HUSSMANN®

Insight®

EVOLVE® technologies compatible

Coils, fans and TXVs are modular with one per 3 or 4 foot section.

12 foot merchandiser shown.

Technical Datasheet

IM1SL

Open Multideck Medium Temperature Display Case

Applications

Meat

P/N 0535986 **Rev** L

March 2026

Models Covered

IM1SL4, IM1SL6,
IM1SL8, IM1SL12

Refrigerant(s)

A2L (R-454A or R-454C)
R-744 (CO_2)
HFC/HCFC/HFO

Certifications

C ETL LISTED US Intertek

NSF®

NSF/Sanitation Compliance

This merchandiser model is manufactured to meet NSF/ANSI Standard 7 requirements for construction, materials, and cleanability.

Table of Contents

⚠ ***WARNING***

Component parts shall be replaced with like components, and servicing shall be done by factory authorized service personnel only, so as to minimize the risk of possible ignition due to incorrect parts or improper service.

U.S. & CANADA 1-800-922-1919 • MEXICO 800-890-2900 • WWW.HUSSMANN.COM

Spanish P/N 0535987
French P/N 3249339

Insight **IM1SL**
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WARNING:
Read the entire installation, operation, and service manual before installing, servicing, or using this equipment in any way. Refer to the manual for detailed information about minimum room floor area and installation, maintenance, and service processes.

A2L Equipped Models

If the information in the instructions are not followed exactly, a fire or explosion may result, causing property damage, personal injury, or death. Installation and service must be performed by a qualified installer or service agency.

Mildly flammable A2L refrigerant used. Units that are configured to use A2L refrigerants require special attention. No open flames, cigarettes, or other possible sources of ignition should be used inside or in the vicinity of units containing flammable refrigerants.

If a refrigerant leak is present or even suspected, do not allow untrained personnel to attempt to find the cause. No open flames, cigarettes, or other possible sources of ignition should be used inside or in the vicinity of the unit(s). Intrinsically safe components are the only types that can be worked on while live in the presence of a flammable atmosphere.

Information on pre-installed A2L refrigerant sensors and detectors, safety shut-off and check valves, relay information, and additional parts replacement information can be found in the associated installation, operation, and service manual. All manual information must be reviewed in full prior to performing any work.

R-744 (CO_2) Equipped Models

This equipment uses carbon dioxide (R-744 [CO_2]) refrigerant for heat transfer. The system is sealed and pressure-tested with ASME-certified vessels, but leaks can occur in the event of a system failure. A CO_2 leak in an unventilated space can pose serious hazards. Therefore, units must be installed in areas with adequate ventilation and in accordance with local safety codes.

A leak of R-744 could result in a concentration exceeding the practical limit in an enclosed, occupied space such as a cold room. Precautions must be taken to prevent asphyxiation. These include the use of permanent leak detection, which activates an alarm in the event of a leak.

Observe all warnings and labels on the unit being installed or serviced such as the one below indicating high pressure.

All refrigeration servicing must be completed by a certified refrigeration installation professional, and all tubing and components MUST be qualified for CO_2 applications, with a minimum design pressure of 1,305 psig (90 bar).

Failure to abide by all warnings contained within the associated manual could result in an explosion, death, injury, and property damage.

Model Nomenclature

"IM1SL" is followed by a number representing the length of the case in feet (i.e., a 12-foot model would be "IM1SL12").

Ordering Information

All options must be selected at time of ordering. Some lengths and/or applications require optional fan motor kits applied by the Hussmann Product Configurator (HPC).

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Refrigeration Data [1]

IM1SL		Optional Shelf Light		Energy Comparison
Application		Meat with Glass Front[3]	NSF Type 2 Ambient[4]	AHRI 1200 Rating Point[5]
Unlit	Discharge Air °F (°C)	32 (0)	28 (-2.22)	30 (-1.11)
	Average Evaporator °F (°C) [2]	27 (-2.77)	23 (-5.00)	25 (-3.88)
	Parallel Btu/hr/ft (Watts/m)	340 (327)	475 (457)	415 (399)
	Conventional Btu/hr/ft (Watts/m)	385 (370)	535 (514)	465 (447)
Lit	Discharge Air °F (°C)	N/A	N/A	N/A
	Average Evaporator °F (°C) [2]	N/A	N/A	N/A
	Parallel Btu/hr/ft (Watts/m)	N/A	N/A	N/A
	Conventional Btu/hr/ft (Watts/m)	N/A	N/A	N/A
Fan Speed[6]	IM1SL6 (7")	1200[6]	1200[6]	1200[6]
	IM1SL4, 8, 12 (7")	1200[6]	1200[6]	1200[6]

Notes:
1. All data based on store temperature and humidity that does not exceed NSF Type 1 ambient conditions of 75°F and 55% relative humidity except where noted.
2. Average evaporator temperature shown. Use dew point for high glide refrigerants for unit sizing. Care should be taken to use the dew point in PT tables for measuring and adjusting superheat. Adjust evaporator pressure as needed to maintain discharge air temperature shown.
3. See second column of data for glass front loads and settings.
4. Data for operation in NSF Type 2 ambient of 80°F and 55% relative humidity.
5. AHRI 1200 Rating Point for energy consumption comparison only.
6. Some lengths and/or applications require optional fan motor kits applied by the Hussmann Product Configurator (HPC).

