



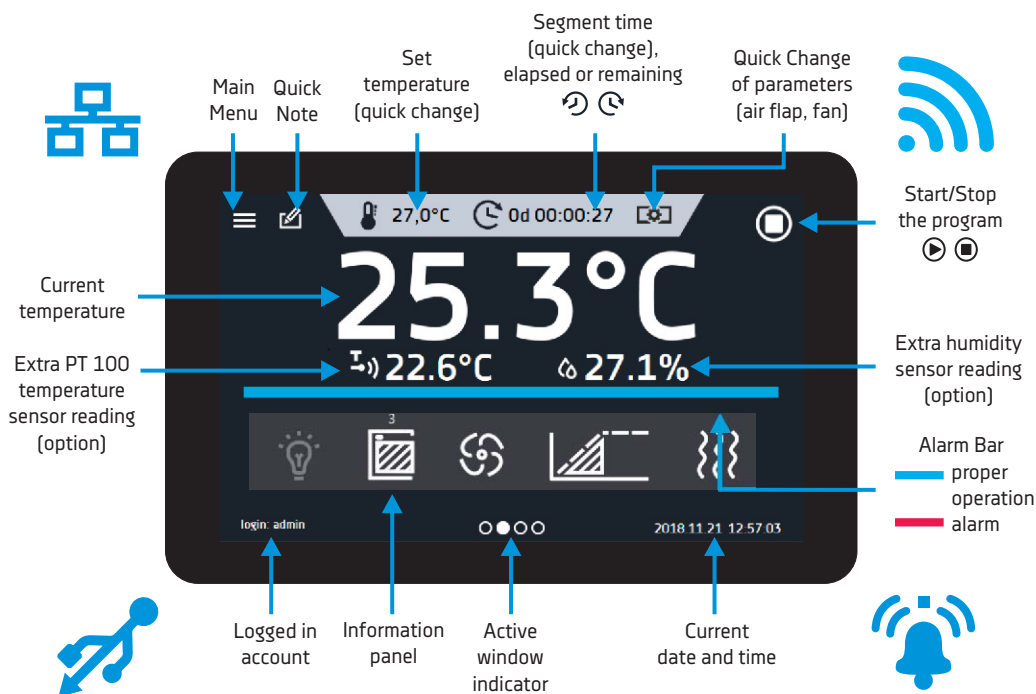
**Excelsior
Scientific**

AS SMART AS YOUR SMARTPHONE

Smart & Smart PRO laboratory equipment



7" colour touch panel Smart PRO guarantees intuitive and comfortable operation



Touch screens of the Smart and Smart PRO controllers can be operated with latex gloves!



The Smart and Smart PRO controllers feature wide angle displays. You can see the screen clearly from any angle, regardless of the light intensity.

Thermostatic equipment in the Smart PRO version will be available from 1/07/2019.

The brand new Smart PRO controllers are direct followers to the TOP+ controllers and will be available for the KK climatic chambers, IL cooled incubators, SL drying ovens, CL laboratory incubators, as well as the ST cooled incubators, CHL laboratory refrigerators, ZL laboratory freezers and ZLN-UT ultra-low freezers.



Advantages of the Smart PRO controller:

- » large (7"), clear, full colour touch screen
- » LAN, USB ports and **WiFi** for communication and data transfer
- » multi-segment time and temperature programs
- » overview of data in tabular and graphic form
- » visual and sound alarm
- » administrating functions for management
- » password protected log-in
- » internal memory for programs and data storage
- » operating with gloves on
- » event registry with user notifications
- » **LabDesk** software and user manual for direct download
- » **Alarm Bar** - quick visual information about device status
- » **Quick Note** - user can save messages (50 characters) in Smart PRO controller memory
- » **Quick Change** of parameters: temperature, humidity, time, air flap and fan

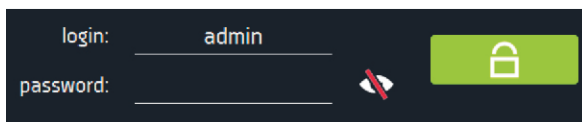


Getting started

During the first boot, the Smart PRO controller will automatically ask if you want to save the "Download" folder (instruction manual and additional LabDesk software) on the USB flashdrive. Maximum acceptable flashdrive memory is 64 GB.



