UNDERGROUND
TRANSPORT
SYSTEMS

MODEST-TRINITY

Fully Electronic Interlocking for Metro Depots

- The highest safety level SIL4 according to CENELEC standards
- Control of depots of unlimited range due to system´s scalability
- Safe local and remote visualisation and commanding
- Automation of operations reduces demands put on operators
- Cutting edge diagnostics
- HW and functional modularity
- High reliability and excellent availability given by 2oo3 hot back-up fail-safe redundancy
- Low construction & maintenance costs

PrvníSignální

www.1SIG.eu

GENERAL **DESCPRITION**

MODEST-TRINITY is interlocking equipment designed for middle and large underground depots.

TRINITY deploys proven technology. Selection of standardized systems and components enhances all performance aspects from shorter lead times to high availability and predictable operating costs.

System is independent on types of used wayside equipment.

It enables co-operation with line block systems and SCADA systems.

Its architecture enables to create price-optimum solutions for each customer, and guarantees extraordinary simple implementations of later modifications.

BASIC **TECHNICAL DESCRIPTION**

- MODEST- TRINITY is hierarchical control system using state-of-the-art technologies.
- It meets European standards for control system safety at the highest level SIL4.
- Top reliability of used HW solutions, and fail-safe concept of hot back-up fail-safe concept (2oo3), ensure the highest availability
- All data communications are redundant (with hot back-up).
- System is based on unified HW & SW platform of safe PLC NEXUS.
- Interfaces to outdoor controlled elements consist of fully electronic converters.
- Flexible architecture and modular structure enable to build up control system having practically unlimited capacity (hundreds of points and signals).
- All traffic and diagnostic data are recorded and archived. Subsequently they serve for clarifications of accidents, or for statistical evaluations in maintenance optimization.
- State-of-the-art diagnostics guarantees easy detection and localization of possible failures.
- Key feature is failure prevention thanks to early detection of deviations and issuing warnings for maintenance staff (via diagnostic HMIs, PDAs or SMS and e-mails).

BASIC TECHNICAL PARAMETERS	
Multi-operator workplace	**enabled**
Remote control	**enabled**
Remote/centralized maintenance	**enabled**
Local diagnostics	**enabled**
Connection to IS (Intranet)	**enabled**
Radio control capability	**yes**
Fully electronic solution	**yes**
Safe visualisation and commanding	**yes**
Hot back-up	**yes**
Fail-safe concept	**2oo3**