Defrost Data

Frequency (hours between defrost) 6

Offtime	IM1SL
Time (minutes)	40
Electric or Gas	Not Available
Defrost Water [7]	2.5 lb/ft/day (3.7 kg/m)

[7] **(± 15%** based on case configuration and product loading).

Conventional Controls

	IM1SL
Low Pressure Backup Control CI/CO [8]	18°F / 8°F –7.78°C / –13.3°C
Indoor Unit Only, Pressure Defrost Termination [8]	48°F (8.89°C)

[8] Use a Temperature Pressure Chart to determine PSIG conversions.

Product Data

Gross Refrigerated Volume [10] ***(Cu Ft/Ft)***	1.7 ft^3/ft (0.16 m^3/m)
AHRI Total Display Area [11] **(*Sq Ft/Ft*)**	2.58 ft^2 /ft (0.79 m^2/m)
Shelf Area [12] ***(Sq Ft/Ft)***	2.52 ft^2 /ft (0.77 m^2/m)

[10] AHRI Gross Refrigerated Volume: Refrigerated Volume/Unit of Length, ft^3/ft [m^3/m]
[11] Computed using AHRI 1200 standard methodology: Total Display Area, ft^2 [m^2]/Unit of Length, ft [m]
[12] Shelf surface area is composed of bottom deck plus standard shelf complement for this model: None.

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Refrigerant Data

Approximate HFC/HCFC/HFO Refrigerant Charge[13]

Case	Estimated Charge
IM1SL4	8 oz (227 g)
IM1SL6	13 oz (369 g)
IM1SL8	18 oz (510 g)
IM1SL12	30 oz (851 g)

A2L Refrigerant Charge

Model	Minimum Room Floor Area ft^2 (m^2)	Estimated Refrigerant Charge — lb	
		Operating Charge	
		R-454A	R-454C
IM1SL4	106 (9.8)	0.7 (331)	0.7 (331)
IM1SL6	106 (9.8)	1 (479)	1.1 (479)
IM1SL8	106 (9.8)	1.4 (622)	1.4 (622)
IM1SL12	196 (18.2)	2.1 (958)	2.1 (958)

R-744 (CO_2) Pressure Rating

Case Configuration	Pressure Rating
standard pressure CO_2	652 psi (45 bar)
high pressure CO_2	1,305 psi (90 bar)

Glycol Heat Transfer Fluid Data (Meat)

Model	Conventional Load BTU/h/ft (W/m)	Discharge Air Temperature ° F (° C)	Coil Inlet Temperature ° F (° C)	Coil Temp. Rise ° F (° C)	Average Coil Temperature ° F (° C)	Flow Rate GPM (LPM)	Pressure Drop PSI (bar)
IM1SL4	535 (515)	31 (-0.6)	25 (-3.9)	4 (2.2)	27 (-2.8)	1.2 (4.5)	4.1 (0.3)
			20 (-6.7)	14 (7.8)	27 (-2.8)	0.3 (1.1)	0.8 (0.1)
IM1SL6	535 (515)	31 (-0.6)	25 (-3.9)	4 (2.2)	27 (-2.8)	1.8 (6.8)	2.6 (0.2)
			20 (-6.7)	14 (7.8)	27 (-2.8)	0.5 (1.9)	0.4 (0.0)
IM1SL8	535 (515)	31 (-0.6)	25 (-3.9)	4 (2.2)	27 (-2.8)	2.4 (9.1)	4.7 (0.3)
			20 (-6.7)	14 (7.8)	27 (-2.8)	0.7 (2.6)	1.0 (0.1)
IM1SL12	535 (515)	31 (-0.6)	25 (-3.9)	4 (2.2)	27 (-2.8)	3.5 (13.2)	4.9 (0.3)
			20 (-6.7)	14 (7.8)	27 (-2.8)	1.0 (3.8)	1.2 (0.1)

[13] This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound.

DOE 2017
Energy Efficiency Compliant

Hussmann refrigerated merchandisers configured for sale for use in the United States meet or surpass the requirements of the DOE 2017 energy efficiency standards.