Only the logged-in user can control the device. If no user is logged-in, press Main Menu icon on the main screen (factory default login parameters: login: admin, password has not been set).



Types of accounts and their limits:

Super Admin - this account has not limits. It has access to the program menu management and to the settings menu.

Admin - it has access to program management menu, where you can create or edit programs (programs), check their statistics (statistics and data register), check the device event history (event log) and information about the system (info).

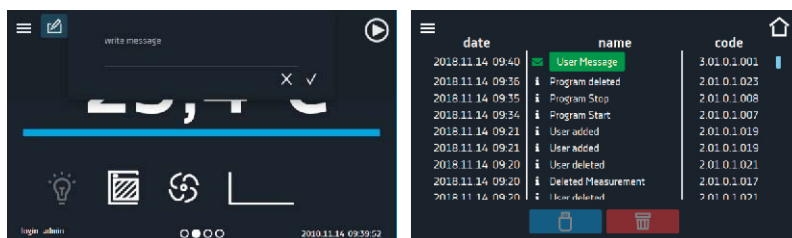
User - it has access to the program management menu, where you can run (programs), check their statistics (statistics, data register), check the device event history (event log) and system information (info). The user cannot create his own programs and schedules, but only run those that have been made available to him by other users. The user cannot stop programs and schedules that he did not start himself. The user do not have access to the schedules. The program started by the user can be stopped by a user with Super Admin privileges.



Quick Note - GLP supporting feature

Quick Note - while operating the device, the user can save messages in the memory, for example, about inserting a new cartridge or about any changes etc.

To enter the message the user must be logged-in. The entered notes can be seen in the event log, they are symbolized by a green envelope icon.



Quick Note benefits:

- » support Good Laboratory Practice
- » events registration in Smart PRO events log
- » can be shown on reports in LabDesk
- » internal information in laboratory
- » control/supervision of the process

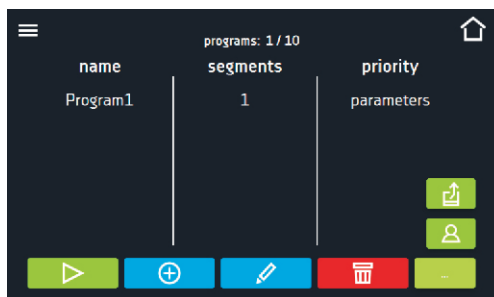


Example:
During tests new samples
have to be inserted. After that,
the user can add the Quick Note
on that. It will contain date and
time and can be seen in the
events log.





Programming Smart PRO in 4 steps



Step 1

Tap “programs” icon in main menu to enter Programs screen. Here you can manage your programs and also upload program from USB.

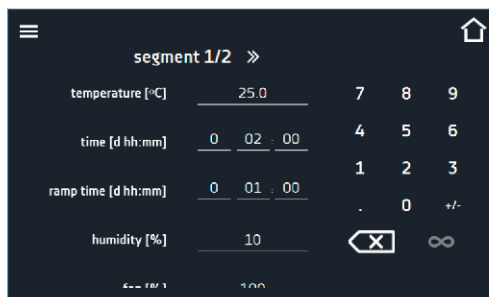


Step 2

Tap “plus” icon to add new one, then insert program name, number of segments etc. Then tap blue segment icon to configure segments.

Step 3

Configure all segments using numeric keyboard. To move onto the next segment slide the segments number or tap arrows.

