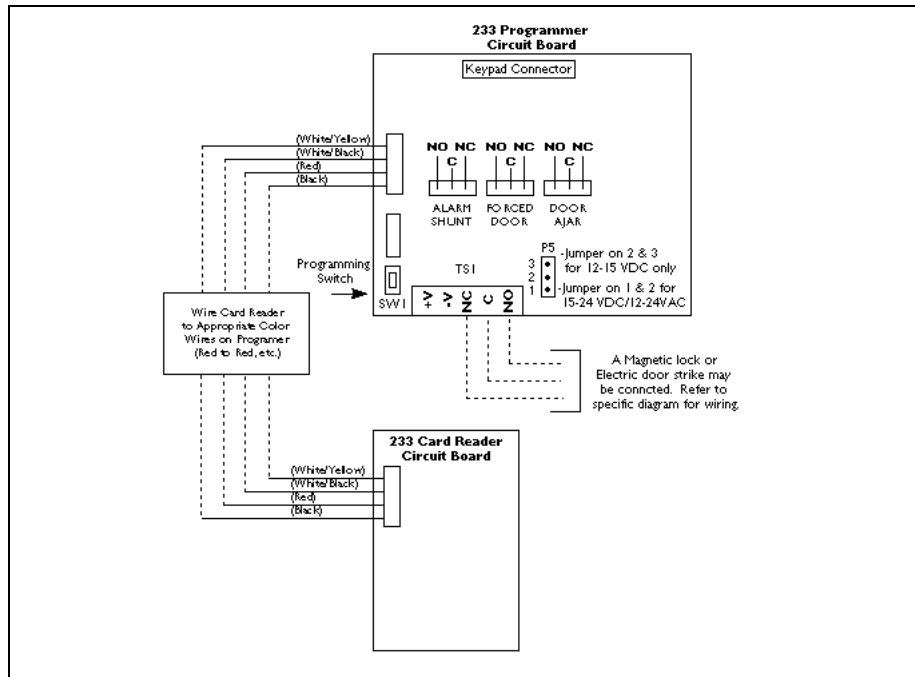


DOOR-GARD SELF-CONTAINED ACCESS CONTROL SYSTEMS

233 Wiring Diagrams and Specifications



SPECIFICATIONS:

MECHANICAL:

CASE DIMENSIONS:

1.75" w x 4.50" h x 1.55" d

ELECTRICAL:

VOLTAGE:

12 to 24 volts AC or DC (selected by jumper)

CURRENT:

@12VDC 20ma typical–50ma worst case

@24VDC 25ma typical–70ma worst case

Note: keypads using additional relays require an additional 15ma for each relay energized.

OUTPUTS:

Main relay: 8 Amp, Form-C @24VDC– 10 Amp surge

Alarm Zone Shunting Relay: 1 Amp, Form-C @24VDC

Forced Door Relay: 1 Amp, Form-C @24VDC

Propped Door Relay: 1 Amp, Form-C @24VDC

ENVIRONMENTAL:

TEMPERATURE:

-20° F to 130° F (-28° C to 54° C)

TECHNICAL NOTES

- To avoid ESD (electro-static discharge) from interfering with the operation of the Door•Gard, ground the negative terminal of the keypad to earth ground. If the power supply can not be grounded, then the case should be grounded.
- When using this device to operate an electric locking device you must install either the diode for DC voltage or the MOV for AC voltage (as shown in diagrams). They should be installed as close to the lock as possible. Installation of these devices will prevent the "electrical kick back" voltage generated by the locking device from damaging the keypad.
- If you are using AC voltage to power your Door•Gard you must install the MOV and appropriate resistor across your input voltage. Installation of these devices will help filter any "surges" or "transients" from the AC voltage source (as shown in diagrams) which could damage the keypad.
- The bi-color LED provided with this Door•Gard will illuminate red when the Lock Release Relay is off, and green when the relay is energized.
- When mounting this unit outside, apply silicone to the area where wires enter the case. This will help prevent warm air from condensing on the circuit board.
- For use in extreme weather conditions, please consult the factory for additional methods of protecting your Door•Gard from the environment.

- To speed installation, holes have been spotted on the inside back of the housing for mounting to a wall or single-gang electrical box.
- Holes have been spotted on inside front of the housing for the addition of extra LED's (not included).
- If a door position sensor input is not used, it must be jumpered closed.

