MicroEngine ®

Integrated Security Systems

GLS130

Encrypted IP DesFire 1 Door Controller

IP High Security DesFire Controller
IP + Door + Lift + Car Park

••• DesFire Security Profile Configuration

••• Card ID Not by Serial Number (64-bit ID)

••• Support Door, Lift and Car Park

••• Encrypted IP Messaging

••• 32-bit RISC Processor

REG No. 749921389

DesFire Support

- The controller supports the latest high security card for bringing your system to a higher level of security. Many systems in the market runs on older generation of card technology with or without encryption and can be easily cloned. The DesFire card encryption is the latest from Mifare and the encryption is hardened for up to date protection level to your premises.

Card ID Not by Serial Number

- The Card ID is created using the advanced encryption algorithms built in to the Mifare DesFire card. To read the Card ID, the reader needs to perform a few levels of encrypted security exchange. The Card ID obtained by this method is very safe and secured. Some systems in the market only read the Serial Number of the card, which is unprotected or open information. This is not the correct and secured way to use the Mifare DesFire feature.
- The Card ID of our system is 64 bit or 20 digits. This provides the highest security level to your system. As the security algorithms is very complicated, our readers use 32 bit processor to provide a much faster response time.

Encrypted Messaging

- The messaging between the controller and the computer is encrypted with dynamic keys using the AES128 industrial strength algorithm. This is to ensure that the controller does not subject to attack from network easily as the networking environment is very open and sometimes difficult to police.
- The messaging between the readers and the controller is also encrypted to ensure that the communication is secured.
- The card reading is done by encrypted exchanges with the implementation of advanced DesFire encryption algorithms.

Supports Door & Lift

- The controller has been built for high-end integrated security applications. It can supports door access control, car park access control and lift access control .
- You can configure the capacity of the system by adding extension boards.

32-bit Processor

- The controller uses the 32-bit RISC processor at 80MHz. This is a powerful processor for industrial applications and it enables the system to process complex applications such as modern security encryption features in real-time manner.

Housed in Strong ABS Casing

- The controller is housed in a strong ABS casing. This casing is wall mount ready by using the screws to mount it directly on the wall.
- It is also DIN rail mount ready if you wish to mount it this way together with your industrial equipments.
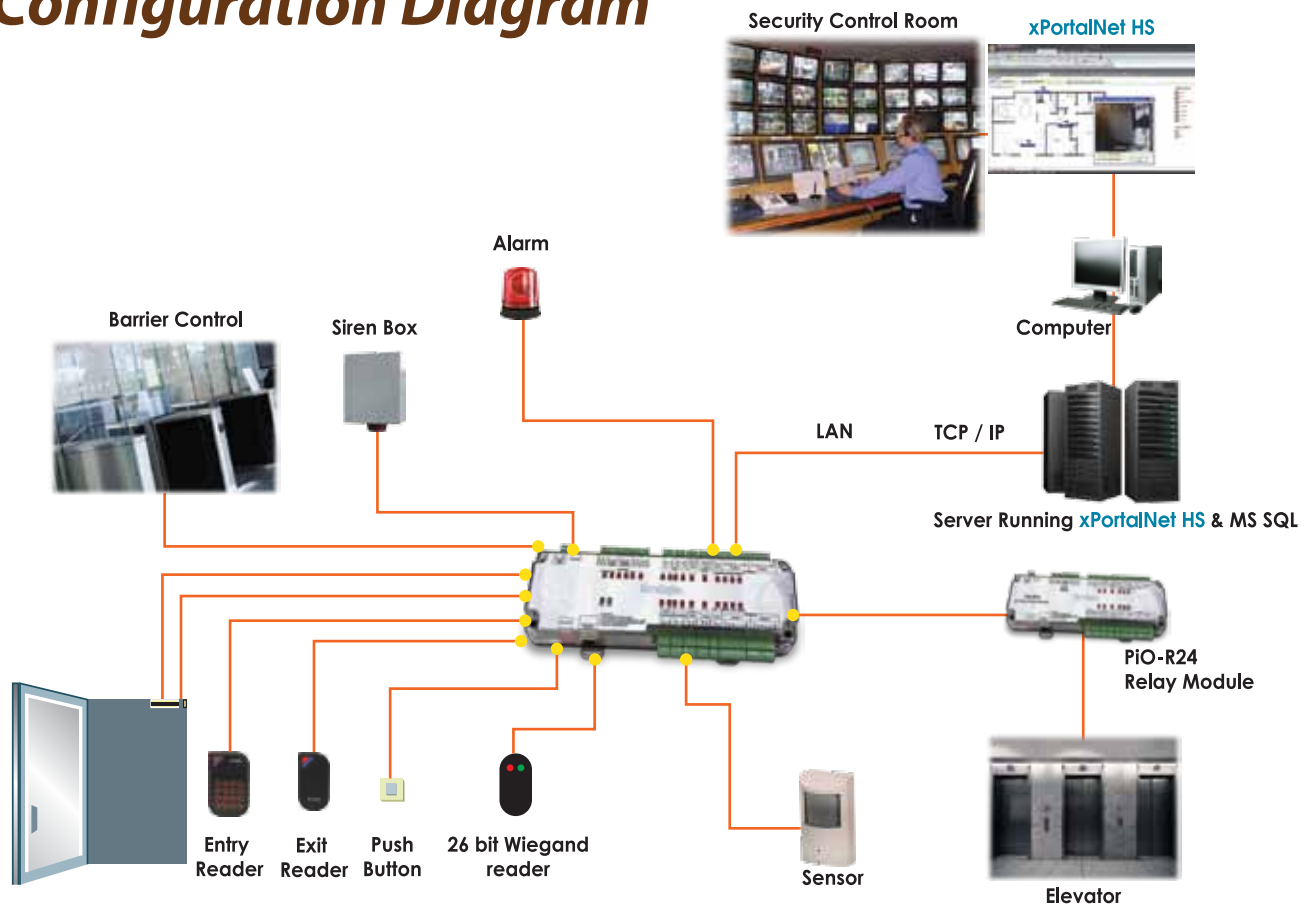
Live Remote Firmware Download

