



Technical Data Sheet
High Performance Blood Bank Refrigerator
Revision: 3
Thermo Fisher Scientific, Asheville, North Carolina

Specifications	Catalog number	TSX5004BV
	Model Number	TSX5004BV
	Application, Rating and Electrical Data	
Application	Blood Bank (non-flammable) Refrigerator	
Storage Volume	1447 Liters / 51.1 Cubic Feet	
Factory Set Point	4°C	
Set Point Range/Adjustable Increment	3°C to 7°C/ 0.1°C	
Electrical Power / Rated Current	208-230V 50 Hz 1 Phase / 4.75A	
Building Supply Rating	15A dedicated grounded non-GFCI circuit. Protected by circuit breaker rated for inductive loads	
Power Plug/Power Cord Length	16 Amp (CEE 7/7) / 3.048 Meters (10 feet)	
Agency Listings	CE, UL, cUL, FDA	
Indoor/Outdoor Usage	Indoor Use Only	
Application Environment	Non-Corrosive, Non-Flammable, Non-Explosive, Good Air Ventilation	
Ambient Operating Temperature	15° C - 32° C (60° F - 90° F)	
	Refrigeration Configuration	
Refrigeration System	Vapor compression system	
Compressor / Number / Capacity	Hermetic Variable Capacity Compressor / 1 / 398W	
Condenser Type/Number	Enhanced Finned-Tube and Forced-Air Cooled / 1	
Expansion Device	Capillary Tube	
Evaporator Type / Defrost Method	Forced Air Evaporator Coil / Automatic Defrost	
Refrigerant Charge / Flammability	R290, 145gms, GWP:3 ODP:0 / Flammable	
	Controller/Electrical System Configuration and Features	
Controller Level	Eye Level	
Power Switch	Keyed Off-On - Alarm	
Controller Type	IntrLogic Control System: Digital Display, Graphic Thermometer, Automatic Defrost System	
Setpoint Security / Programmable	Yes / Yes	
Compressor Safe Guard	Current protection	
Control Sensor	Single RTD (1000 ohm shielded Platinum RTD)	
Connectivity / Remote Outputs	Standard	
Adjustable Warm / Cold Alarms	Fully Adjustable	
Power Failure Alarm	Standard	
Electronic Chart Recorder	Standard	
	Dimensions and Construction	
Interior Dimensions (D x W x H)	72.4 cm x 133.4 cm x 147.3 cm (28.5" x 52.5" x 58.0")	
Exterior Dimensions (D x W x H)	96.0 cm x 143.5 cm x 199.4 cm (37.8" x 56.5" x 78.5")	
Insulation	5.08 cm (2.0") High-Density Water-Blown Polyurethane Foam	
Door Perimeter heater	Yes	
Shelves / Load Limit	(14) Drawers Adjustable In 1" Increments / 27 kg (60 lbs) per Drawer	
All-Direction Casters	Standard with Locks	
Shipping Weight	392 kg / 865 lb	

Typical Performance Characteristics in 20°C Ambient		Test Unit Series Number or MSO Number: 19585-B-27																										
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- 1) Performance is nominal and individual units may vary.
- 2) Product performance will differ due to product amount, product size and operating conditions.
- 3) Continuous product enhancements may, without notice, result in amendments or omissions to this specification. Thermo Scientific cannot accept responsibility for damage, injury, loss or expenses resulting from misapplication of the information herein.

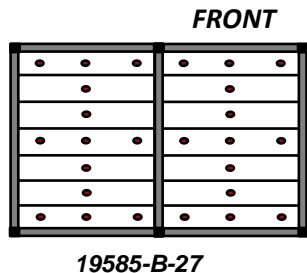
Typical Cabinet Temperature Map
Refrigerator 50cuft , 14 Drawers, 2 Outer Doors