PACKING CHECKLIST

233 CARD READER

233 PROGRAMMING KEYPAD

THREE CONDUCTOR WIRING HARNESS (4)

FOUR CONDUCTOR WIRING HARNESS (2)

SLOTTED SCREWS (2)

ALLEN HEAD WRENCH (1)

M.O.V. (2)

100Ω Resistor (1)

10Ω Resistor (1)

IN4004 diode (1)

FEATURES AND PROGRAMMING GUIDE

WARRANTY CARD

The diagram illustrates the wiring for the TSI unit. It includes the following components and connections:

- Exit Switch:** A normally open switch connected to the TSI unit.
- Door Position Switch:** A normally closed switch connected to the TSI unit.
- Input Loop Common:** A common connection point for the Exit and Door Position switches.
- Door Position Input:** A connection point for the Door Position switch.
- Timed Egress Input:** A connection point for the Exit switch.
- TSI Unit:** The central control unit with terminals for +V, -V, NC, C, and NO.
- Alarm Shunt:** A connection point for the Alarm Shunt.
- Forced Door:** A connection point for the Forced Door.
- Door Ajar:** A connection point for the Door Ajar.
- Power Supply:** A 12 or 24 volt AC/DC power supply connected to the +V and -V terminals.
- Note:** lock voltage must match power supply voltage.
- Magnetic door lock (fail safe):** A connection point for the Magnetic door lock.
- Transorb:** A connection point for the Transorb.

The diagram illustrates the wiring for the TS1 device. Key components and connections include:

- Exit Switch:** A normally open switch connected to the **Exit** terminal.
- Door Switch:** A normally closed switch connected to the **White/orange** terminal.
- Power Supply:** A 12 or 24 volt AC/DC power supply connected to the **+V** and **NC** terminals. A note specifies: "Note: lock voltage must match power supply voltage".
- TS1 Device:** Features a **Programming Switch** labeled **SW1** and a terminal block with **P5** (pins 1, 2, 3).
- Outputs:**
 - ALARM SHUNT:** Connected to the **NO** terminal.
 - FORCED DOOR:** Connected to the **NC** terminal.
 - DOOR AJAR:** Connected to the **C** terminal.
- Additional Connections:**
 - White:** Connected to the **White** terminal.
 - Brown:** Connected to the **Brown** terminal.
 - Electric door strike (fail secure):** Connected to the **NO** terminal.
 - Transorb:** Connected to the **NC** terminal.
- Terminal Block Legend:**
 - NO NC NO NC NO NC**
 - C C C**
 - ALARM SHUNT FORCED DOOR DOOR AJAR**

The diagram illustrates the wiring for the TS1 alarm panel. Key components and their connections include:

- Power Supply:** A 12 or 24 volt AC/DC power supply is connected to the panel's +V and -V terminals. A note specifies: "Note: lock voltage must match power supply voltage".
- Door Lock:** A magnetic door lock (fail safe) is connected to the panel's +V and -V terminals.
- Exit Switch:** A normally open switch is connected to the panel's +V terminal and the "Exit" terminal.
- Door Switch:** A normally closed door switch is connected to the panel's +V terminal and the "Door Ajar" terminal.
- Alarm Shunt:** The "Alarm Shunt" terminal is connected to the panel's +V terminal.
- Forced Door Ajar:** The "Forced Door Ajar" terminal is connected to the panel's +V terminal.
- Siren and Sounder:** A siren and a sounder are connected to the panel's +V and -V terminals. The siren is connected to the +V terminal and the sounder is connected to the -V terminal.
- Panel Terminals:** The panel has terminals for +V, -V, NO, NC, C, and a common terminal. The "Exit" terminal is also labeled "Input Loop Common Door Position Input Timed Egress Input".
- TS1 Module:** The TS1 module has terminals for +V, -V, NO, NC, C, and a common terminal. It also has a "Programming Switch" and a "SW1" terminal.
- Wiring Notes:**
 - White/orange wire connects to the "Exit" terminal.
 - White wire connects to the "Exit" terminal.
 - Brown wire connects to the "Exit" terminal.
 - Jumpers on terminals 2 & 3 are for 12-15 VDC only.
 - Jumpers on terminals 1 & 2 are for 15-24 VDC/12-24VAC.

The diagram illustrates the wiring for the TS1 alarm panel. Key components and their connections include:

- Power Supply:** A 12 or 24 volt AC/DC power supply is connected to the panel's +V and -V terminals. A note specifies: "Note: lock voltage must match power supply voltage".
- Door Switches:**
 - An "Exit" button (normally open switch) is connected to the "Input Loop Common" terminal.
 - A "normally closed door switch" is connected to the "Timed Egress Input" terminal.
 - Wires for "White/orange", "White", and "Brown" are connected to the "Door Position Input" terminal.
- Alarm Panel (TS1):** The central unit with terminals for +V, -V, NO, NC, and C. It includes a "Programming Switch" (SW1) and a "P5" terminal block with pins 1, 2, 3, and 4.
- Outputs:**
 - Alarm Shunt:** Connected to the NO terminal.
 - Forced Door:** Connected to the NO terminal.
 - Door Ajar:** Connected to the NO terminal.
 - Siren:** Connected to the +V and -V terminals.
 - Sounder:** Connected to the +V and -V terminals.
 - Electric door strike (fail secure):** Connected to the +V and -V terminals.
 - Transorb:** Connected to the -V terminal and ground.
- Terminal Block:** A 5-pin terminal block at the bottom with pins labeled 1, 2, 3, 4, and 5. Pin 1 is connected to the +V terminal, pin 2 to the -V terminal, pin 3 to the NO terminal, pin 4 to the NC terminal, and pin 5 to the C terminal.