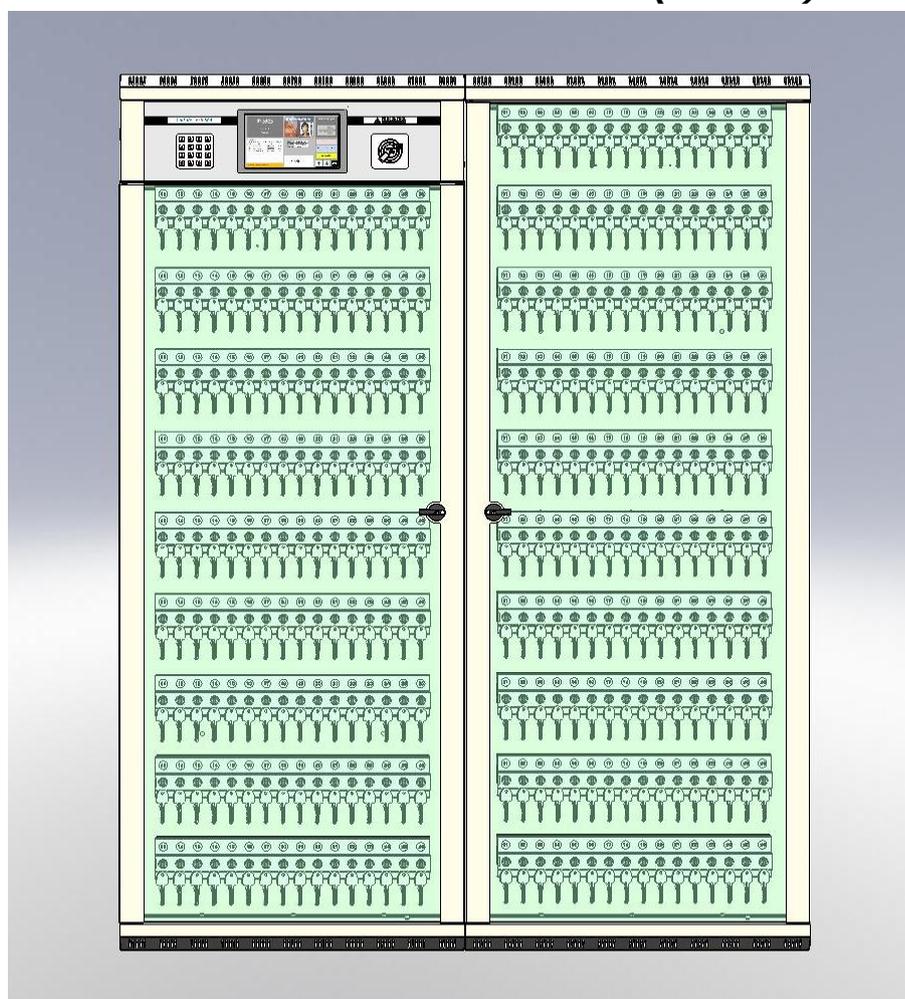


KeySafe Lock System

RFID-NFC technology

based safety key cabinet

Technical documentation (V2014)



KeySafe Lock 304
Version 2014-1

PROCONTROL ELECTRONICS LTD.

