ELEVATE
Future Faster

FAMILY BROCHURE

Electronic Rack Handles

Contents

Introduction	3
Key Benefits	4
Data Centre Rack Handle Technologies	6
Southco Handles from Elevate	12
TANlock Handles from Elevate	18
Dirak Handles from Elevate	22
Data Centre Rack Handle Portfolio	25

Elevate Electronic Rack Handles

Elevate Electronic Rack Handles provide a smarter, more secure approach to managing access at rack level within modern data centre environments.

Moving beyond traditional mechanical locking, the intelligent solutions available from Elevate combine advanced authentication technologies, real-time monitoring, and flexible access control to protect critical infrastructure. With options ranging from RFID and biometric access to mobile-enabled and offline solutions, Elevate delivers scalable, compliant, and operationally efficient rack security, tailored to the needs of consultants, operators, and installers.

Powered By Partnerships

southco®

Proven electronic access hardware delivering reliable, scalable rack-level security with seamless integration into DCIM and access control systems.

TANlock®

Advanced, modular access control technology combining biometric, PIN, and RFID authentication for high-security data centre environments.

DIRAK®

Flexible, future-ready locking solutions enabling offline and NFC-based access, including smart cylinder and mobile credential integration.

Key Benefits of Elevate Electronic Handles

Electronic handles for data centre racks offer significant advantages over traditional mechanical locks, primarily through enhanced security, detailed audit trails, remote management and improved compliance with data privacy regulations.

Granular and Flexible Access Control

Administrators can define exactly who has access to specific racks, at what times, and on which days. This is a major improvement over physical keys.

Comprehensive Audit Trails

Access Control systems automatically log all access events (both authorised and unauthorised attempts), including who accessed the rack and exactly when.
This detailed logging is essential for security investigations and simplifies the process of demonstrating compliance with regulations such as HIPAA, GDPR, and PCI-DSS.

Integration with Advanced Authentication

Access rights can be managed, granted, or revoked remotely through central software, eliminating the need to physically manage key distribution or change locks when personnel changes occur. This offers significant operational efficiency, especially for managing multiple locations or responding to incidents after hours.

Remote Management

EAC handles support various credential types, including RFID cards, PIN codes, biometric scanners (fingerprints, etc.), and even smartphone apps using NFC or Bluetooth technology. Multi-factor authentication can also be implemented for highly sensitive areas, adding another layer of security.

Offline Access

In some cases Data Centres require access through handles that are not connected to any networks – this is known as an Offline system. Such systems are available using MiFare RFID Cards, or through using Mobile Phone Technology known as NFC, where the phone contains the access keys.

Data Centre Rack Handle Technologies

Electronic rack handles are no longer simple electromechanical locks. In modern data centres, they function as distributed access control endpoints at cabinet level, integrating with DCIM, BMS, and enterprise access control systems.

The following provides a technical breakdown of the primary authentication and connectivity technologies used in intelligent rack handles.

RFID MIFARE Cards

Technology Type: Contactless smart card (13.56 MHz HF RFID)

Common Standard: MIFARE (ISO/IEC 14443)

How It Works

The handle contains an embedded RFID reader. When a credential (card or fob) is presented, the reader authenticates the card UID or encrypted sector data against locally stored permissions or a central access control database.

Technical Characteristics

- HF 13.56 MHz frequency
- Short read range (typically < 10 cm)
- Supports encrypted sectors (depending on MIFARE variant)
- Can integrate with enterprise PACS systems

Integration Considerations

- Credential management via central controller or DCIM
- Support for role-based access control (RBAC)
- Audit logging per access event
- Online vs offline validation architecture

Use Case

Suitable for environments already running corporate access card systems where cabinet-level security needs to align with building-level access control.

Biometric Sensors

Technology Type: Fingerprint (most common), sometimes multi-modal

How It Works

The handle includes a biometric sensor that captures a fingerprint template. The template is either:

- Matched locally against stored templates (1:N or 1:1), or
- Verified against a central authentication server

Technical Characteristics

- Capacitive or optical fingerprint sensor
- Encrypted template storage
- Liveness detection (in higher-end implementations)
- Event logging tied to a unique biometric ID

Architecture Considerations

- Template storage location (local vs central)
- Privacy and regulatory compliance (e.g., biometric data handling)
- Failover mechanisms
- Multi-factor support (biometric + card/PIN)

Use Case

High-security racks, regulated industries, or environments requiring strong non-transferable authentication.

