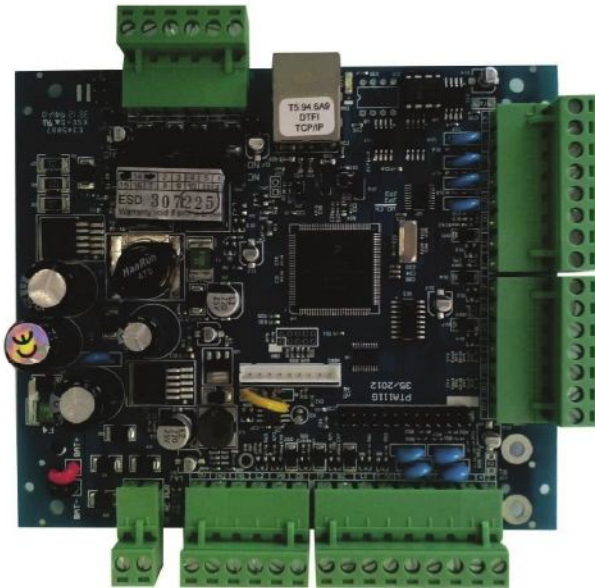


## Native TCP/IP Access Controller



### DESCRIPTION

#### SPECIFICATIONS

The native IP controller series has been evolving over the last 12 years. Created as a native IP platform, it has always spearheaded the newest access technologies in the world market.

Developed to guarantee the highest technology to the integrators, the IP controllers enable the demands of the most complex access control systems to be reached.

However, since we are always thinking about enabling the best cost benefit in security investments, the IP controllers were projected to enable important financial savings in infrastructure and installation.

All the IP controllers are able to control up to two doors. This guarantees limitless flexibility at installation.

### BENEFITS

#### Integrated Power Supply Module with Backup Battery Charger:

The IP controller has an integrated power source circuit with a backup battery charger.

#### Autonomy:

The controller is therefore able to charge all devices connected to it, from locks to readers, and up to the exit maximum nominal current of 2A @ 12 VCC. ( PoE Version: 1,75A @ 12VCC)

#### PoE charge system option:

The POE controller is the only PoE controller in the world capable to charge directly 4 readers and 2 locks, without the need for an auxiliary power charging source, and it also has a battery charger already incorporated; (utilizing a switch or Hi PoE - 30W injector)\*.

#### Power monitoring:

AC/DC power monitoring, warning the software operator in case of any problem. This function dismisses the installation of a specific CA power backbone for the access control.

#### Peer to Peer technology:

The controllers are P2P network devices. This enables the controllers to talk amongst themselves and therefore, enables savings in installation when integrated to fire systems, for example.

Among several other advantages, the P2P technology enables the controller to be capable to communicate with other controllers in the same network, even if the server is off-line, not depending on communication with the server to guarantee correct functioning of the Global Anti-Passback.

#### Native TCP/IP:

Are controllers with native IPs, that is, the data communication speed is immensely faster and reliable than in a traditional serial system.



## Native TCP/IP Access Controller

### CHARACTERISTICS

#### Adjustable Band Width

Data transmission in high speed with low band consumption (Push technology), guarantees information in real time for the users;

#### Installation Flexibility

Ideal to be used within the infrastructure of the existing network;

#### Client x Server Environment

Communication between application server and controllers occurs only when there is a new event to be sent (Push technology);

#### Point-to-Point Communication

The controllers communicate amongst themselves without the need for the server to be on-line (Native TCP / IP);

#### Patented Algorithm

Guarantees the search for a valid card/non valid card in less than 1 second, for a maximum of 150,000 cards registered on the controller on off-line mode;

#### Safe Technology

- Proprietary protocol guarantees data transmission in violability;
- Encrypted AES-128 bits; (optional)
- The IP controller stores cards, access levels, holidays and other permissions on the controller's off-line memory, avoiding to work with White/Black lists, making the operations much safer and reliable;
- Automatic card cancellation via hardware;
- Power source integrated to the controller, with integrated battery charger, provides stable functioning even in case of power failure;
- Easiness in the architecture of positioning the controllers and its relays in a safe area.