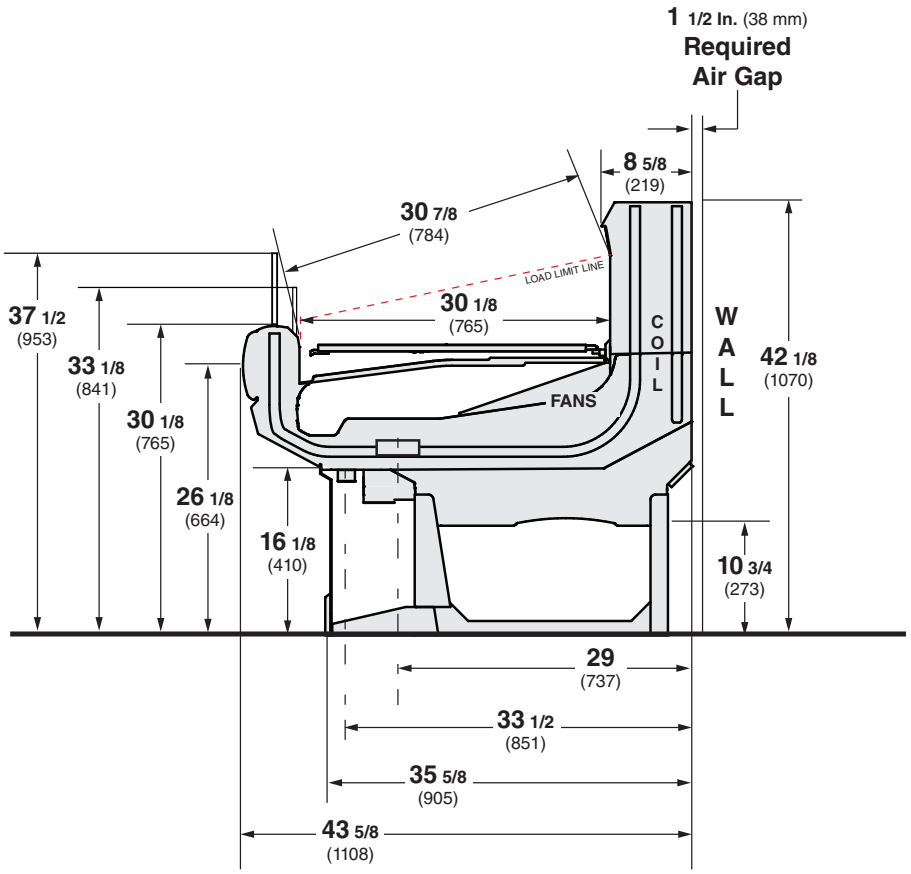
3-in. between back to back cases.

Dimensions shown as in. and (mm).

Shelf complement shown as tested:

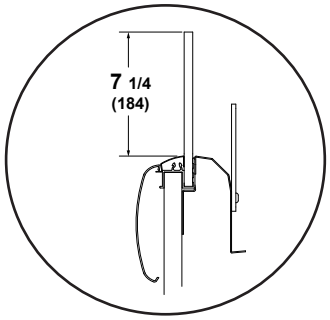
No shelves; wire racks are angled up in the back, positioned 6-in. above the bottom-most (flat) location.

IM1SL



STANDARD GLASS FRONT

Glass front is standard for this case.



Glass front cannot be used with rail light option.

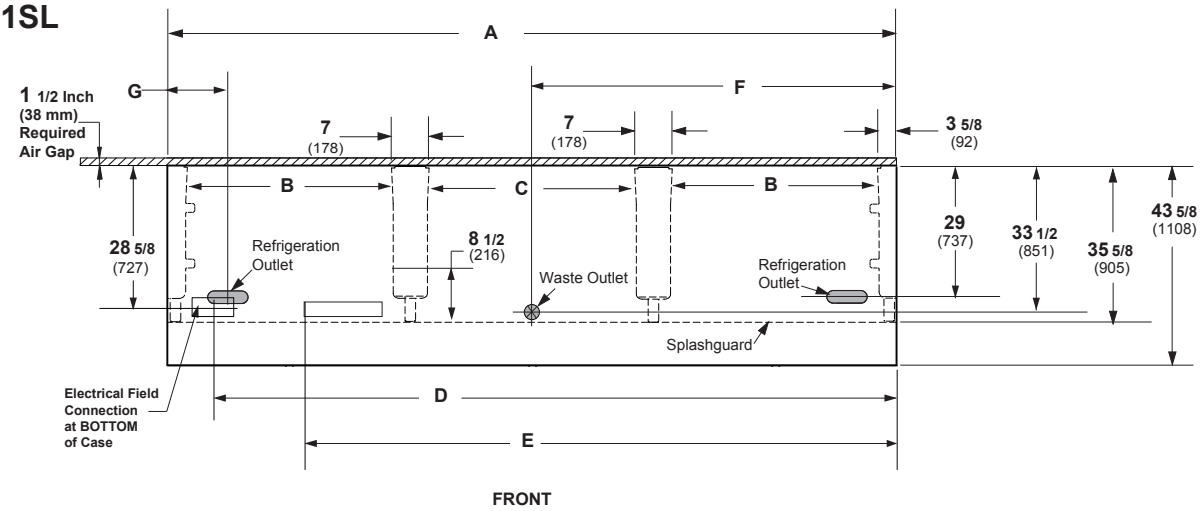
NSF Certification

This merchandiser model is manufactured to meet NSF/ANSI (National Sanitation Foundation) Standard #7 requirements for construction, materials and cleanability.

Engineering
Plan View

Dimensions shown as in. and (mm).

IM1SL/IM1SM/ IP1SL



(12 Foot Model shown above)

