

# Undercounter Refrigerators and Freezers

Laboratory/Pharmacy | Blood Bank



**TrueBlue.**  
Reliability & Support

i.Series® | Horizon Series™ | Scientific Series™



# Medical-grade refrigerators and freezers designed specifically for healthcare and life science applications.

Helmer Scientific high-performance undercounter refrigerators and freezers are a result of over 37 years of proven refrigeration solutions and attention to detail. Superior temperature uniformity, outstanding reliability, and exceptional benefits bring value every day, leaving you free to focus on your critical work while your products receive our TrueBlue protection.

## Helmer Refrigerators & Freezers Deliver

### High-Quality Craftsmanship

- » Superior chamber temperature uniformity and quick recovery with heavy-duty, air-cooled refrigeration system
- » Temperature uniformity of +/- 1°C (blood bank refrigerators)
- » Programmable defrost (freezers)
- » Bacteria-resistant powder coated exterior and interior provide added security
- » Sure-Seal self-closing door with magnetic closure eliminates broken door latches
- » Undercounter, free-standing, or stacked
- » Sustainable, U.S. EPA and SNAP approved Ecomate® insulation
- » Hospital grade plug enhances electrical safety/serviceability

### Secure Monitoring for a Safe Storage Environment

- » i.C<sup>3</sup>® with 7" (177mm) full-color touchscreen (i.Series®)
- » Microprocessor temperature controller with built-in alarm/monitor (Horizon Series™)
- » Key lock or optional access control
- » Password protected settings (i.Series)
- » Chart recorder (blood bank refrigerators and plasma freezers)
- » Meets AABB, ARC, FDA, EU Blood Directive 2004/33/EC, and Part 4 of the Blood Safety and Quality Regulation 2005 standards for blood storage

### Designed for Convenience & Performance

- » Field-reversible door (swing contained within width dimension)
- » Front ventilation eliminates the need for top or side clearance
- » Drop-down access panel conceals power switch, battery, and alarms\*
- » Front serviceability
- » Rechargeable i.C<sup>3</sup> battery backup (i.Series)
- » ADA compatible models fit under 34" (864mm) ADA compliant counters

## Reduced Humidity Levels Create Dry Storage Environment

Helmer has developed a proprietary approach to refrigeration for i.Series and Horizon Series Laboratory and Pharmacy Refrigerators. This results in reduced condensation on boxes and other containers, preventing degradation of labels and packaging.



\* i.Series / Horizon Series

# More choices

## Product Line Overview

Helmer offers three distinct lines for undercounter refrigerators and two lines for undercounter freezers. All lines offer high quality construction and attention to detail throughout. The primary difference between lines is the means of monitoring and control.

### i.Series®



The i.Series features the i.C<sup>3</sup>, a door-mounted, touchscreen information center with constant temperature monitoring and control. It is easy to view and provides status of critical information, alarms, and events in one secure location.

### Horizon Series™



The Horizon Series offers a door-mounted digital microprocessor temperature controller with a built-in alarm.

### Scientific Series™



The Scientific Series includes a digital microprocessor temperature controller.

## Undercounter Refrigerator Selection Guide

+2°C to +10°C Factory set to +4°C

Select the Optimal Capacity & Design		i.Series®				Horizon Series™				Scientific Series™	
		iB104-ADA	iB105	iLR104-ADA	iLR105	HB104-ADA	HB105	HLR104-ADA	HLR105	SLR104-ADA	SLR105
Application		Blood Bank	Blood Bank	Lab/Pharm	Lab/Pharm	Blood Bank	Blood Bank	Lab/Pharm	Lab/Pharm	Lab/Pharm	Lab/Pharm
Capacity	cu ft / liters	4 113	5 142	4 113	5 142	4 113	5 142	4 113	5 142	4 113	5 142
Blood Bag Capacity	bags	66	66	N/A	N/A	66	66	N/A	N/A	N/A	N/A
Storage	standard	2 drawers	2 drawers	2 shelves	2 shelves	2 drawers	2 drawers	2 shelves	2 shelves	2 shelves	2 shelves

