Total Building Solutions

**LMSmodular with INTEGRAL via NCRS**

Interoperability solution

Danger management (life safety and security) system with supervision of alarms from the building automation and control system and on/off controls

**Highlights**

- Modular, user-friendly management system for building automation & control and life-safety & security)
- Integrated monitoring of all building installations (automation, HVAC, fire, security, safety etc.)
- Single-user PC operation
- Modular software to meet all customer needs
- Standard network technology for secure and fast communication
- Full compatibility with Siemens products for fire, security, safety and automation.
- Assurance of total reliability
- Wide-ranging application competence
- Flexibility in adapting to organizational changes and system expansion
- Combined logging
- Facility to link intervention text messages, and place these in the graphics in areas where fire detection is installed (especially important in hazardous areas)
- Scope for alarm routing via fax, e-mail and SMS – important and often requested
System architecture

This solution allows the integration of LMS modular configurations with INTEGRAL NCRS, extending the functional scope of a fully integrated danger management (life safety and security) system to cover the basic functions of the building automation and control system. In particular, it provides a unified alarm-handling interface for all emergency conditions arising from both disciplines.

Communication

Management level
- Alarm handling, supervision and control via LMSmodular for danger management (life safety and security) and building automation and control functions
- Objects supported in NCRS: On/off for binary output modules.
  In LMSmodular, the NCRS objects are represented as a cluster of DF8000 units
- NCRS blocks supported:
  - Digital blocks: VDO, DIG, RSDI, RSDO, RSDZ, RSUDI, RSUDO, NIDA, RSDS, RSDP, NIS, LG2, LG1, VDI, LAN, NODE
- Consistency of data assured between locally and centrally operated devices

Automation level
- Process interaction between life safety and HVAC subsystems and vice versa.

General
- Supervision of all physical communication connections
- Supervision of database consistency
- Synchronization of system clock

Communication / connection

- INTEGRAL via NCRS
- GW20 via NISE PAD
- NCRS host port protocol V2.0 features:
  - 8 data bits
  - No parity bits
  - 1 stop bit
  - Hardware configurable baud rate, in the range 300...9600 baud

Combined system components

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Recommendations

- Max. 768 technological points
- Max. 4000 security points
- Max. 16 security (i.e. CZ12/CS4/CS4-40) and safety (i.e. CZ10/CC11/CC60) control units
- Max. 254 switching commands (Block ANA)
- Max. 1 physically connected NCRS per NISE-PAD

Engineering process / Tools

Tools
- NISE Configurator

Engineering process
- Define life safety data points to be transferred to NCRS:
  - for AlgoRex by importing from AlgoRex engineering data file to NISE Configurator
  - for all other panels by a fast manual definition process within NISE Configurator
- Data points are then treated as standard NCRS data points
- Graphic symbols library available for representation of life safety data points in DESIGO INSIGHT