		4 ft	6 ft	8 ft	12 ft
General					
(A)	Case Length (without ends or partitions) (Each end and insulated partition adds 1 1/2 in. (38 mm) to case line up.)	48 1/8 (1222)	72 1/4 (1835)	96 1/4 (2445)	144 3/8 (3668)
	Maximum O/S dimension of case back to front (includes bumper)	43 5/8 (1108)	43 5/8 (1108)	43 5/8 (1108)	43 5/8 (1108)
	Back of case to front of splashguard	35 5/8 (905)	35 5/8 (905)	35 5/8 (905)	35 5/8 (905)
(B)	Distance between edges of external legs and center legs	NA	29 (737)	41 (1041)	41 (1041)
(C)	Distance between edges of center legs	41 1/8 (1045)	NA	NA	41 1/8 (1045)
	Distance between front legs and splashguard	8 (203)	8 1/8 (206)	8 1/8 (206)	8 1/8 (206)
Electrical Service (Field Electrical Wiring Connection)					
(D)	RH End of case to center of Field Electrical Wiring Connection (bottom of case)	12 (305)	60 1/4 (1530)	84 3/8 (2143)	132 1/2 (3366)
	Back of case to center of Field Electrical Wiring Connection	28 5/8 (727)	28 5/8 (727)	28 5/8 (727)	28 5/8 (727)
	Length of electrical wireway	20 (508)	20 (508)	20 (508)	20 (508)
(E)	RH end of case to LH end of electrical wireway (bottom of case)	44 3/4 (1137)	26 1/2 (673)	71 3/4 (1822)	119 3/4 (3042)
Waste Outlets					
(F)	RH End of case to the center of waste outlet	24 1/8 (613)	24 1/8 (613)	24 1/8 (613)	72 1/4 (1835)
	Back O/S of case to center of waste outlet(s)	33 1/2 (851)	33 1/2 (851)	33 1/2 (851)	33 1/2 (851)
	Schedule 40 PVC drip pipe	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)	1 1/4 (32)
Refrigeration Outlet					
(G)	Back of case to center of refrigeration outlet	29 (737)	29 (737)	29 (737)	29 (737)
	End of case to center of refrigeration outlet	8 1/2 (216)	8 1/2 (216)	8 1/2 (216)	8 1/2 (216)

ENDS or PARTITIONS

Each standard end and each insulated partition adds 1 1/2 in. (38 mm) to case line up. Optional view end with end bumper adds 3 3/4 in. (95 mm).

PHYSICAL DATA

Merchandiser Drip Pipe (in.)	1 1/4
Schedule 40 PVC	
Merchandiser Liquid Line (in.)	3/8
Merchandiser Suction Line (in.)	5/8

ESTIMATED SHIPPING WEIGHT †

Case					**Solid End**
	4 ft	***6 ft***	***8 ft***	***12 ft***	***(each)***
lb *(kg)*	500 (227)	575 (261)	625 (284)	750 (340)	40 (18)

† Actual weights will vary according to optional kits included.

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Electrical Data

Number of Fans	**4 ft**	**6 ft**	**8 ft**	**12 ft**
7.0 in.	1	2	2	3

			Amperes				**Watts**		
Evaporator Fan	**4 ft**	**6 ft**	**8 ft**	**12 ft**	**4 ft**	**6 ft**	**8 ft**	**12 ft**
120V 60Hz Energy Efficient	0.12	0.24	0.24	0.36	8	16	16	24
230V 50/60Hz Energy Efficient	0.06	0.12	0.12	0.18	8	16	16	24
Minimum Circuit Ampacity								
120V 60Hz Energy Efficient	0.32	0.44	0.44	0.56				
230V 50/60Hz Energy Efficient	0.26	0.32	0.32	0.38				
Maximum Over Current Protection 120V	**20**	**20**	**20**	**20**				
Maximum Over Current Protection 230V	15	15	15	15				

ONLY LIGHTING CONFIGURATIONS THAT ARE COMPLIANT WITH THE U.S. DEPT. OF ENERGY (DOE) 2017 REGULATION ARE AVAILABLE FOR SALE FOR USE IN THE U.S.A.

