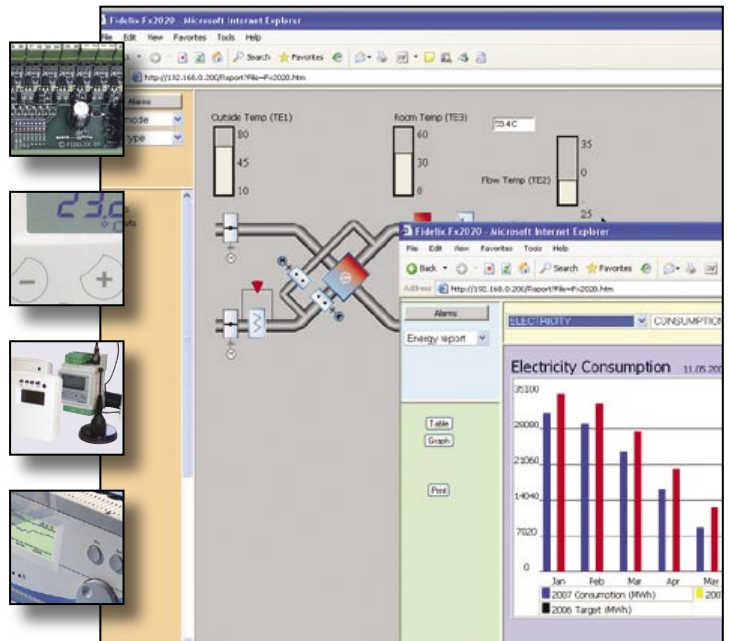




SYXTHSENSE FDX BUILDING MANAGEMENT

Seamless Solution from Small to Large Buildings

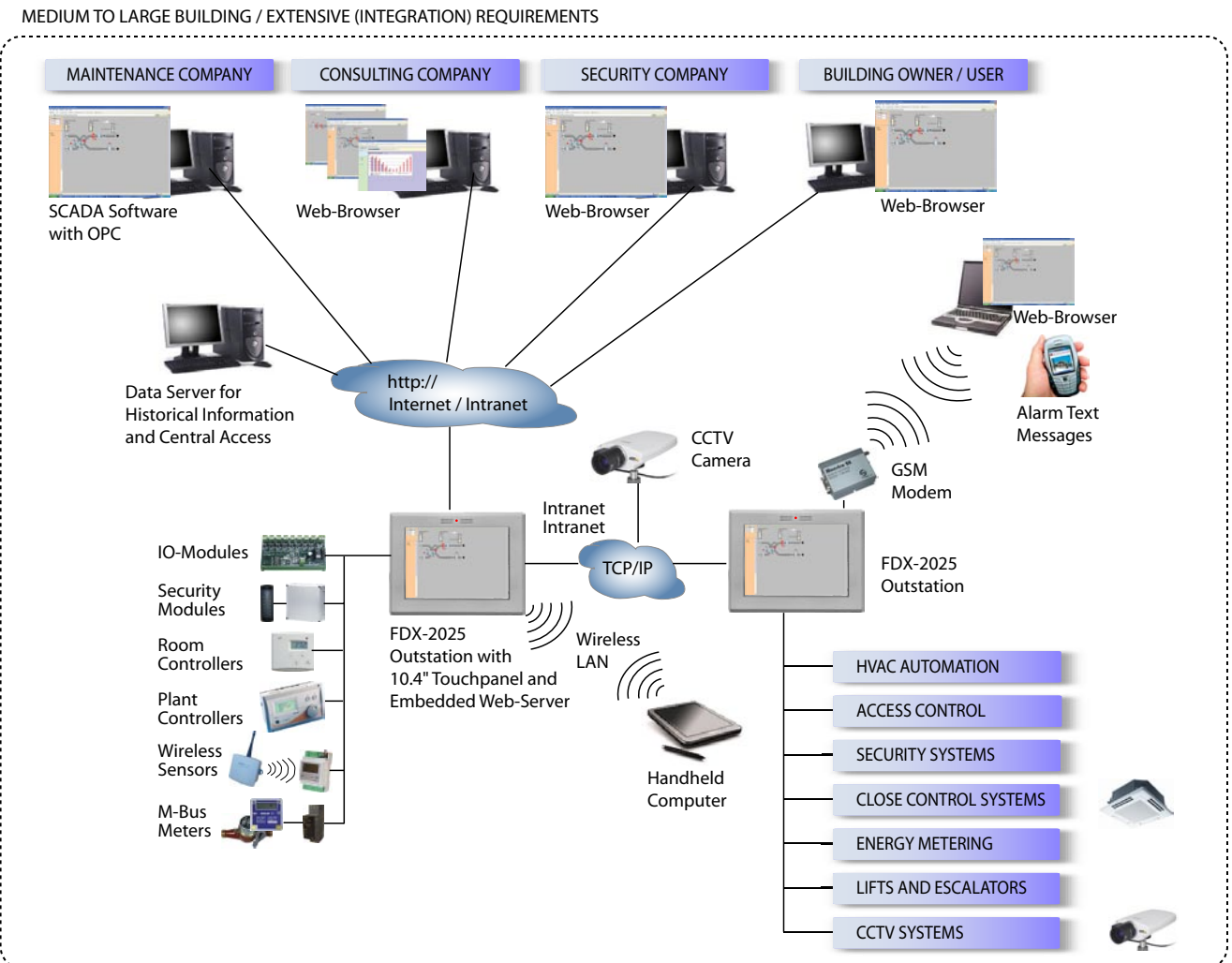
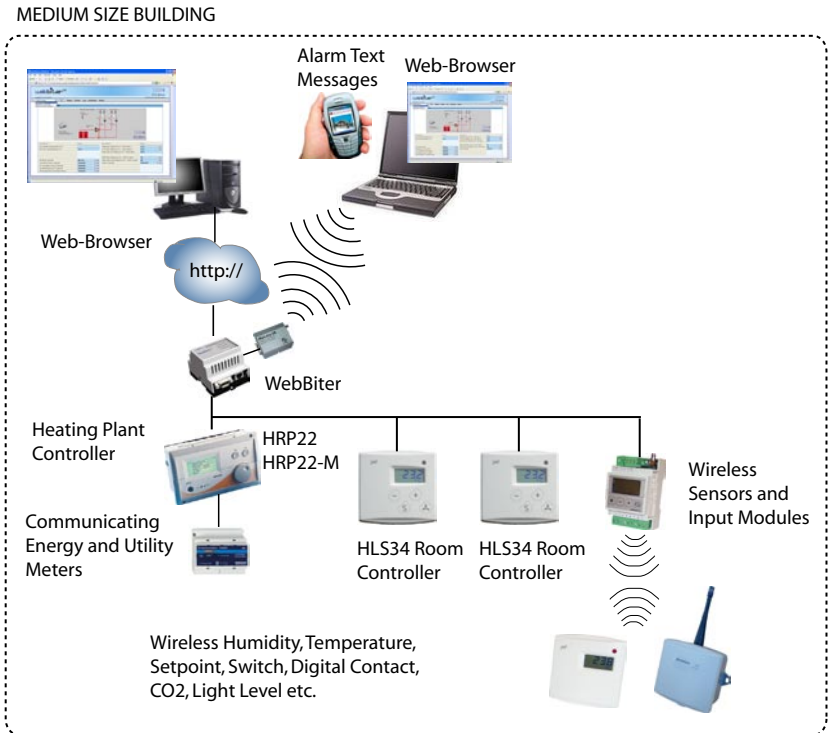
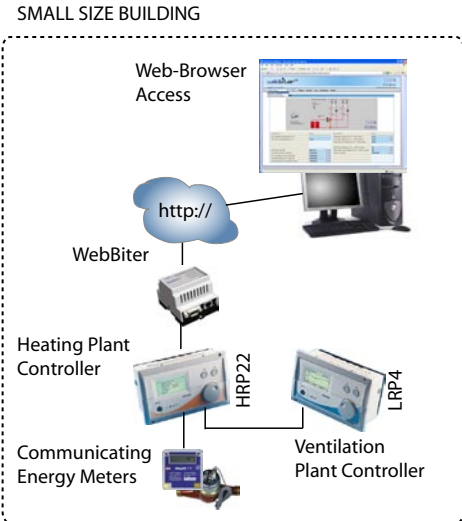


Scaleable SyxthSense Fdx ...



... is the new generation building management system. It has been designed to meet the requirements of modern building facilities management. Single internet enabled system can be used for heating and ventilation control, VRV system control, energy metering, intruder detection, access control, CCTV and smoke detection.