#### High off-line capacity

Each controller stores in its local data base 70,000 users and 40,000 events on the non volatile memory buffer (available with the memory expansion of up to 150,000 users and 80,000 transaction events).

### APPLICATIONS

The experience of numerous projects and many years of development has enabled FALCO to create custom-made features for each of the most important access control applications:

#### Door Control

The 2 doors controller enables the control of up to two doors with up to four readers. It may be connected to the network using Wi-Fi through an access point.

#### PoE door Control

The 2 Doors POE controller can power up to 2 electromagnetic locks and 4 readers (utilizing a Hi PoE switch), and still be able to charge a back-up battery. This is a solution which has never been seen before in access control systems. \*It only applies to door control - and is not compatible with alarm modules, turnstiles and elevators.

#### Elevator Control

The IP Lift controller enables the control of up to 64 floors, utilizing up to 8 MOD-8-ELV modules. With this controller, depending on the level of access the user has, the system will allow him to have access to authorized floors only.

#### Turnstile Control

The IP Turnstile controller is used specifically for the control of turnstiles. It is able to control turnover and to control pictograms.

#### Integration with Alarms

The IP Alarm controller enables the control of up to 32 alarm entries using up to 4 MOD-8-ALM modules. PIRs, magnetic or any other alarm device may be connected to it. The controller permits enabled cards to set or disarm the alarm system, providing the user with the most important functions of a conventional alarm system.

#### Parking Control

The IP Car parking controllers have very particular functions, such as use in conjunction with mass loop.

#### Rack Control

Increasing the security of access to the servers is a common and basic reality in many companies. With the IP controller system, the client may control and monitor the opening of their rack doors, as well as have the history and online access in his hands through the FALCO WEB / ENTERPRISE platform. With FALCO's Rack control system it is possible, through the use of a single reader and controller, to control up to 16 rack doors, and to monitor up to 16 door sensors. It is also compatible with the TZ rack control system.



## Native TCP/IP Access Controller

### IP-CF SPECIFICATIONS

- CPU: ColdFire 32 bits, 60 Mhz;
- Memory: EEPROM and Flash;
- Card capacity: 70,000 (expandable to 150,000);
- Event capacity on memory buffer: 40,000; (expandable to 80,000);
- Inputs / Outputs: 12 in / 2 out (according to model);
- Output Tamper;
- Readers: 2 (int/ext) for simple door, or 4 (2 int/2 ext) for 2 doors;
- Compatible card protocols: Wiegand Standard, 26, 34, 35, 42 bits or other personalized formats;
- Network protocols: TCP / IP, ARP, WEB;
- Time configurations: 50, with 3 daily intervals;
- Time zones: 99;
- Access levels: 999;
- Holidays: 50;
- Power source requirement: 14,5 VCA;
- Battery charger: 7AH / 12 VCC;
- Communication: TCP / IP 10/100 Mbps;
- Output potency: Electronic power source set to 12 VCC for readers, locks and other devices);
- Board dimensions: 137 mm x 117 mm;
- Operating Temperature: 0 a 60 ° C;
- Humidity: 0 ~ 95% without condensation;
- Encrypted: AES-128. (Optional)

### IP-CF-POE SPECIFICATIONS

- All the prior specifications.
- Power source requirement: Hi PoE (to control 2 doors) or PoE (to control 1 door);
- Output Potency: 12 VCC, 1,75 A (for readers, Locks or other devices);
- Available only for the 2 door version.

### OPTIONAL IP-CF MODULES



#### 8 output board :

Relay output module

Each 8output board module has 8 relay outputs, and 8 modules may be connected to each SCAIIP-CF controller, totaling the control of up to 64 relays per controller.



