interlocking with analogue interface to wayside interlocking elements. "v" version meets specific criteria for sidings and industrial plants.

ESA® 11d is electronic interlocking with analogue interface to wayside interlocking elements. "d" version meets specific criteria for mine railways and mine railway signal regulations in force.

Both ESA® 11v and ESA® 11d variants meets the European Electro-technical Standards.

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ESA® 11v and ESA® 11d wayside parts:

- AŽD 70 light signals
- EP 600 Electromechanical point machines
- Any track circuit type
- Auxiliary commanding post
- Electromagnetic locks

ESA® 11v and ESA® 11d versions can be connected to any type of station interlocking, line signalling and level crossing systems.

Basic Technical Parameters	
Input power supply	AC 3 x 400 V, 50 Hz DC 24 V
Temperature range	+5 to +55 °C
Relative humidity	up to 95 %
Complies with requirements	EMC/EMI
System service life	more than 25 years

Vital computer cabinet

Commanding place

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