PIN Keypads

Technology Type: Numeric keypad authentication

Common Standard: MIFARE (ISO/IEC 14443)

How It Works

Users authenticate by entering a numeric PIN stored in the handle's local memory or validated via a connected controller.

Technical Characteristics

- Configurable PIN length
- Local storage of hashed PIN codes
- Timeout and retry lockout logic
- Can support time-based or scheduled access

Security Considerations

- Susceptible to credential sharing
- Requires administrative rotation policies
- Audit logs tied to user ID (if individually assigned)

Use Case

Edge facilities, smaller installations, or cost-sensitive deployments where identity assurance requirements are moderate.

Bluetooth Technology

Technology Type: Bluetooth Low Energy (BLE)

How It Works

The rack handle communicates with a mobile device via BLE. The user authenticates through a secure mobile application, which transmits encrypted credentials to the handle.

Technical Characteristics

- BLE protocol
- Encrypted credential exchange
- App-based identity verification
- Cloud or on-prem credential provisioning

Advantages

- Remote credential issuance and revocation
- Time-limited access tokens
- Reduced physical credential management
- Strong audit traceability

Architecture Considerations

- Mobile device management (MDM) compatibility
- Backend credential server integration
- Network independence (depending on configuration)
- Security of BLE pairing and encryption

Use Case

Distributed edge environments, colocation facilities, or operations involving contractors requiring temporary access.

Offline Readers

Technology Type: Standalone access control

How It Works

Permissions and authentication data are stored locally within the handle or access card. No continuous network connection is required for validation.

Key Characteristics

- Local user database
- Event log stored in non-volatile memory
- Periodic synchronization via USB, mobile app, or network (if available)
- Independent power and logic control

Resilience Benefits

- No dependency on live network
- Reduced attack surface
- Maintains enforcement during outages

Design Considerations

- Log extraction method
- Synchronization intervals
- Local storage capacity limits
- Administrative update workflows

Use Case

Remote sites, secure zones with network isolation, or facilities requiring operational continuity during network disruptions.

NFC Technology

Technology Type: Near Field Communication (13.56 MHz)

How It Works

NFC-enabled smartphones or credentials communicate with the rack handle via close-proximity contactless exchange. Often used for mobile credentials.

Technical Characteristics

- ISO/IEC 14443-based
- Secure element or host-based card emulation (HCE)
- Encrypted communication
- Smartphone-based digital credentials

Benefits

- Eliminates physical card issuance
- Supports dynamic credential provisioning
- Enables mobile-first access strategy
- Can integrate with enterprise IAM platforms

Integration Considerations

- Mobile OS compatibility
- Credential lifecycle management
- Cybersecurity hardening
- Interoperability with PACS/DCIM

Use Case

Modern enterprise environments standardizing on mobile identity platforms.

Southco Handles from Elevate

RFID MIFARE Cards

The DCR Racks use the H3-EM-66-100 Handle that support MiFare.

These kits allow you to install a Southco RFID MiFare Card Electronic handles into the DCR rack. Kits have the option of universal access control or connecting to an Elevate PDU.

Electronic Access Control

Adds a means of electronic access control to our Data Centre racks with a manual override, making racks a lot more secure with an access audit trial.

Easy Installation into Racks

Our kits provide everything needed to install the various handle options into our Racks including required interconnect cables

Remote Control of Rack Access

Through PDU software, this provide a remote level of access to the cabinets and can even provide a remote only unlock.

Supported Card Types

- MIFARE Classic 4K
- MIFARE Plus 2K
- MIFARE DESfire 4K
- MIFARE DESfire EV1
- HID iCLASS

Part Number Table

Part Number	Description
546-SCO-KT2	DC Rack Southco Lock Kit 2 Handles with Interconnect Box
546-SCO-KT6	DC Rack Southco Lock Kit Euro Unloaded 2 Handles with Interconnect Box
546-SCO-KT4	DC Rack Southco Lock Kit 2 Handles to Intelligent PDU
546-SCO-KT8	DC Rack Southco Lock Kit Euro Unloaded 2 Handles to Intelligent PDU