The system is seamlessly scalable from a small system to a large multi-building multi-site solution. Intuitive easy to use interfaces at all levels display information for everyday use by all authorised occupants.



Flexible Building Automation...

KEY OFFERING

- Internet based – technology that is used and developed globally
- Browser interface – easy to use and familiar using environment
- Freely Programmable Outstations with 10.4" Colour Graphical Touchscreen – all requirements can be accommodated with an attractive and easy-to-use interface
- TCP/IP communications – 97% of the world's communication uses the TCP/IP protocol
- Open Modbus and LON Communications – system can be integrated with wide range of systems
- Industrial PC as outstation – efficient, platform for future development; site programming is based on the international standard IEC 61131-3

OPEN SECURE COMMUNICATION

Communication is based on the TCP/IP protocol: supervisory unit, central data server and outstations can be connected to Intranet, Internet or to a separate building automation system network. 97 % of the world's communication uses the TCP/IP protocol making it most widely used networking technology in any industry.

In Internet or Intranet data transfer can be protected in many different ways. A separate embedded firewall program is available for the outstations. This prevents intrusion attempts from the outside. Data transfer can also be tunnelled through Internet with the help of the VPN-software and at the same time kept secret with the help of cryptography. Separate firewall equipment can also be used.

The new wireless communication systems like WLAN and Bluetooth make it possible for the maintenance staff to move around in the premises with e.g. a palm or portable computer.

BROWSER BASED SOLUTION

The Fdx system is using the web browser as the user interface at all levels: in the outstation and central data server. Using the browser the system can be used without need for separate software installation on each user's PC..

Each outstation of the system works as a server with which the user can communicate with the web browser.

The openness of the system makes it possible for the owners of the buildings to choose the most suitable maintenance company and, if they so wish, to use for example consulting companies' services to maximise the potential of the building.

FLEXIBLE AND HIGH PERFORMANCE OUTSTATION

The outstation design is based on an industrial PC guaranteeing high performance of the system, good availability, almost unlimited communication possibilities, and a platform for future development. Communication with the I/O modules and field level controllers is based on the commonly used Modbus protocol offering benefits of distributed I/O-system and cutting down cabling costs.

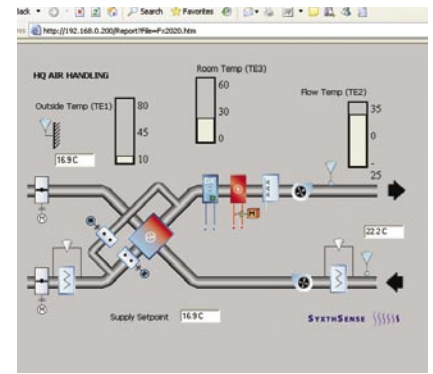
FREELY PROGRAMMABLE SOLUTION

Programming is based on the widely known international programming standard IEC 61131-3. The Fdx software tools offer fast and efficient programming using application and graphics libraries. The simulation program ensures the functionality of the application software prior to the installation on site.

INTEGRATED BUILDING SOLUTION

The Fdx system provides a possibility to integrate building automation with the security system. This way the benefits and savings of the intelligent building are put truly to use. For example access control system notifies the BMS system about the arrival of the occupant, meanwhile the BMS system will start the air conditioning in a certain part of the building and switch on the lights. This kind of integrated solution offers better control than traditional BMS systems and saves energy.

Whether the original Fdx installation is Building Management System or Security System, it can always afterwards be extended to be an integrated solution.



GENUINELY OPEN SYSTEM

The SyxthSense Fdx system offers several open interfaces for connecting other manufacturer's equipment and software.

COMMUNICATION

The system is capable of using a number of different field buses including Modbus, KNX (EIB) and LON. Communication between outstations takes place through the TCP/IP protocol typically using an Ethernet network.

INTERFACE TO SCADA SOFTWARE PACKAGES

The Fdx outstations can be connected to the SCADA-systems, such as FIX, Citect, Iconics, InTouch using an OPC-server software. The OPC server software is installed on the same PC as the SCADA software reducing the installation costs.