## Undercounter Freezer Selection Guide

-15°C to -30°C Factory set to -30°C

Select the Optimal Capacity and Design		i.Series®				Horizon Series™			
		iPF104-ADA	iPF105	iLF104-ADA	iLF105	HPF104-ADA	HPF105	HLF104-ADA	HLF105
Application		Plasma	Plasma	Laboratory	Laboratory	Plasma	Plasma	Laboratory	Laboratory
Capacity	cu ft / liters	4 113	5 142	4 113	5 142	4 113	5 142	4 113	5 142
Plasma Box Capacity	boxes	44	44	N/A	N/A	44	44	N/A	N/A
Storage	standard	2 drawers	2 drawers	2 shelves	2 shelves	2 drawers	2 drawers	2 shelves	2 shelves

# Outstanding features at-a-glance

## Refrigeration System

- » Heavy-duty, air-cooled refrigeration system with non-CFC refrigerant provides high efficiency and is environmentally friendly R134A (ref) / R404A (frz)
- » Forced-air circulation maintains chamber uniformity and provides quick recovery after door openings
- » No defrost cycle required to maintain constant temperature (blood bank refrigerator)
- » Low humidity levels for reduced condensation (lab/pharm ref)
- » Auto condensate evaporation
- » Evaporator fan(s) shut off during door openings to maintain stable temperatures
- » Programmable electric defrost. Defrost can be programmed to actual time desired, allowing cycles to run automatically during low use periods. (freezer)



i.Series refrigerator with optional glass door

Horizon Series ADA refrigerator

Scientific Series refrigerator

## Cabinet Construction

- » Bacteria-resistant powder coated interior and exterior
- » Sure-Seal self-closing, field reversible door with magnetic closure
- » Key lock
- » Front ventilation
- » Front and side access panels<sup>1</sup>
- » Minimum of 2" (51mm) Ecomate<sup>®</sup> environmentally friendly and GRAS approved foam insulation
- » Leveling feet
- » Recessed floor contains spills for easy clean-up
- » Hospital grade plug and cord
- » Rear access port
- » All units stackable



i.Series freezer

Horizon Series freezer

## Storage

### Laboratory/Pharmacy Models

- » Adjustable, epoxy coated wire shelves<sup>1</sup>
- » Adjustable, perforated metal shelves<sup>2</sup>
- » Side and rear guards prevent items from falling off
- » Stainless steel standards guard against rust and corrosion

### Blood Bank/Plasma Models

- » Solid stainless steel pull out drawers
- » Sure-Grip coordinated drawer handles with built-in ledge for labels (i.Series blood bank refrigerator)
- » Durable, liquid-tight construction for containment of spills
- » Stainless steel drawer standards and fully extendable drawer slides guard against rust and corrosion and provide easy access to inventory (refrigerator)
- » Easy-Glide stainless steel drawer slides and standards for smooth operation at low temperatures (freezer)
- » Tube-Guard drawer shields minimize the risk of tube damage




## Chart Recorder

Blood Bank Refrigerators and Plasma Freezers include a 4" (102mm) chart recorder with 7-day circular charts

- Inkless, pressure-sensitive chart paper
- Battery backup
- Touch button controls for chart changes and calibration