- Firmware can be downloaded live from the application software via the IP interface.
- This helps to improve the maintainability of the controller at site. You can update or upgrade the firmware from the computer at site without needing to open the controller box or bring the controller back for service.

Configuration Diagram

Security Control Room   **xPortalNet HS**

Alarm

Barrier Control   **Siren Box**   **Computer**

LAN   **TCP / IP**

Server Running xPortalNet HS & MS SQL

**PiO-R24
Relay Module**

| Entry Reader | Exit Reader | Push Button | 26 bit Wiegand reader | Sensor | Elevator |

PIO-R24

PIO-R24 - 24 Relay Output Module

Add support for lift access control system

No.	Item	Feature
1	Relay Output	24 (Relay Rating : 1A)
2	Onboard Surge Suppressor	Yes
3	Power Requirement	12V @ 2A
4	Communication	RS485
5	LED Indicator	Yes
6	ABS Casing	Yes (Wall and DIN Rail Mount Ready)

Plato DesFire Readers

No.	Feature	Plato DesFire Readers Model	
		Plato-DF800S	**Plato-DF800KLS**
1	Card Type	Mifare DesFire / DesFire Ev1	
2	Encrypted Card ID	Yes (In Encrypted File Securedly Created in the Card)	
3	Encrypted Reading	Yes	
4	Card ID by Serial Number	No	
5	RS485 to Controller	Yes (Encrypted)	
6	Processor	32 bit RISC for Faster Response Time	
7	Tamper Switch	Yes (High Endurance Optical Type)	
8	LED & Beeper Indicator	Yes	
9	Keypad	No	Yes
			High Sensitivity Touch Sense
10	LCD	No	Yes (Graphic)
11	Dimension	120mm x 90mm x 28mm	131mm x 100mm x 30mm