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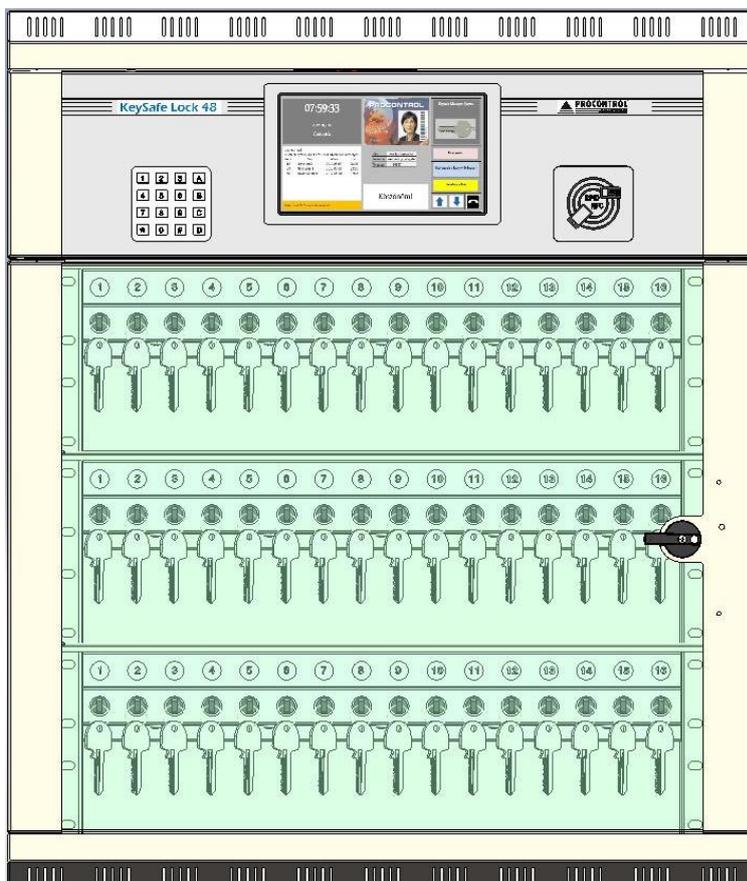
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KeySafe Lock System

the intelligent safety key-store cabinet system

Technical documentation



KeySafe Lock 48

The Keysafe Lock is a safety key-store cabinet, which can be opened only by personal RFID proximity transponder, or by fingerprint identification, optionally. The cabinet is able to operate independently through touchscreen operated embedded industrial computer, but if the cabinet is connected to a network, one can control remotely, that who is allowed to take which keys, when and for how long.

The KeySafe Lock does not allow to take any key, just those, which the person is entitled for.

More cabinet can be connected to a single data cable, monitored and managed with a ProxerNet KeySafe Management Software (a Windows application running on a PC), and integrated into a building management system as well.

The structure of a Keysafe Lock system:

The KeySafe key cabinet has a strong steel housing, designed for wall-mount, consisting 19" RACK sized modules.

The properties of the cabinets:

- Every cabinet is built with safety glass door

- Every cabinet has an uninterrupted power supply which is able to operate for 48 hours long.
- Every cabinet contain an embedded, touchscreen operated industrial PC
- Every cabinet contain an NFC-RFID transponder reader
- Every cabinet contain a 10/100/1000MB Ethernet connector.
- Every cabinet is equipped with a Wi-Fi module which can be switched off
- Every cabinet is equipped with 90-260V 50-60Hz electrical power connector
- Every door has a built-in electrical lock
- The cabinets are scalable per module, they are built from 8 key capable modules. The smallest contain 8, the largest contain 400 key position.
- Every single key position has its own RFID reader.
- Every single key position has its own address and ID.
- Every single key position has its own motor-driven key-locking system.
- Every single key position has its own „opened/closed” indicator light.
- Every single key position has its own „key in position” sensor.
- Every key position accepts every RFID transponder equipped key-ring plug.

Services of the KeySafe:

Identification of the individual keys

- every key position is locked by default. (motor-driven latch is closed.)
- key are identified using their own unique RFID transponder equipped key-ring.
- keys can be picked up from and returned to any key position, the system recognizes the key by its RFID.
- the possibility to define fix key positions is given on software level, which means, that certain keys shall be accepted only on certain positions.

Communication

- LAN connection
- WLAN connection (optional)
- „Independent cabinet” mode: an independent cabinet is not connected to any network, stores information about users, cards, rights in its own database.
- „Network cabinet” mode: the cabinet is connected to the local network, it synchronizes with the external server.

Alarming / warning modes

- the cabinet has an alarm OUT line, through which it is able to send an „alarm trigger” to an external alarm system.
- the software running in the cabinet is able to send an alarm e-mail to the system administrator, or any other authorized person in case a key is not returned in time.
- the cabinet has an alarm INPUT line. In case an external alarm, the cabinet automatically releases all keys at once – this is an emergency open, in case of fire, evacuation for example.

Emergency opening

- the cabinet is able to operate for 24 hours long in case of power outage, as it has an uninterrupted power supply.
- in case the power outage lasts over the 24hours interval, and the voltage level of the backup battery is low, the cabinet has an electromechanical solution to release all keys.
- fire alarm: the cabinet can be commanded remotely to release all keys.