OPEN DATA BASE

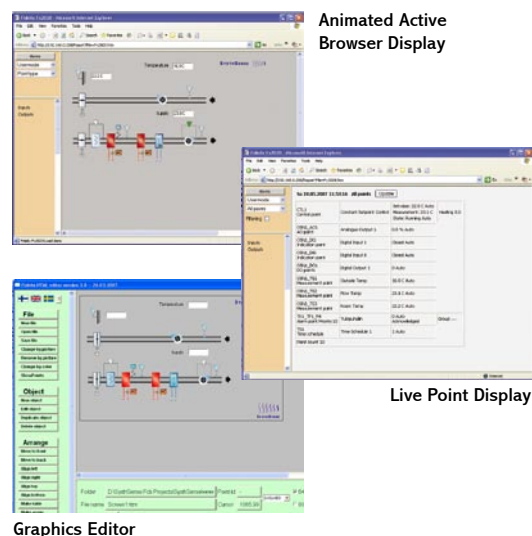
The data collected by the outstations can be saved into an open data base, such as SQL, MDB, etc. The stored data is available to third party software packages that connect either directly to the database or use ODBC interface.

INTEGRATION TO TYPICAL BUILDING SYSTEMS

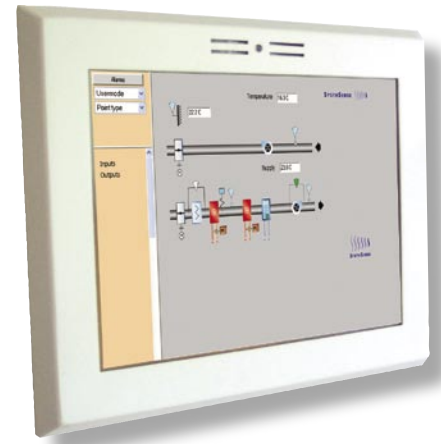
The open communication technology allows the Fdx system integrate seamlessly to VRV systems, communicating pumps and variable speed drives, energy metering, lift systems, lighting systems etc.

TAILOR-MADE INTERFACES

SyxthSense has many years' experience in building all kinds of interfaces for other systems and equipments and can, therefore, implement also tailor-made solutions for the customers.



Solution for All Requirements...



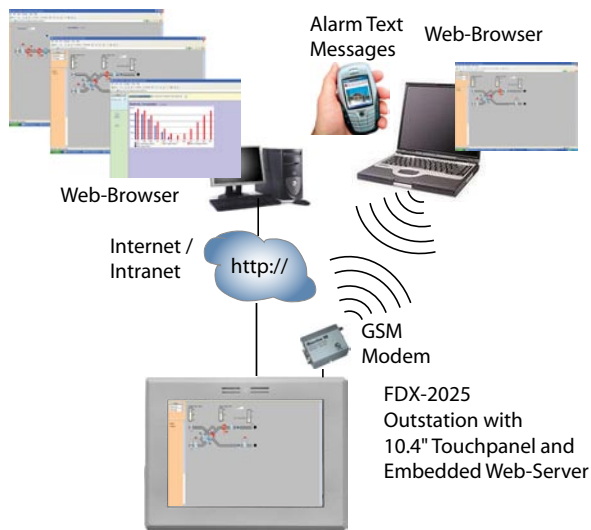
OPEN COMMUNICATION TECHNOLOGY

SyxtSense Fdx uses modern open standard communication technologies. The FDX-2025 outstation uses flexible robust Modbus and TCP/IP communication. Industry standard Modbus offers an effective way to connect to most building systems. Simple connectivity to communicating M-bus meters is provided offering a smart and reliable way for energy management.