<sup>1</sup> i.Series / Horizon Series    <sup>2</sup> Scientific Series

# Temperature Control and Monitoring

i.Series® Refrigerators & Freezers	Horizon Series™ Refrigerators & Freezers	Scientific Series™ Refrigerators
 <p style="text-align: center;"><b>Alarm/Monitor</b></p>	 <p style="text-align: center;"><b>Alarm/Monitor</b></p>	 <p style="text-align: center;"><b>Controller</b></p>
<b>Exclusive i.C³ Information Center</b>	<b>Microprocessor temperature controller with alarm/monitor</b>	<b>Microprocessor temperature controller</b>
<ul style="list-style-type: none"> <li>· 7" (177mm) full-color, door-mounted touchscreen</li> <li>· Automatic high/low alarm testing (Peltier based)</li> <li>· USB ports (2) for download/upload/update</li> <li>· Optional RS232 data port</li> <li>· Dry contact alarm connection</li> <li>· Password protected settings</li> <li>· Alarm probe (stainless steel in product simulation bottle)</li> <li>· Digital temperature display / °C or °F</li> <li>· Event log displays date, time, and temperature data</li> <li>· Compressor log displays compressor temperature performance</li> <li>· Defrost log (freezers)</li> <li>· Defrost cycle alert (freezers)</li> <li>· Interactive temperature graph</li> <li>· Min/max available via download</li> <li>· Digital calibration</li> <li>· Rechargeable battery backup</li> <li>· Date and time display</li> <li>· Alarm mute with adjustable ring-back interval</li> <li>· Adjustable alarm volume</li> <li>· Four alarm tones</li> <li>· High and low temperature alarms</li> <li>· Door ajar alarm</li> <li>· Power failure alarm</li> <li>· Condenser temperature alarm</li> <li>· RJ45 hub<sup>1</sup></li> </ul>	<ul style="list-style-type: none"> <li>· LED digital display</li> <li>· Manual alarm test</li>   <li>· Dry contact alarm connection</li>   <li>· Alarm probe (stainless steel in product simulation bottle)</li> <li>· LED temperature display / °C or °F</li>   <li>· Min/max display and reset</li> <li>· Digital calibration</li> <li>· Battery backup</li>   <li>· Alarm mute with 5 minute ring-back interval</li> <li>· Alarm silence with key switch</li>   <li>· High and low temperature alarms</li> <li>· Door ajar alarm</li> <li>· Power failure alarm</li> </ul>	<ul style="list-style-type: none"> <li>· LED digital display</li>   <li>· LED temperature display / °C or °F</li> </ul>

<sup>1</sup> For special applications

## Configurability

A number of high-performance options and accessories are available for undercounter refrigerators and freezers. Storage can be customized with various combinations of shelves, roll-out baskets, pull-out drawers, or locking drawers. Save space with the ability to stack two units. See back cover for a complete list of options and accessories.



# Exclusively on i.Series®

## i.C<sup>3</sup>® Information Center

The i.C<sup>3</sup> Information Center provides constant temperature monitoring and multiple information logs while offering security features to keep settings safe. It consolidates the refrigerator or freezer information in one convenient location and allows the user to optimize performance with just a fingerstroke. The icon driven monitoring system features a door mounted 7" (177mm) full-color touchscreen ergonomically angled for easy viewing.

The i.C<sup>3</sup> Information Center includes:

### System Status Console

*Snapshot of current conditions*

Monitor the status of the unit with one quick glance at the home screen.

*Status Available*

- » Current temperature
- » Current alarm conditions
- » Any alerts in progress
- » Unacknowledged alarms
- » Historical temperature data



### Information and Event Center

*Performance history*

All the information you need is one touch away. The interactive temperature graph provides a visual history of performance and a shortcut to the event log with detailed status information. Event acknowledgement can be captured on-screen complete with signature, date, and time-stamp.

- » Event status, start and end times
- » Door opening status
- » Min/Max temps during alarm conditions
- » 7 and 1-day graph view

### Guardian Plus Protection

*Protect settings and limit access*

Password protected setpoints ensure that proper temperatures are maintained, keeping products secure. With the addition of Optional Integrated Access Control, access to the refrigerator or freezer can be secured by an electromagnetic lock controlled by PIN entry.

- » 100 User IDs can be set up directly from the i.C<sup>3</sup> and programmed with an individual access PIN
- » Access Control keypad can be set as an alternative Home Screen
- » Access Control log provides an audit trail of door entries and includes the User ID, Date, Time, Duration, and Method of Entry
- » Key override

### Data Transfer Center

*Export data with ease*

Temperature, event, and optional access control data is simply exported via the USB port in the side of the i.C<sup>3</sup> Information Center and can be opened in a spreadsheet program. Firmware updates can also be uploaded.



