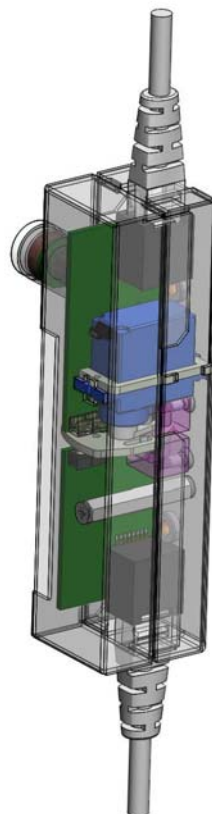


# ProxerLock 3-11 cabinet lock

## Technical Documentation



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### Enclosed documents:

- 1248-10-MT-o01 assembled monitor bracket - dimensional drawing
- 1248-10-MT-o02 assembled monitor bracket, double design - dimensional drawing
- Installation guide for installing turn knob lock into PROJECT Z4 and Z6 cabinets
- PZ4 PZ6 cabinet cutouts 2010-11-22 Ver\_3 - installation guide
- IT-10 reminder terminal - hole pattern

## Welcome

Thank you for choosing Procontrol's product.

Procontrol Electronics Ltd has grown to an important national company of developing and manufacturing software, hardware, electronic devices, access control, worktime control systems, queue control, client caller, and access protection systems since 1981.

Thousands of satisfied customers have experienced the security ensured by our long time period planning, reliable work, and the world trademarks standing behind us. Our qualified staff does its best to satisfy your requirements in the electrical development.

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## Security guide

Please read this guide before installing and using the device. Please use the device properly and as described in the following manual.

The guarantee is insured only if the device is used with the implements approved or specified by the manufacturer, and it is cleaned and maintained as described in this guide.

The authors are NOT liable for any claim, damages or other liability out of:

- using not the proper way
- incorrect installation
- connecting to inappropriate electronic network
- incorrect maintenance
- not approved modifications, interventions
- using non-original elements
- using with implements not approved or specified by the manufacturer

Only the technical service authorized by the manufacturer is allowed to do interventions in the device.

Do not try to modify or dismount any part of the device

Do not store and operate the device out of the given ranges.

Only use the device the proper way as described in guide.

### Delivery

Take care of shipping gently, avoid tipping and prevent screen from damaging.

### To avoid fire and electrical shock

Take care of nobody pushes trash, gums and stuff in the slots of the device.

Do not install attachments and accessories that are not designed to this device.

### At installation

At the back of the device are heat deflector slots. Do not close these slots, that may cause disfunction in the device and that may effects fire.

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## General features

**The ProxerLock 3-11 card operated intelligent door lock** has been designed to safe locking of cloakroom lockers, luggage lockers and safes with complete computer based monitoring and management. The locking device consists of an RFID proximity reader, a magnetic lock, a status indicator, and a computer network interface.

It establishes bidirectional online communication with the management computer or the computer network. By using the ProxerLock Manager software, the event log of cabinet locks can be queried, listed and archived from the workstation.

By using the manager software on the central computer, the cabinets can be opened individually or simultaneously, the operating logic of the lock system can be modified, a master card can be activated, etc.

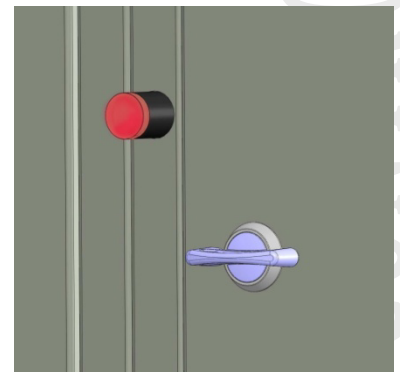


## User manual

At each cabinet door a high contrast LED clearly indicates whether the cabinet is free (green) or occupied (red). The workers are free to chose a cabinet, for example their favorite cabinet, if it is not occupied.

When the workers hold their card near the LED of the preferred cabinet, the cabinet opens. When the workers are finished with packing, they lock the cabinet using their own card again. At the end of the shift the process is the same with reverse order of steps. The cabinet can be unlocked only with the same card that was used for locking

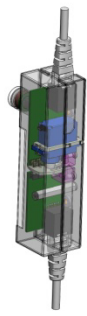

The system can be completed with large information screens for displaying the free cabinets with green color and the occupied cabinets with red color on the ground plan of the locker room.