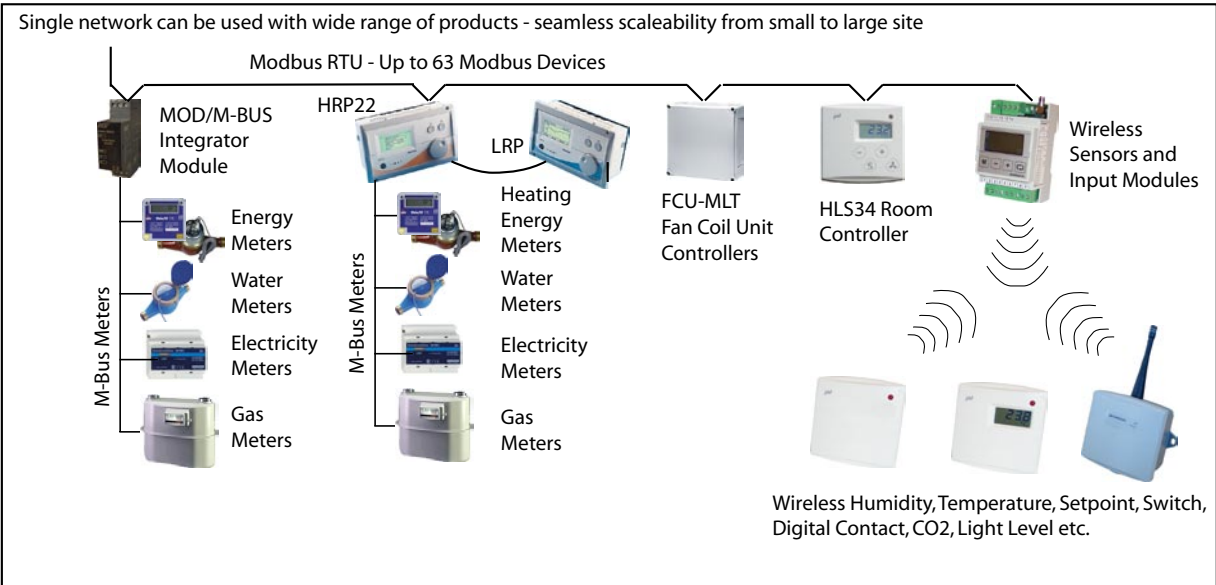
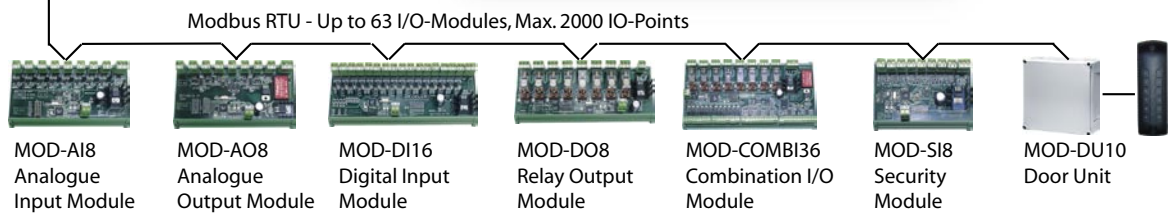
Built-in energy reports available via a web-browser anywhere in the network provide effective way for energy analysis. Historical data can be stored to a central data server in larger systems or where data is required to be available for a long period.

Connectivity to other protocols such as LON and KNX is available making the system future proof. The use of IT standards make the solution building friendly and cost-effective long term investment.

SYXTHSENSE OPEN FDX BUILDING AUTOMATION SOLUTIONS



- SYXTHSENSE BUILDING MANAGEMENT**
- State-of-art connectivity, alarming and data management via web-browser interface
 - Open solution using industry standard TCP/IP and Modbus communications
 - Advanced heating, cooling, room, underfloor heating and ventilation plant control
 - Accurate and reliable metering using European standard M-bus meters
 - Advanced Alarming and Historical Data Logging
 - Integrated security management
 - CCTV integration
 - LON and Modbus Connectivity providing full building integration capabilities
 - Scalable from small to large system without need for complicated gateways



Single Platform with Functionality to Match...

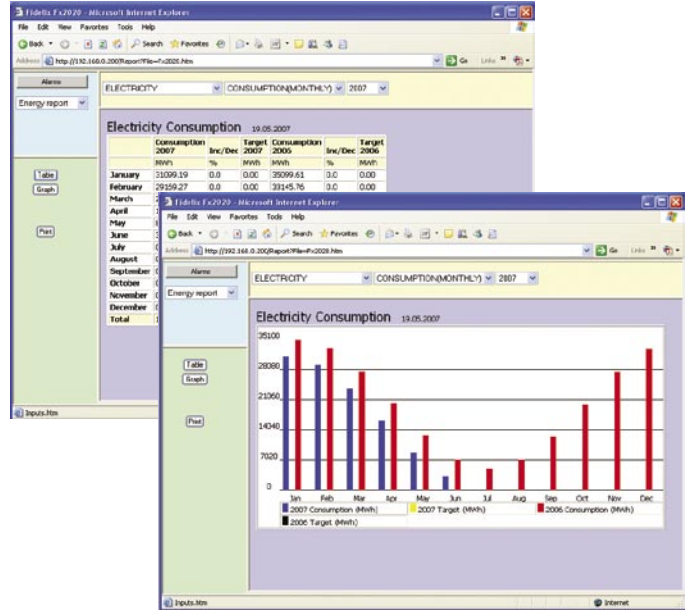
INTEGRATED ENERGY MANAGEMENT EVEN AT OUTSTATION LEVEL

We are committed to reducing carbon emissions by ensuring the latest control and energy target profiles are used. A number of our open solution products have been adopted and certified by the carbon trust ECA scheme that promotes energy efficient devices.