STANDARD LIGHTING

None

OPTIONAL LIGHTING

Rail Light

1 Row	0.06	0.07	0.11	0.17	7	9	13	20

SHELF OPTIONS

None

Fan Wiring
Offtime Defrost

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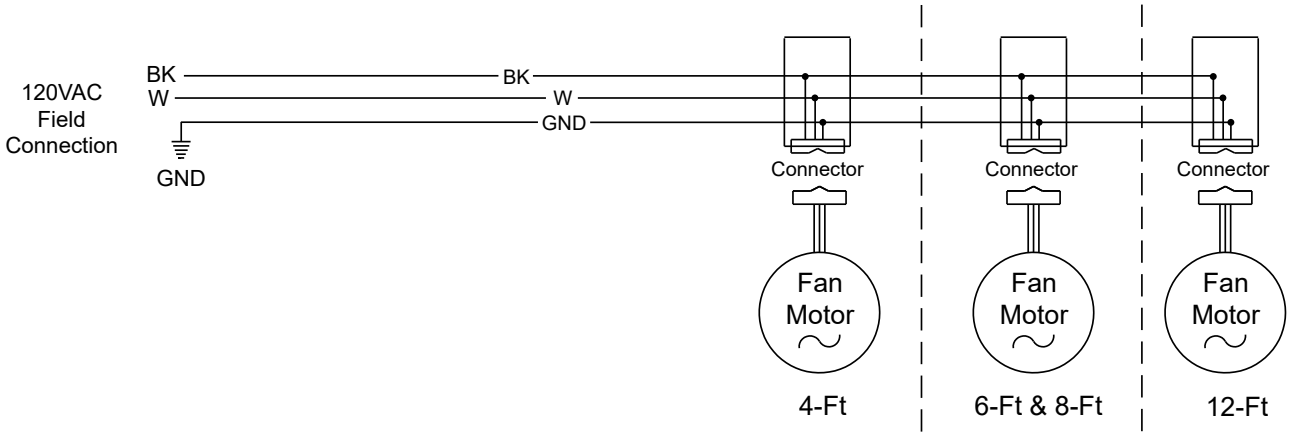
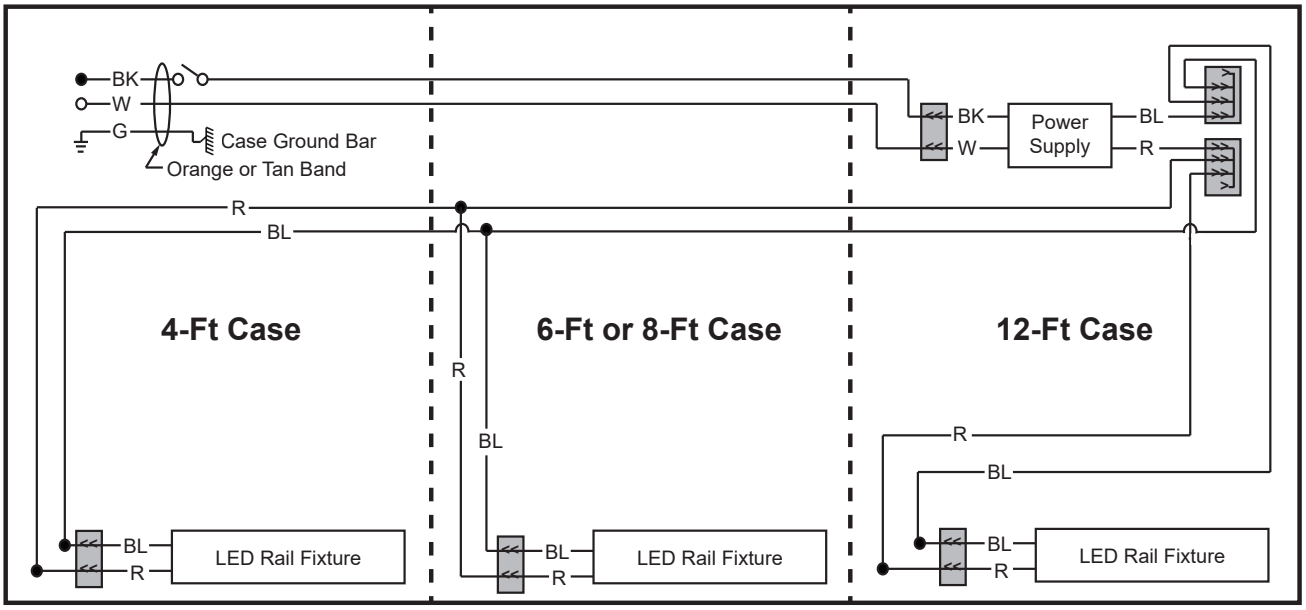


LED Canopy Light Circuits

Optional Lighting - LED Rail - 1 Row



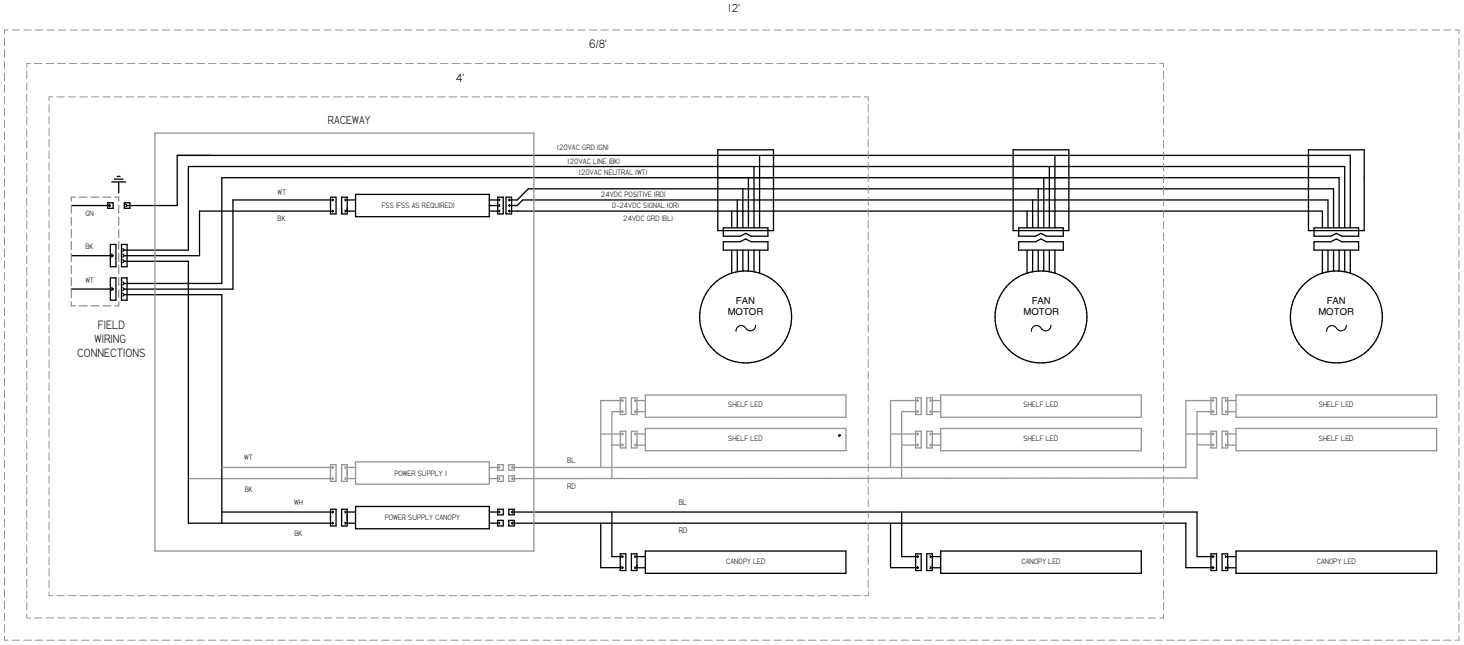
WARNING

All components must have mechanical ground, and the merchandiser must be grounded.

