

# Lock Types

## 1. Combination Padlocks

Combination padlocks use rotating discs or wheels that align gates to allow the shackle to open once the correct sequence is dialed.

High-quality models feature hardened steel shackles, anti-shim mechanisms, and recessed dial designs to resist physical attacks.

Common applications include gym lockers, school lockers, and storage units; regular lubrication maintains smooth operation.

## 2. Keyed Padlocks

Keyed padlocks rely on pin-tumbler or wafer-tumbler mechanisms inside a cylinder, engaging only when the correct key aligns each pin to the shear line.

Body materials range from brass to boron alloy; features like anti-drill plates and weatherproof coatings enhance durability.

Key management and restricted keyways prevent unauthorized duplication; lost keys represent the main security risk.

## 3. Shrouded Padlocks

Shrouded padlocks have a protective collar around the shackle to minimize exposed areas for cutting tools.

Ideal for outdoor utility cabinets and industrial applications, constructed from hardened steel and corrosion-resistant finishes.

Higher cost is offset by significantly increased resistance to bolt cutters and saw attacks.

## 4. Smart Padlocks

Integrate Bluetooth, Wi-Fi, or fingerprint sensors for keyless entry; controlled via smartphone apps with entry logs.

Features include guest digital keys, auto-lock timers, and integration with smart home ecosystems.

Require battery power; firmware updates and physical tamper protections are essential for security.

## 5. Single-Cylinder Deadbolt

Consists of a key cylinder on the exterior and a thumb-turn on the interior, extending a hardened steel bolt into the frame.

When paired with reinforced strike plates and long screws, provides strong resistance against kick-ins.

Vulnerability: adjacent glass panels can allow intruders to manipulate the thumb-turn unless protected.

## 6. Double-Cylinder Deadbolt

Requires a key on both sides to operate, preventing interior bolt manipulation through broken glass.

Enhances security but may conflict with fire codes; consider emergency-release designs.

Best for doors without side windows or where controlled egress is managed.

## 7. Lockable Thumb-Turn Deadbolt

Interior thumb-turn that can be locked by a secondary key, combining convenience with added security.

Useful for securing properties during prolonged absence without losing interior exit capability when unlocked.

Installation identical to single-cylinder deadbolts; ensure robust frame reinforcement.

## 8. Knob Locks

Combine latch and cylinder within the knob; latch is spring-loaded and retracts when turned.

Suitable for interior doors; vulnerable to bypass (loiding) using thin tools.

Often installed in pair with deadbolts for exterior door security.

## 9. Lever-Handle Locks

Cylinder housed in a lever handle, improving accessibility for users with limited dexterity.

Standard in commercial buildings for ADA compliance; typically paired with separate latch or deadbolt.

Clutch mechanisms prevent lever damage under forced torque.

## 10. Mortise Locks

Installed into a pocket cut in the door edge, containing both latch and deadbolt in one steel case.

Support functions like storeroom, classroom, and passage; high customization and interchangeable cores.

Maintenance: periodic lubrication; robust choice for high-traffic settings.

## 11. Rim Locks

Surface-mounted interior locking mechanism with visible box; exterior uses profile cylinder or warded key.

Aesthetic choice for heritage homes; lower security due to surface mounting.

Can be supplemented with modern deadbolts for enhanced protection.

## 12. Cam Locks

Cylinder with a rotating metal cam that engages a frame catch when turned.

Common in cabinets, mailboxes, and vending machines; cam size matched to panel thickness.

Easy to replace; key control and lubrication ensure smooth operation.

### 13. Euro Cylinder Locks

Modular cylinders used internationally; available in single, double, and thumb-turn variants.

Anti-snap, anti-drill, and anti-bump features available; standard in multipoint locking systems on uPVC doors.

Compliance with EN 1303 certification indicates durability and security.

### 14. Magnetic Locks (Maglocks)

Electromagnets hold an armature plate under power; rated by holding force (e.g., 600–1500 lbs).

Fail-safe unlocks on power loss for fire egress; fail-secure remains locked, used in secure zones.

Requires continuous power; integration with backup sources recommended.

### 15. Keycard Locks

Read data from mag-stripe, RFID, or smart cards to control electric strikes or maglocks.

Offer centralized credential management, temporary access, and entry audit trails.

Security level depends on card encryption; modern RFID smart cards resist cloning better than mag-stripes.

### 16. Disc Tumbler (Detainer) Locks

Utilize rotating discs rather than pins; each disc aligns a sidebar when correct key inserted.

High pick and drill resistance; commonly used by premium brands like Abloy.

Hardened steel discs and interactive keyways prevent impressioning attacks.

### 17. Wafer Locks

Use flat wafers aligned by key cuts; simpler and cheaper to produce than pin-tumblers.

Found in office furniture and low-cost padlocks; susceptible to picking and bumping.

Security sliders and tighter tolerances can improve resistance.

### 18. Tubular (Radial Pin) Locks

Pins arranged in a circle around the plug, engaged by a tubular key.

Common on vending machines and coin-operated equipment; resistant to standard picks.

Specialized tubular picks exist; high-end models include false gates.