Cabinets that are actually in use are displayed with yellow blinking light. As the workers finish the packing, they make their cabinets unoccupied by folding in the cabinet door or using their card. If they skip this step, the cabinet turns unoccupied automatically after a freely programmable period of time.

## System components

The cabinet lock system can be built up in many different configurations, in accordance with the individual needs. The following table describes the system components. For the minimum configuration, besides the installation of the locks, the on-line communication and the power supply network are to be built up using the compulsory system components, and the communication of the locks are to be established using the LockManager for Windows system software.

Item:	
<b>Proximity locks for transponder opening</b>	
<b>ProxerLock 3-11 ON-LINE cabinet lock</b> with built-in RFID transponder reader, PoE power supply, and RS485 interface	 181834
Cabinet handle with turn knob for opening the cabinet door (supplied with ProxerLock 3-11)	
<b>Network layout - compulsory system components</b>	
<b>HUB485-8P</b> RS485 hub with 8 x RJ45 modular sockets	140642
<b>RSC-E4-NXP</b> Ethernet / RS485 converter for up to 30 locks	181833
<b>Wall socket power adapter</b> 230V / 12V for supplying up to 30 locks	304171
<b>Cabinet lock related software licenses</b>	
Lock Manager for Windows PC sw license for up to 100 locks	
Lock Manager for Windows PC sw license for up to 500 locks	
Lock Manager for Windows PC sw license for up to 1,000 locks	
Lock Manager for Windows PC sw license for up to 5,000	

locks	
<b>Optional components</b>	
<b>Large displays: combination of required size LCD TV + TV controller</b>	
<b>LCD TV 42"</b> , LG 42LD420 * 42" (107 cm) diagonal size * 60000:1 contrast ratio * 1920x1080 pixel resolution	
<b>Intelligent LCD TV controller unit</b> , incorporated in the monitor bracket, with built-in mini computer and software, for Ethernet 10/100 Mb network. It can only be used together with LCD monitors.	
<b>Reminder terminal</b>	
<b>IT-10 Information terminal</b> , wall mounted, with built-in card reader and LCD display (Reminder terminal: if the workers forget which cabinet they used, they simply make the card read by the terminal, and it displays the cabinet number)	
<b>Optional upgrades</b>	
<b>Z6 cabinet top</b> - using together with Metalobox Project Z6 cabinets, effectively protects and covers cables and hubs. Aesthetic and safe cable cover plate	150032
<b>Z4 cabinet top</b> - using together with Metalobox Project Z4 cabinets, effectively protects and covers cables and hubs. Aesthetic and safe cable cover plate	150033
Group sign board, mounted on the cabinet top	

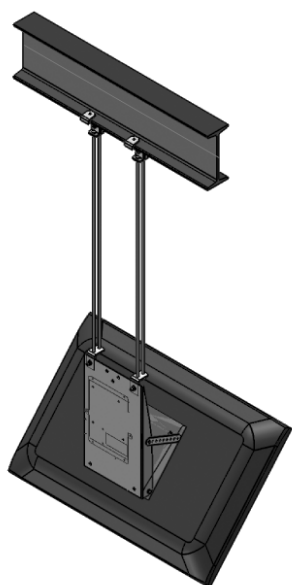
## Optional items:

### 1. Large displays: combination of required size LCD TV + TV controller

As the workers arrive to start their shift and pass by the entrance of the locker room, they see the ground plan on the TV screen and check which locker is free (green) and which is occupied (red). Lockers that are being used (i.e. that have already been chosen but have not closed yet) are displayed in yellow. Thus workers go straight to that part of the locker room where fewer people are, which helps to prevent obstructions. If the guests choose a cabinet with their card, the cabinet flashes yellow on the display.







The large display, which can be integrated in the system, has the following components: LCD TV in the required size, TV controller with integrated minicomputer. The **intelligent LCD TV controller unit** is supplied within the monitor bracket. Software is included. The controller communicates with the system components via Ethernet 10/100 Mb network. It can only be used together with LCD monitors.

Depending on its design, the monitor bracket can be hung from the ceiling or mounted on walls. As default, the bracket is delivered in wall mount design. The figure shows a monitor bracket that is hung from an I beam.