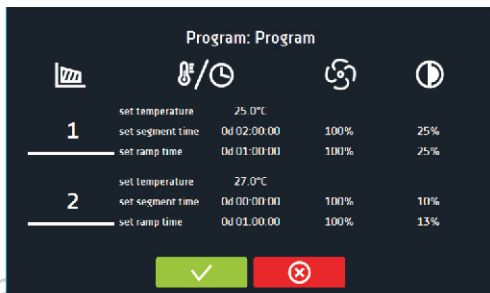


Step 4

Check all your settings in the summary and tap save. Your program is ready to use.

Programming via USB in LabDesk

There is also possibility to create program in LabDesk and load it to Smart PRO controller using a flash drive.





Quick Change - quick and easy change of parameters

You cannot make a quick change (time / temperature) if the program has been started by another user. Information about the program owner can be found on the bottom panel.



Temperature - you can change temperature in full scale of the unit temperature range. The temperature cannot be lower than protection temperature (under temperature) $+2^{\circ}\text{C}$ and higher than protection temperature (over temperature) -2°C .



Fan - allows to control the fan speed between 0% to 100% (according to chamber type).



Air flap - allows you to control the opening of the air flap between 0% to 100% (according to chamber type).

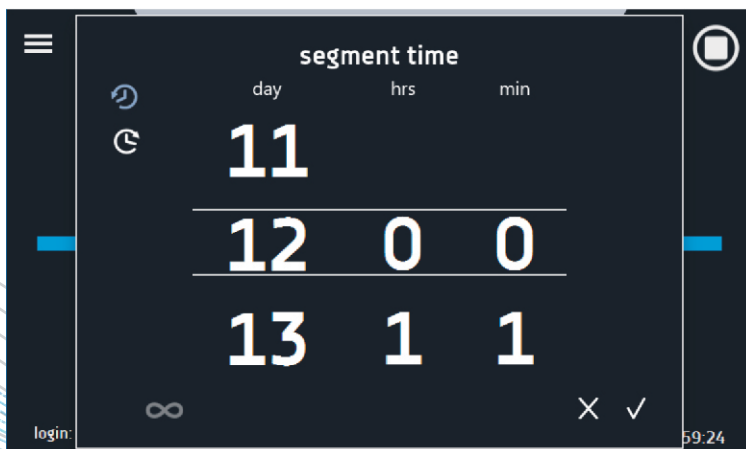


Time - you can change program/segment time by scrolling the number of days, hours and minutes. Time can be set from 1 minute to 365 days, 23 hours and 59 minutes. There is also a possibility to display time in two ways:



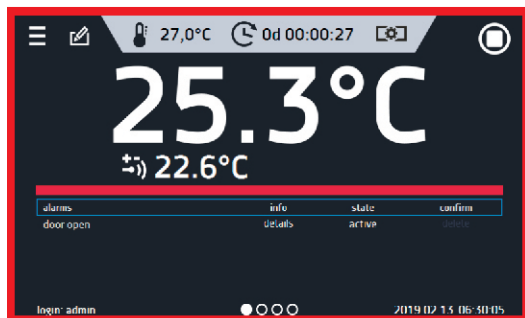
- elapsed time of the program/segment
- remaining time of the program/segment

You can also set continuous operation by pressing ∞ icon.





Alarm bar and e-mail notifications



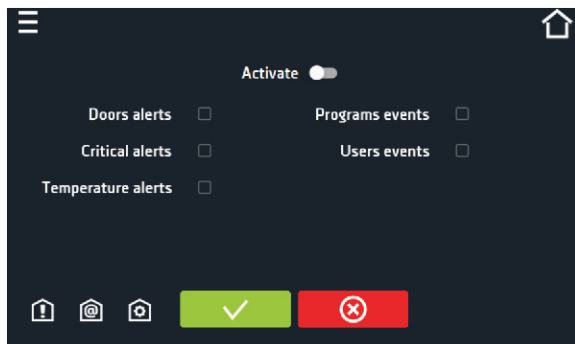
Alarm codes

- » Door alerts – door ajar alarms
- » Critical alerts – critical alarms (eg. sensors malfunction)
- » Temperature alerts – under / over temperature alarms
- » Humidity alerts – under / over humidity alarms