## 19. Cross Locks

Feature two perpendicular tumbler sets activated by one key rotation axis for added complexity.

Rare in residential use; chosen where enhanced pick resistance is required.

Custom-crafted keys and hardened components increase manufacturing costs.

## 20. Restricted Keyway Locks

Patented key profiles limit duplication to authorized dealers, ensuring strict key control.

Used in corporate, government, and institutional settings; higher initial cost.

Reduces unauthorized copying but requires dealer involvement for replacements.

## 21. Biometric Locks

Authenticate users via fingerprint, iris, facial, or vein recognition; store templates locally.

Often combined with PINs or RFID cards for multi-factor security.

Vulnerabilities include spoofing; anti-spoof sensors and liveness detection improve reliability.

## 22. RFID Locks

Use low-frequency (125 kHz) or high-frequency (13.56 MHz) RFID tags to activate solenoids or strikes.

Fast authentication and integration with enterprise access control; contactless operation.

Security depends on encryption (e.g., MIFARE DESFire vs. basic tags).

## 23. Keyless Mechanical Locks

Push-button or dial combination locks operate without electronics; codes manually changed.

Ideal for environments without power; resettable by authorized users.

Code visibility and wear can reveal patterns; rotating dials reduce traces.

## 24. Electronic (Digital) Safe Locks

Keypad-controlled locks for safes, featuring multiple user codes, time delays, and audit logs.

Lockouts and lockdown modes deter brute-force attempts; battery-operated with low-battery alerts.

Installation may include relockers and drill-resistant plates.

## 25. Mechanical Dial Safe Locks

Traditional three-wheel combination locks using a dial sequence; no power needed.

Extremely reliable over decades; resistant to electronic attacks.

Requires skilled manipulation to pick; routine maintenance keeps them precise.

## 26. Time Locks

Programmable on vaults to only allow opening during preset time windows.

Prevent after-hours access; dual-system locks often pair time locks with combination locks.

Standard in banking and high-security vault applications.

## 27. Chain-and-Hasp Locks

Combine a staple (hasp) and a padlock or chain to secure doors or lids.

Versatile for sheds, gates, and toolboxes; chain length offers flexibility.

Quality depends on chain grade and padlock security.

## 28. Chain Locks

Door-mounted chain allows partial opening while retaining security.

Offers visitor identification; minimal resistance to force.

Best used as supplemental security rather than primary lock.

## 29. Barrel Bolt / Slide Bolt

Manual sliding bolt securing door or gate, typically from the inside.

Simple and durable; no key required unless paired with padlock.

Can be surface-mounted or flush-mounted for different aesthetics.

## 30. Drop Bolt (Electric Bolt) Locks

Motor-driven bolts extend into the frame upon energization.

High holding force; integrated with electronic access panels.

Fail-safe or fail-secure configurations available.

## 31. Electronic Strike Locks

Electric strikes replace standard strike plates, releasing latch electronically.

Integrate with intercoms, keypads, or card readers for remote entry.

Installation requires wiring and power but preserves mechanical hardware.

## 32. Pivot Locks

Locks mounted at door pivots, common on frameless glass doors.

Secure top or bottom pivot points; discrete appearance.

Often combined with point-fixed hinges for seamless design.

### 33. Multi-Point Locking Systems

One handle lift or key turn operates multiple bolts or hooks along the door edge.

Enhances door seal (weatherproofing) and security; common on uPVC and composite doors.

Mechanism requires precise alignment and periodic adjustment.

### 34. Locking Bars

Link several locking points with bars actuated by a central lock.

Used on high-security doors and vaults; distributes force across multiple points.

Construction from hardened steel bars and robust frames ensures strength.

### 35. Furniture Locks

Small pin- or wafer-tumbler locks integrated into desks, cabinets, and wardrobes.

Often keyed alike for convenience; keyed different options available.

Low security but useful for basic protection of personal items.

### 36. Gate Locks

Heavy-duty padlocks, barrel locks, or slide bolts designed for outdoor gates.

Weatherproof finishes and tamper-resistant features protect against elements and theft.

Installation on metal or wood gates may require mounting plates.

### 37. Vehicle Ignition Locks

Integrated into a vehicle's ignition switch; modern versions include transponder chip authentication.

Prevent hot-wiring; paired with immobilizers and electronic monitoring.

Key fob integration allows push-button start with encryption.

### 38. Steering Wheel Locks

Mechanical clamps or bars attach to the steering wheel to prevent rotation.

Visible deterrent and physical barrier; simple to install and remove.

Quality models resist cutting and leverage attacks.

### 39. Surface-Mounted Night Latches

Spring-latch locks that automatically lock when the door closes.

Interior knob allows exit; exterior operation via key.

Often used in conjunction with deadbolts for enhanced nightly security.

#### **40. Anti-Pick / High-Security Certified Locks**

Locks certified to standards like UL437, EN1303 featuring hardened components, anti-pick pins, and drill plates.

Restricted keys and patented keyways prevent unauthorized duplication.

Ideal for high-risk environments requiring maximum resistance to forced entry.