

## FoxSec Turnstile Controller

FoxSec® products provide a complete and fully featured hardware/firmware infrastructure for access control and intruder alarm systems.

The FS8311 Turnstile controller connects 2 access control card readers via Wiegand or clock-and-data (magnetic card) interface controlling either one or two doors. The FS8301 features on-board memory, allowing program updates to be downloaded via the RS485 network.

On-board dataline optical isolation and on-board optional 24VDC power.

The FS8311 is compatible with FS9131 and/or FS9000/FS9002 hardware through a RS-485 network. The FS9131 and FS9000/FS9002 in turn, communicates with the system server (FoxSec Smart Pass and/or FoxSec Net via industry standard TCP/IP protocol over 10Mbps Ethernet or the Internet. Internal memory stores up to 7600 users and last 2000 events.

This architecture minimizes the impact on corporate LANs by using only one UDP/IP address for FS9000/FS9002 main panel itself, and by handling low-level transactions on the RS485 network.

The access door controller has developed in a way that it is very durable and has many different and flexible functions.

## FS8311 Features



ENTRY / EXIT



Up to 7,600 card users and 2,000 recent events in the controller memory



Optical isolation



2 programmable relay outputs



2 Wiegand inputs



Anti-passback



Metal case 290 x 280 x 80



Power supply unit 12VDC, 2A



Battery control

## Features

The unit should be installed indoors, near secured area such as in the IT or telecommunications room, utility closet or server room

All quick-disconnect screw terminal connectors  
One RS-485 connection to dataline

2 card reader inputs (26 or 34bit wiegand or clock-and-data)  
1 status sensor inputs  
1 opening button inputs

2 outputs for turnstile entry /exit inputs  
(rated 1.5A @ 12 or 1A@ 24VDC)  
2 non-latching output relays for electric locks or other devices  
(related 1 x 5A (max500W) and 1 x 1A (max50) @ 48 VDC)  
1 electronic fuse protected 1.1A 12VDC  
Power output for elevator module or other device

DC Power input  
One Tamper inputs

16-bit CPU Microcontroller, 16MHz

1.1A output power (electric lock, external device etc) electronic fuse  
1.1A card readers electronic fuse  
100mA input protection electronic fuse (each input and separate fuse)  
Transformer inside thermal fuse 130° C 2.2A@16VAC

16k Flash memory inside microcontroller  
32k EEPROM memory non-volatile  
32k FRAM memory non-volatile

## Specifications

### Dimensions

290W x 280H x 80D mm without lid  
(11.4" x 11.2" x 3.15")

### Weight

2.70kg (95 oz) without battery

### Casing Material

Metal

### Power Supply Requirements 1

100-240VAC 50/60Hz power transformer  
Main fuse 500mA  
Power transformer output supply 16V  
Power transformer max output current 2.2A  
Controller current 120mA @ 12VDC  
PWM (Pulse-width modulation) regulator on-board  
Recommended: Supervised switching power supply with battery low contact outputs. Separate supervised DC supply with battery back-up recommended if power supply max consumption exceeds

### Operating Environment

Indoors or customer supplied NEMA-4 Enclosure

### Temperature

-10° to 40° C (14° to 104° F)

### Humidity

0% to 80% relative, non-condensing

### Materials

RoHS compliant 2002/95/EC

### Communication Ports

1x RS-485- two wire with optical isolation

### Cable Distance

RS-485- 1500m (4900 feet), using shielded twisted pair cable (Cat5e, Cat6e)  
Input Circuits- 300m (500 feet), using 4 x 0.22 cable  
Output Circuits- 300m (500 feet)  
Card reader- 50m (165 feet) 2 x 0.5+4 x 0.22+S  
Minimum wire gauge depends on cable length and current requirements

### Protection

4000 - VPEAK Isolation  
2500- VRMS isolation up to 60sec  
Human Body Model Up to 16kV (ESD)  
Charged Device Model Up to 1kV (ESD)  
Machine Model Up to 200V (ESD)  
Thermal Shutdown Protection  
Onboard DC-DC converter isolation Up to 3kVDC