R = Red Y = Yellow G = Green BL = Blue BK = Black W = White
● = 120V Power ○ = 120V Neutral ⏚ = Field Ground = Case Ground

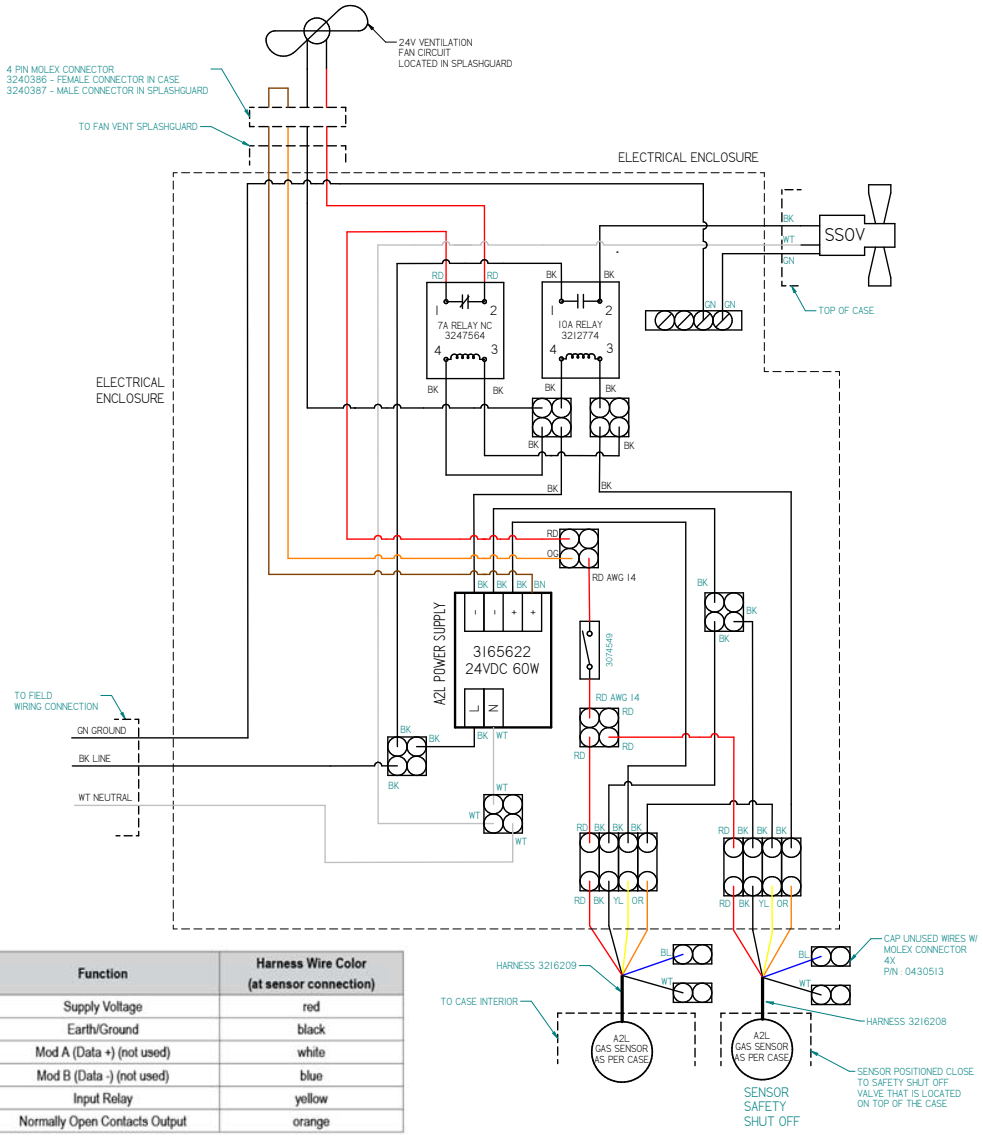
Wiring Diagram (A2L detection and mitigation system)

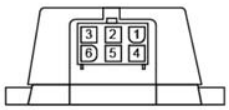
Diagram Number: 3236327



Wiring Diagram (IM1SL12, A2L detection and mitigation system)