Temperatures are averages during > 20 cycles after reaching a setpoint of 4C

Top View of Shelves

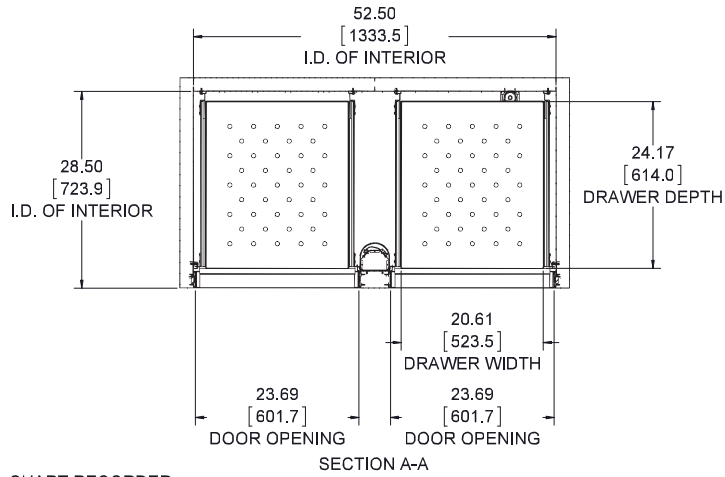
M3	M4	M53	M54
	M5		M55
M1	M2	M51	M52
M10		M60	
M15		M65	
M18	M19	M68	M69
	M20		M70
M16	M17	M66	M67
M25		M75	
M30		M80	
M33	M34	M83	M84
	M35		M85
M31	M32	M81	M82

REAR
FRONT

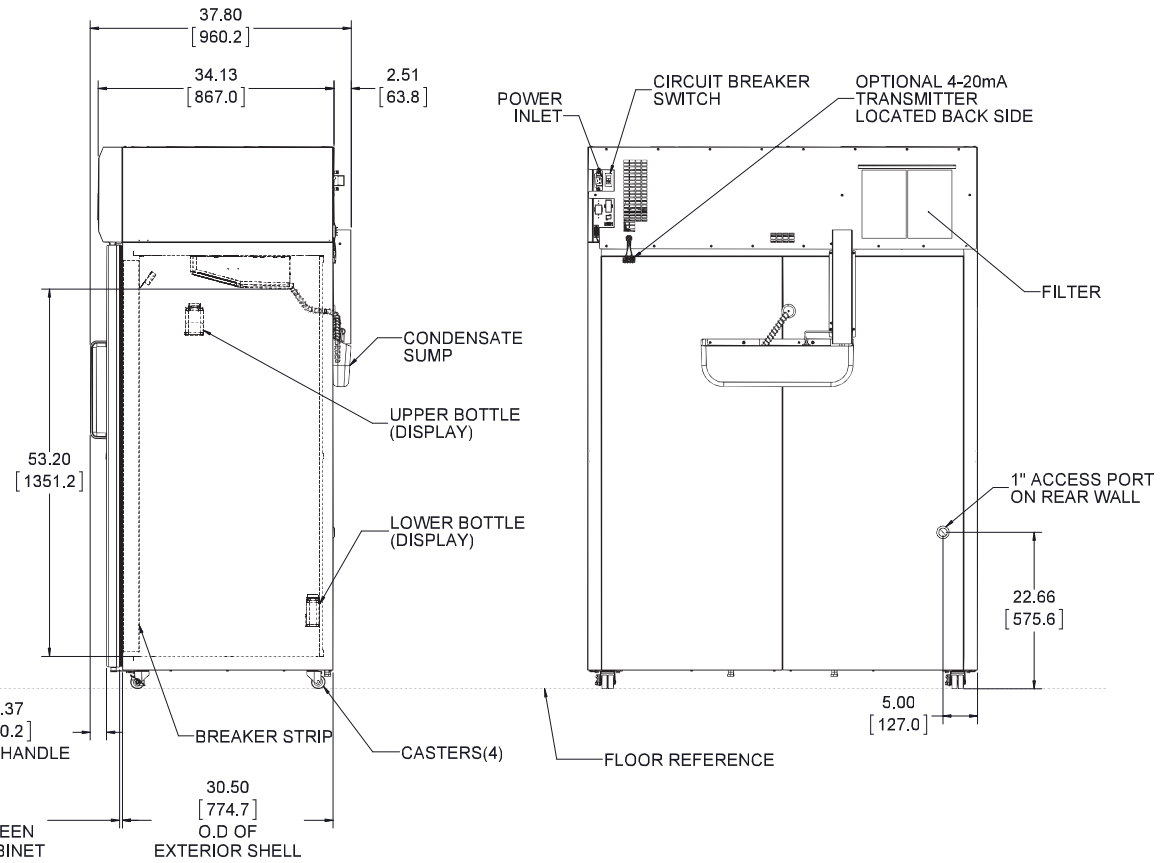
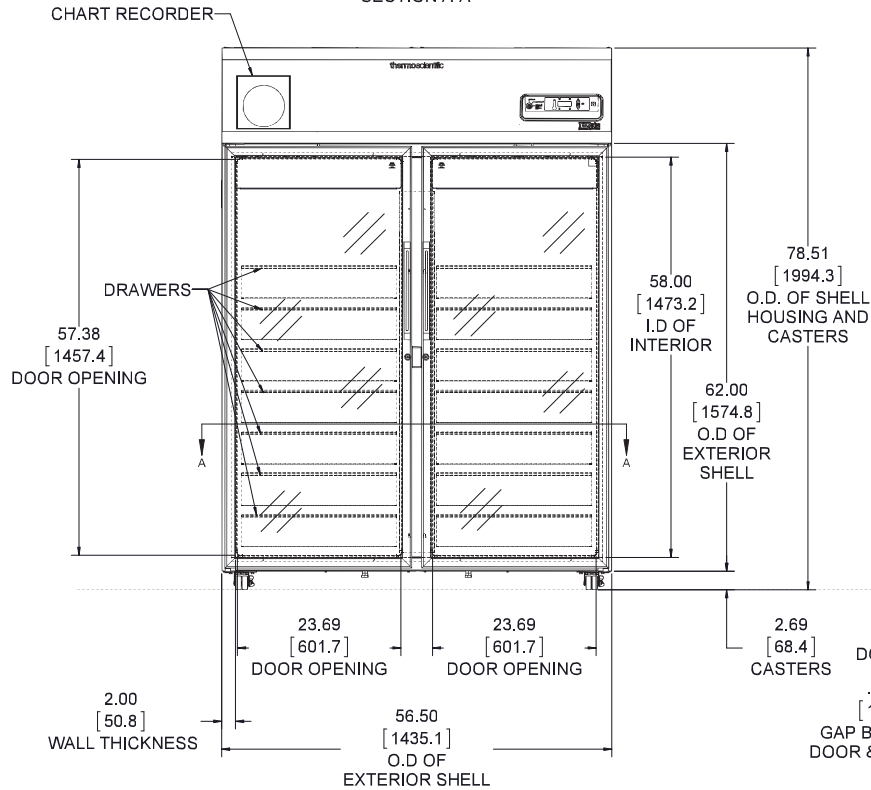