#### 8 input board :

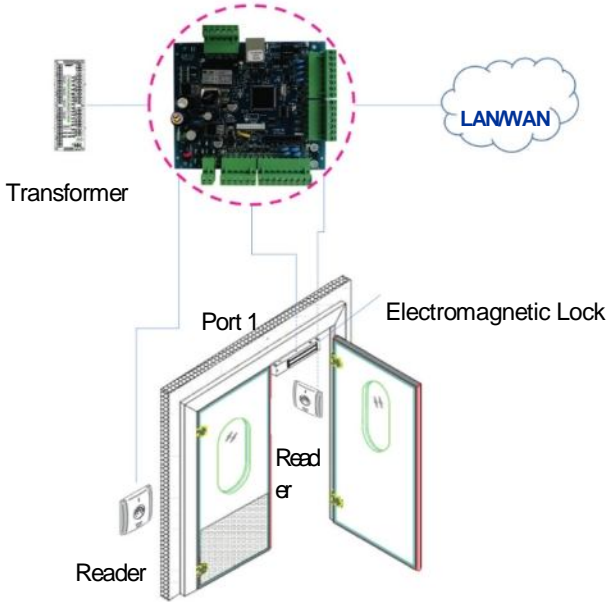
Alarm input module

Each 8input board module has 8 digital inputs, onto which any alarm device (PIR, Magnetic, etc.) may be installed. It enables almost all functions of a conventional alarm system. Each alarm controller is able to control up to 32 entries.

EXAMPLES OF IP CF APPLICATIONS

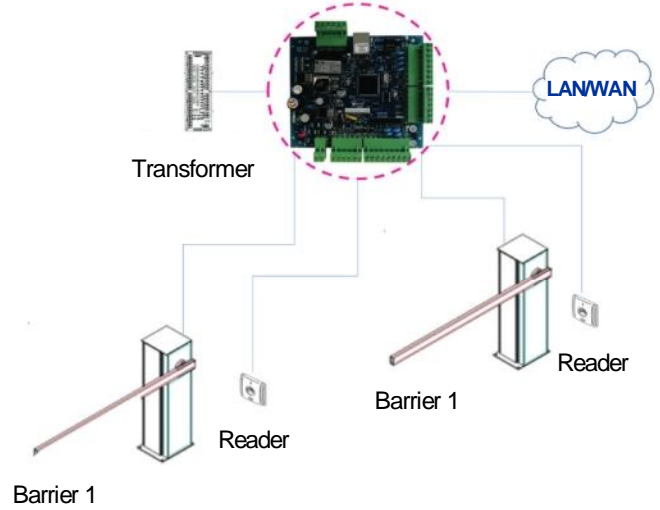
Doors:

CTRL-1DR-CF/IP(2.0A)-PCB



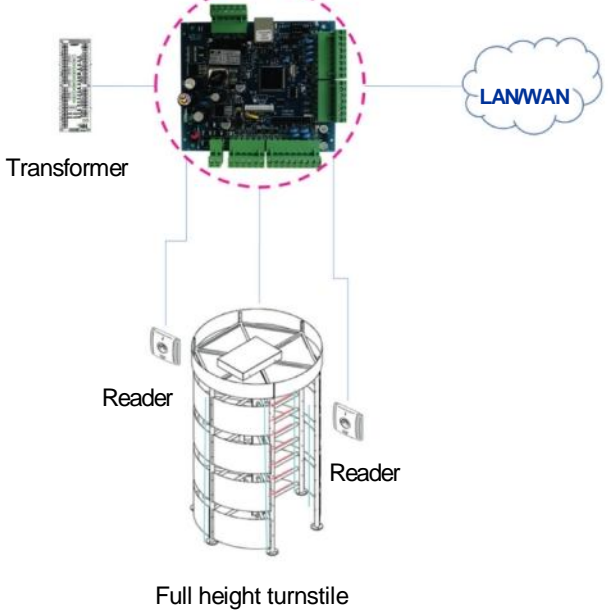
Parking lots:

CTRL-1DRCAR-CF/IP(2.0A)-PCB



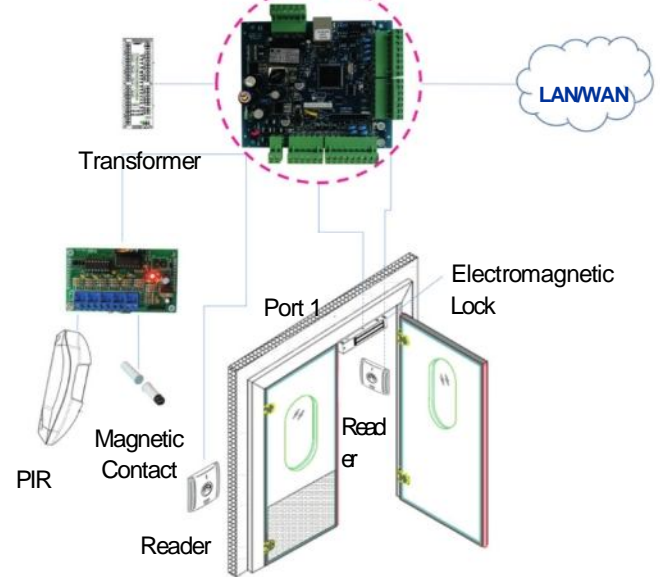
Turnstiles:

CTRL-1DRTURNSTILE-CF/IP(2.0A)-PCB



Alarms:

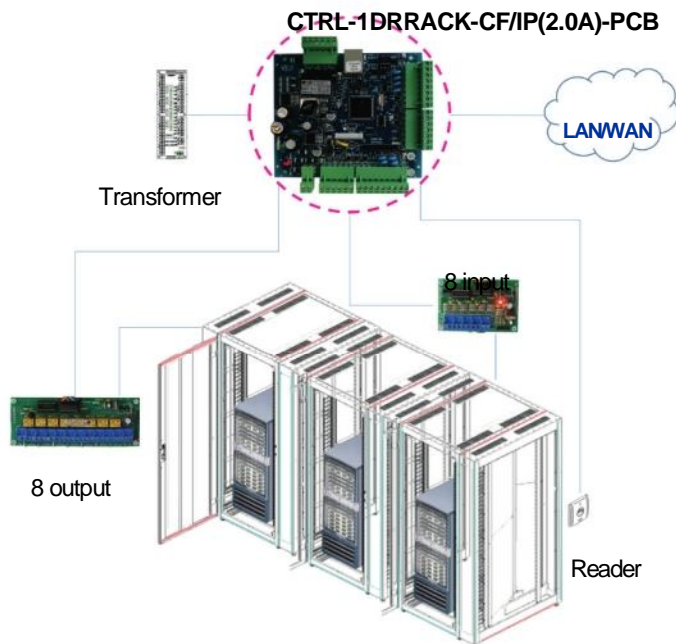
CTRL-1DRALR-CF/IP(2.0A)-PCB



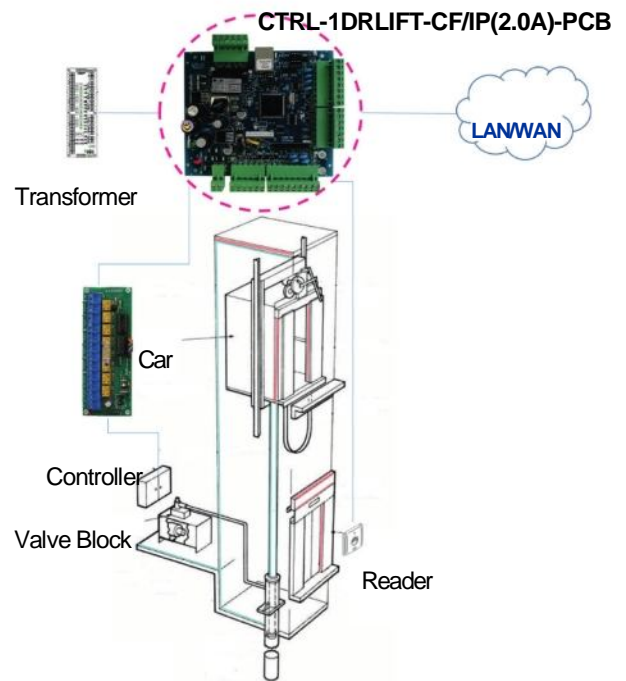
Each controller supports up to 4 alarm inputs 8 modules each

