



## ST3 Expansion Modules – Installation Manual



Keyless Access System Solutions

## ST3 Expansion Modules

Motherboard controllers supports expansion modules with the following capacity: Two, Four, Six, Eighth, Ten and Twelve Doors.

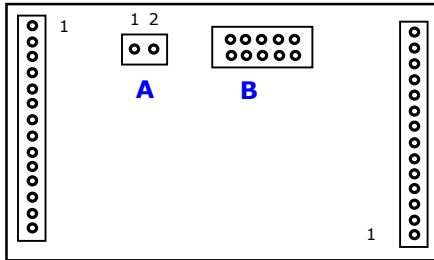
Expansion modules provides the same hardware and software features that the motherboard controller.

### Expansion Modules Description

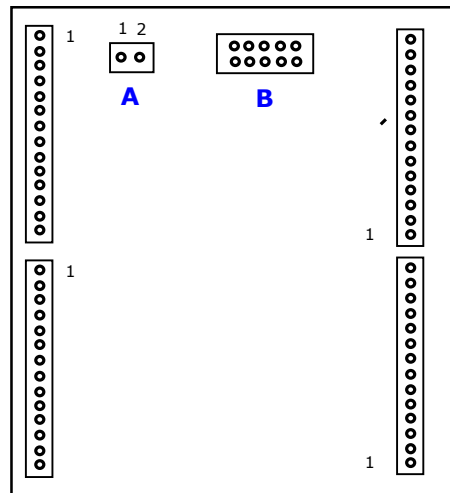
**A:** Power supply connector

**B:** Motherboard communication connector

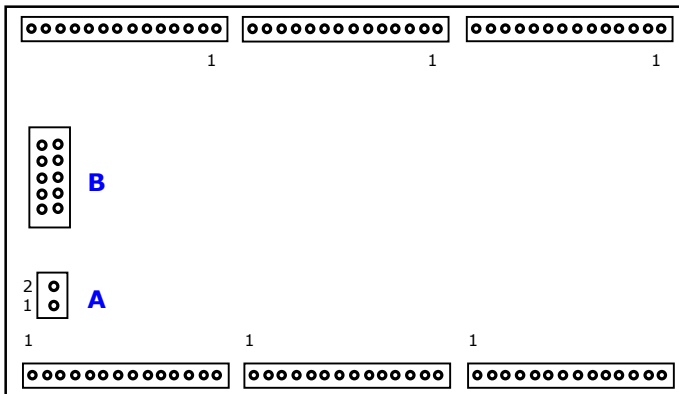
**Expansion module two (2) doors**



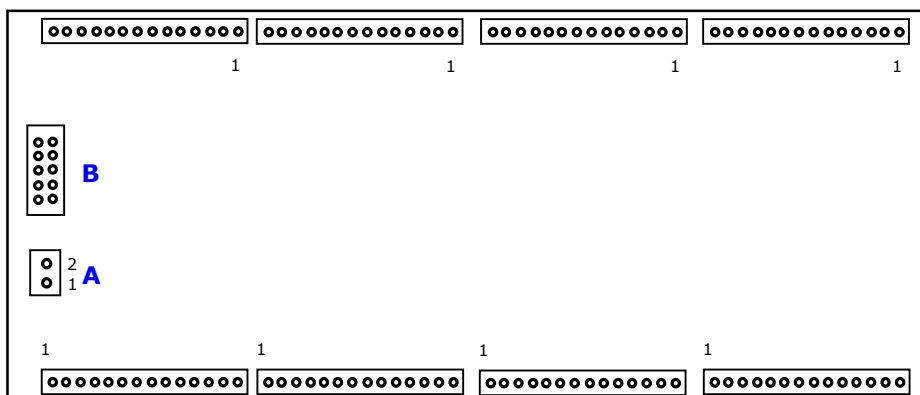