## 2. Reminder terminal with LCD display

**IT-10 information terminal** - wall mounted design with built-in card reader and LCD display. If the workers forget which cabinet they used, they make their card read by the reminder terminal, and it displays the cabinet number. The terminal communicates with other system components via Ethernet 10/100 Mb network.



## 3. Cabinet top

The cabinet top provides protection against cable tampering. Z6 cabinet top - using with Metalobox Project Z6 cabinets, effectively protects and covers cables and hubs. Besides the effective protection against tampering, the cabinet top is also a safe and aesthetic accessory.

A monitortartó szerelvény lehet mennyezetre függesztett, vagy falra szerelhető kivitelű. Alapértelmezésben falitartóval szállítjuk. A képen egy I gerendára szerelt függesztett monitortartó típus látható.



**Cabinet alarms:**

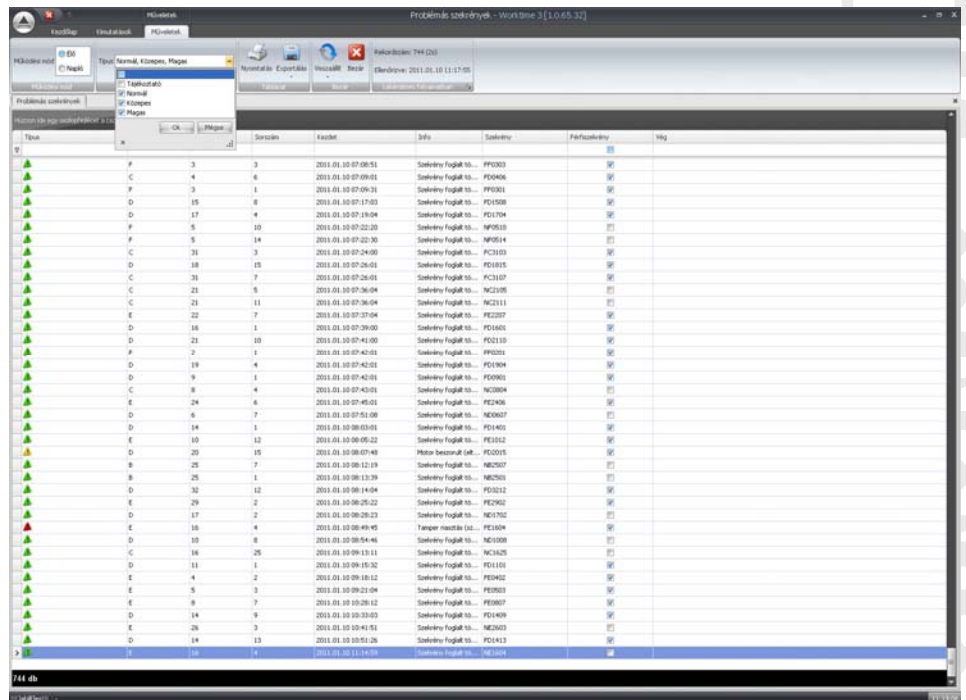
The alarm program part displays the actual alarms and lists the alarm history.

These data can be exported in several different formats (e.g. Excel, PDF, etc.)

Alarms are grouped in 4 main categories that can be modified individually:

Notification category:

1. Cabinet is free, but its door has been left open for more than X minutes (default value is 20)



Normal level signals:

2. Cabinet has been occupied for more than X hours (default value is 14) (the door was probably locked back after leaving). Within 14 hours, the cabinet can be opened and closed by the worker (card holder) for short period of times, even more than once (if freeing < 1 hour)

Medium level signals:

3. Motor got stuck (obstructed, deformed)

High level signals:

4. Prize opening (the cabinet was opened forcefully: it is occupied, but the handle is not detected in the lock)
5. Tamper alarm (the cabinet was removed: the protruding switch is not pressed against the cabinet wall any more)
6. Lost connection (Ethernet or RS485 cable was disconnected or cut)

**Cabinet events:**

This program part lists the actual events (e.g. occupation, freeing, attendant's card use, handle position, etc.) in real time. The history events can be queried here, too.