SyxtSense Fdx system is unique in providing accurate control and integrated energy management already at the outstation level - offering cost effective solution from small to large sites. SyxtSense Fdx offers an advanced solution for metering using M-bus capability of our outstations, controllers and meters. Using M-bus the energy consumption information from the meters is accurate. M-bus also offers access to additional data such as flow rates, flow temperatures, heating power making the system ideal for comprehensive energy management.

Meter readings are stored in the outstation or can be read remotely using web-browser over the internet or dial-up. Comprehensive energy reports are available through a web-browser or via outstation touchpanel display.

- Accurate metering data, no loss of readings
- Meter readings available over telephone network, over local TCP/IP network or over Internet
- Additional data such as flow rates, supply and return flow temperatures and current heating energy available
- Cost effective long-term solution
- Metering data and energy reports are available at the outstation level using a web-browser, built-in touchscreen display, or data can be downloaded in standard format to further analysis using PC packages such as Excel



Authorised User No. 00485

HRR, LRP and HLS controllers have been certified under the Carbon Trust ECA scheme.

INFORMATION EASILY AVAILABLE RIGHT PLACE AT THE RIGHT TIME

ALARM MANAGEMENT

SyxtSense Fdx is an versatile solution for alarm management. The plant status is automatically monitored for fault conditions. In case of alarm the alarm information is stored into outstation's historical alarm database, red alarm light on the outstation is activated, and the alarm is re-transmitted using comprehensive alarm routing system.

Alarms can be routed to multiple locations using email or text message. The delivery can be done via a permanent ethernet connection, via dial-up internet connection or via GSM modems. In larger systems where multiple outstations are used one of the outstations can be dedicated as the alarm router.

HISTORICAL DATA LOGGING

The system can be configured to trend log any of the outstation points. The logging data is available as a trend graph or table. Unique design feature allows fast graphical data display even at lower bandwidths making the user experience instant. Large amounts of historical logging data can be stored in the central data server.

TRANSACTION LOGGING

The outstation has built-in transaction logging feature that stores information who changed the settings or configuration. This can be used to trace back who made the changes in the plant operation.

COMPREHENSIVE SECURITY SOLUTION

INTRUDER DETECTION

- Detectors: perimeter, structural, space, hold-up
- By-pass Equipment
- Local Alarm Devices

SyxtSense Fdx is an efficient and versatile real estate intruder detection control system. All necessary detectors that are needed can be connected to the security module SI-8. The by-pass equipment is based on a safe remote reader, which is available either with or without code keyboard.

ACCESS CONTROL

- Remote Readers
- Code Keyboard

Using the access control system people's movements in a real estate can be accurately controlled. SyxtSense Fdx access control system can easily be implemented by connecting access control readers to the access control software module of the Fdx system, the system applies the same remote reader technology as in intrusion detection.

VIDEO SURVEILLANCE

- Cameras
- Monitors
- Recorders

Video surveillance is implemented with the latest technology. Extremely competitive digital cameras that can also be used as WEB-cameras monitor the premises continuously. The video images are displayed in the control room and are recorded for closer investigation if required. The system can use most of the recorders in the market. In case of alarm the relevant surveillance camera is automatically activated.



Technical Data...

SOLUTIONS FOR ALL REQUIREMENTS

SyxtSense Fdx System consists of the Fdx2025 Outstation, large number of IO-modules, controllers and wireless sensors. The system is easily expandable with new products. The flexible integration methods provide effective and seamless control and connectivity to lifts, lighting systems, close control systems, chillers, fire systems, intruder alarms, CCTV and access control systems.