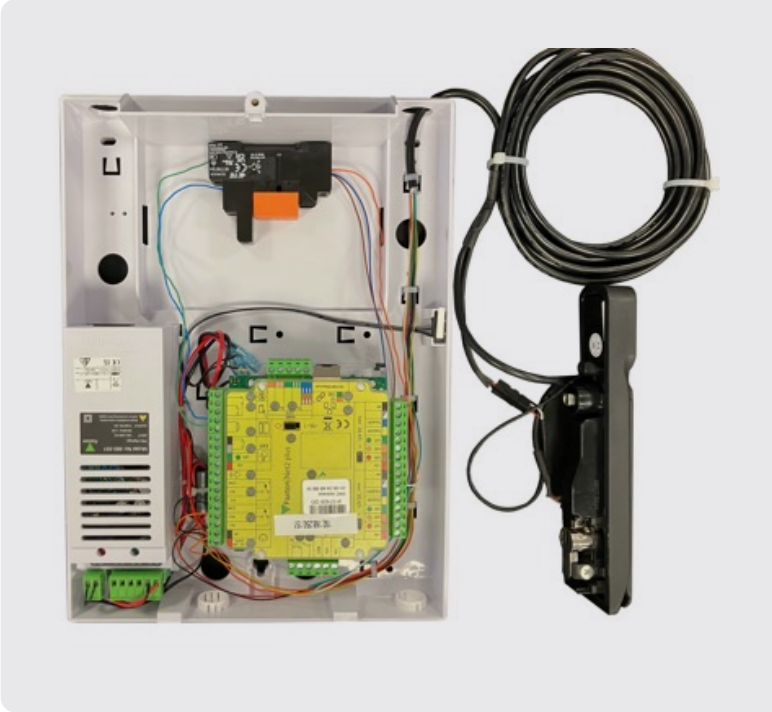
RFID MIFARE with Paxton

These kits allow you to install a Southco RFID MiFare Card Electronic handles into the DCR rack and connect to a Paxton Net2 Plus Access Control System.

The kits include all the wiring and components required for the handle to fully operate with the Paxton system.

Supported Card Types

- MIFARE Classic 4K
- MIFARE Plus 2K
- MIFARE DESfire 4K
- MIFARE DESfire EV1
- HID iCLASS



Part Number Table

Part Number	Description
546-SCO-PX2	DCR Rack Southco Lock Kit 2 Handles to Paxton Net2 Plus Controller

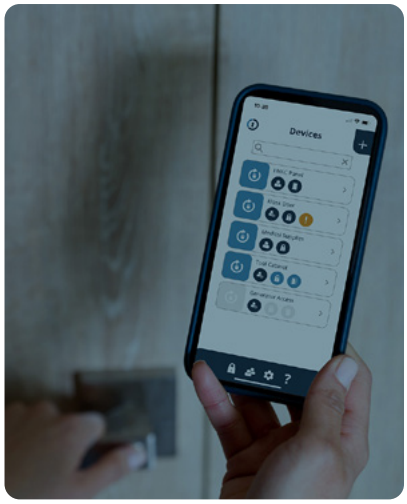
Bluetooth - Keypanion

Southco's wireless access control platform revolutionises how you manage industrial equipment and critical infrastructure.

With this system, you can use your smartphone or smart device to wirelessly access your equipment from anywhere, at any time. Manage multiple devices and users effortlessly through a web browser, offering scalability as your needs grow.

How It Works

The system comprises hardware with Bluetooth® technology designed to securely lock or latch doors, lids and panels. Paired with the Keypanion cloud-based access management platform, you can create and share digital keys securely with users around the world. The Keypanion App simplifies access management, while the web portal offers enhanced functionality for larger-scale equipment networks.



Effortless IoT Connectivity

The DCR Racks use the H3-EM-66-100 Handle that support Bluetooth using this kit.

These kits allow you to install a Southco Electronic handles and the Bluetooth Keypanion system, into the DCR rack. No connection to a PDU or Access control system is required.

The kit provides everything required for two handles into the DCR rack, it does also require a power supply to the Bluetooth module.

Using the App, this then give access control to the racks via your Mobile Phone.

Our platform provides a simple, plug-and-play solution, enabling you to monitor and control equipment access with zero installation hassle. Achieve connectivity to the internet of things instantly without additional costs or time investments.