**Expansion module four (4) doors**



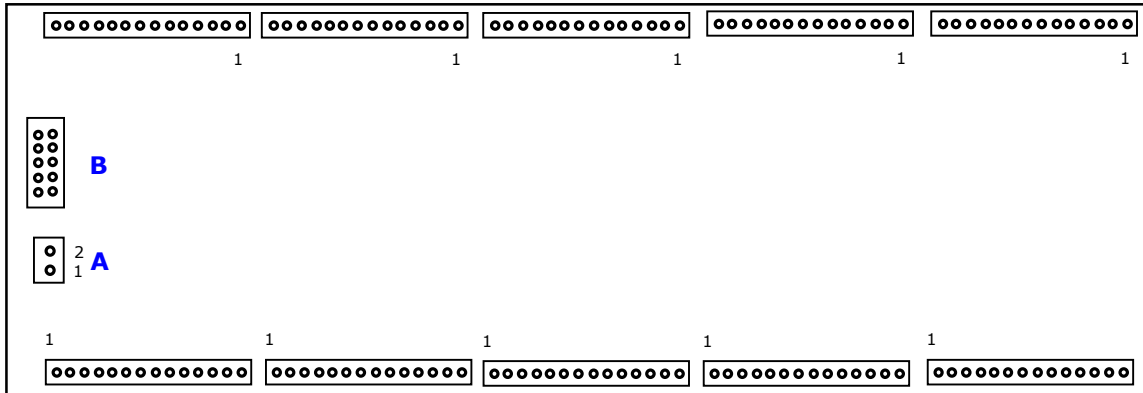
**Expansion module six (6) doors**



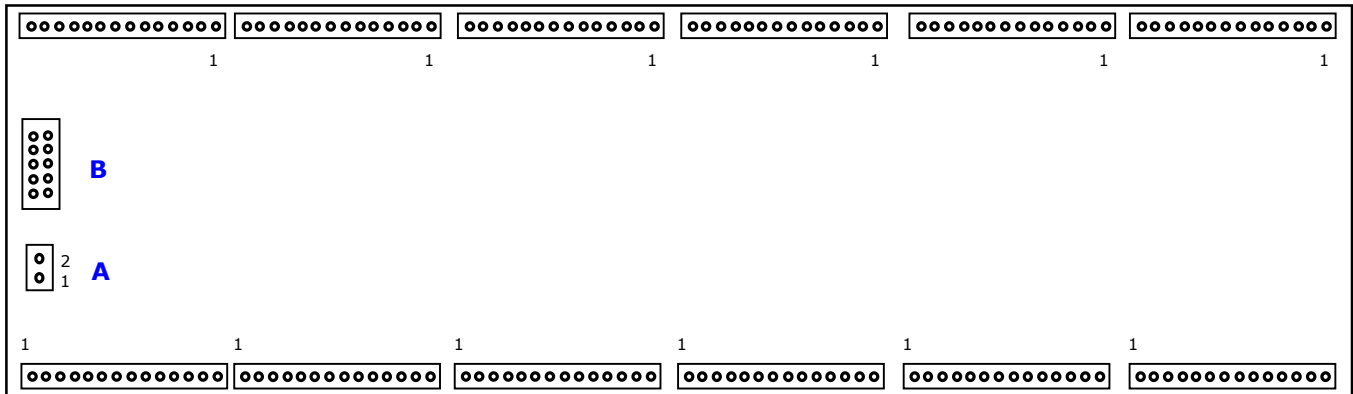
**Expansion module eight (8) doors**



**Expansion module ten (10) doors**



**Expansion module twelve (12) doors**



**Sockets Connector description:**

**A: Expansion module power supply – 12VDC - Pin#1: +12VCD, Pin #2: Gnd**

Power requirement calculation:

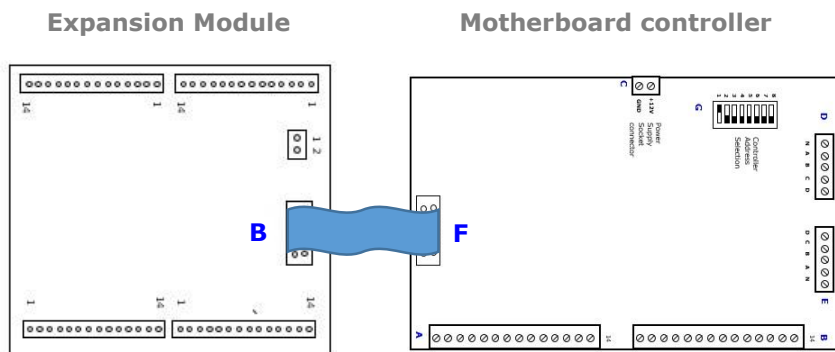
For each expansion module the power required should be calculated as 0.2A per door plus the current required by the locking device.

