POL-EKO APARATURA®

CO$_2$ Incubator
ILC 180 SMART PRO
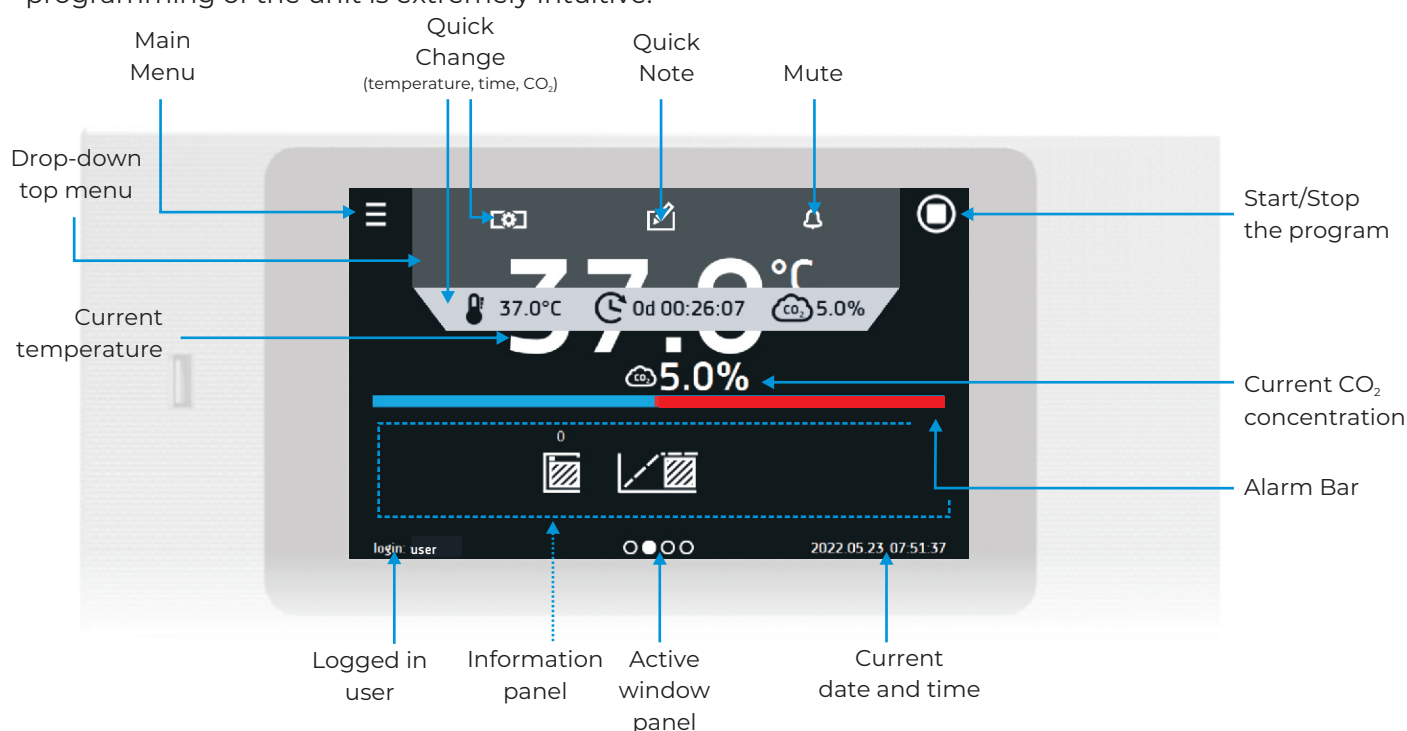
37.0℃

NEW

CO₂ Incubator

CO₂ Incubator ILC 180 SMART PRO

ILC 180 SMART PRO is the optimal solution for your laboratory!

The CO_2 incubator offers optimal growth conditions for cell cultures. Very precise temperature control, appropriate humidity and CO_2 concentration are undeniable advantages of this product.

The CO₂ Incubator is equipped with the most advanced POL-EKO controller – **SMART PRO** with an intuitive menu and user-friendly software.

The display shows current parameters, alarms and program status in an easy to use way. The controller has been developed to be navigated by icons, so all information is legible and the programming of the unit is extremely intuitive.