E-mail notifications

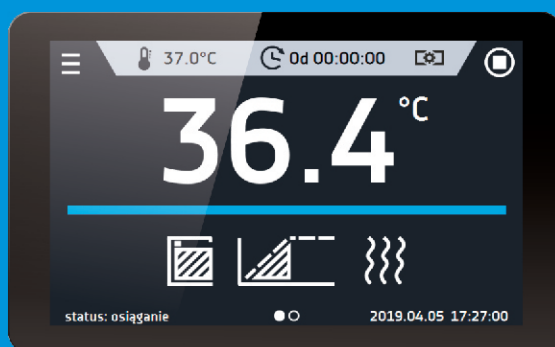
Smart PRO controller was equipped with a E-mail notification function. The user with Super Admin permissions can set & activate e-mail notification reports for up to 3 e-mail addresses.

- » Door alerts – door ajar alarms
- » Critical alerts – critical alarms (eg. sensors malfunction)
- » Temperature alerts – under / over temperature alarms
- » Programs events – information on programs (eg. adding, edition, deletion of a program),
- » Users events – information on users edition settings (adding, edition, deletion of a user)



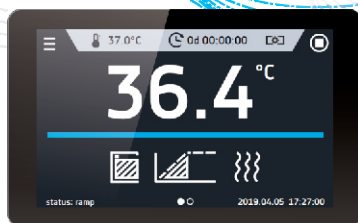
Smart PRO simplified version - SMART

In the 3rd quarter of 2019 we will launch the Smart controller which will be a direct successor of the BASIC and STD (standard) controllers, currently found in the ST cooled incubators, CHL laboratory refrigerators, ZL laboratory freezers, ZLN-UT ultra-low freezers, as well as the IL cooled incubators, CL laboratory incubators, SL drying ovens and SR laboratory sterilizers.

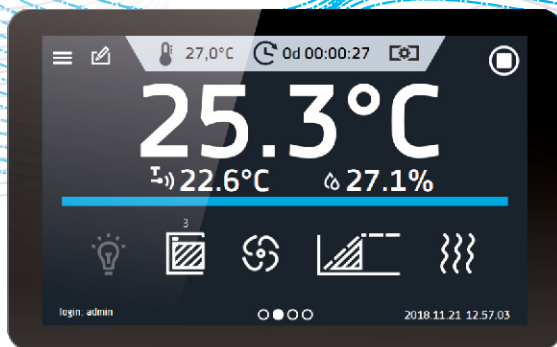


Advantages of the Smart controller:

- » 4,3", clear, full colour touch screen
- » LAN, USB ports for data transfer
- » multi-segment time and temperature programs
- » visual and sound alarm
- » internal memory for programs and data storage
- » event registry
- » LabDesk software and user manual for direct download
- » Quick change of program parameters
- » Alarm Bar
- » operating with gloves on



Controller	Smart
Display	4.3" + touch screen
Network	LAN
USB	YES saving registration data saving events
Kaypad	Numeric
Languages	PL, EN
Main Screen	Dashboard (all relevant data visible from one main window)
Users	-
Users account types	-
Programs	5
Program name	Free number assigned
Priority	Parameters
Segments	6
Light control	-
Schedule	-
Data registry	max. 10,000 measurement data stored for a maximum of 6 months
Events registry	YES
Statistics	YES - only the current cycle
Temperature protection class	2.0
Quick Note	-
Graph	-
Mail notifications	-
Device name	Fixed (serial number)
Alarm Bar	YES
Quick change	YES
Additional software for PC	LabDesk