# Specifications

Model/Series	Doors	Bag/Box Capacity*	Volume Cu Ft / L	Int. Dimensions WxHxD (in/mm)	Ext Dimensions** WxHxD (in/mm)	Shelves	Drawers	Electrical Voltage (Hz)	Amps (FLA)	Net Weight lb / kg	Warranty
<b>Undercounter Refrigerators</b>											
Temperature Range +2° to +10°C, factory set to +4°C											
<b>iB104-ADA</b> i.Series	1	66	4 113	19.5 x 17.75 x 22 496 x 451 x 559	24 x 32 x 26.75 610 x 813 x 680	0	2	115 (60)	5	199 91	Rel.i Plus
<b>HB104-ADA</b> Horizon Series	1	66	4 113	19.5 x 17.75 x 22 496 x 451 x 559	24 x 32 x 26.75 610 x 813 x 680	0	2	115 (60)	5	193 88	Rel.i
<b>iB105</b> i.Series	1	66	5 142	19.5 x 19.75 x 22 496 x 502 x 559	24 x 34 x 26.75 610 x 864 x 680	0	2	115V (60) 230V (50) 230V (60)	5 4 3.25	205 93	Rel.i Plus
<b>HB105</b> Horizon Series	1	66	5 142	19.5 x 19.75 x 22 496 x 502 x 559	24 x 34 x 26.75 610 x 864 x 680	0	2	115V (60) 230V (50) 230V (60)	5 4 3.25	199 91	Rel.i
<b>iLR104-ADA</b> i.Series	1	n/a	4 113	19.5 x 17.75 x 22 496 x 451 x 559	24 x 32 x 26.75 610 x 813 x 680	2	0	115V (60)	5	191 87	Rel.i Plus
<b>HLR104-ADA</b> Horizon Series	1	n/a	4 113	19.5 x 17.75 x 22 496 x 451 x 559	24 x 32 x 26.75 610 x 813 x 680	2	0	115V (60)	5	185 84	Rel.i
<b>iLR105</b> i.Series	1	n/a	5 142	19.5 x 19.75 x 22 496 x 502 x 559	24 x 34 x 26.75 610 x 864 x 680	2	0	115V (60) 230V (50) 230V (60)	5 4 3.25	195 89	Rel.i Plus
<b>HLR105</b> Horizon Series	1	n/a	5 142	19.5 x 19.75 x 22 496 x 502 x 559	24 x 34 x 26.75 610 x 864 x 680	2	0	115V (60) 230V (50) 230V (60)	5 4 3.25	189 86	Rel.i
<b>SLR104-ADA</b> Scientific Series	1	n/a	4 113	19.5 x 17.75 x 22 496 x 451 x 559	24 x 32 x 26.75 610 x 813 x 680	2	0	115V (60)	5	161 74	Rel.i
<b>SLR105</b> Scientific Series	1	n/a	5 142	19.5 x 19.75 x 22 496 x 502 x 559	24 x 34 x 26.75 610 x 864 x 680	2	0	115V (60) 230V (50) 230V (60)	5 4 3.25	165 75	Rel.i
<b>Undercounter Freezers</b>											
Temperature Range -15° to -30°C, factory set to -30°C (auto defrost)											
<b>iPF104-ADA</b> i.Series	1	44	4 113	19.5 x 17.75 x 22 496 x 451 x 559	24 x 32 x 26.75 610 x 813 x 680	0	2	115V (60)	5.75	217 99	Rel.i
<b>HPF104-ADA</b> Horizon Series	1	44	4 113	19.5 x 17.75 x 22 496 x 451 x 559	24 x 32 x 26.75 610 x 813 x 680	0	2	115V (60)	5.75	211 96	Standard
<b>iPF105</b> i.Series	1	44	5 142	19.5 x 19.75 x 22 496 x 502 x 559	24 x 34 x 26.75 610 x 864 x 680	0	2	115V (60) 230V (50) 230V (60)	5.75 2.8 3.1	221 101	Rel.i
<b>HPF105</b> Horizon Series	1	44	5 142	19.5 x 19.75 x 22 496 x 502 x 559	24 x 34 x 26.75 610 x 864 x 680	0	2	115V (60) 230V (50) 230V (60)	5.75 2.8 3.1	215 98	Standard
<b>iLF104-ADA</b> i.Series	1	n/a	4 113	19.5 x 17.75 x 22 496 x 451 x 559	24 x 32 x 26.75 610 x 813 x 680	2	0	115V (60)	5.75	211 96	Rel.i
<b>HLF104-ADA</b> Horizon Series	1	n/a	4 113	19.5 x 17.75 x 22 496 x 451 x 559	24 x 32 x 26.75 610 x 813 x 680	2	0	115V (60)	5.75	205 93	Standard
<b>iLF105</b> i.Series	1	n/a	5 142	19.5 x 19.75 x 22 496 x 502 x 559	24 x 34 x 26.75 610 x 864 x 680	2	0	115V (60) 230V (50) 230V (60)	5.75 2.8 3.1	215 98	Rel.i
<b>HLF105</b> Horizon Series	1	n/a	5 142	19.5 x 19.75 x 22 496 x 502 x 559	24 x 34 x 26.75 610 x 864 x 680	2	0	115V (60) 230V (50) 230V (60)	5.75 2.8 3.1	209 95	Standard