Main Menu • Quick Change (temperature, time, CO₂) • Quick Note • Mute • Drop-down top menu • Start/Stop the program • Current temperature • Current CO₂ concentration • Alarm Bar • Logged in user • Information panel • Active window panel • Current date and time

The most important advantages of the SMART PRO controllers:

- Large (7"), legible, full colour touch screen
- LAN, USB ports and WiFi for uploading programs and data transfer
- Multi-segment time and temperature programs
- Data preview in tabular and graphic form
- Visual and audible alarm
- Administration functions for easy management
- Password protected log-in
- Internal memory for programs and data storage
- Operating with gloves on
- Event registry with user notifications
- Adjustable start delay feature and loop function
- Over-temperature protection class 3.1 (DIN 12880) protects samples and the incubator
- LabDesk software and instruction manual for direct download
- Alarm Bar – instant visual information about chamber status
- Quick Note – user can save text notes (50 characters) in SMART PRO controller memory
- Quick Change of parameters: temperature, time

7" touch screen

USB port

Handle with key lock

Height adjustable feet

Sterilizable CO$_2$ sensor

Temperature sensors

Two access ports

Magnetic handle

Water pan

Open door sensor

Additional advantages of CO$_2$ incubator:

- Handle with key lock
- Main power switch flush with the housing prevents unintentional switch off
- CO$_2$ gas-mixing jet with the Venturi effect to ensure quicker atmosphere mixing and more homogeneous distribution
- Multiple temperature sensors for accurate measurement
- Magnetic handle for ergonomic internal door opening
- Rack with perforated shelves for optimal shelf positioning
- Two access ports (Ø30 mm), the first on the left wall and the second on the rear, both secured with silicone plugs
- Silicon gasket
- Water pan to provide optimal humidity
- Open door sensor
- Height adjustable feet
- Contamination protection:
    - Hot-air sterilization at 180°C
    - Fan-less construction
    - Smooth, easy to clean stainless steel interior with rounded corners
    - Sterilizable, drift-free infrared CO$_2$ sensor
    - Inner glass door for sample viewing without changing the conditions in the chamber
    - No hiding spaces

Two Access ports

ILC 180 SMART PRO is equipped with two independent access ports (Ø30 mm), which is a unique solution on the market. The access port located at the rear is ideal for laboratories where several units are placed side by side. The second one, on the side wall, is the perfect solution in small rooms where space is limited and access to the rear is difficult.

CO$_2$ Incubator

Save space in your laboratory

The ILC 180 SMART PRO Incubator is stackable. Two units can be stacked on top of each other.
For this purpose the stacking optional adaptor is required. It prevents heat transmission, shocks and vibrations transferring from one chamber to another.
The base on castors allows the incubator to be easily moved from one location to another. It is also recommended to avoid dirt from the floor potentially contaminating the chamber.

Even when two units are stacked and placed on the base on castors, the upper display is at height of 175 cm which is very convenient to operate.

Labdesk software - remote control of the unit

LabDesk application is an integral part of SMART PRO series. The application was created for a demanding customers to facilitate operation and control of units manufactured by POL-EKO-APARATURA.

SMART PRO units can be connected to the Ethernet network and controlled remotely using the LabDesk software. This software can be downloaded from the unit's internal memory.

LabDesk software features:

- simultaneous connection of several SMART PRO units
- remote control of units
- current temperature and %CO$_2$ preview
- running program status preview
- real-time running program data record to the file
- alarm information
- remote creating and uploading programs
- existing programs edition
- creating programs offline
- starting / stopping programs
- setting a delayed start for a program
- opening data file / events registry downloaded from the unit
- generating reports /graphs from registry or events data file
- generating schedules
- current data statistics preview
- generating reports from current statistics
- downloading statistics of the launched program
- downloading registered data / events
- creating charts
- user management panel
- time zone change
- unit interface settings
- temperature correction
- alarms settings

LabDesk Cloud – on-line platform for SMART & SMART PRO units in your laboratory

Our cloud platform enables remote preview of current status and measured data of POL-EKO branded units anywhere, anytime and on any equipment you want to (smartphone, tablet, laptop, PC, etc.). It also offers an easy auto-update for SMART & SMART PRO controller firmware.