User interface / Cabinet software

The cabinet management software can be splitted into two parts, based on their different functionalities:

- software running on the built-in computer of the cabinet
- software running on the external computer connected to the network.

Functions of the Keysafe Cabinet Software (KCS):

The software language is english by default, it can be changed to other translations in the settings menu.

- login using card
- login using PIN code
- login using a combination of card and PIN code
- key-map: available keys are highlighted on the screen (key locations are shown on the screen.
 - reserved keys are signed with reserved mark.
- individual or all keys can be selected for pick up (keys are available only in case of permission).
- two defined user level: key user, and superuser.
- key user has right to login, select, pick-up and return keys.
- superuser has right to login, select, pick-up and return keys, and has access to basic management functions also.

- Basic management functions:
 - key-log access
 - user-log access (contains when and which keys were taken by whom, and every attempt of unauthorized opening of the cabinet door).
 - user management access:
 - add/remove/modify new user
 - assign/revoke rights to/from users
 - reminder if a key is not returned in specific time

Detailed management functions are available only in the external cabinet management software.

Functions of the Keysafe Management Software (KMS, running on external computer):

The Keysafe Management Software (KMS) is running on a network connected external PC, and provides the following functionalities:

- Exchange application data with any keysafe on the local network, or a remote network when a connection is available.
- Selectable language translations between the settings.
- Manage several cabinets on the network with one central software
 - manage user rights and settings off different cabinets
- Cabinets can exchange data with each other about users, cards and keys
- Login as super-user or reserve administrator (to manage reserved keys only).
- User management:
 - A super-user has the right to add one-time temporary PIN code to an user, with which the user is able to login for only one session, the PIN code is deactivated after, and the user can not login until he/she gets a permanent code or another temporary code for a specific time.
 - add/remove/modify users
 - define key users and super users
 - add/remove/modify PIN codes per user
 - add/remove/modify RFID proximity card codes per user
 - grant/revoke user rights
- Data management:
 - view log files
 - export log to XLS
 - statistics: query and filter for user events
 - import user data from external sources (XLS,CSV)
- Key management:
 - reserve key for an user
 - release key for an user

- assign one-time temporary code for an user
- setup time limits to keys
- modify key names and assigned RFID numbers
- add/remove/modify group keys
- add/remove/modify group users
- assign group users to group keys
- Alert functions:
 - alert in e-mail when a key is not returned or taken in a specific time interval.
 - alert on the screen of the administrator when a key is not returned or taken in a specific time interval.
- Status query:
 - check keys in the cabinet (what is missing, which was taken, which is not recognized, etc...)
 - check the status of the cabinet door
- Set cabinet timeouts

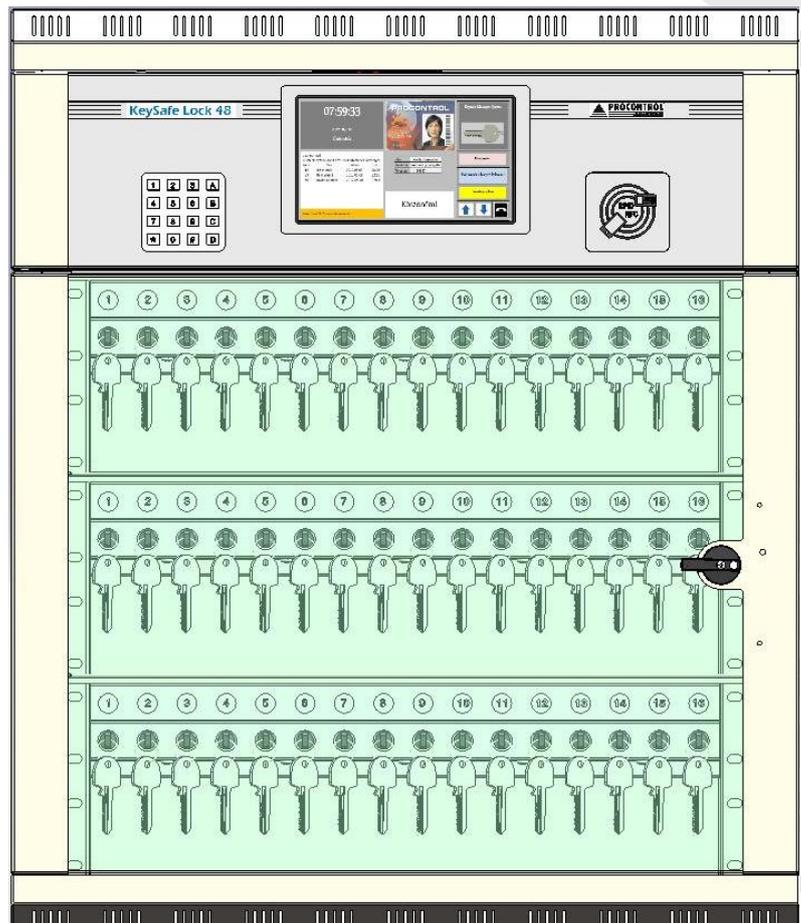
KeySafe types:

Type designation: KeySafe Lock XXX, where XXX is the number of key positions, which can be divided by eight, and is in the range of 8-400.

The KeySafe Lock XXX-O cabinet built without computer, working online only.

The KeySafe Lock cabinets are built ready for wall mounting, from static powder-coated sheet steel with RAL7035 light gray color, but optionally it can be ordered with custom color, or from brushed stainless steel.

KeySafe Lock key cabinet sizes



Type ID	Key positions [pcs]	Keysafe Lock, and KeySafe Smart are same key cabinets, they have all key-identification, but the Smart have not key-locks,	Plug-in modules [pcs]	Number of cabinets	Height [mm]	Width [mm]
KeySafe	8	Cabinet with 8 key positions	0	1	250	560
KeySafe	16	Cabinet with 16 key positions	0	1	250	560
KeySafe	24	Cabinet with 24 key positions	1	1	380	560
KeySafe	32	Cabinet with 32 key positions	1	1	380	560
KeySafe	40	Cabinet with 40 key positions	2	1	520	560
KeySafe	48	Cabinet with 48 key positions	2	1	520	560
KeySafe	56	Cabinet with 56 key positions	3	1	670	560
KeySafe	64	Cabinet with 64 key positions	3	1	670	560
KeySafe	72	Cabinet with 72 key positions	4	1	820	560
KeySafe	80	Cabinet with 80 key positions	4	1	820	560
KeySafe	88	Cabinet with 88 key positions	5	1	950	560
KeySafe	96	Cabinet with 96 key positions	5	1	950	560
KeySafe	104	Cabinet with 104 key positions	6	1	1060	560
KeySafe	112	Cabinet with 112 key positions	6	1	1060	560
KeySafe	120	Cabinet with 120 key positions	7	1	1250	560
KeySafe	128	Cabinet with 128 key positions	7	1	1250	560
KeySafe	144	Cabinet with 144 key positions	8	1	1380	560
KeySafe	160	Cabinet with 160 key positions	9	1	1480	560
KeySafe	176	Cabinet with 176 key positions	10	1	1600	560
KeySafe	192	2 cabinets with 192 key positions	11	2	1250	1120
KeySafe	208	2 cabinets with 208 key positions	12	2	1250	1120
KeySafe	224	2 cabinets with 224 key positions	13	2	1250	1120
KeySafe	240	2 cabinets with 240 key positions	14	2	1380	1120
KeySafe	256	2 cabinets with 256 key positions	15	2	1400	1120
KeySafe	272	2 cabinets with 272 key positions	16	2	1480	1120
KeySafe	288	2 cabinets with 288 key positions	17	2	1560	1120
KeySafe	304	2 cabinets with 304 key positions	18	2	1640	1120
KeySafe	320	2 cabinets with 320 key positions	19	2	1720	1120
KeySafe	336	3 cabinets with 336 key positions	20	3	1380	1680
KeySafe	352	3 cabinets with 352 key positions	21	3	1480	1680
KeySafe	368	3 cabinets with 368 key positions	22	3	1480	1680
KeySafe	384	3 cabinets with 384 key positions	23	3	1560	1680
KeySafe	400	3 cabinets with 400 key positions	24	3	1600	1680