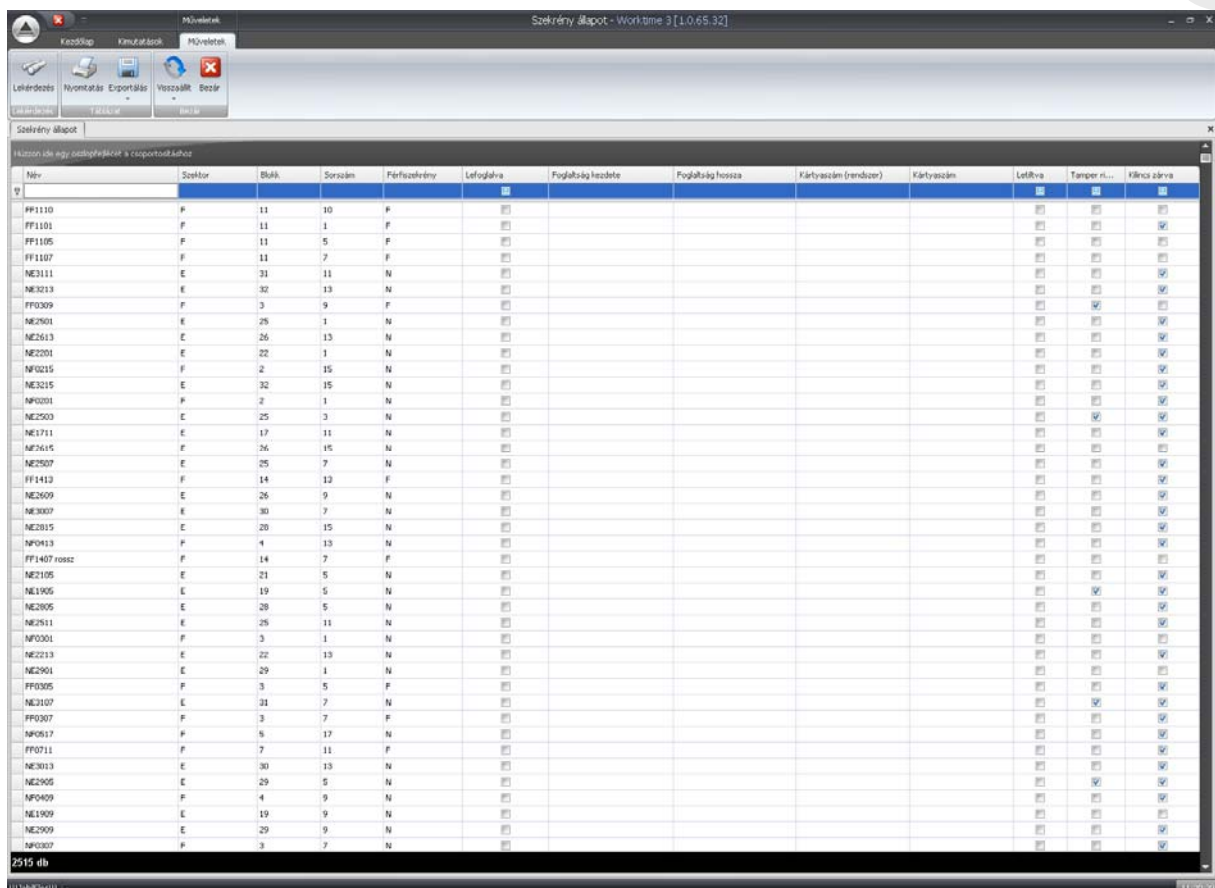
Preliminary filtering is possible based on cabinet, signal unit or event type.

Exporting possibility in several different formats (e.g. Excel, PDF, etc.)

**Cabinet state:**

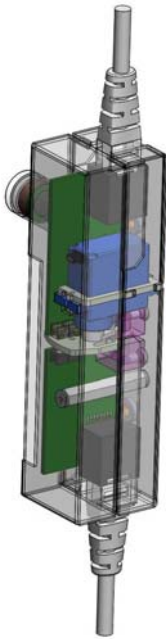
This program part lists the actual state of the cabinets. The list contains main cabinet parameters (e.g. name, sector, block, etc.), occupation, tampering, handle position, and if occupied, date and time of occupation, time elapsed since the occupation and also the card used for the occupation.

Exporting possibility in several different formats (e.g. Excel, PDF, etc.)



