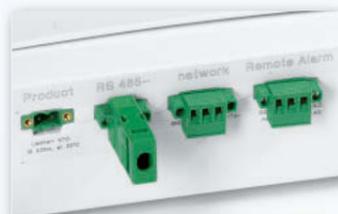
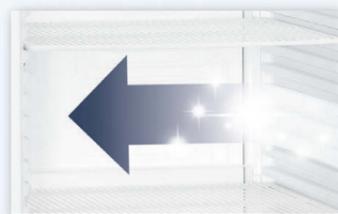


The advantages at a glance



Volt-free contact for forwarding alarms to an **external remote warning system** in laboratory appliances with a Comfort electronic controller.



The **commercial-grade moulded polystyrol inner liner** is exceptionally easy to clean and enables **optimum hygiene**.



The sturdy, **plastic-coated grid shelves** have a **loading capacity of up to 45 kg**, are easily adjustable in height and can be removed at a door opening angle of 90°.

Access port for integration of the optionally available NTC temperature sensor or independent temperature sensor PT 100 or similar measuring instruments in laboratory appliances with a Comfort electronic controller.



The **drawers** in the LCv 4010 laboratory fridge-freezer can easily be removed by the **handles recessed** in the sides. The drawers have a transparent front providing a clear view of the products stored inside.



LKv 3913

The **precision Comfort electronic controller** with digital temperature display allows accurate temperature setting to 1/10 °C. An **integrated data memory** logs the last three temperature alarms and power failures, together with the time, date and duration of the alarm. The respective data can be recalled using the AlarmLog function and read on the display panel.



Laboratory refrigerators LKv 3913 and LKv 1613 with a **glass door** feature an **efficient LED interior light** with a separate switch.



Laboratory appliances with a **Comfort electronic controller** provide **1-point calibration** for accurate temperature control. This permits compensation between the set temperature and the actual internal temperature.

Self-closing doors prevent cold loss and contribute to the **temperature stability** of the appliances. The integrated lock is very sturdy and protects the samples and products against unauthorised access.



The **dynamic cooling system** in conjunction with the **precision Comfort electronic controller** ensures maximum temperature stability and high temperature consistency in the interior.

Quality right down to the smallest detail

Liebherr Mediline laboratory refrigerators the ideal solution for a small footprint or for under-worktop integration. The range comprises two freestanding and under-worktop refrigerators with a glass door or a solid door. The precision Comfort electronic

controller enables temperatures to be set accurately. The dynamic cooling system ensures high temperature consistency. Integrated alarm systems guarantee safe storage.



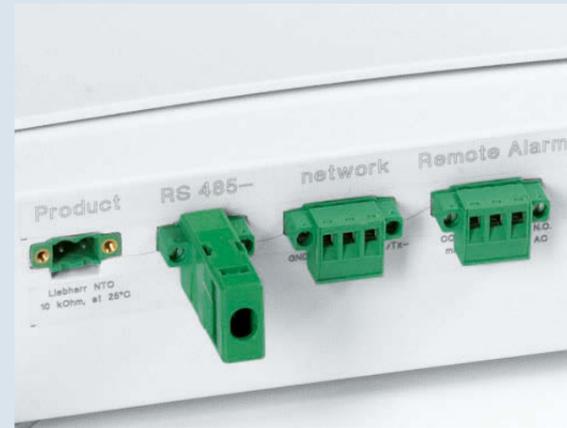
The Comfort electronic controller.

The precision Comfort electronic controller with digital temperature display enables temperatures to be set accurately. Symbols indicate the operating status of the appliance. The electronic controller is flush-mounted and equipped with a membrane keyboard for perfect hygiene.



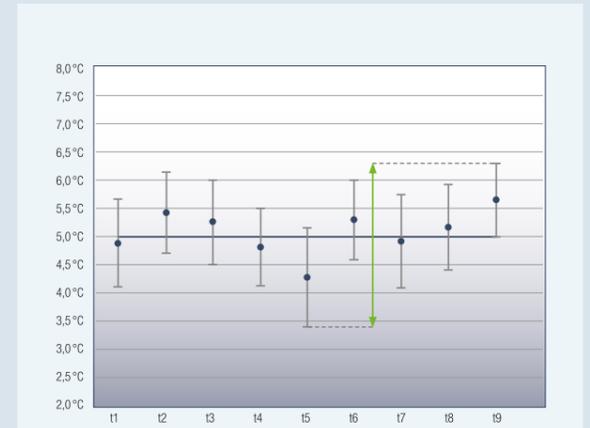
Integrated alarm systems.

Visual and audible alarm systems alert the user to undesired temperature deviations or when the door is open. All alarm parameters can be individually set. For example, the door-open alarm delay can be adjusted between 1 and 5 minutes. Additional safety is provided by a visual power failure alarm and sensor defect alarm.



External temperature and alarm documentation.

The laboratory appliances are equipped with a volt-free contact for alarm forwarding to an external remote warning system, as well as with a serial interface RS 485 which enables central documentation of temperature profiles and alarm events. LTM documentation software is optionally available.



Maximum temperature consistency.

The dynamic cooling system in conjunction with the precision Comfort electronic controller ensures maximum temperature stability. All laboratory appliances with a Comfort electronic controller are designed according to the ISO 60068-3 standard with regard to optimum temperature consistency.



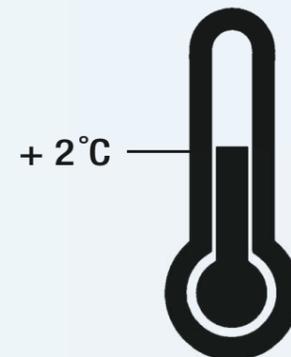
Accurate 1-point calibration.