	DETAILS	INPUTS / OUTPUTS	APPLICATION
	MOD-AO8 ANALOGUE OUTPUT MODULE <ul style="list-style-type: none"> • 20-bit A/D-converter for accuracy • 110 db attenuation for 50Hz disturbance signals • 24Vdc power supply 	<ul style="list-style-type: none"> • 8 universal inputs, • input type selected via jumpers: 0-20 mA, 0-10V, Pt1000, Ni1000, NTC 	<ul style="list-style-type: none"> • General Purpose • Heating, Ventilation • Monitoring • Chiller Systems.
	MOD-AO8 ANALOGUE OUTPUT MODULE <ul style="list-style-type: none"> • 10-bit D/A-converter for accurate control • 24Vdc power supply 	<ul style="list-style-type: none"> • 8 analogue outputs, 0-10 Vdc signal 	<ul style="list-style-type: none"> • General Purpose • Heating, Ventilation • Monitoring • Chiller Systems.
	MOD-DI6 DIGITAL INPUT MODULE <ul style="list-style-type: none"> • input type selected via jumpers • loop voltage 12 V/24 V • two-colour LED for each input • 24Vdc power supply 	<ul style="list-style-type: none"> • 16 digital inputs • alarm, indication or impulse counter 	<ul style="list-style-type: none"> • General Purpose • Heating, Ventilation • Monitoring • Chiller Systems.
	MOD-DO8 RELAY OUTPUT MODULE <ul style="list-style-type: none"> • LED status indication • manual override: on, off or auto • 24Vdc power supply 	<ul style="list-style-type: none"> • 8 Relay Outputs • 230Vac 10A Rates 	<ul style="list-style-type: none"> • General Purpose • Heating, Ventilation • Monitoring • Chiller Systems.
	MOD-COMBI36 COMBINATION IO-MODULE <ul style="list-style-type: none"> • combination module • sufficient for the I/O needs of a typical small plant • 24Vdc power supply 	<ul style="list-style-type: none"> • 12 Digital Inputs • 8 Relay Outputs • 8 Analogue Inputs • 8 Analogue Outputs 	<ul style="list-style-type: none"> • General Purpose • Heating, Ventilation • Monitoring • Chiller Systems.
	MOD-SI8 SECURITY INPUT MODULE <ul style="list-style-type: none"> • security module for PIRs, door and window contacts etc. • tamper-proof circuits • 24Vdc power supply 	<ul style="list-style-type: none"> • 8 Alarm Loops (Zones) 	<ul style="list-style-type: none"> • Security Systems • Intruder Alarm Monitoring
	MOD-DU10 ACCESS DOOR UNIT <ul style="list-style-type: none"> • complete unit for access control • approved as A-class intruder alarm system • control of up to two doors • 24Vdc power supply 	<ul style="list-style-type: none"> • electric lock control • access keypad and exit button • status of the lock and the door • additional intruder loops 	<ul style="list-style-type: none"> • Access Control • Intruder Alarm for Doors • Networked to Fdx System
	FDX-2025 OUTSTATION WITH TOUCHSCREEN AND WEB-SERVER <ul style="list-style-type: none"> • freely programmable outstation • web-server for active animated graphical web-pages • 10.4" colour touchscreen for accurate local display • supports up to 63 IO-modules / devices, up to 2,000 points 		<ul style="list-style-type: none"> • Building Management Systems • HVAC Control • Security Systems
	FDX-2025 OUTSTATION WITH WEB-SERVER <ul style="list-style-type: none"> • freely programmable outstation • web-server for active animated graphical web-pages • 10.4" colour touchscreen for accurate local display • supports up to 63 IO-modules / devices, up to 2,000 points 		<ul style="list-style-type: none"> • Building Management Systems • HVAC Control • Security Systems

Technical Data...

SYSTEM THAT GROWS SEAMLESSLY WITH THE REQUIREMENTS

SyxthSense controls can operate stand-alone, can be an integral part of a small building system, or can grow to a large system solution. The Fdx range has been designed to be backward compatible and forward proof, it can be extended over the time. The seamless intuitive user experience is maintained whether small or large system.

