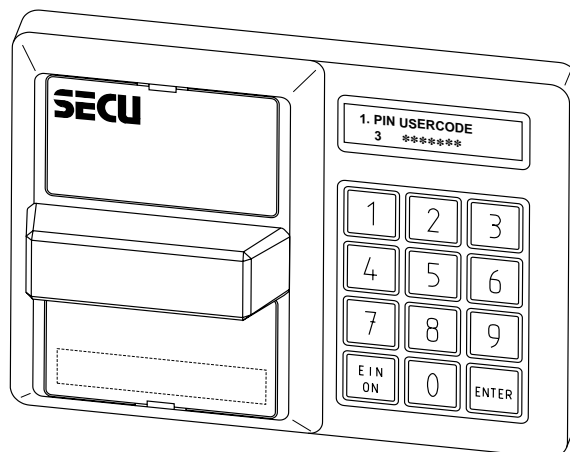


# Electronic lock E4500

## for applications in banks

Electronic lock E4500 is based on the proven E4000 model, rated to the highest security performance levels of VdS Class 2(B) and F+P Class B , and BSI-approved. The lock combines the features of the E4000 model with a number of special features and operation sequences that are mainly used in banks. A further innovation is the 40-digit LCD which allows the lock to communicate in plain-text language with the user. On the plain-text display the user receives the necessary instructions to operate the lock as well as information about certain lock modes.



### Special features:

- *40-digit alphanumeric plain-text LCD plus acoustic alarm signals*
- *integrated quartz-controlled real time and date indication. A radio-controlled clock can be installed for increased ease of use, if required.*
- *integrated entry recorder of the last 500 operations*
- *up to 10 user terminals, 2 of which with master functions*
- *each user has his own PIN-code as well as a variable 6-digit access code.*
- *when the authorized user changes the code, the lock recognizes trivial numerical code sequences such as 345678 or 444444, and rejects these unacceptable combinations.*
- *all lock opening operations and changes of settings can only be performed after two users enter the combination independently.*
- *the lock can evaluate a remote enable signal from an alarm unit to serve as a "third user". Besides the normal mode, the alarm unit also signals an alarm situation to the lock and thereby triggers a longer than normal opening delay.*
- *in the normal mode, entering of the two access codes will result in an entering delay of 10 secs. The alarm mode prolongs this delay to 10 mins.*
- *The blocked entry status is displayed graphically and in form of a numerical indication of the waiting time left .*
- *The blocking time completed, the 8-digit secret combination known only to the authorized users can be entered to open the lock.*
- *The programming mode for changing of the lock settings can only be entered by keying in the two 8-digit master codes (to be followed by the remote enable signal from the alarm unit); for safety's sake, this is only possible with the door unblocked (door position indicating switch).*
- *In the programming mode, access authorizations and codes can be blocked, assigned and changed, the time and date can be altered, and the recorded data can be read out.*
- *In the protected programming mode, it is possible to page through the recorded operations either on the display of the lock itself or, with the help of a special computer software supplied with the lock, onto the harddisk of an additional computer via a serial interface, where they can be analyzed in situ or sent to a printer.*

The electronic lock consists of an external operating panel and an internal lock module which houses the lock control electronics and a connecting module for making external connections and connection of the data recorder. The current is supplied by a plug-type power supply unit. In the event of a power failure, the power supply is maintained from outside by standard batteries.

The operating panel to be mounted on the outside of the safe or strongroom is equipped with a high-quality, easy to clean, membrane keypad used for entering of the numerical code. The keypad is suitable for more than 1 million keying operations. Through mechanical pressure points, the user gets a tactile check-back signal. The operating panel also houses the batteries which take over the power supply in the event of a power failure. It further has a convenient handle for manual deblocking of the lock. Apart from the visual messages on the LCD, the user is also assisted by a number of signal tones. If desired, we can adorn the operating panel with your company logo.

To gain access to the safe, 2 persons have to enter their user PINs and personal 6-digit combinations within a predefined period. Following the remote enable signal from the alarm unit, the users have to wait for a certain data entering delay to lapse, visualized on the display. After the waiting time, the users can key in the secret combination consisting of 8 numbers only known to them. This completed, the electro-mechanical lock module enables the mechanical opening of the lock. The lock can now be opened absolutely fail-safe by manually turning the opening mechanism.

By separating the external operating panel from the electro-mechanical lock module and the system electronics mounted on the inside of the safe or strongroom, we have succeeded in realizing a very high level of security, while at the same time ensuring an equally high degree of user friendliness. All security-related components are located inside the safe or strongroom. Highly sophisticated mechanical lock components combined with state-of-the-art electronic controls account for the extremely high degree of manipulation security of these locks.

The stored data are not lost in the event of a power failure. Despite this feature, all security-relevant data are stored twice in the electronic control.

The system is permanently checked for internal problems; each time the self-examination feature detects a fault, it defines it and calls in the service department, if necessary.

The components are easy to mount, the electro-mechanical lock module has standard mounting dimensions. All parts of the locking systems have been designed for an extremely long service life.