# Refrigeration components Field controllers

## Electronic control devices

# ER line

#### Electronic refrigeration line

Devices are designed to be incorporated in refrigerated display cases and cold storage rooms.

ER Line proposes progressive offer from basic controls to advanced controls including real time clock, energy saving and network communication to be integrated with monitoring system.

It also introduces specific products for supermarkets (e.g. compressor rack).

#### Hardware features

- ▶ Robust front panel for durability and long term usage
- ▶ Direct 230 V supply, no external transformer required
- ▶ Up to 5 relays in a single package
- ► NTC or PTC (A99) sensors
- ► Removable plug connectors for quick mounting and wiring
- ▶ Embedded real time clock, no additional clock card required
- ▶ Embedded RS485 port, no additional communication card required

#### **Application features**

- ▶ Positive or negative temperature units with a single product
- ▶ Minimum and maximum temperature monitoring
- ► Comprehensive controls
- ► Light and standby switching
- ► Energy saving (2<sup>nd</sup> setpoint)





#### **Ordering information**

Products	Туре	Mounting	Wiring	Compressor relays	Fan relays	Defrost relays	Auxiliary relays	Real time clock	RS485
ER54	Evaporator control	Panel	Removable plug connectors	•	•	•	•	•	•
ER55-DR	Cold room control	Din rail	Removable plug connectors	•	•	•	• (2 relays)	•	•
ER55-SM	Cold room control	Split	Fixed screw connectors	•	•	•	• (2 relays)	•	•
ER65	Rack control	Din rail	Removable plug connectors	• (4 relays)			•		•

Please refer to product bulletins for complete information

#### Accessories

Codes	Description	Applied products
ER-NTC-OC	NTC sensor, cable 2 m, universal replacement	All ER products
ER-COM-1C	RS485 cable, 1.5 m, plug connector	ER54, ER55-SM
ER-COM-2C	RS485 cable, 1.5 m, RJ connector	ER55-DR
P499Axx-xxx	Pressure transducer, 4-20 mA (See also P499 catalogue section)	ER65

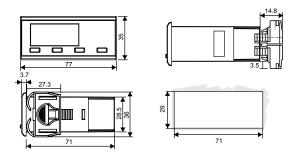


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## ER54 evaporator controllers - Ordering information



Panel mount controller, cool thermostat, comprehensive controls, RS485, real time clock, plug connectors. Delivered with one NTC sensor

Codes	RS485	Power supply	Protection class	Temperature range	Display	Inputs	Outputs
ER54-PMW-501C	MODBUS	230 VAC, +/-10%	IP55 (front)	-40 to 70 °C	LED 3 digits	· 3 temperatures	• Compressor: SPST 12(5)A • Fan: SPST 7(2)A
ER54-PMW-001C	N2 Open	Consumption 3W	IP20 (back)	Accuracy: +/-0.3 °C	Decimal displaying	· 2 voltage free contacts	<ul><li>Defrost: SPST 7(2)A</li><li>Auxiliary: SPST 7(2)A</li></ul>

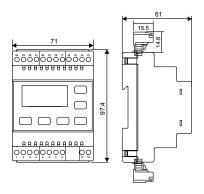


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### **ER Line**

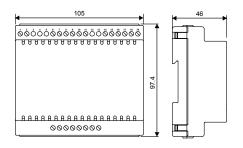
### ER55 cold room controllers - Ordering information

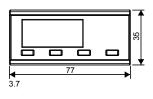


DIN rail mounting controller, cool thermostat, comprehensive controls, RS485, real time clock, plug connectors. Delivered with one NTC sensor

Codes	RS485	Power supply	Protection class	Temperature range	Display	Inputs	Outputs	
ER55-DR230-501C	MODBUS	230 VAC, +/-10% Consumption 3W	IP20	-40 to 70°C Accuracy: +/-0.3°C	LED 3 digits Decimal displaying	3 temperatures     2 voltage free contacts	Compressor: SPST 7(2)A     Fan: SPST 7(2)A      Defects SPST 16(4)A	
ER55-DR230-001C	N2 Open						<ul><li>Defrost: SPST 16(4)A</li><li>Auxiliary 1: SPDT 7(2)A</li><li>Auxiliary 2: SPST 7(2)A</li></ul>	

Split mounting controller, cool thermostat, comprehensive controls, RS485, real time clock, plug connectors. Delivered with two NTC sensors





Codes	RS485	Power Supply	Protection Class	Temperature Range	Display	Inputs	Outputs	
ER55-SM230-501C	MODBUS	230 VAC, +/-10% Consumption 3W	IP20	-40 to 70°C Accuracy: +/-0.3°C	Remote	3 temperatures     2 voltage free     contacts	Compressor: SPST 16(8)A     Fan: SPST 8(3)A	
ER55-SM230-001C	N2 Open				LED 3 digits Decimal displaying		<ul><li>Defrost: SPST 16(4)A</li><li>Auxiliary 1: SPST 7(2)A</li><li>Auxiliary 2: SPST 7(2)A</li></ul>	

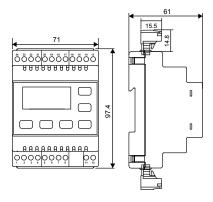


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**ER** Line

### **R65** rack controllers - Ordering information



DIN rail mounting controller, pressure or temperature control, 4 compressors or fans sequencer, RS485, plug connectors. Sensor to be ordered separately (see also P499 pressure transducer section).

Codes	RS485	Power supply	Protection class	Temperature range	Display	Inputs	Outputs
ER65-RK230-501C	MODBUS	230 VAC, +/-10%	IDOO	-40 to 70°C	• LED 3 digits	• 1 temperature • 1 pressure	• Stages (x4): SPST 5(1)A
ER65-RK230-001C	N2 Open	Consumption 3W		Accuracy: +/-0.3°C	Decimal displaying	• 2 voltage free contacts • 3 supplied contacts (230 V)	· Alarm: SPDT 7(2)A