	DETAILS	INPUTS / OUTPUTS	APPLICATION
	HRP HEATING CONTROLLERS <ul style="list-style-type: none"> • 6 models to suit the requirements • built-in graphical display • easy-to-use with rotation wheel • mains rated for compact solutions 	HRP22 Controller <ul style="list-style-type: none"> • 6 temperature inputs • 2 0..10V inputs • 5 digital inputs (M-bus option) • 6 230vac relay outputs • 2 0..10V control outputs 	<ul style="list-style-type: none"> • Boiler Plant Rooms • Underfloor Heating Systems • Solar Systems • Ground Source Heat Pump Control • Stand-alone or Networked to Fdx System
	LRP4 VENTILATION CONTROLLERS <ul style="list-style-type: none"> • programmable to suit requirements • graphical LCD display • easy-to-use with rotation wheel • wall or panel door mounting 	<ul style="list-style-type: none"> • 5 temperature inputs • 3 0..10V inputs • 8 digital inputs • 4 24vac relay outputs • 4 0..10V control outputs 	<ul style="list-style-type: none"> • Ventilation Plants • Stand-alone or Networked to Fdx System
	HLS34 ROOM CONTROLLERS <ul style="list-style-type: none"> • designed for all room control applications • touch buttons and LCD display • accurate control - ECA approved • easy configuration 	<ul style="list-style-type: none"> • 2 temperature inputs • 1 0..10V input • 1 digital input • 4 24vac triac outputs • 2 0..10V control outputs 	<ul style="list-style-type: none"> • 2- or 4-Pipe Fan Coil Unit Control • Airside Control • Chilled Ceiling / Beam Control • VAV Control • Stand-alone or Networked to Fdx System
	FCU-MLT FAN COIL UNIT CONTROLLERS <ul style="list-style-type: none"> • designed for fan coil unit applications • compact IP54 enclosure • room unit with 5-position fan speed switch • 24Vdc power supply 	<ul style="list-style-type: none"> • 6 temperature / digital inputs • 2 analogue 0..10V inputs • 4 analogue 0..10V outputs • 4 230Vac 6A SPCO Relays 	<ul style="list-style-type: none"> • 2- or 4-Pipe Fan Coil Unit Control • Chilled Ceiling / Beam Control • Stand-alone or Networked to Fdx
	PDS2-H HEATING COMPENSATORS <ul style="list-style-type: none"> • cost-effective heating compensator • LCD display with touch buttons • Modbus communications • 24Vdc power supply 	<ul style="list-style-type: none"> • 4 temperature / 0..10V / digital inputs • 4 analogue 0..10V outputs • 4 24V triac outputs 	<ul style="list-style-type: none"> • Boiler Plant Rooms • Domestic dwellings • Stand-alone or Networked to Fdx System
	PDS2-V VENTILATION CONTROLLERS <ul style="list-style-type: none"> • easy to use ventilation controller • LCD display with touch buttons • Modbus communications • 24Vdc power supply 	<ul style="list-style-type: none"> • 4 temperature / 0..10V / digital inputs • 4 analogue 0..10V outputs • 4 24V triac outputs 	<ul style="list-style-type: none"> • Ventilation Plants • Compact Constant Discharge AHUs • Stand-alone or Networked to Fdx System
	TEFL/FLTA WIRELESS SENSORS <ul style="list-style-type: none"> • comprehensive range of wireless sensors with Modbus FLTA interface • wide range of options • extensive transmission range with additional repeaters when required 	<ul style="list-style-type: none"> • temperature • humidity • digital on/off or 5-pos switch • analogue 0..10V • setpoint 	<ul style="list-style-type: none"> • Remote Measurement • Historic Buildings • Stand-alone or Networked to Fdx System



Authorised User No. 00485

HRP, LRP and HLS controllers have been certified under the Carbon Trust ECA scheme.



SyxthSense is the UK's fastest growing online company for Domestic and Commercial Control Solutions. At SyxthSense we know how to make a difference in controlling any type of property. We save you time, money, and our products will delight you. Our vast range of user friendly, proven products will always match your application requirements and will provide you energy savings, security and safety. We select only the best products, a formidable range of solutions that are unbeatable in ease of use, functionality, reliability, and value.

OUR PRODUCT RANGE COVERS:-

- Building Management Systems
- Remote Web-Browser Interfaces and Alarm Management Systems
- Heating Optimiser/Compensators and Ventilation Plant Controllers
- Thyristors and Variable Speed Drives
- Wide Range of I/O and Relay Modules
- Safety and Emergency Products including Gas Valves and Gas Leak Detectors
- High Quality Sensors and Transmitters for Practically Any Application
- Unitary and Main Plant Valves and Actuators
- Rotary Damper Actuators
- Portable Measurement Devices
- Thermostats, Flow and Pressure Switches
- Remote Data Loggers and Mobile Telemetry Devices
- Energy and Flow Metering Solutions



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