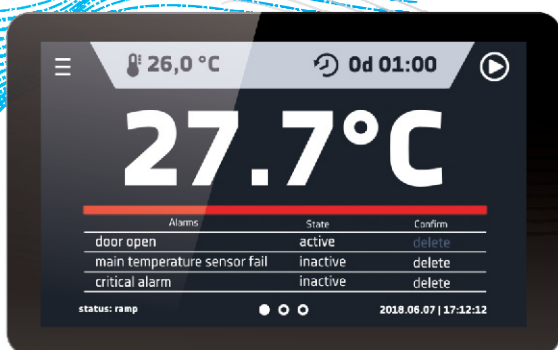
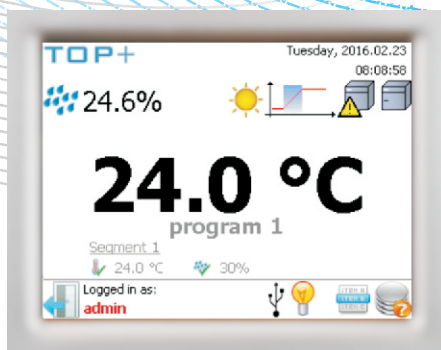
Smart PRO	Controller
7" + touch screen	Display
LAN and Wi-Fi	Network
YES	
saving registration data	USB
saving events	
uploading programs	
Alphanumeric	Kaypad
PL, EN	Languages
Dashboard (all relevant data visible from one main window)	Main Screen
5	Users
User / Admin / Super-Admin	Users account types
40	Programs
Any	Program name
Parameters, time	Priority
100	Segments
YES	Light control
10 schedules	Schedule
max. 10,000 measurement data stored for a maximum of 12 months	Data registry
YES	Events registry
YES - from every segment and program cycle	Statistics
3.1 or 3.2 or 3.3	Temperature protection class
Ability to enter user own text messages	Quick Note
YES	Graph
alarm notifications	Mail notifications
editable	Device name
YES	Alarm Bar
YES	Quick change
LabDesk	Additional software for PC



Controller	Basic (ST/CHL/ZL)	STD (CL/SL/IL/SR)	Smart
Display	LCD graphic display	LCD graphic display	4.3" + Touch screen
Network	-	-	LAN
USB	YES data transfer	YES data transfer	YES saving registration data saving events
Kaypad	4 buttons	4 buttons	Numeric
Languages	CZ, EN, EST, FR, DE, IT, LT, PL, PT, RU, ES	CZ, EN, EST, FR, DE, IT, LT, PL, PT, RU, ES	PL, EN
Main Screen	Time/Date/Temperature	Time/Date/Temperature	Dashboard (all relevant data visible from one main window)
Programs	3	3	5
Program name	Free number assigned	Free number assigned	Free number assigned
Priority	Temperature	Temperature	Parameters
Segments	6	6	6
Data register	2046	2046	max. 10,000 measurement data stored for a maximum of 6 months
Events register	-	-	YES
Statistics	Yes - for actual segment	Yes - for actual segment	Yes - for current cycle
Temp. protection class	1.0 or 2.0	2.0	1.0 or 2.0
Device name	Fixed	Fixed	Fixed (serial number)
Alarm Bar	Red LED	Red LED	YES - Alarm Bar
Quick change	-	-	YES
Additional PC software	EasyLab Basic	EasyLab Basic	LabDesk

Additional advantages for SMART:

- » operating with gloves
- » downloading user manual and software directly from the main screen
- » Alarm Bar – quick visual information about status of device