Diagram Number: 3236327





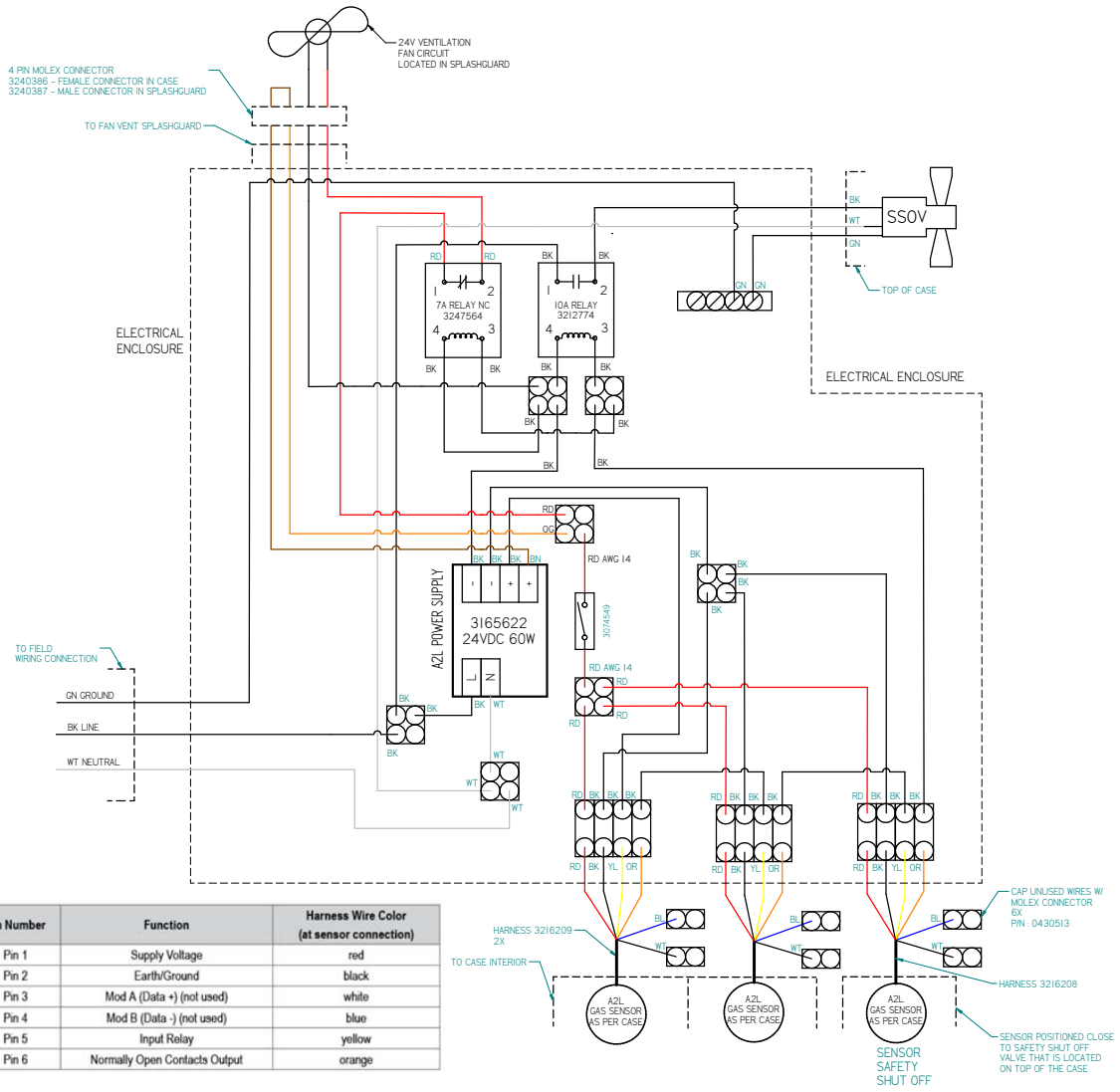
Pin Number	Function	Harness Wire Color (at sensor connection)
Pin 1	Supply Voltage	red
Pin 2	Earth/Ground	black
Pin 3	Mod A (Data +) (not used)	white
Pin 4	Mod B (Data -) (not used)	blue
Pin 5	Input Relay	yellow
Pin 6	Normally Open Contacts Output	orange

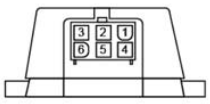
Relay Operation

- Relay is energized on power up when not in alarm state
- Relay is de-energized in alarm or no power state

Wiring Diagram (IM1SL6 / IM1SL8, A2L detection and mitigation system)

