Pylae – Door Access Control System

Bill of Materials (BOM)

This document lists all required required parts for retrofitting a door with:

- Fail-secure 12V electric strike
- 125 kHz EM RFID reader (Wiegand-26)
- Exit button
- Door contact
- Shared controller (Sonoff 4CH Pro R3)
- Shared 12V PSU

Prices are approximate based on the Greek market (Skroutz/Shopflix).

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1. Parts List (with links)

Part Name	Description	Typical Price (EUR)	Search Link
Fail-secure Electric Strike (12V DC)	Frame-mounted "κυπρί", compatible with existing mechanical lock; stays locked on power loss	17–30 €	https://www.skroutz.gr/search?keyphrase=ηλεκτρικό+κυπρί+12V+DC
RFID Reader (125 kHz EM, Wiegand-26, IP65)	Cheapest and simplest reader type; 4-wire data (D0/D1)	18–35 €	https://www.skroutz.gr/search?keyphrase=rfid+reader+125khz+wiegand

Part Name	Description	Typical Price (EUR)	Search Link
Exit Button (NO contact)	Allows egress independent of network; wired in parallel to relay	5–15 €	https://www.skroutz.gr/search?keyphrase=μπουτόν+εξόδου
Door Contact (Magnetic Reed Switch)	Detects door open/closed state; useful for "door left open" alerts	2–6 €	https://www.skroutz.gr/search?keyphrase=μαγνητική+επαφή+πόρτας
UTP Cable (Cat5e/Cat6)	Carries reader + contact signals	0.30–0.60 €/m	https://www.skroutz.gr/search?keyphrase=utp+cat6
2×0.75 mm² Cable	Power cable for electric strike	0.50–1.00 €/m	https://www.skroutz.gr/search?keyphrase=2x0.75+καλώδιο
Junction Box / Surface Box	Small box near door for terminations	2–5 €	https://www.skroutz.gr/search?keyphrase=κουτί+συνδέσεων
Sonoff 4CH Pro R3	4-channel relay controller; each relay drives one strike	25–35 €	https://www.skroutz.gr/search?keyphrase=Sonoff+4CH+Pro+R3
12V DC PSU (5A or 10A)	Powers multiple strikes and readers	8–15 €	https://www.skroutz.gr/search?keyphrase=τροφοδοτικό+12V+5A
RFID Cards / Keyfobs (EM4100)	Compatible cards/fobs for 125 kHz readers	1–2 €/piece	https://www.skroutz.gr/search?keyphrase=EM4100+125khz+cards

2. Per-Door Cost Summary

Item	Price Range
Electric Strike	17–30 €
RFID Reader	18–35 €
Exit Button	5–15 €
Door Contact	2–6 €
Cabling & Junction Box	10–15 €

Per-door total: ≈ 57–62 €

3. Shared Hardware Cost Allocation

Shared Item	Total Cost	Cost per Door (4–8 doors)
12V DC PSU (5A–10A)	8–15 €	1–3 €
Sonoff 4CH Pro R3	25–35 €	5–9 €

Shared contribution per door: ≈ 7–12 €

4. Final Cost Per Door

≈ 67–72 € per door (typical installation)

With professional wiring cabinet:

≈ 70–80 € per door