Easy Wireless Access Control

Seamlessly manage who can unlock your equipment and when with a touch of a button.

Eliminate Physical Keys

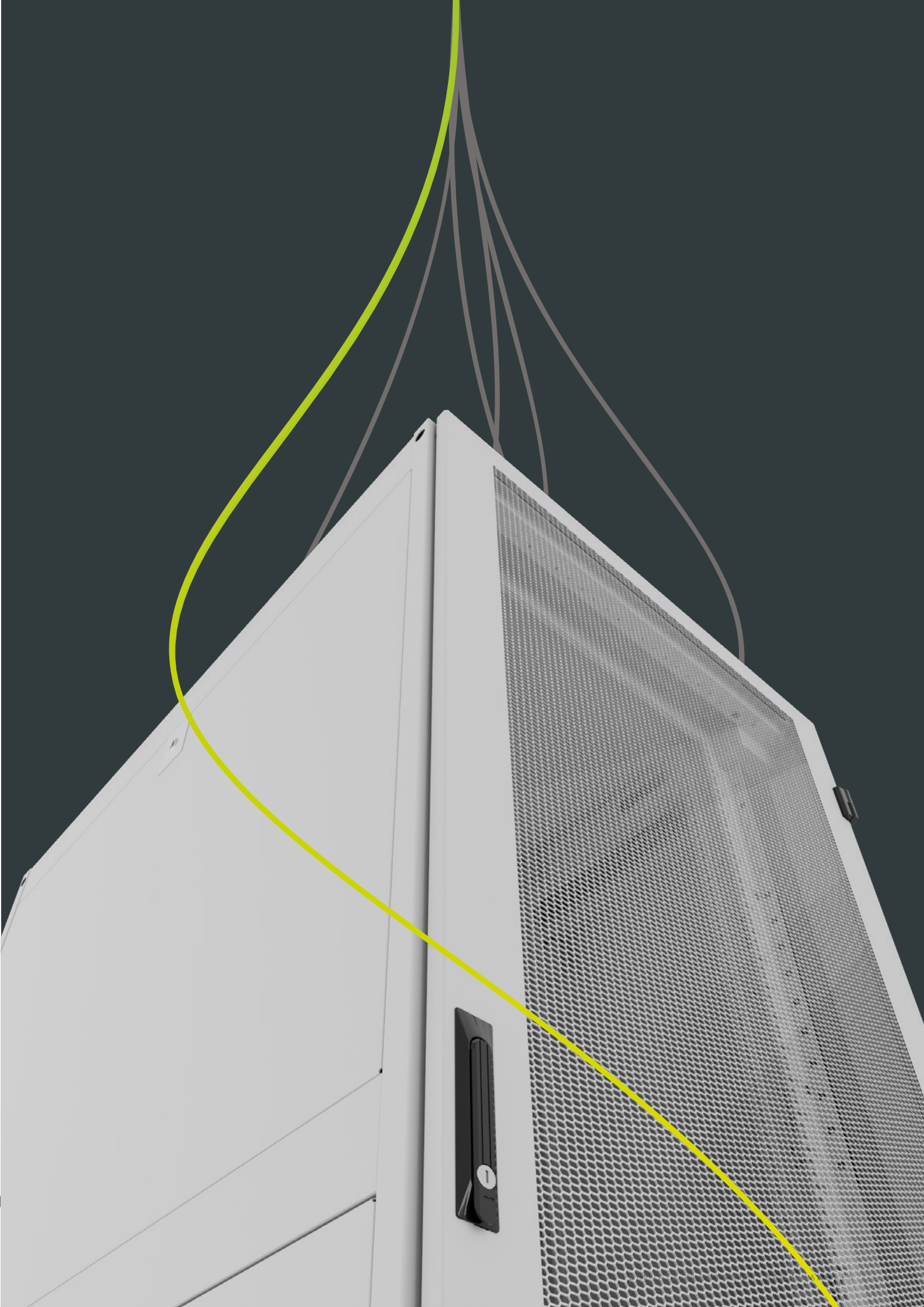
Say goodbye to traditional key costs. Manage equipment access digitally through your phone or web browser.

Scalable Access Management

Our platform grows with your operation, letting you capture data with a user-friendly web portal.