Cabinet Average: 3.6 C
Probe Average: 4.1 C
Peak Variation: +1.0 C / -2.4 C

	M1	M2	M3	M4	M5	M10	M15
Avg	3.6	3.5	3.5	3.3	3.6	3.3	3.5
Max	4.7	4.7	4.7	4.8	4.6	4.7	4.6
Min	2.7	2.4	2.2	1.6	2.6	1.9	2.4
	M16	M17	M18	M19	M20	M25	M30
Avg	3.6	3.6	3.4	3.6	3.5	3.4	3.6
Max	4.1	4.2	4.5	3.9	4.4	4.6	4.4
Min	3.2	3.1	2.5	3.3	2.9	2.3	3
	M31	M32	M33	M34	M35		
Avg	4.3	3.4	3.5	3.3	3.4		
Max	4.9	4.2	4.4	4.1	4.3		
Min	3.6	2.8	2.7	2.6	2.6		
	M51	M52	M53	M54	M55	M60	M65
Avg	3.9	4.1	3.4	3.9	3.6	3.8	3.7
Max	4.9	5	4.9	5	4.8	4.6	4.6
Min	2.8	3.1	1.7	2.5	2.3	3.3	3
	M66	M67	M68	M69	M70	M75	M80
Avg	3.7	3.8	3.4	3.7	3.7	3.6	3.9
Max	4.2	4.5	4.5	4.6	4.2	4.3	5
Min	3.2	3.1	2.3	2.8	3.2	3.2	2.7
	M81	M82	M83	M84	M85		
Avg	3.6	3.7	3.4	3.5	3.5		
Max	4.3	4.2	4.4	4.4	4.1		
Min	3.2	3.3	2.7	2.8	3		



ONLY CABINET SHOWN FOR CLARITY IN TOP VIEW,
TO ILLUSTRATE INTERIOR DIMENSIONS



NOTE: DUAL DIMENSION IS INCHES OVER MILLIMETERS
DO NOT USE FOR ENGINEERING PURPOSES. SUBJECT TO CHANGE WITHOUT NOTICE.

50 cu.ft. Blood Bank Refrigerator
14 Drawers
Double Outer Door
Top Mount Controls