



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	<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> – 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	<ul style="list-style-type: none"> • Process interaction between life safety and HVAC subsystems and vice versa.
General	<ul style="list-style-type: none"> • 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

Level	System	Name	Software version
Building automation & control system			
Management level	Management station	LMSmodular	V2.46 and higher
Automation level	System controller	NCRS	V 3.03
		GW-20	V 5.27-05
		NISE-PAD	V 5.27-00
Safety & security system			
Automation level	Life safety and security subsystems Please refer to LMSmodular documentation		
	INTEGRAL
Connectivity components			
Automation level	GW-20 via NISE-PAD	NISE-PAD	V 5.27-00

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