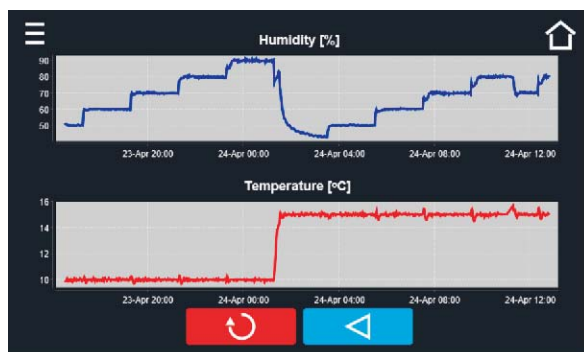


Controller	TOP+	Smart PRO
Display	5,7" + touch screen	7" + touch screen
Network	LAN	LAN and Wi-Fi
USB	saving registration data saving events	saving registration data saving events uploading programs
Kaypad	Alphanumeric	Alphanumeric
Languages	CZ, EN, EST, FR, HU, DE, IT, LT, PL, PT, RO, RU, ES	PL, EN
Main Screen	Dashboard (all relevant data visible from one main window)	Dashboard (all relevant data visible from one main window)
Users - account types	5 - User / Admin	5 - User / Admin / Super-Admin
Programs	20	40
Program name	Any	Any
Priority	Parameters, time	Parameters, time
Segments	100	100
Light control	YES	YES
Schedule	7-days programming	10 schedules
Data registry	4 100 (per user)	max. 10,000 measurement data stored for a maximum of 12 months
Events registry	YES	YES
Statistics	YES - from every segment	YES - from every segment and program cycle
Temp. protection class	3.1 or 3.2 or 3.3	3.1 or 3.2 or 3.3
Quick Note	-	YES
Graph	YES	YES
Mail notifications	Alarm notifications	Alarm notifications
Device name	Fixed	Editable
Alarm Bar	-	YES
Quick change	-	YES
Additional PC software	TOP+ Control	LabDesk

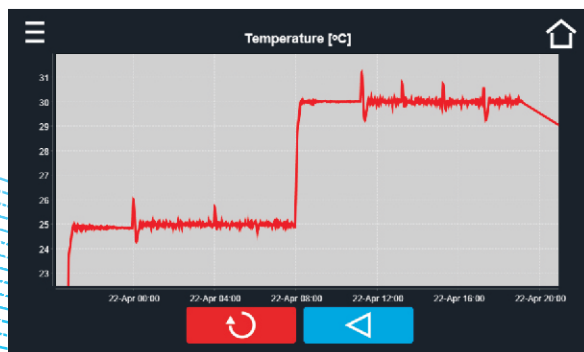


Smart graph

The Smart PRO controller allows to generate graphs from the records in the data register. For units equipped with two sensors (eg. climatic chambers with temperature and humidity sensor) you are able to see both graphs at the same time. To display one graph only tap twice on the one you wish to see in details.



To enlarge a fragment of the graph press anywhere on the graph and swipe both right and down at the same time to. By swiping left you can return to the normal size of the graph.



Icon based controller

We created over 150 types of icons to make your work more comfortable and easy. It also makes the Smart PRO controller entirely intuitive.

Information panel icons



Operating icon is only visible when: chamber is heating, cooling or defrosting function is on.



Internal light is switched:
ON / OFF



Rotating icon shows that the fan is running at 100 % when program is active. Icon is stopped when the program is off or when the fan is defect (only ILP).



Closed door, open door. The number above the icon presents open door counter, press the icon to cancel the counter. The counter is also reset after turning on the device.

2019.04.05 14:30



Active schedule or start delay.
The program will start at the given date/time.

2019.04.05 14:30



Active schedule – the program will terminate at the given date/time.

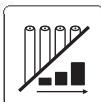


Ramp status: Chamber is currently cooling down or heating up to reach set temperature.



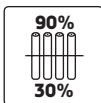
Set temperature is reached.

Some interesting options and accesories



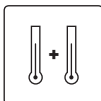
Phytotron system

Phytotron system allows day and night simulation with smooth illumination control (each 1%).



FIT panels independent control

It allows to control the light intensity independently for each of 2 or 3 over-shelf panels.