GLS130 — High Security DesFire Access Controller

GLS130 Controller

No.	Item	Features
1	No of Doors	1 Door
2	No of Readers	Max 2 Readers (Plato DesFire Reader)
3	Wiegand Reader	Max 2 Wiegand 26 bit Readers - for Low Security
4	Connection to PC	TCP/IP -Encrypted IP with AES 128
5	Connection to Plato Readers	RS485 (Encrypted)
6	Card Holder	30,000 (64-bit / 20 Digits)
7	Card ID	Secured and Encrypted with DesFire Algorithms
8	Card Serial Number	Recorded together with the Card ID
9	Transactions	50,000
10	Time Setting	255 Time Sets / 255 Time Zone (No Access Level Limits)
11	Holiday	30 (2 sets)
12	Inputs	5 Supervised/Digital (Switchable) - 1 door Sensor + 1 Exit Button - 1 Dedicated Fire Alarm Input - 2 Configurable as Reader Tamper, Emergency Breakglass Monitor or General Purpose
13	Extra Relay Output	1
14	Real Time Clock	Yes - with onboard battery
15	DesFire Security Profile	Yes - Configurable from xPortalNetHS Software
16	Power Fail Monitor	Yes
17	Global Anti-Passback	Yes - Using SNet-GAC Global Access Controller (up to 128 doors per cluster)
18	Live Firmware Upgrade	Yes - Download Live from Software
19	Diagnostic	Yes - Using built in Web based system
20	Onboard LED Indicators	Yes
21	Onboard Beeper	Yes
22	Full Functionality without Computer	Yes - Does not depend on Computer for Runtime Data Lookup
23	Processor	Microchip PIC32 - 32bit RISC MCU at 80MHz
24	Casing Dimension	255mm (L) x 95mm (W) x 27mm (D)
25	DIN Rail Mount Ready	Yes
26	Power Consumption	12VDC at 400mA (Controller Board only)
27	External IO Support	PiO-R24 for Lift Access

xPortalNet HS High Security System Software

No.	Item	Features
1	Client Server	Yes - Up to 20 Clients
2	System	Door Access / Lift Access / Car Park / Alarm Monitoring / Guard Tour / Visitor Management / CCTV Integration / Time Attendance
3	Card Holder	200,000 (20 Digits)
4	Card Serial Number Record	Yes. The system records the card serial number together with the Card ID
5	DesFire Card Programming	Yes. By using MCI-DF-PGM USB desktop programming kit
6	Configurable DesFire Security Profile Setting	Yes. User can configurable their own security setting. The setting data are encrypted in the computer.
7	DesFire Card	Mifare DesFire, Mifare DesFire Ev1
8	Low Security Card Support	Yes., for 3rd party system. Connect through the GLS130/GLS300 Wiegand port.
9	No. of Door / Readers	1024 Doors / 2048 Readers
10	No. of Inputs / Outputs	1024 Inputs / 1024 Outputs
11	Time Set / Time Zone	1024
12	System Users	Unlimited
13	Software Access Control	Yes - User Configurable Command Level Access Control
14	Floor Plan System	Yes - Dynamic & with Camera Icon
15	Database Supported	MS SQL Server / Oracle
16	OS	• Client: Windows 7 Professional (64-bit) • Server: Windows Server 2008 / 2012 (64-bit)
17	Communication Supported	UDP / TCP / HTTP

18	Controller Supported	• GLS130
		  IP DesFire Single Door Controller (30,000 Users)
		  - Add Lift Access with PiO-R24
		• GLS300
		  IP DesFire Single Door Controller (100,000 Users)
		  - Add Lift Access with PiO-R24
		  - Add Alarm Monitoring with PiO-S248 & PiO-L32

19	Model	xPortalNet HS Lite, xPortalNet HS Standard

Ordering Information

No.	Item	Features
1	XP-GLS130	DesFire Access Controller (30,000 Card Holder)
2	XP-GLS300	DesFire Access Controller (100,000 Card Holder)
3	PiO-R24	24 Relay Output Module
4	Plato-DF800S	DesFire Card Reader
5	Plato-DF800KLS	DesFire Card Reader with Touch Sense Keypad and Colour LCD
6	MPC-D10Ev1	Mifare DesFire Card Ev1
7	MCI-DF-PGM	Mifare DesFire Desktop Programming Unit
8	MPS-320	Power Supply Unit with Charger and Low Power Cutoff
9	MAS-600EMS	MicroEngine EM Lock 600lbs
10	MAS-1200EMS	MicroEngine EM Lock 1200lbs
11	MAS-PB33	MicroEngine Wide Exit Button
12	MAS-MC	MicroEngine Door Sensor
13	MCI-XPNETHS/Lite	xPortalNet HS Lite High Security System Software- Multi-Client & Based on .Net Technology
14	MCI-XPWEBHS	xPortalWEB HS Web Based High Security System Software - Web Based & Full Web Based Interface for System Management

For enquiries, please contact:

Specifications subject to change without prior notice.

Configuring the System

The system is powerful and highly configurable, kindly contact our representatives to assist you to configure a system that suits your requirements.