Név	Szektor	Blokk	Sorozat	Felfüggetlenség	Lefoglalás	Foglalás kezdete	Foglalás hossza	Kártyacím (rendező)	Kártyacím	Lejárta	Tamper r...	Kártya száma
FF1100	F	11	10	F								
FF1101	F	11	1	F								
FF1105	F	11	5	F								
FF1107	F	11	7	F								
NE3111	E	31	11	N								
NE3213	E	32	13	N								
FF0309	F	3	9	F								
NE2901	E	29	1	N								
NE2513	E	25	13	N								
NE2201	E	22	1	N								
NE0215	F	2	15	N								
NE3215	E	32	15	N								
NE0301	F	3	1	N								
NE2503	E	25	3	N								
NE1711	E	17	11	N								
NE1615	F	16	15	N								
NE2507	E	25	7	N								
FF1412	F	14	12	F								
NE2609	E	26	9	N								
NE3007	E	30	7	N								
NE2815	E	28	15	N								
NE0413	F	4	13	N								
FF1407 r08sz	F	14	7	F								
NE2105	E	21	5	N								
NE1905	E	19	5	N								
NE2805	E	28	5	N								
NE2511	E	25	11	N								
NE0301	F	3	1	N								
NE2213	E	22	13	N								
NE2901	E	29	1	N								
FF0305	F	3	5	F								
NE2107	E	21	7	N								
FF0307	F	3	7	F								
NE0517	F	5	17	N								
FF0711	F	7	11	F								
NE3013	E	30	13	N								
NE2905	E	29	5	N								
NE0409	F	4	9	N								
NE1909	E	19	9	N								
NE2909	E	29	9	N								
NE0307	F	3	7	N								

## ProxerLock 3-11 construction



The rugged steel housing of the lock is built in a sheet metal cabinet enclosure and mounted on the fix side of the cabinet. Locks are connected to a common RS485 data bus. The cabling is made of the worldwide standard and hence inexpensive, easy to mount Cat 5 or Cat 6 UTP cables and so called modular snap-on Jack RJ45 connectors. It is recommended to lead the data bus cables on the top of the cabinet and protect them with protector strip or protector bar within the cabinet. The bus cable is connected to the system management PC via hubs. The power of the locks are provided by the same data bus using the most advanced PoE technology.

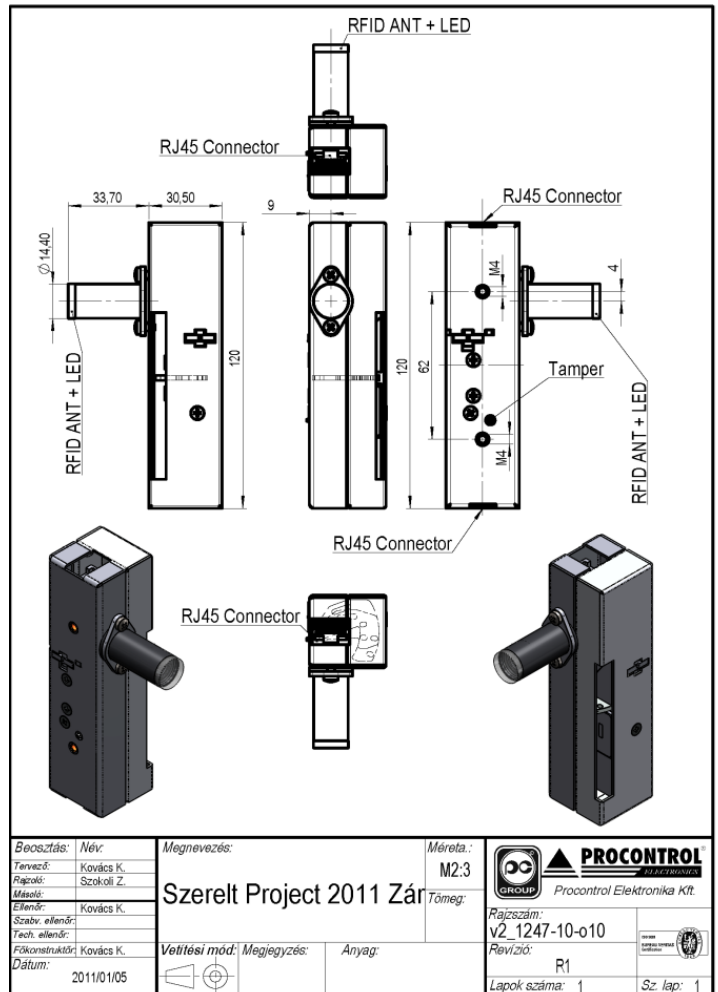
The steel housing incorporates the intelligent microcontroller based electronics, the opening detector, the rugged and powerful servo driven lock and the RFID antenna in the protruding sensor rod.

