

FoxSec access door controller

FoxSec® products provide a complete and fully featured hardware/firmware infrastructure for access control systems. The FS8302 Door controller connects 4 access control card readers via Wiegand or clock-and-data (magnetic card) interface controlling either one or two doors.

The FS8302 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 FS8302 is compatible with FS9131 and/or FS9000 hardware through a RS-485 network. The FS9131 and FS9000, in turn, communicates with the system server (FoxSec 1850 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 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.



Compatible communication modules

ADP2 RS485/232 (for connecting over COM port with FoxSec Net+ or FoxSec 1850)

ADP3A RS485/Ethernet (for connecting over Internet with FoxSec Net+ or FoxSec 1850)

FS9000 control panel door data line (for connecting over internet with FoxSec Net+)

FS9131 door data line expansion module (for connecting with FoxSec Net+)

FS8302 Features

- ❖ Real time monitoring with FoxSec Net+ or FoxSec 1850 software
- ❖ Configurations and setup with FoxSec Net+ or FoxSec 1850 software
- ❖ On-board Dataline optical isolation
- ❖ Optional on-board 24VDC
- ❖ 1 x 12V7Ah battery backup for 12 and 24VDC
- ❖ Possibility to connect up to 4 card readers (26 or 34bit wiegand or clock-and-data magnetic card)
- ❖ Each input has 100mA electronic fuse for PCB protection
- ❖ Card data memory
- ❖ Access rights memory
- ❖ Last events memory
- ❖ 220V lost alarm
- ❖ Battery trouble alarm
- ❖ Sensor determining the status of the door
- ❖ Door opening switch
- ❖ Tamper alarm
- ❖ Alarm of opening the door by a key.
- ❖ Alarm of a door being open too long
- ❖ Full battery test and monitoring
- ❖ Low voltage alarm
- ❖ 14 different holidays per controller
- ❖ 20 schedules per controller
- ❖ 8 periodic programs per controller
- ❖ 63 time zones per controller
- ❖ Up to 20 programs for 2 (not door) additional relays.
- ❖ Up to 100 different controller configurations
- ❖ Anti passback
- ❖ Elevator module connection possibility (up to 16 floors for one controller)
- ❖ Dual cards access
- ❖ Empty room programmable relay
- ❖ Battery recharging
- ❖ RS485 data line
- ❖ Determined reader functions: Card (normal), Card + pin
- ❖ Up to 2 security area monitoring if armed or disarmed (accessing permitted or restricted)

FS8302 Features

Metal enclosure protects components from

Mounting
Damage and tampering the device
Mount to any wall surface, using three screws. The unit should be installed indoors, inside a secure area, such as in an IT or telecommunications room, utility closet, or on a wall above a suspended ceiling.

Controller LEDs

Indications
Power input U1 (12VDC) electronic fuse LED. If LED is ON then fuse is OK and power is provided to controller and 12VDC outputs
Power input U2 (24VDC) electronic fuse LED. If LED is ON then fuse is OK and 24VDC is provided to lock outputs.
Separate 12VDC output electronic fuse LED. If LED is ON then fuse is OK and power is provided to elevator module or other external device
Battery LED. If LED is ON then battery power is provided to the unit
Relay status LEDs. If LED is ON then corresponding relay is activated. (Applies to RL1-RL4)
RS485 data line supervision - If blinking then it is sending and receiving data over RS485. Green= transmit (TX), Red= receive (RX).

- Connectors**
- All quick-disconnect screw terminal connectors
 - One RS-485 connection to dataline
 - 4 card reader inputs (26 or 34bit wiegand or clock-and-data)
 - 2 door status sensor inputs
 - 2 door opening button inputs
 - 2 power outputs for electric locks (rated 1.5A @ 12 or 1A @ 24 VDC) (Optional 3A @ 12VDC, 0A @ 24VDC) ** (Optional 2A @ 12VDC and 1A @ 24VDC)**
 - 4 non-latching output relays for electric locks or other devices (rated 2 x 5A (max500W) and 2 x 1A (max50W) @ 48 VDC)
 - 1 electronic fuse protected 1A 12VDC Power output for elevator module or other device
 - DC Power input
 - One Tamper inputs
 - Door opened by key or door opened too long output*
*Additional relay (1 and 2) outputs can be configured as a fail output
**Higher current power MUST be ordered separately

Power
The user should supply 12 VDC to connected interfaces. Separate supervised DC supplies with battery back-up are recommended for door locking or relay activated devices if consumption is exceeded

- CPU**
- 16-bit CPU Microcontroller, 16 MHz

Fuses
2A output power (electric lock, external device etc) electronic fuse
1.1A card readers electronic fuse
100mA input protection electronic fuse (each input has separate fuse)
Transformer inside thermal fuse 130°C 2.2A@16VAC

- Memory**
- 32 k Flash memory inside microcontroller
 - 128k EEPROM memory non-volatile
 - 32k FRAM memory non-volatile

Warranty
Warranted against defects in materials and workmanship for 24 months. (See complete warranty policy for details.)

FS8302 Specifications

Dimensions

Measures
251W x 292H x 90D mm without lid
(10.0" x 11.5" x 3.54")

Weight

2.70kg (95 oz) without battery

Case Enclosure Material

Metal

Power Supply Requirements

Power supply
100-240VAC 50/60Hz power transformer
Mains fuse 500mA
Power transformer output supply 16V
Power transformer max output current 2.2A
Controller current 400mA @ 13.7VDC
PWM (Pulse-width modulation) regulator on-board
Recommended: Factory installed power transformer.
Battery backup, input surge protection and AC Fail is fully monitored in controller. Separate supervised DC supply with battery back-up recommended if power supply max consumption exceeds.

Operating Environment

Environmental
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

Communications
1 x RS-485 - two wire with optical isolation

Cable Distance

Cables
RS-485 -1500m (4900 feet), using shielded twisted pair cable (Cat5e, Cat6e)
Input Circuits - 150m (500 feet), using 4 x 0.22 cable
Output Circuits - 150m (500 feet), using 2 x 0.5+2 x 0.22 cable
Card reader - 50m (165 feet) 2 x 0.5+4 x 0.22+S
Minimum wire gauge depends on cable length and current requirements.

4000-V_{PEAK} Isolation

2500-V_{RMS} 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

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