EXPERTISE AND PRODUCT QUALITY

• Fidelix Ltd was founded in 2002.

• Expertise and product quality are based on our founders’ long experience (over 25 years) and practise in 10,000 international BMS and security projects.

• Our own product development and manufacturing will enable us fast and effective response to customer requirements and the possibility to lead the advancement in the green building technology.

• Fidelix products comply with the quality- and safety norms set by EU.

www.fidelix.fi
Fidelix Oy’s expertise
- HVAC process understanding
  - Heating; heat pumps …
  - Cooling; chillers, fan coil units …
  - Air handling units …
- Security system
  - Intruder alarms
  - Access system
  - Camera system
- Telecommunications, IT
- Software; coding …
- Hardware; boards, resistors …
- Financial issues

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Operations
- Finland
- Sweden
- Baltic countries
- UK
- South Korea
- UAE, Gulf Region
- China
Automation system, that is purchased during construction, will be used to control over 70% of buildings energy cost during the next 10-15 years.

**Building Automation System is**

1) *The most important tool to control green buildings*

2) *Easy tool to do it - both locally and remotely*

**Main benefits**

1) Saving energy – Green values
2) Better indoor climate
3) Increasing safety & security, lowering risks
4) Centralized monitoring - low maintenance costs
Physiology of a building

Building automation system (BAS) = the brains of a building

Air conditioning = lungs (breathing)

Electricity = circulation of blood

→ Brains are the most important
→ Enables Smart Green Buildings
BMS LAYS THE FOUNDATION FOR BUILDING SERVICES

With BMS

- Heating & cooling
- HVAC processes
- Security
- Lighting

Integrated solution:
- Overall control
- Monitoring
- Maintenance
- Alarms

Without BMS

- No overall control
- Separate systems
- Separate devices
- Local problem handling

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Fidelix Oy provides PC-based automation, security and building management systems for Intelligent Green Buildings.

Solutions for offices, business centers, industrial buildings, hotels, residential towers and villas.

- **BMS Building management Systems**
  - Room controls (office, hotels)
- **EMS, Energy Management Systems**
- **Home automation**
- **Security systems**
  - Access control, intruder alarms, video monitoring

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FIDELIX Fx-2025

- LAN controller
- Industrial PC, Windows CE
- 10” Touchscreen
- Local webserver
- Integration platform

- Freely programmable
- Max 2x 63 I/O-modules
- Max 2,000 I/O-points
- 128 MB Flash RAM
- 128 MB RAM
- 10/100 Ethernet
- RS485, Modbus
- RS232
- USB

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**Typical applications:**
- WAN – Wide Area Network
  - Multi-site system for city area
- Hotels, Hospitals
- Office buildings
- Shopping centers
- Schools, daycares
- Industrial buildings
- Sport halls
- Villas

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- Helsinki Music Centre
  - Total area: 36.000 m² – 233.000 m³ - 180 M€
  - Client: State of Finland, City of Helsinki, YLE
  - To be completed april 2011
Stockmann - shopping Mall
- Total area: 90,000 m² (50,000 m²)
- Client: Stockmann Group (2 billion € - 15,000 employees)
- Originally built 1930
- Renovation from 2007 - 300 M€ investment
- Largest department store in Scandinavia (6. Europe)
FIDELIX SYSTEM TECHNICAL DIAGRAM

**Administration level**
- LOCAL CONTROL ROOM (PC)
- INTERNET / INTRANET
- TCP/IP-Protocol
- LONG DISTANCE CONTROL ROOM(S) (PC)
- LONG DISTANCE SUPERVISIONS (GMS)

**Automation level**
- FX-2025 SUBSTATIONS
- MODBUS
- IO-CARDS 1..63 pcs
- Field level
- FIELD DEVICE CABLELING
- CONTROLS
  - Pumps
  - Fans
  - Lightning
  - Electric heating
- REGULATION DEVICES
  - Regulation dampers
  - AQR-devices
  - Regulations valves
- MEASURING DEVICES
  - Sensors
  - Transmitter
  - Gauge messages
- SECURITY DEVICES
  - Fire Alarms
  - Burglar detectors
  - Access control
- ROOM CONTROLLING
  - Room controller

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INTERNET WITH BMS

- WEB based solutions - ideal for remote control
  - using standard wide band connections
  - no special investments for remote softwares
  - easy access for technical services

Wide band connections
- Static IP
- Dynamic IP
- 3G

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EASY TO USE THROUGH DIFFERENT MEDIA

- Maintenance people
- Engineering level – professional users
- Browsers
- Mobile devices

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FIDELIX I/O-MODULES

- Communication RS-485
- Modbus
- DIN-rail mounting
- Can be used as Remote I/O

- DI-16 = 16 Digital inputs
- DO 8 = 8 Digital outputs
- AI-8 = 8 analog inputs
- AO-8 = 8 analog outputs
- COMBI-36 = 36 I/O
- MULTI-16 = 16 I/O
- MULTI-24 = 24 I/O
- SI-8 = 8 security alarms
- DU-10 = door unit

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