Total Building Solutions

**INTEGRAL with all fire/intrusion/gas panels on CERBAN**

Interoperability solution

Building automation and control system with separate fire/intrusion/gas panels

**Highlights**

- 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 configuration into INTEGRAL NCRS via the NISE-03 Interface.

1) Proprietary Class A loop

Communication

Management level
- Monitoring of all major life safety information on DESIGO INSIGHT
- Alarm handling of the whole system from DESIGO INSIGHT
- Supported commands: acknowledgement, day/night organization, exclude/include group, control element on/off, test/include group.
- Command control of life safety panels from DESIGO INSIGHT
- Consistency of data assured between locally and centrally operated devices

Automation level
- Process interaction between life safety and HVAC subsystems

General
- Supervision of all physical communication connections
- Supervision of database consistency

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

<table>
<thead>
<tr>
<th>Level</th>
<th>System</th>
<th>Name</th>
<th>Software version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management level</td>
<td>Building automation &amp; control system</td>
<td>INTEGRAL MS2000</td>
<td>V 3.03</td>
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<tr>
<td></td>
<td>Management station</td>
<td>DESIGO INSIGHT</td>
<td>V 1.1</td>
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<tr>
<td>Automation level</td>
<td>System controller</td>
<td>NCRS</td>
<td>V 3.03</td>
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<thead>
<tr>
<th>Automation level</th>
<th>Safety &amp; security system</th>
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</thead>
<tbody>
<tr>
<td>Fire panel</td>
<td>AlgoRex CS11</td>
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<tr>
<td></td>
<td>CZ10</td>
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<tr>
<td>Gas panel</td>
<td>CC60</td>
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<tr>
<td>Intrusion panel</td>
<td>CS440</td>
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<td></td>
<td>CS4</td>
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<td></td>
<td>CZ12</td>
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<table>
<thead>
<tr>
<th>Automation level</th>
<th>Connectivity components</th>
</tr>
</thead>
<tbody>
<tr>
<td>NISE</td>
<td>NISE-03</td>
</tr>
<tr>
<td>CK1142 (for CS11 only)</td>
<td>CK1142</td>
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</tbody>
</table>
Recommendations

- Max. 2044 life safety data points per NISE (distributed to several NCRS controllers)
- Max. 1000 life safety data points per NCRS
- Max. 250 commands from NISE to FSP controllers
- Max. 1 physically connected NISE per NCRS
- Max. 3 CERBAN connections per NISE of which one can be used for connection of 1 CK11 (4 AlgoRex panels) – Max. 6 subsystems
- Max. 1 CK11 per CERBAN link
- 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

Web site

Link to TBS web site