

Laboratory incubators are perfect for incubation of samples at temperatures above ambient up to +100°C



CLN 180 IG Smart PRO laboratory incubator



All thermostatic equipment manufactured by POL-EKO-APARATURA can be provided with Calibration Certificate issued by accredited Measurement Laboratory. Detailed information on accreditation is available on website: [www.pol-eko.eu](http://www.pol-eko.eu).



Hundreds of products in our offer equal hundreds of thousands of elements that the final product consists of. Most of them are produced at our premises in Wodzisław Śląski and this requires continuous availability of materials, raw materials and ready-made components supplied to us. Ensuring the continuity of production and proper quality of parts manufactured for us in many countries in the world is crucial. That is why all these processes must be monitored and verified up to date. To guarantee highest quality of supplied elements every supplier is periodically evaluated.

Zenon Orlof, Head of Supply Department



## STANDARD FEATURES

- temperature range 5°C above ambient temperature...+100°C
- quality control protocol (at +37°C)
- English instruction manual
- temperature protection class 2.0 (Smart) and 3.3 (Smart PRO) to DIN 12880
- open door alarm
- castors in standard for models CL 400, 750, 1000
- Ø40 mm air-flap for CL 15-180 and Ø60 mm for CL 240-1000
- LAN and USB ports
- access port: Ø30 mm for models 53-1000 or Ø9 mm for models 15, 32 on the left wall
- door lock
- stainless steel wire shelves (INOX)
- double door (external solid, internal glass)

## EXTRA FOR SMART PRO

- Wi-Fi
- LAN cable
- LabDesk

## AVAILABLE VERSIONS

- Smart
- Smart PRO
- reinforced


## SOFTWARE

- LabDesk for data download to a PC via LAN or Wi-Fi (optional for Smart version)

## Application

- incubation of samples for microbiological determinations
- analysis of thermal resistance of samples subjected to higher temperatures
- antibodies tests
- bacteria tests
- crystallization observations
- cultivation of thermophilic microorganisms
- pharma stability tests
- food industry denaturalizing tests



		CL 15	CL 32	CL 53	CL 115	CL 180	CL 240	CL 400	CL 750	CL 1000	
Parameter											
air convection		natural (CLN) / forced (CLW)						forced (CLW)			
chamber capacity [l]		15	32	56	112	180	245	424	749	1005	
door type		double <sup>1</sup>		double <sup>1</sup> / door with viewing window (option)							
temperature range		+5°C above ambient temperature ...+100°C									
temperature resolution [°C]		every 0,1									
controller		microprocessor PID, 4,3" (Smart) / 7" (Smart PRO) full colour touch screen									
interior		acid-proof stainless steel to DIN 1.4301									
housing	-	powder coated sheet									
	IG	stainless steel linen finish									
overall dims <sup>2</sup> [mm]	A width	510	590	590	660	660	820	1020	1260	1260	
	B height	550	630	710	850	1040	1140	1430	1600	2000	
	C depth	470	520	620	710	820	770	770	880	880	
internal dims [mm]	D width	320	400	400	460	470	600	800	1040	1040	
	E height	230	320	390	540	720	800	1040	1200	1610	
	F depth	200	250	360	450	560	510	510	600	600	
max shelf workload <sup>5</sup> [kg]	-	10	10	25	25	25	25	25	-	-	
	PW <sup>3</sup> version	-	-	50	50	50	100	100	100	100	
max unit workload [kg]	-	20	30	40	60	75	90	120	140	-	
	W <sup>4</sup> version	-	-	80	120	120	300	300	300	300	
nominal power [W]		350	350	450	450	650	850	1300	1900	1900	
weight [kg]		32	35	50	65	92	118	170	260	319	
temperature fluctuation* at +37°C [± °C]	CLN	0,2	0,2	0,2	0,2	0,2	0,3	-	-	-	
	CLW	0,2	0,2	0,1	0,1	0,1	0,1	0,1	0,1	0,2	
temperature variation* at +37°C [± °C]	CLN	0,7	0,7	0,7	0,8	0,8	0,8	-	-	-	
	CLW	0,4	0,4	0,3	0,3	0,3	0,3	0,5	0,5	1,0	
over temperature protection		class 2.0 to DIN 12880 / class 3.1 (option) / class 3.1 in Smart PRO									
power supply**		230V 50-60Hz									
shelves fitted/max		1/2	1/3	3/9	2/7	3/9	3/10	3/14	5/16	6/22	
warranty		24 months									
manufacturer		POL-EKO-APARATURA									

all the above technical data refer to standard units (without optional accessories)

\* - fluctuation measured in centre of chamber; in space, variation (K) calculated for chamber as:  $K = \frac{T_{avg\ max} - T_{avg\ min}}{2}$

\*\* - other power supplies on request

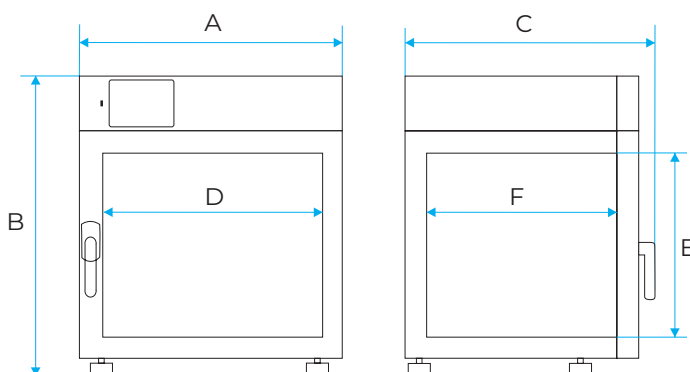
1 - internal glass, external solid

2 - depth doesn't include 50 mm of power cable

3 - reinforced shelf

4 - reinforced version

5 - on uniformly loaded surface



### Options and accessories (icon description see pages 76-82)