LabDesk Cloud features:

- simultaneous connection of several SMART & SMART PRO units
- current measured values preview in the form of a table and chart
- unit status preview with events history and data export option
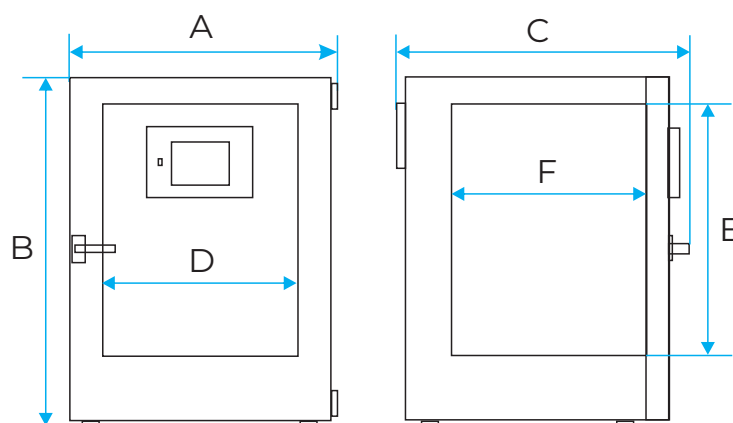- easy firmware updates for SMART & SMART PRO controllers

CO₂ Incubator

Technical Specification

Air convection		natural (fan-less)
Chamber capacity [l]		182
Working capacity[1] [l]		135
Door type		double (external solid, internal glass)
Temperature range [°C]		+5°C above ambient temperature…+50
Temperature resolution [°C]		every 0,1
Humidity range [% rH]		90-95
CO_2 range [Vol.-% CO_2]		0-20
CO_2 resolution [Vol.-% CO_2]		every 0,1
CO_2 measurement		IR
Controller		microprocessor with a large 7" full colour touch screen
Interior		stainless steel to DIN 1.4301
Housing		powder coated sheet
Overall dims[2] [mm]	A width	700
	B height	920
	C depth	780
Internal dims [mm]	D width	560
	E height	650
	F depth	500
Max shelf workload [kg]		10
Max unit workload [kg]		30
Nominal power [W]		1700
Weight [kg]		96
Temperature fluctuation[3] at 37°C [°C]		< ± 0,1
Temperature variation[4] at 37°C [°C]		< ± 0,3
Temperature recovery time after 30 seconds door opening at 37°C [min]		6
CO_2 recovery time after 30 seconds door opening at 5 Vol.-% CO_2 [min]		10
Energy consumption at 37°C [Wh/h]		66
Power supply		230V 50-60Hz
Noise level [db(A)]		42
Shelves (std./max.)		3/6
Warranty		24 months

1) doesn't include rack for shelves
2) depth doesn't include 50 mm of power cable
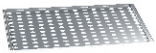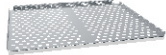3) fluctuation measured in the centre of the chamber
4) in space, variation (K) calculated for chamber as: K= +/- (T avg max - T avg min) / 2

Delivery information

ILC 180 SMART PRO is supplied with:

- Rack for shelves – 1 pc
- Stainless steel perforated shelves – 3 pcs
- Water pan – 1 pc
- Key to the lock – 2 pcs
- Pressure gas hose (3 m) with hose clamp – 1 pc
- Ethernet cable – 1 pc
- Manufacturer's test certificate at 37°C – 1 pc
- Instruction manual (digital version only which can be downloaded from the internal memory) - we try to limit the consumption of paper - we protect nature and trees!
- LabDesk software (can be downloaded from the internal memory)

MODEL	CODE
ILC 180 SMART PRO	05-1100-0680-0000001

MODEL	CODE
Perforated stainless steel shelf for ILC 180	05-1200-3031-1001800
Reinforced perforated shelf for ILC 180	05-1200-3061-1001800
Stacking adaptor for ILC 180	05-1200-4202-1018002
Base on castors for ILC 180	05-1200-4202-1018001
Support frame on castors for ILC 180	05-1200-4202-1018003

POL-EKO-APARATURA

Manufacturer of laboratory equipment, metal forniture,
fume hoods and on-line instruments.

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