



Total Building Solutions

## DESIGO INSIGHT and LMSmodular

Interoperability solution

Combined danger management (life safety & security) and building automation and control system

### Highlights

- Modular, user-friendly management system (for building automation & control and life-safety & security)
- Integrated monitoring of all building installations (building automation, HVAC, fire, security, safety etc.)
- 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
- A good solution for informing users promptly, fully and reliably about deviations from defined values
- 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

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This solution allows the integration of DESIGO INSIGHT as the building automation and control system and LMSmodular as the danger management (life safety and security) system. It provides a high-security unified alarm-handling interface for all emergency conditions arising from both disciplines, while ensuring functional integration at the automation level.

### Communication

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Management level	<ul style="list-style-type: none"> <li>Alarm handling, supervision and control via LMSmodular for danger management (life safety and security) and building automation and control functions</li> <li>Objects supported in NCRS: On/off for binary output modules. In LMSmodular, the NCRS objects are represented as a cluster of DF8000 units</li> <li>NCRS blocks supported:             <ul style="list-style-type: none"> <li>Digital blocks: VDO, DIG, RSDI, RSDO, RSDZ, RSUDI, RSUDO, NIDA, RSDS, RSDP, NIS, LG2, LG1, VDI, LAN, NODE</li> <li>Alarm blocks: ALA, COS, RSCOS, FBK</li> </ul> </li> <li>Monitoring of all major life safety information with DESIGO INSIGHT</li> <li>Consistency of data assured between locally and centrally operated devices</li> </ul>
Automation level	<ul style="list-style-type: none"> <li>Process interaction between life safety and HVAC subsystems and vice versa.</li> </ul>
General	<ul style="list-style-type: none"> <li>Supervision of all physical communication connections</li> <li>Supervision of database consistency</li> <li>Synchronization of system clock</li> </ul>

### Communication / connection

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- 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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Level	System	Name	Software version
<b>Building automation &amp; control system</b>			
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
<b>Safety &amp; security system</b>			
Automation level	Life safety and security subsystems Please refer to LMSmodular documentation		
	INTEGRAL	.....	.....

	<b>Connectivity components</b>	<b>Name</b>	<b>Software version</b>
Automation level	GW-20 via NISE-PAD	NISE-PAD	V 5.27-00

### Recommendations

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- 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 (ANA block)
- Max. 1 physically connected NCRS per NISE-PAD

### Engineering process / Tools

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|---------------------|--|
| Tools               | <ul style="list-style-type: none"> <li>• NISE Configurator</li> </ul>  |
| Engineering process | <ul style="list-style-type: none"> <li>• Define life safety data points to be transferred to NCRS: <ul style="list-style-type: none"> <li>– for AlgoRex by importing from AlgoRex engineering data file to NISE Configurator</li> <li>– for all other panels by a fast manual definition process within NISE Configurator</li> </ul> </li> <li>• Data points are then treated as standard NCRS data points</li> <li>• Graphic symbols library available for representation of life safety data points in DESIGO INSIGHT</li> </ul> |

