

Reader wiring, colour code and pinout

Terminate to the reader's own label first, then check it against the controller diagram. D0 and D1 swapped is the most common wiring fault on a Wiegand door.

Companion sheet to <https://www.falco-ecom.com/wiegand-reader-wiring>

Reader colour code

WIRE	FUNCTION	COLOUR
1	+12V	Red
2	0V	Black
3	D1	White
4	D0	Green
5	Green LED	Grey
6	Buzzer	Purple

RJ-45 pinout, direct and cross cable

PIN	DIRECT CABLE	CROSS CABLE
1	White-orange	White-green
2	Orange	Green
3	White-green	White-orange
4	Blue	Blue
5	White-blue	White-blue
6	Not used	Not used
7	White-brown	White-brown
8	Brown	Brown

Pins 1 and 3 carry the data pair and are what differ between a direct and a cross cable. Compare the columns before you crimp.

Controller reader port

TERMINAL	FUNCTION
12V	Reader supply from the controller
0V	Reader ground
D0	Wiegand data 0
D1	Wiegand data 1
LED	Green LED control
BZ	Buzzer control

Both reader ports — IN READER and OUT READER — carry this same set.

Before the door is powered up

- D0 on D0 and D1 on D1, checked at both ends.
- Reader 12V taken from the reader port, not from the lock supply — the port supplies 12V at 0.5A.
- Reader LED lights when the controller is powered.
- One known credential reads and the event log number matches the card.
- Screen the data pair and keep the run clear of mains cable; a loose terminal reads intermittently rather than not at all.

Door record

DOOR	READER MODEL	PORT	CABLE TYPE	TERMINATED BY	DATE

Grounded in Falco controller datasheets, VAULT Site support documentation and the Falco controller wiring diagrams. Model lists, pricing and project scoping:
<https://www.falco-ecom.com/contact-us>