Example:

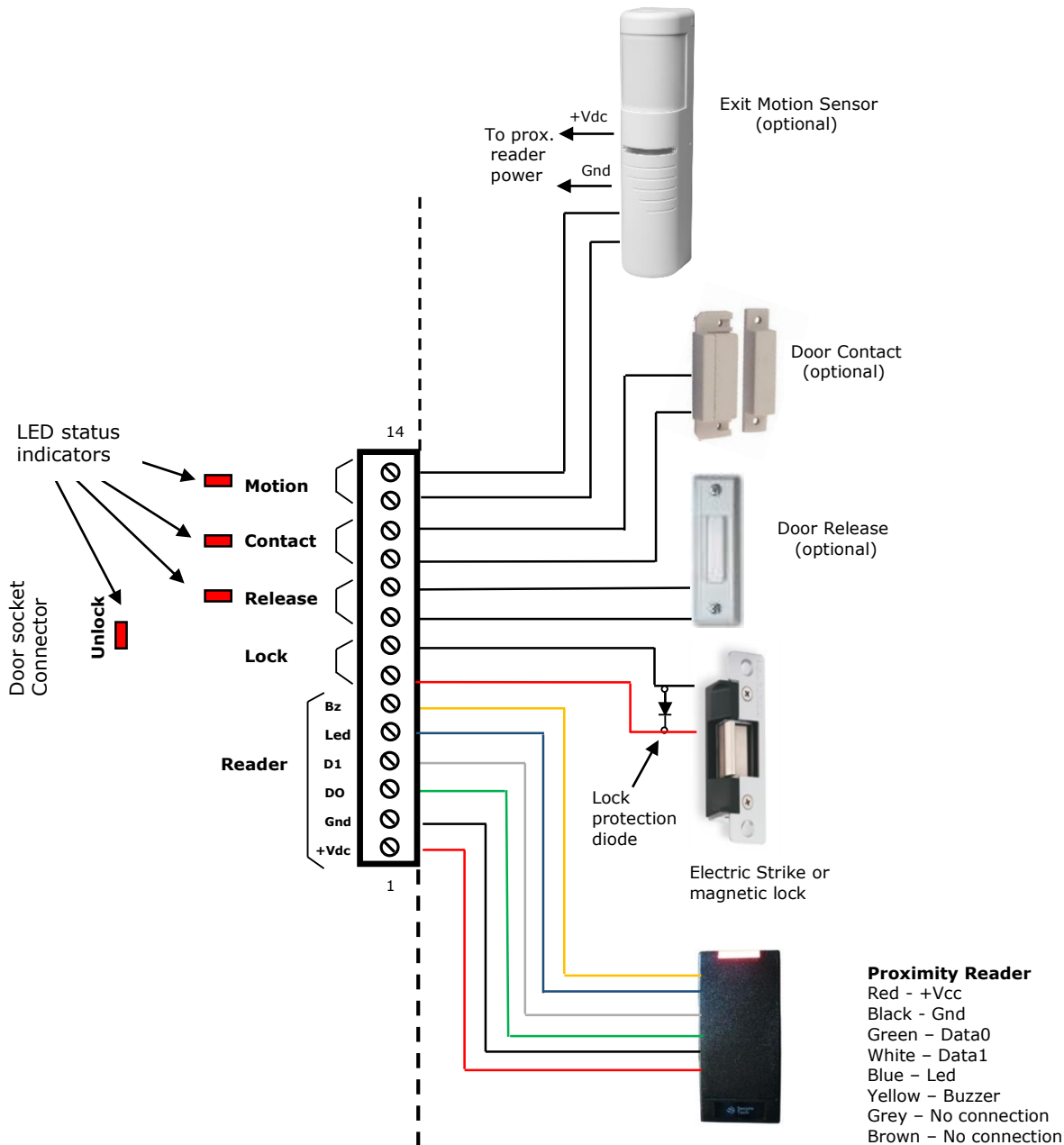
For a four (4) door expansion module, with 12vdc, 0.5A electric strikes, the total power required will be:  $4 \times (0.2A) + 4 (0.5A) = 0.8 A + 2A = 2.8 A$  . A power supply 12v, 3A (36W) will be required.

**B: Expansion module communication socket**

Connection to motherboard controller: Connector **F** on motherboard controller to Connector **B** on expansion modules (cable provided)



## Door Socket Connector Description: Devices Circuit Diagram



### Recommended Cables Specifications:

**Proximity Reader:** 6 Conductors - 22 AWG – Shielded /max distance: 300 feet

\*optional for low noise environment and distance < 200 feet: alarm quad cable (4x 22awg)

- 1) Board bridge between board connector **4**- Prox. Reader/ Data 1(White) and **5**- Prox. Reader/Led (Blue)
- 2) Resistor 220ohms on the reader end between Led line (blue) and D1 line (white)

**Electric Strike:** 2 Conductors - 18 AWG

**Power supply:** 2 Conductors -18 AWG

**Door Contact:** 2 Conductors- 22 AWG

**Push Button REX:** 2 Conductors- 22 AWG

**Motion Detector REX:** 4 Conductors- 22 AWG