The sensor head contains a status indicator LED, which lights (in certain cases

blinks) in red if the cabinet is occupied and in green if it is free. The high contract status indicator LED is easy to recognize from greater distances through the optical end.

The counterpart of the lock is a quarter-turning knob handle built in the door panel. The handle itself withstands even a 300 kg pulling force. The cabinet handle with turn knob is supplied with ProxerLock 3-11.

The compact ProxerLock 3-11 lock is built in a steel housing and is specially designed for installation in the fix side of Metalobox Project Z6 cabinets. The locks can also be mounted in cabinets made of wood, plywood and steel



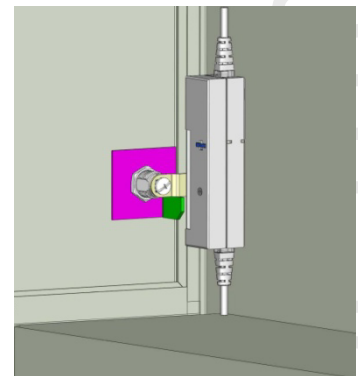


sheet metal. In the case of wooden, MDF or plywood door panels, even cutouts are not necessary, since the RFID cards can be read through the door. In the case of steel sheet metal cabinets, circular cutouts are to be made on the side panel of the cabinet and in the door panel to fix the lock and the handle. The cabinet can optionally be equipped with a label placed on the door panel, below the handle.

In each Metalobox Project Z6 cabinet one ProxerLock3-11 proximity lock can be installed.

The locks consist of the following modules:

- 125 kHz RFID proximity card reader
- Magnetic lock
- Opening detector
- Open/Closed state LED display
- Beeper
- RS485 interface
- RJ45 UTP connector



## Hardware requirements:

Computer devices (recommended configuration):

Server (Quad Core, 8GB RAM, Gigabit LAN, 147GB HDD, Windows 2008 R2 / SQL 2008 R2)

Workstation (Dual Core, 1GB RAM, Gigabit LAN, Windows 7 OS, computer (PC), monitor, keyboard, mouse)

Recommended network performance: Gigabit LAN. Establishment of Internet connection is highly recommended for remote help. For the server 8MBit, DynDns, RDP is recommended.

## Installation guide

For installation of locks into cabinets and making cutouts, please see the attached documents:

- Installation guide for installing turn knob lock into PROJECT Z4 and Z6 cabinets
- PZ4 PZ6 cabinet cutouts 2010-11-22 Ver\_3 - installation guide
- IT-10 reminder terminal - hole pattern

These instructions exclusively contain the procedure for installing ProxerLock 3-11 locks into the fix side of the Metalobox Project Z6 cabinets. The locks can also be used with other types of cabinets. On request, Procontrol supplies complete locker cabinets equipped with ProxerLock locks. If the locks are installed in a different type of cabinet, Procontrol provides the necessary plans and submits offer.

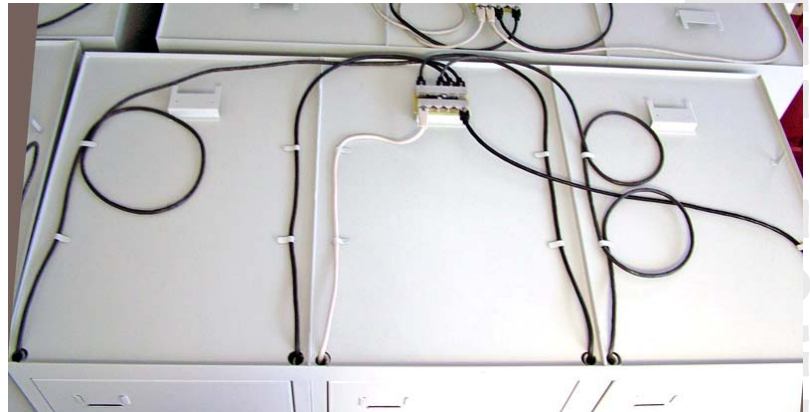
### Setting up the network

The cabinets are equipped with RS485 network that also provides the power supply. The system uses the Ethernet network and the standard 230 V mains network of the premises.