Additional Pt 100 temperature sensor

This option consists of an additional temperature sensor and a sensor's socket. The additional temperature values can be shown on the display. The user can set the master and slave sensor. This way unit can work according to the sample temperature in which additional Pt 100 sensor is placed. The sensor may be supplied with a calibration certificate.



Calibration of the chamber

Measurements are performed at 9 points of the chamber (corners + geometric center) or at 5 points on the shelf (corners + geometric center) at the temperature selected by the user. IQ, OQ, PQ qualifications are available too.

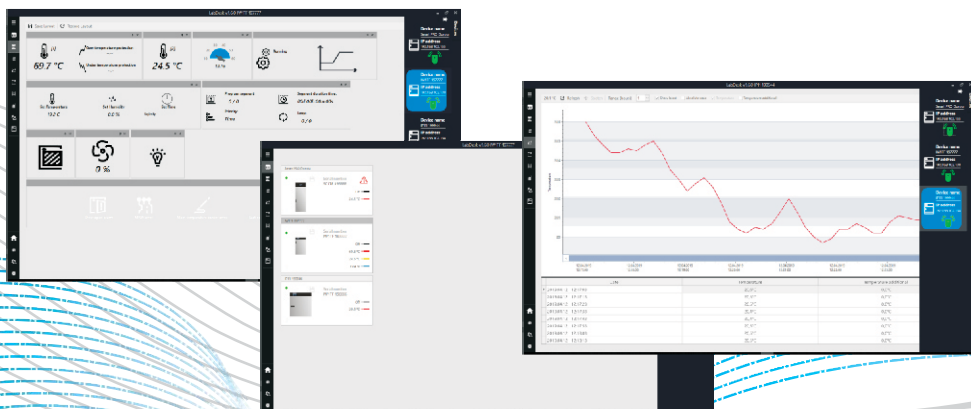


Automatic defrosting function

Defrosting in this case is programmable (the user sets periodicity and duration). This function is carried out while the unit is working. This advanced technology holds the temperature stable, allowing only a minor increase in the chamber (considerably higher temperature rise is caused by the door opening).



- » simultaneous connection with several Smart PRO devices
- » remote control of devices
- » remote viewing of device status
- » downloading statistics of the running program from devices
- » data / events import registered in devices
- » saving and reading files in the .plx format (LabDesk)
- » generating charts
- » generating reports
- » edit creating programs
- » creating an offline program





LabDesk Basic vs LabDesk Professional

	LabDesk Basic	LabDesk Professional
users	one user	users and account types
changing program language	yes	yes
uploading a file with registry data exported from the device	yes	yes
uploading a file with event data	yes	yes
generating a report of uploaded data from a file	yes	yes
generating a graph of data from a file	yes	yes
adding devices and the ability to connect to them remotely	10	infinity
user management panel	no	yes
sliding side menu and start menu	no	yes
viewing the status of a running program	yes	yes
information about alarms	no	yes
the panel with programs downloaded from the device	yes	yes
possibility to create programs and send them to the device remotely	no	yes
creating programs offline	no	yes
remote launching of programs	yes	yes
modification of existing programs	no	yes
stopping the program	yes	yes
saving the current data registry of the running program to the file	no	yes
setting a delayed start of the program	no	yes
view of the current temperature and humidity graph	yes	yes
uploading previously generated reports	no	yes
downloading data from the device's registry	no	yes
viewing current data statistics from the device	no	yes

Lab Desk *Cloud*

COMING SOON



LabDesk Cloud features:

- » works on all devices: desktop, notebook, tablet, smartphone
- » designed for: Windows, Android and iOS
- » e-mail and SMS notifications
- » reports generator
- » safe user login with e-mail and password
- » remote device programming and control
- » live monitoring in any time and place
- » graph generator for recorded data
- » export data and events to file
- » demo, basic and advanced versions
- » User / Admin and Super-Admin functions
- » multilingual
- » data storage - according to license



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