Made in Poland. Established 1990.

POL-EKO APARATURA®

ULTRA-LOW FREEZERS ZLN-UT

-86°C

access port: (Ø30 mm) for external sensor for e.g. RT 2014 logger with SMS

door lock

inner chamber door

wheels

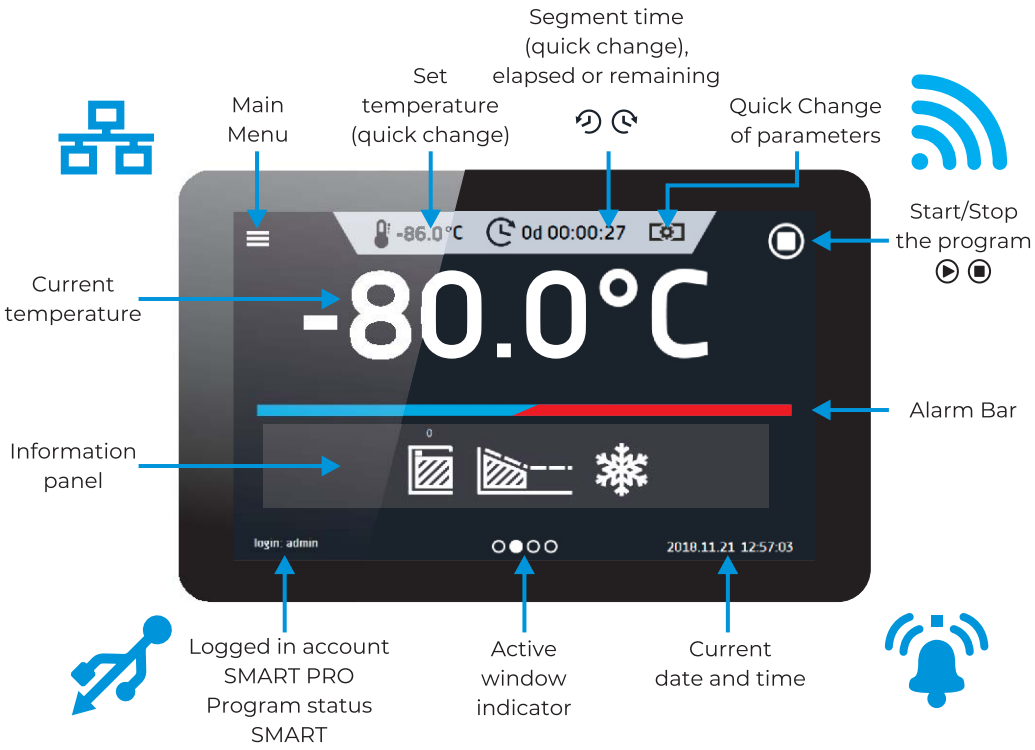
racks with drawers

Ultra-low freezers are used for deep freezing of biotechnological samples and other materials which should be stored at very low temperatures.

- biotechnology
- pharmacy
- storage

Smart & Smart PRO controllers

4,3" colour touch panel Smart
7" colour touch panel Smart PRO
guarantees intuitive and comfortable operation



Advantages of the controllers:

- large (7”), clear, full colour touch screen Smart PRO
- 4,3”, clear, full colour touch screen Smart
- LAN, USB (Smart) ports and WiFi for communication for data transfer
- multi-segment time and temperature programs
- overview of data in tabular and graphic form
- visual and sound alarm
- administrating functions for management (Smart PRO)
- password protected log-in (Smart PRO)
- 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

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.

Ultra-Low freezers ZLN-UT 200 and ZLN-UT 130

Ultra-low freezer ZLN-UT 200 Smart

- temperature range **-86 ... -40°C**
- **242** liters chamber capacity
- 3 compartments, each (WxHxD) **520 x 240 x 560 mm**
- access port for external sensor for e.g. **RT 2014**
- **CO_2** backup system (option)
- **wheels** with brake
- **key** door lock
- visual and sound **alarm**
- **ECO** ecological refrigerant

Ultra-low freezer ZLN-UT 130 VIP Smart

- temperature range **-86 ... -40°C**
- about **130** liters chamber capacity
- 1 compartment (WxHxD) **620 x 370 x 570 mm**
- access port for external sensor for e.g. **RT 2014**
- **CO_2** backup system (option)
- **wheels** with brake
- **key** door lock
- visual and sound **alarm**
- thin construction thanks to **VIP** (vaccum insulated panels) insolation
- **ECO** ecological refrigerant

Available soon!

Ultra-Low freezers ZLN-UT 300 and ZLN-UT 500

Ultra-low freezer ZLN-UT 300 Smart

- temperature range **-86 ... -40°C**
- **326** liters chamber capacity
- 4 compartments, each (WxHxD) **520 x 240 x 560 mm**
- access port for external sensor for e.g. **RT 2014**
- **CO_2** backup system (option)
- **wheels** with brake
- **key** door lock
- visual and sound **alarm**
- **ECO** ecological refrigerant

ready for

Ultra-low freezer ZLN-UT 500 VIP Smart

- temperature range **-86 ... -40°C**
- **447** liters chamber capacity
- 2 compartments with 2 shelves, each (WxHxD) **560 x 670 x 570 mm**
- access port for external sensor for e.g. **RT 2014**
- **CO_2** backup system (option)
- **wheels** with brake
- **key** door lock
- visual and sound **alarm**
- thin construction thanks to **VIP** (vaccum insulated panels) insolation
- **ECO** ecological refrigerant

CO_2 back up system

CO_2 back up system enables the freezer controller to dose CO_2

CO_2 back up system enables the freezer controller to dose CO_2 in case of an undesired temperature increase in the chamber from an external source for e.g. cylinder or installation.