### Layout of cabling:

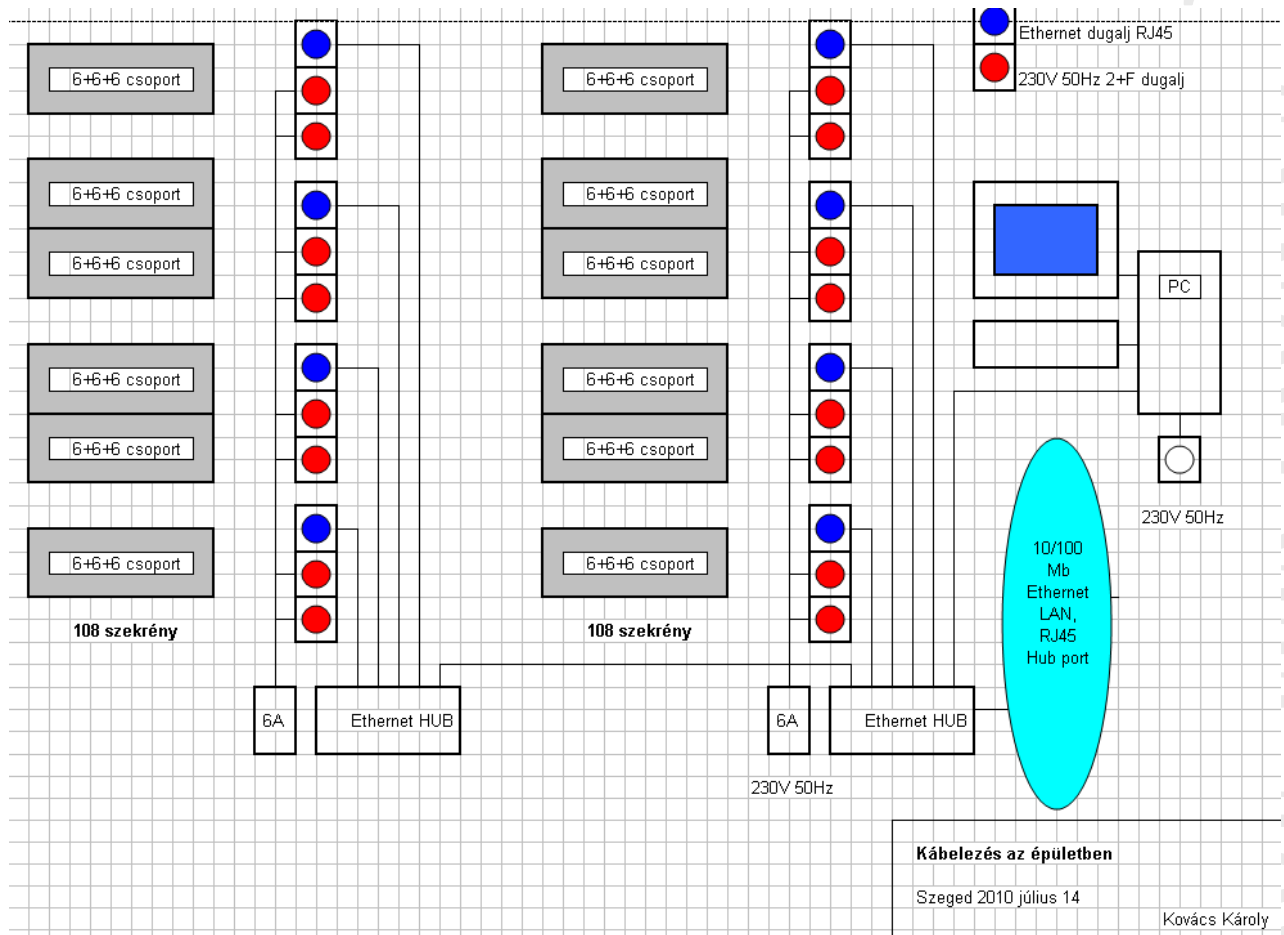
Lead a patch cable with standard RJ45 modular plug from the lock along the notch of the cabinet to the top, and connect it to the RJ45 socket of a 8 plug hub (see figure)

