



Total Building Solutions

## INTEGRAL with all fire/intrusion/gas panels on CERLOOP

Interoperability solution

Building automation and control system with a network of fire/intrusion/gas panels

### Highlights

- Modular, user-friendly building automation and control system (building automation and life safety & security)
- Integrated monitoring of all building installations (building automation, HVAC, fire, security, safety etc.)
- Single-user operation
- Modular software to meet all customer needs
- Ease of operation in familiar Windows environment
- 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
- Safe investment thanks to modular software and open architecture
- Flexibility in adapting to organizational changes and system expansion
- Modern information and reporting system
- Web-enabled
- Combined logging
- High quality graphics-based management station for handling fire & safety systems
- 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 configuration allows for the integration of all fire panels (CS11 AlgoRex and CZ10), intrusion panels (CS4, CS440, CZ12) and gas panels (CC60) in a CERLOOP<sup>1)</sup> configuration into INTEGRAL NCRS via the NISE-03 Interface.

<sup>1)</sup> Proprietary Class A loop

### Communication

---

Management level	<ul style="list-style-type: none"><li>• Monitoring of all major life safety information on DESIGO INSIGHT</li><li>• Alarm handling of the whole system from DESIGO INSIGHT</li><li>• Supported commands: acknowledgement, day/night organization, exclude/include group, control element on/off, test/include group.</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</li></ul>
General	<ul style="list-style-type: none"><li>• Supervision of all physical communication connections</li><li>• Supervision of database consistency</li></ul>

### Communication / connection

---

- AlgoRex (CS11) C-Bus clusters via CK11, CERBAN protocol and NISE-03 to NCRS
- All other panels directly via CERBAN protocol and NISE-03 to NCRS.

### Combined system components

---

Level	System	Name	Software version
Management level	<b>Building automation &amp; control system</b>	INTEGRAL MS2000	V 3.03
	Management station	DESIGO INSIGHT	V 1.1
Automation level	System controller	NCRS	V 3.03
Automation level	<b>Safety &amp; security system</b>		
	Fire panel	Algorex CS11	V5.xx and earlier
		CZ10	V4.x and earlier
	Gas panel	CC60	V5.x and earlier
	Intrusion panel	CS440	V9.xx
		CS4	V6.x and earlier
CZ12		V04 and earlier	
Automation level	<b>Connectivity components</b>		
	NISE	NISE-03	V 6.0
	MK7022 gateway	MK7022	V 10.xx
	CK1142 (for CS11 only)	CK1142	V 5.xx

## Recommendations

---

- Max. 2044 life safety data points per NISE (distributed to several NCRS controllers)
- Max. 1000 life safety data points per NCRS
- Max. 1 physically connected NISE per NCRS
- Max. 1 CERLOOP connection per NISE + 2 CERBAN connections. Max. 18 subsystems, max. 16 subsystems per MK7022 (= per CERLOOP)
- Max. 4 AlgoRex per CK11

## 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 representing life safety data points in DESIGO INSIGHT