It is supplied with an internal battery.

This solution is particularly recommended in the event of a power outage.

Racks with drawers and boxes

Racks with drawers and boxes for test-tubes for ultra-low freezers

Racks with drawers ZLN-UT/ST12 and ST16

Sturdy and heavy duty, made of stainless steel;
feature quick and easy access to all boxes;
3 or 4 drawers (each for 4 boxes) per rack.

Rack loaded from the side ZLN-UT/R

The rack made of aluminium;
It has 4 levels, each can hold 3 boxes.

Boxes for test-tubes

Made of polypropylene or cardboard.
(dimensions: 133x133x50mm; each box suits 81 test-tubesof Ø 12,5mm)

description	model	compartments	rack per compartment	boxes per rack	boxes per compartment	boxes per unit	test-tubes per unit*
rack with drawers	ZLN-UT 200	3	3	16	48	144	11 644
	ZLN-UT 300	4	3	16	48	192	15 552
	ZLN-UT 500	2	8+4	16/12	176	352	28 512
rack loaded from the side	ZLN-UT 200	3	3	12	36	108	8 748
	ZLN-UT 300	4	3	12	36	144	11 664
	ZLN-UT 500	2	8+4	12/16	176	352	28 512

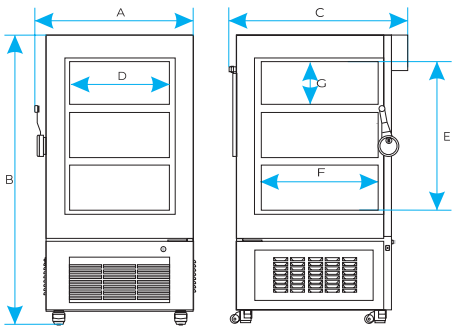
* applies to 12,5 mm diameter test-tubes

Made in Poland. Established 1990.

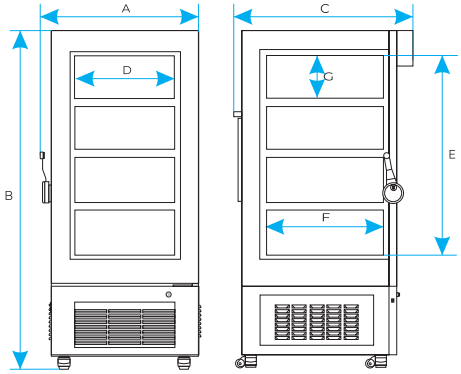
Parameter		ZLN-UT 200	ZLN-UT 300	ZLN-UT 500
air convection		natural		
chamber capacity [l]		242	326	447
number of boxes 133x133x50mm [pcs]		144	192	352
door type		double, solid		
temperature range [°C]		-86...-40		
temperature resolution [°C]		every 0,1		
pull-down time from +25°C to -86°C [h]		3,5	3,5	3,5
warm-up time in case of power failure -80°C to -60°C [h]		1,5	1,5	1,5
controller		microprocessor PID, 4,3" or 7" full colour touch screen		
interior	C (comfort)	stainless steel to DIN 1.4016		
	CS (comfort/S)	stainless steel to DIN 1.4016		
	P (premium)	acid-proof stainless steel to DIN 1.4301		
	PS (premium/S)	acid-proof stainless steel to DIN 1.4301		
housing	C (comfort)	powder coated sheet		
	CS (comfort/S)	polished stainless steel		
	P (premium)	powder coated sheet		
	PS (premium/S)	polished stainless steel		
overall dims[1] [mm]	A width	880	880	850
	B height	1630	1930	2010
	C depth	950	950	950
internal dims [mm]	D width	520	520	620
	E height	830	1120	1380
	F depth	560	560	570
	G height	240	240	670
max unit workload [kg]		65	80	80
max shelf workload [kg]		10	10	10
nominal power [W]		2100	2100	2100
energy consumption 24h [kWh] at -80°C		16	18	18
weight [kg]		180	200	200
temperature fluctiation at -80°C [+/- °C]		1,5	1,4	1,4
temperature variation at -80°C [+/- °C]		4	3	3
power supply		230V 50Hz		
shelves fitted/max		-	-	4 / 4
number of internal chambers		3	4	2
refrigerant		R290 / GWP=3 | R170 / GWP=6	R290 / GWP=3 | R170 / GWP=6	R290 / GWP=3 | R170 / GWP=6
warranty		24 months		
manufacturer		POL-EKO-APARATURA		

all the above technical data refer to standard units (without optional accessories)
1 - depth doesn't include 50 mm of power cable

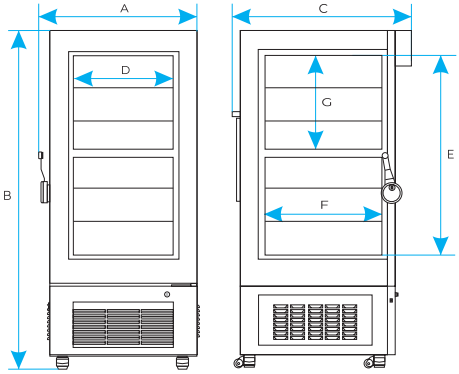
ZLN-UT 200



ZLN-UT 300



ZLN-UT 500



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