The hub with 3-6 pcs. of RS485 sockets is connected via an RS485/Ethernet converter to the local Ethernet network, which the server and the operating workstations are also connected to. (Figure 4)



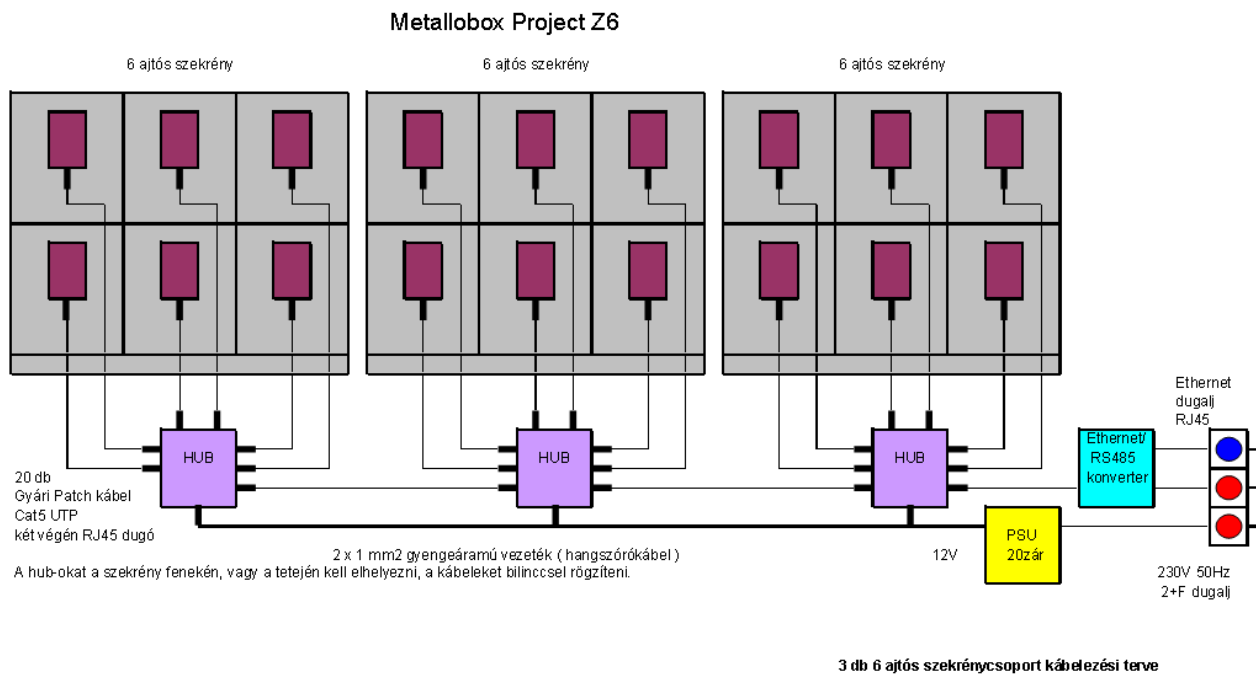
Price of cables, hubs, converters and other optional components are not included in the price of the ProxerLock3-11 lock. All of these element can be ordered separately from Procontrol. See: **Network layout - compulsory system components.**

Cable layout diagram - example





## Cabling diagram of 3 x 6-door cabinet group



### Proposed numbering order of the cabinets

The proposed numbering order is shown below on the ground plan of a men's locker room. The cabinets are arranged in 86 blocks with a total of 2522 units. One block consists of 12, 24, 32 or 36 cabinets.

Compared to the 4 digit numbering, it is easier and better to memorize if the 86 blocks are identified by a letter, and the cabinets are numbered from 1 to 36 in the same order in each block.

In this case, the layout of the cabinet identifier is the following: Block identifier – Number within the block. e.g. B5-12 or A6-20

The locker room is divided into 3 sections. In the first section, left side consists of blocks with letter A, while right side consists of blocks with letter B

### System maintenance

The ProxerLock lock system does not contain battery packs or any parts that need to be changed on a regular basis.

The maintenance covers only cleaning, checking and in certain cases adjustment, if the sheet metal cabinet is worn or deformed.

## Contact with the manufacturer

Feel free to contact us if you have any questions about the installation process or about using the hardware or software.

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