Diagram Number: 3236327





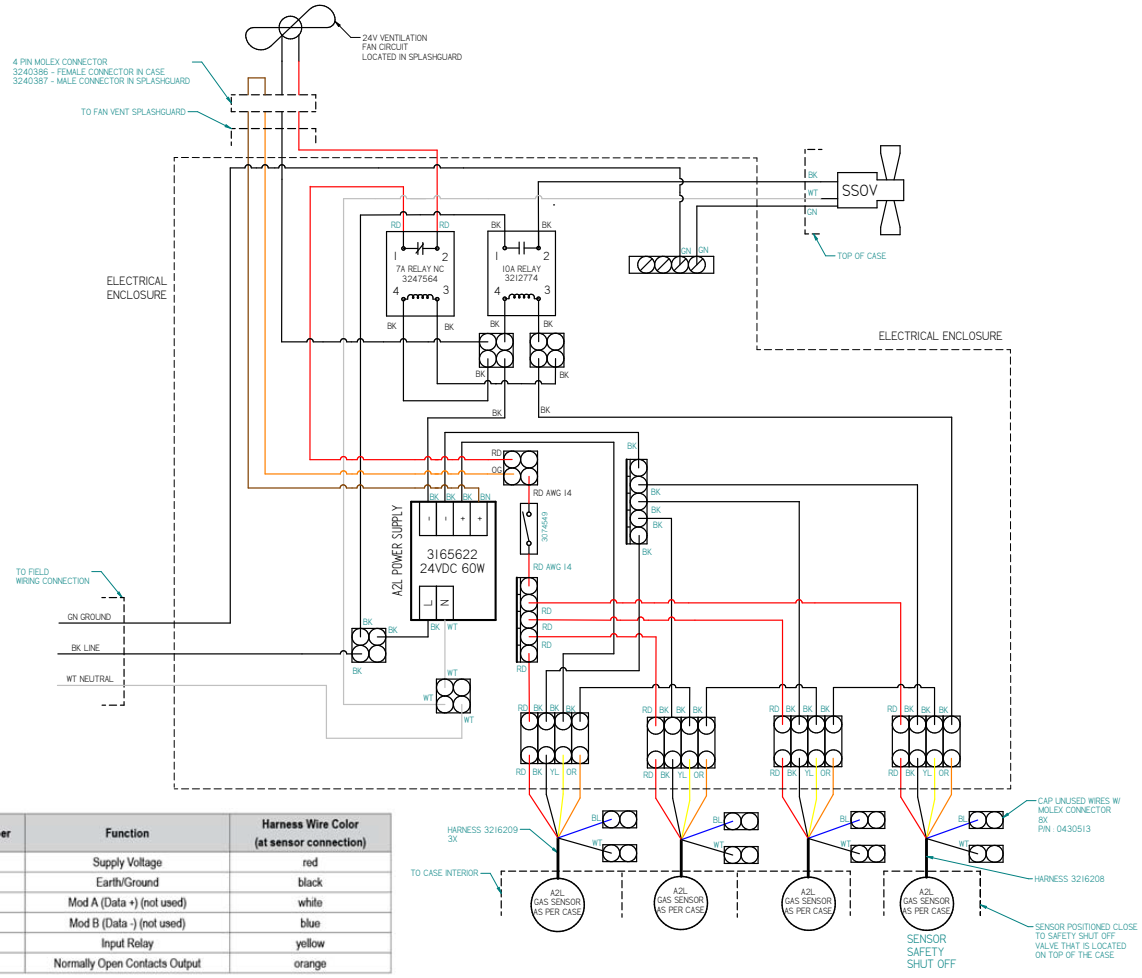
Pin Number	Function	Harness Wire Color (at sensor connection)
Pin 1	Supply Voltage	red
Pin 2	Earth/Ground	black
Pin 3	Mod A (Data +) (not used)	white
Pin 4	Mod B (Data -) (not used)	blue
Pin 5	Input Relay	yellow
Pin 6	Normally Open Contacts Output	orange

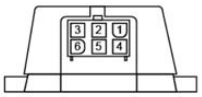
Relay Operation

- Relay is energized on power up when not in alarm state
- Relay is de-energized in alarm or no power state

Wiring Diagram (IM1SL4, A2L detection and mitigation system)

Diagram Number: 3236327





Pin Number	Function	Harness Wire Color (at sensor connection)
Pin 1	Supply Voltage	red
Pin 2	Earth/Ground	black
Pin 3	Mod A (Data +) (not used)	white
Pin 4	Mod B (Data -) (not used)	blue
Pin 5	Input Relay	yellow
Pin 6	Normally Open Contacts Output	orange

Relay Operation

- Relay is energized on power up when not in alarm state
- Relay is de-energized in alarm or no power state

Estimating Refrigeration and Electrical Load (for comparison purposes only)

Case Btu
To determine Btu for a case, refer to the performance data chart on page 2. Select with or without front glass, then select the type of remote refrigeration system (parallel or conventional), which will give Btu/hr/ft. Multiply this number by the length of the case to determine Btu per hour. Add 10 BTU per foot per hour for each row of LED shelf or rail lights.

Case Electrical
Refer to store legend to determine number of circuits.

Fan electrical load for a case is computed by selecting the case length and fan voltage on page 6. For example, a 12 ft case uses 3 fans. The store legend specifies fans on a 230V circuit. In this instance, fans use 0.39 Amps and the MCA is 0.59. When applied, ambient fans, anti-sweat heaters, controllers, etc. must be included in the MCA. Include lights in the MCA if lights are on same circuit.

Line Sizing — Refer to store legend.
Hussmann Line Sizing Charts are engineered for use with Hussmann refrigeration equipment.

Scan the QR code with your mobile device to access additional product information or order parts.

Parts may also be ordered at:

parts.hussmann.com

Call toll free: 1.855.487.7778

Revision History
Revision A: August 2013: Original Issue
Revision B: October 2015: Updated application data.
Revision C: December 2015: Updated cross section and plan view.
Revision D: April 2016: Updated cover image, updated application data, added Gross Refrigerated Volume, added optional glass front kit and updated plan view.
Revision E: August 2016: Updated cross section.
Revision F: January 2017: Added rail light updates.
Revision G: April 2017: Updated LED energy values.
Revision H: September 2017: Updated notes page.
Revision J: February 2019: Updated optional glass front to standard.
Revision K: December 2023: Updated fan and lighting information. Removed replacement parts page. Updated wiring diagrams.
Revision L: (March 2026) added A2L, CO_2, and glycol information.