Meets AABB, ARC, and FDA standards for blood storage - Specifications subject to change  
 Certified to applicable UL and CSA standards by a NRTL - Published interior volumes are nominal; usable cu ft (liters) capacity may be offset by protrusions into cabinet.  
 Technical Data Sheets for all Undercounter Refrigerators and Freezers are available at [www.helmerinc.com](http://www.helmerinc.com)  
 \* Capacity based on blood bag volume of 450ml  
 \*\* Includes leveling feet. Does not include door handle or optional casters.

## Warranty

**Reli.Plus™** 7 years compressor | 2 years parts | 1 year labor at Helmer  
**Rel.i™** 5 years compressor | 2 years parts | 1 year labor at Helmer  
**Standard** 3 years compressor | 2 years parts | 1 year labor at Helmer

Warranties applicable in the U.S. and Canada.  
 For international warranty information, contact your local distributor.



# High-Performance Options & Accessories

Options and accessories have been specifically designed to enhance the performance of Helmer Scientific refrigerators and freezers. Some options are factory installed and must be specified with your original order. Please contact your sales representative for more information.

## Roll-out Baskets

Epoxy-coated, wire baskets with fully extendable slides are offered as an alternative to standard wire shelving.

## Wire Shelves

Additional epoxy-coated wire shelves are adjustable, and designed to fit individual cabinets.

## Pull-out Drawers

Stainless steel drawers are liquid-tight. Drawers are standard on blood bank/plasma models.

## Locking Drawers

Optional stainless steel locking drawer includes cover and key lock for secure closure.

## Glass Doors

Solid doors are offered standard. Optional dual-pane glass doors are available for undercounter refrigerators.

## Integrated Electromagnetic Access Control - i.Series®

Integrated electromagnetic access control offers secure access to the refrigerator or freezer via the i.C<sup>3</sup> Information Center. An electromagnetic lock is integrated into the unit and controlled by PIN entry.

- » Up to 100 User IDs can be set up directly from the i.C<sup>3</sup> and programmed with an individual access PIN
- » The Access Control display can be set as an alternative Home Screen.
- » Access Control log provides audit trail of door entries and can be downloaded
- » Key override is included

## Integrated Electromagnetic Access Control - Horizon Series™

The Horizon access control keypad provides fail-secure digital keypad access. A lock is integrated into the unit and unlocked by entering a user code on the keypad.

- » Up to 100 User Codes can be entered into the keypad
- » Key override included

## Temperature Chart Recorders

Optional 4" (102mm) chart, 7-day, inkless standalone temperature recorder. Includes battery backup and box of 52 charts. Recorders are standard on blood bank models.

- » Reorder Chart Recorder Paper  
4" (102mm) diameter, -5°C to +20°C, package of 52 (ref)  
4" (102mm) diameter, -50°C to 0°C, package of 52 (frz)

## Remote Alarms

For audible and visual signal of an alarm condition. Extend existing alarms to remote locations within a facility. Operational up to 3000' (914m) from cabinet. Can be connected to a central alarm system.

## Remote Lock Adapter Kits

Special accessories that allow medication dispensing locks to be properly installed on Helmer Scientific refrigerators and freezers. Compatible with most systems.

## Drawer Dividers

Polycarbonate upright or angled dividers for use in pull-out drawers.

## Storage Trays

Package includes tray, dividers, and rails to simplify and organize storage areas.

## Casters

## Stainless steel interior and/or exterior

## Interior LED light with on/off switch (refrigerators only)

## Floor and Wall Bracket Kit

## Stacking Kit

## IQ/OQ Equipment Validation Guide

## Temperature Validation

## Certificate of Calibration

## i.C<sup>3</sup> Screen Protectors

## USB Flashdrive