# Native TCP/IP Access Controller

## Racks:



## Elevator:



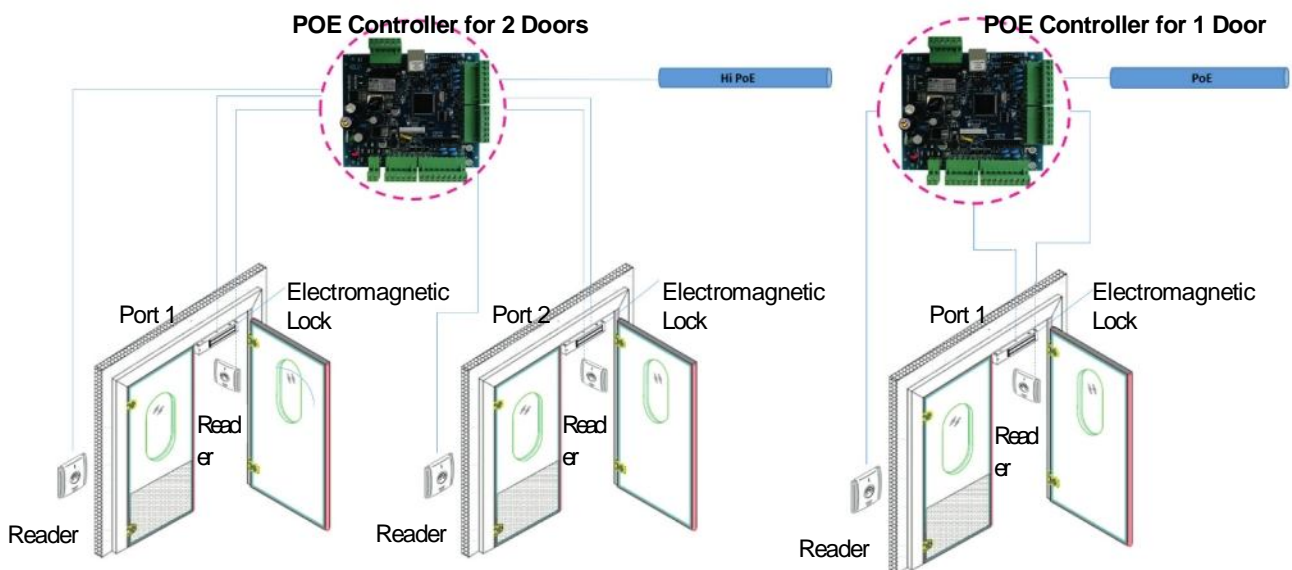
## EXAMPLES OF CF-POE APPLICATIONS

### PoE IN 2 DOORS

Utilizing a 30W Hi PoE Switch, the CF-POE system is able to feed Power for 2 electromagnetic locks, 4 proximity readers and to charge the battery. Maximum benefit with simple implementation. Does not need an auxiliary charging source.

