

Egress and lock fail-state decision sheet

One row per door. The fail state is the door's decision; the release behaviour is the access control system's.

Companion sheet to <https://www.falco-ecom.com/fail-safe-vs-fail-secure>

The two fail states

LOCK BEHAVIOUR	ON POWER LOSS	USUAL USE
Fail-safe	Releases — the door is open	Doors on an escape route
Fail-secure	Stays locked — mechanical means of escape required	Doors where security outweighs a power-failure release

The fail state is decided by the egress strategy and the local fire authority, not by the access control system.

What the access control side records

DECISION	WHAT DECIDES IT	WHERE IT IS RECORDED
Lock type	Door type, frame and egress route	Door hardware schedule
Fail state: safe or secure	Egress route and fire strategy	Door hardware schedule
Relay state, normally open or closed	Whether the lock is powered to lock or powered to release	Controller relay jumper and software relay setting
Egress device	Door type and local code	Push button, break glass, or both, wired back to the controller
Release on alarm	Fire strategy for that door	Fire panel dry contact on IN1 and 0V, plus the fire alarm group
Re-secure after alarm	Building procedure	Operator action in the software — the system does not re-lock on its own

Per-door worksheet

[illegible]

Check before handover

- The fire panel output is a dry contact — a voltage signal can damage the controller input.
- The break glass is wired in series with the electromagnetic lock for physical release.
- Every controller that should release on alarm is ticked into the right fire alarm group, including the master controller (ID 00).
- After an alarm test, the doors are returned from Security Off to Security On — the system does not do it by itself.

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>