Part Number Table

Part Number	Description
546-SCO-KEYP	DCR Rack Southco Keypanion 2 Handles to Bluetooth



TANlock®

TANlock Handles from Elevate

Dual Factor Access Control Handle

TANlock is an individually configurable access control system that includes Biometric Access control features such as finger-print and palm and also provides two-factor authentication.

The modules of the TANlock 3 are exchangeable in order to always be able to obtain the latest security standard. TANlock Authentication Module checks the correctly entered PIN, presented RFID card, fingerprint or hand vein and approves the requested unlocking.

Handles are powered by POE ethernet connection and essentially the handles would be connected back to a single network switch. Each handle can be accessed via a single IP address to manage handle parameters and program users and fingerprints.

In the event of no power, each handle has a USB-C port that can be used to power the handle and unlock the cabinet.

Features:

- PoE: Power over Ethernet
- HTTPs
- Syslog
- MS Active Directory, LDAPs
- RESTful API
- Web API
- SNMP
- OSS
- Websockets
- Optional external sensors like temperature or humidity via CAN-Bus

Key Benefits

Exchangeable Modules

Through individual authentication modules, the TANlock 3 can be adapted to almost all customer requirements. The so-called TAMs (TANlock authentication modules) can also be exchanged after years and adapted to changing security requirements.

Safe

The latest security standards can be met because of the easy exchangeable modules of the TANlock 3. In addition, two-factor authentication is also available with the PIN + RFID or the fingerprint + RFID module. Operating parameters such as temperature and humidity can be displayed through optional sensors.

Easy Integration

The TANlock 3 is system-independent, as no additional software is required. Thanks to its large number of standard interfaces, the TANlock 3 can be easily integrated into IT infrastructures.

Compatible

TANlock 3 does not require server cabinets from specific manufacturers and various adapters make it compatible with almost all server cabinets. Mechanical unlocking is through an optional mechanical override (DIN half cylinder) possible.

RFID

- Authentication via RFID (13.56 MHz)
- Legic, HID iCLASS, Mifare Desfire EV1, EV2
- BLE (Bluetooth Low Energy)

Fingerprint + RFID

- Two-factor authentication via fingerprint and RFID (13.56 MHz) possible
- Legic, HID iCLASS, Mifare Desfire EV1, EV2
- BLE (Bluetooth Low Energy)

Touch display + RFID

- Authentication by input on the touch display or via RFID (13.56 MHz)
- Legic, HID iCLASS, Mifare Desfire EV1, EV2
- BLE (Bluetooth Low Energy)
- Configurable display

PIN + RFID

- Two-factor authentication via PIN and RFID (13.56 MHz) possible
- Legic, HID iCLASS, Mifare Desfire EV1, EV2
- BLE (Bluetooth Low Energy)

Handvenenscan

- Highest security level through recognition of the palm veins via PalmSecure

Part Number Table

Part Number	Description
546-TAN-KT2	DCR Rack TANlock 3 Access Control System with RFID with 4-PIN Opening by RFID
546-TAN-KT3	DCR Rack TANlock 3 Access Control System with RFID with Touch Pad Opening by RFID
546-TAN-KT4	DCR Rack TANlock 3 Access Control System with RFID with Fingerprint 2.0 Opening by RFID

Dirak Handles from Elevate

Dirak NFC or RFID

The DCR Racks can be fitted with Dirak Handle which will accept either the iLOQ NFC ½ Euro Cylinder lock, or the Assa Aperio ½ Euro Cylinder lock which is OSS.

These kits allow you to install the Dirak Handle and come with a standard Euro ½ cylinder, which can then be replaced with the iLOQ NFC lock or Assa Aperio Lock when the time comes to install these.

- Dirak Swing handle with liftable operating lever.
- Suitable for Assa Aperio Lock
- IP65 according to DIN EN 60529.
- RH / LH application, or RH and LH version.
  Grounding by grounding clip (optional).

Dirak with iLOQ

The patented, award winning iLOQ S50 locking system offers advanced security and convenient access sharing features for master-key locking environments.

The iLOQ D50S Euro profile cylinders harvest electricity wirelessly from the NFC field. This technology transforms a smartphone into a key and power source making the lock completely battery-free.

The iLOQ S50 doesn't have a keyway due to contactless NFC technology and is designed for exposure to harsh environments while remaining water-resistant and dustproof.

