Access Control Cheat Sheet
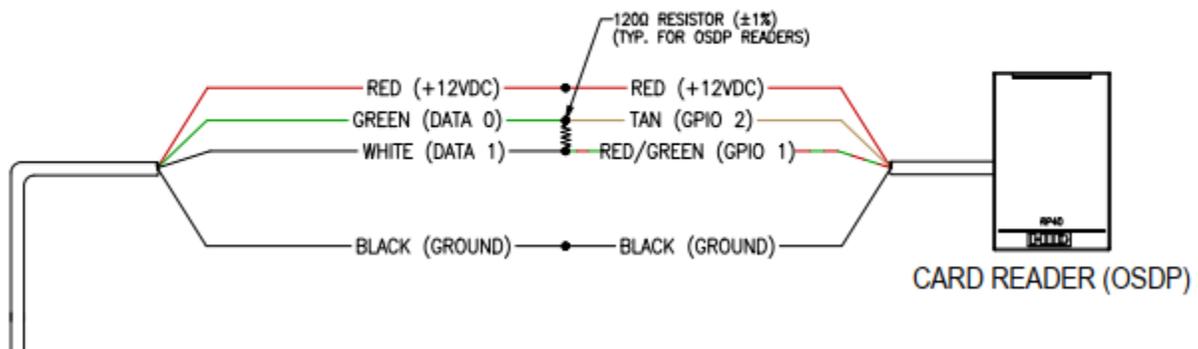
Wiegand Wiring Typical:
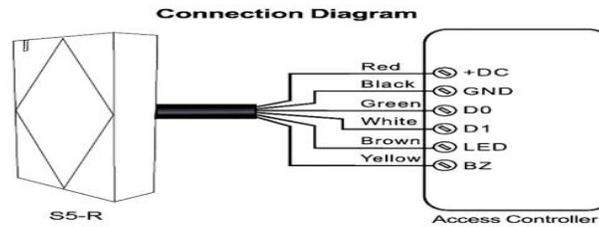
Reader Wire Color	Composite Wire Color	Function
Red	Red	12VDC
Black	Black	Ground
Green	Green	D0
White	White	D1
Yellow	Blue	Buzzer/Beeper
Orange	Brown	Green LED

Shield should only be terminated on one end of the cable, usually at the panel, just twist around the jacket at the card reader
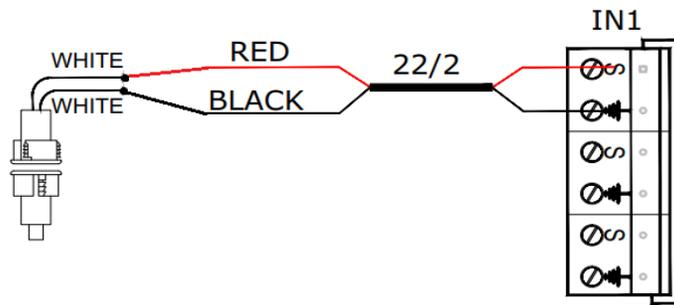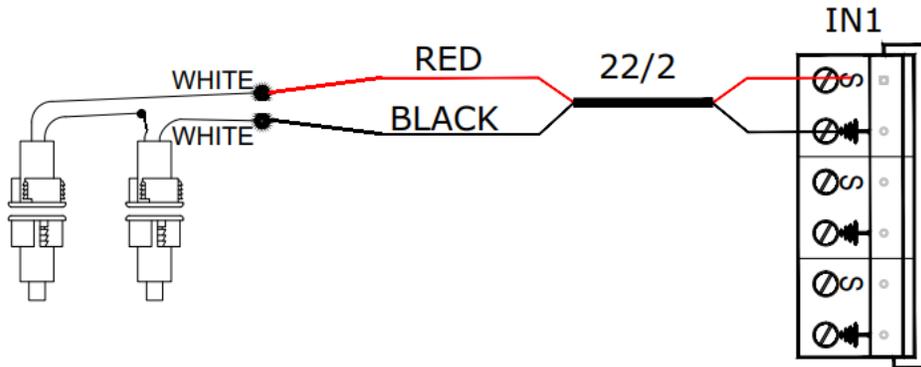
OSDP Wiring:

NOTE 120Ohm resistor at reader between Tan/Red With Green Stripe

Door Contacts

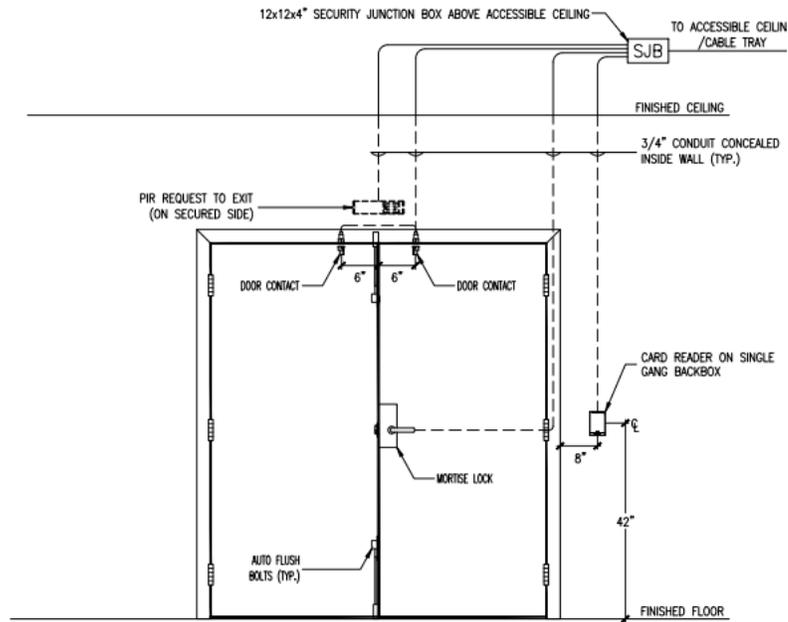Wired Normally Closed and Wired in series as shown below:

Request to Exit (REX)

- Typically Wired Normally Open regardless of the type of rex used (integrated rex in handle/crash bar, motion sensor rex PIR above door etc)
- Wire Colors and DIP Switches vary depending on model so they will not be displayed here
- For MagLocks the power should pass directly through the REX device in series to be fully code compliant, though very rarely does this happen. Most Motion detectors have 2 relays, one should be the signal to the panel and the other should be the power cut relay.
- BOSCH DS160 dip switch settings: 12357 on, all others off.

Device Location Measurements

- Card Reader – 42-48 inches above finished floor
- Key Switch – 42-48 inches above finished floor
- Push-To-Exit – 42-48 inches above finished floor
- Door Contacts – 4-6 inches in from edge of door

Typical Door Layout

12x12x4" SECURITY JUNCTION BOX ABOVE ACCESSIBLE CEILING

TO ACCESSIBLE CEILIN /CABLE TRAY

SJB

FINISHED CEILING

3/4" CONDUIT CONCEALED INSIDE WALL (TYP.)

PIR REQUEST TO EXIT (ON SECURED SIDE)

DOOR CONTACT   6"   6"   DOOR CONTACT

CARD READER ON SINGLE GANG BACKBOX

MORTISE LOCK

8"

42"

AUTO FLUSH BOLTS (TYP.)

FINISHED FLOOR

B TY—3.1 **DOUBLE DOOR - CARD READER W/ ELECTRIC LOCK**
SCALE: N.T.S.

NOTE REX Device is on Secured Side of door and Card Reader is on Unsecured side of door

Altronix ACM8 FAI Connection

Fig. 6   Normally Closed - Non-Latching FACP trigger input:

J3

TRG

RET - / + / INTERFACE / INP- / +INP

N.C. DRY TRIGGER INPUT

JUMPER

NO / C / NC / FACP
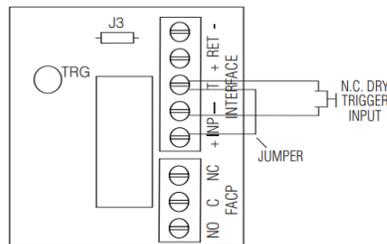
LifeSafetyPower FPO Fire Alarm Connection

Activation with a Normally Closed Relay Contact

FAI Activates when the NC contact OPENS.

FAI Deactivates when the NC contact CLOSES.

Note: FAI with a NC contact cannot be tested by removing the terminal strip, as this will remove the jumper wires from V+ and V- as well. To test, remove one wire going to the NC Contact.

FAI INPUT

L   L   V-   I-   I+   V+

NC Contact
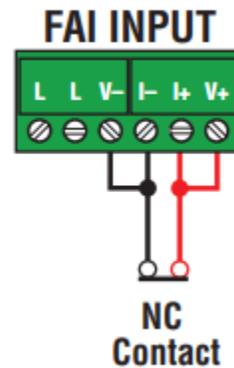
Access Control Panel Wiring Quick Reference:

- All Non-Vanderbilt systems will have DC on 1st input and REX on 2nd input with 3rd or 4th if available being Auxillary Inputs
- Vanderbilt Systems will be reversed, REX on 1st input and DC (DOD) on 2nd input
- All outputs from the Reader Board Relays to the Power Supply Inputs are wired as Normally Open. They will activate on closure