The laboratory appliances with a Comfort electronic controller are equipped with 1-point calibration for accurate temperature control. This permits compensation between the set temperature and the actual internal temperature. Positive or negative changes to the correction value can be made in steps of 0.1 K.



Integrated data memory.

The Comfort electronic controller is equipped with an integrated data memory which logs the maximum and minimum internal temperatures as well as the last three temperature alarms and power failures, together with the time, date and duration. These data can be read out on the display.



Safety thermostat.

The laboratory appliances are equipped with an additional safety thermostat to prevent temperatures below +2°C and to protect sensitive products in the event of a fault.



External temperature sensor.

The laboratory appliances with a Comfort electronic controller have an access port (diameter 10 mm) on the rear which allows the temperature sensor to be positioned in the interior.

Laboratory refrigerators with Comfort electronic controller



Laboratory fridge-freezer with Comfort electronic controller



Laboratory refrigerators with Comfort electronic controller

	LKV 3913 MediLine	LKV 3910 MediLine	LKV 1613 MediLine	LKV 1610 MediLine
Total gross / net capacity	360/344 litre	360/344 litre	141 / 130 litre	141 / 130 litre
Exterior dimensions in mm (w/d/h)	600/615/1840	600/615/1840	600/615/820	600/615/820
Interior dimensions in mm (w/d/h)	440/435/1635	440/435/1635	440/435/670	440/435/670
Energy consumption in 24 h *	1.315 kWh	0.846 kWh	1.010 kWh	0.747 kWh
General				
Cooling system	forced-air	forced-air	forced-air	forced-air
Defrost	automatic	automatic	automatic	automatic
Temperature range	+3°C to +16°C	+3°C to +16°C	+3°C to +16°C	+3°C to +16°C
External cabinet finish	steel / white	steel / white	steel / white	steel / white
Door / lid material	glass door	steel	glass door	steel
Internal liner material	commercial grade moulded polystyrol			
Type of control	electronic controller	electronic controller	electronic controller	electronic controller
Temperature display	external digital	external digital	external digital	external digital
Power failure alarm	when mains power return			
Fault: warning signal	visual and audible	visual and audible	visual and audible	visual and audible
Interface / Volt-free alarm contact	RS 485 / yes			
Interior light	LED lighting, with separate switch		LED lighting, with separate switch	
Adjustable shelves	5	5	3	3
Usable shelf area in mm (w/d)	440 / 420	440 / 420	440 / 420	440 / 420
Shelf material	wire shelves plastic-coated	wire shelves plastic-coated	wire shelves plastic-coated	wire shelves plastic-coated
Shelf loading	45 kg	60 kg	45 kg	60 kg
Handle	ergonomic slimline handle	ergonomic slimline handle	ergonomic slimline handle	ergonomic slimline handle
Lock	fitted	fitted	fitted	fitted
Self-closing door	yes	yes	yes	yes
Door hinges	right, reversible on site			
Gross / net weight	90 / 84 kg	71 / 65 kg	46 / 43 kg	39 / 37 kg
Climate rating	SN-ST	SN-ST	SN-ST	SN-ST
Sound power level	48 dB(A)	48 dB(A)	45 dB(A)	45 dB(A)
Refrigerant	R 600a	R 600a	R 600a	R 600a
Voltage / Connection rating	220-240V~ / 1.5 A	220-240V~ / 1.5 A	220-240V~ / 1.0 A	220-240V~ / 1.0 A
Accessories				
Shelf, plastic-coated	7112313	7112313	7112313	7112313
Stacking kit, white			9876687	9876687
Roller bars			9590521	9590521
Evaporator cover, white	9590525	9590525	9590523	9590523
Adjustable legs	9590233	9590233		
NTC product temperature probe	9590407	9590407	9590407	9590407
RS 485 / RS 232 adapter, data log software	9590387	9590387	9590387	9590387
Additional lock barrels (up to 10)	on request	on request	on request	on request

* measured at +25 °C ambient temperature and +5 °C set temperature for fridges and -20 °C for freezers

Laboratory fridge-freezer with Comfort electronic controller

	LCV 4010 MediLine
Total gross / net capacity	254/240 litre
Total gross / net capacity	107 / 105 litre
Exterior dimensions in mm (w/d/h)	600/615/2000
Interior dimensions in mm (w/d/h)	440/435/1105
Interior dimensions in mm (w/d/h)	431 / 435 / 597
Energy consumption in 24 h *	1.800 kWh
General	
Cooling system	forced-air / static
Defrost	automatic / manual
Temperature range	+3°C to +16°C / -9°C to -30°C
External cabinet finish	steel / white
Door / lid material	steel
Internal liner material	commercial grade moulded polystyrol
Type of control	electronic controller
Temperature display	external digital
Power failure alarm	when mains power return
Fault: warning signal	visual and audible
Interface / Volt-free alarm contact	RS 485 / yes
Adjustable shelves	4
Usable shelf area in mm (w/d)	440 / 420
Shelf material	wire shelves plastic-coated / glass
Shelf loading	45 kg / 24 kg
Drawers	3
Handle	ergonomic slimline handle
Lock	fitted
Self-closing door	yes
Door hinges	right, reversible on site
Gross / net weight	91 / 85 kg
Climate rating	SN-ST
Sound power level	52 dB(A)
Refrigerant	R 600a
Voltage / Connection rating	220-240V~ / 1.5 A
Accessories	
Grid shelf, plastic-coated, for	7112313
Evaporator cover, white, for	9590391
NTC product temperature probe	9590407
RS 485 / RS 232 adapter, data log software	9590387
Additional lock barrels (up to 10)	on request

* measured at +25 °C ambient temperature and +5 °C set temperature for fridges and -20 °C for freezers



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