The smartphone as a key provides exceptional features coupled with high security. With flexible access sharing, time restrictions and audit trail reporting over-the-air, security gaps caused by lost keys can be eliminated completely without costly changes to locks and keys.

The cylinder enables the locking of swing handles without using a key (Smartphone or KeyFob). The length of the cylinder housing is 40 mm.

Locks and Software can be ordered and configured separately to the Racks.

Locks can be programmed using USB keyfob in conjunction with iLOQ Access control software

Dirak with Assa

The ASSA ABLOY Aperio C100 for server racks adds secure access control to almost any server cabinet. It can be installed into the Dirak Handle, and works with almost any system via Online, Offline or OSS-standard offline integration

Locks and relevant access control elements required would be ordered and configured separately.

Dirak Combination Lock

The DCR Racks can be fitted with these 4 Port Combination locks from Dirak providing unique access code for each rack.

- Swing handle with liftable operating lever.
- Override function.
- Can be opened by key / profile cylinder or combination lock.
- Combination lock with 4 digits for safe locking.
- Modifying the combination only in opened state possible.
- Profile cylinder 30/10.
- RH / LH application.

Part Number Table

Part Number	Description
546-DIR-KT5	DCR Rack Dirak 4 Pole Combination with Master Key Lock Kit 2 Handles
546-DIR-KT2	DCR Rack 1/2 Eurocylinder Dirak Lock Kit 2 iLOQ Handles Empty
546-DIR-KT3	DCR Rack 1/2 Eurocylinder Dirak Lock Kit 2 iLOQ Handles Standard Keys

Elevate Data Centre Rack Handle Portfolio Overview

Type	Handle Model	Features								Integration							MiFare Card Options								
		Manual Key	Unique Key option	4 port Combination Lock	Master Override Key	1/2 Euro Cylinder lock	MiFare Rfid Card	Biometric	Two Factor Authenticaion	Elevate PDU Enabled	EnLogic PDU Enabled	WEB Interface Software	Universal Access Control	Supports OSS Offline Mode	Order Locks Seperatley	Access via Smartphone App	MIFARE Classic 4K	MIFARE Classic 2K	MIFARE DESFire 4K	HID iClass	Lock Status Indication	HID 125kHz Prox	EM 125kHz Prox	MIFARE DESFire EV1	MIFARE DESFire EV2
DCR 4 P Combination Lock	546-DIR-KT5			✓	✓																				
Southco Electronic 546-SCO-KT2	H3-EM-66-100 with H3-61-55-33				✓		✓						✓				✓	✓	✓	✓	✓			✓	
Southco Electronic 546-SCO-KT4	H3-EM-66-100 with H3-61-55-33				✓		✓			✓	✓	✓					✓	✓	✓	✓	✓			✓	
Southco Electronic Unloaded 546-SCO-KT8	H3-EM-66-000 with H3-61-55-33					✓	✓			✓	✓	✓			✓		✓	✓	✓	✓	✓			✓	
Southco Elecronic with Paxton 546-SCO-PX2	H3-EM-66-100 with Paxton Controller				✓		✓						✓				✓	✓	✓	✓	✓			✓	
Southco Keypanion 546-SCO-KEYP	H3-EM-66-100 with Bluetooth module				✓							✓				✓									
Tanlock 546-TAN-KT2	Tanlock 3.1 PIN with RFID						✓		✓			✓	✓	✓					✓	✓	✓	✓	✓	✓	✓
Tanlock 546-TAN-KT3	Tanlock 3.1 Touchsreen with RFID						✓		✓			✓	✓	✓					✓	✓	✓	✓	✓	✓	✓
Tanlock 546-TAN-KT4	Tanlock 3.1 Fingerprint with RFID						✓	✓	✓			✓	✓	✓					✓	✓	✓	✓	✓	✓	✓
Dirak Handle 546-DIR-KT2 / KT3 *	for iLOQ barrel	*3				✓						✓	✓	✓	✓	✓									
Dirak Handle 546-DIR-KT2 / KT3 *	for Assa Aperio barrel	*3				✓	✓						✓	✓	✓				✓	✓	✓	✓	✓	✓	✓

* 2 is unloaded, 3 supplied with key for initial use

rev 1 - 08/07/26

ELEVATE

Future Faster

elevate@excel-networking.com

elevate.excel-networking.com

an excel solution