### PoE IN 1 DOOR

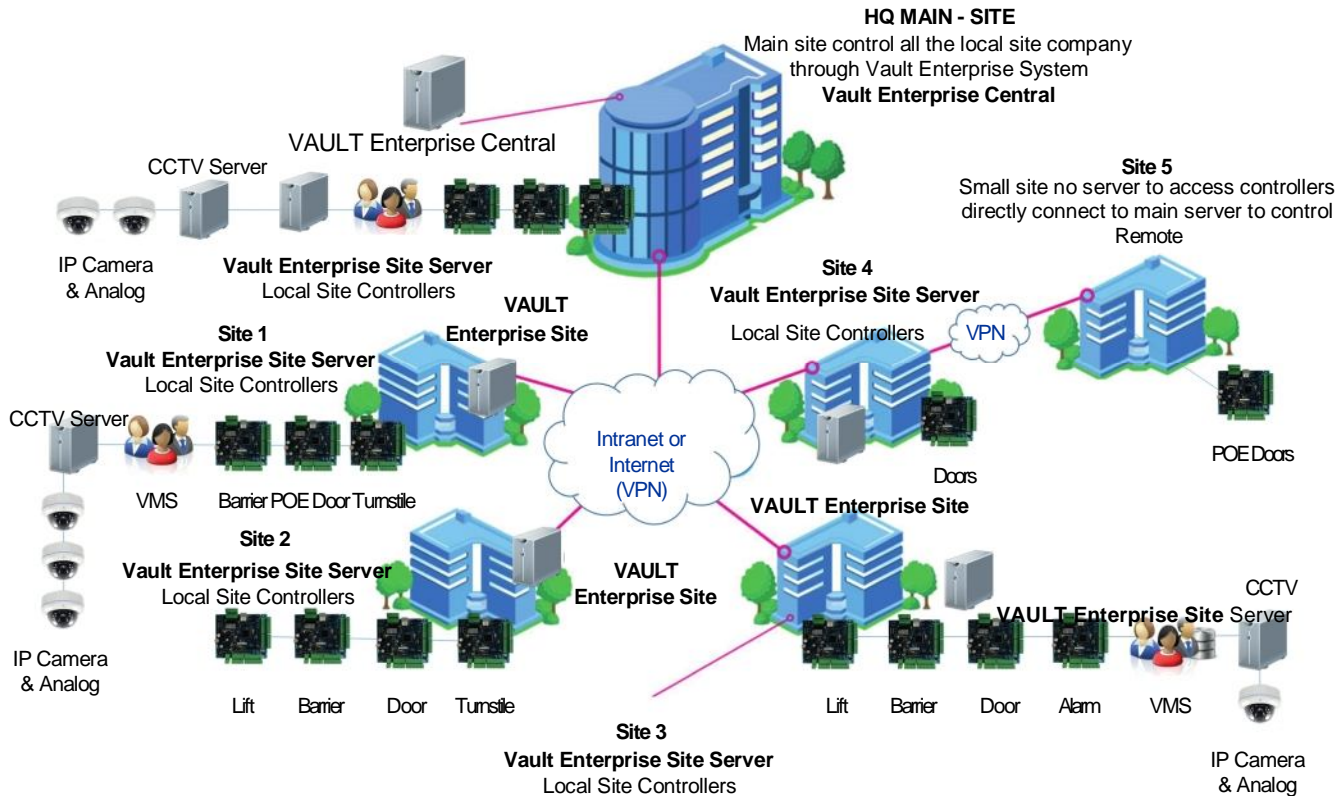
When utilizing the 15.4W PoE system, it is possible to feed a door's complete system. (readers and lock) A simple, fast, and economical installation is guaranteed.





## Native TCP/IP Access Controller

### MULTI-SITE ARCHITECTURE



### HOW TO PURCHASE

<b>CTRL-1DR-CF/IP(2.0A)-PCB</b>	Controller for 1 Door;
<b>CTRL-2DR-CF/IP(2.0A)-PCB</b>	Controller for 2 Doors;
<b>CTRL-1DRPoE-CF-PCB</b>	POE Controller for 1 Door;
<b>CTRL-2DRPoE-CF-PCB</b>	POE Controller for 2 Doors;
<b>CTRL-1DRTURNSTILE-CF/IP(2.0A)-PCB</b>	Controller for Turnstile;
<b>CTRL-1DRALR-CF/IP(2.0A)-PCB</b>	Controller for Alarm;
<b>CTRL-1DRLIFT-CF/IP(2.0A)-PCB</b>	Controller for Elevator;
<b>CTRL-1DRCAR-CF/IP(2.0A)-PCB</b>	Controller for vehicle access barrier
<b>CTRL-1DRRACK-CF/IP(2.0A)-PCB</b>	Controller for Racks;
<b>1DRSMT-TCP/IP-8INPUT</b>	Module for 8 digital inputs;
<b>1DRSMT-TCP/IP-8OUTPUT</b>	Module for 8 relay outputs