

Solutions for Cold Rooms

Controllers and electrical panels for cold room management



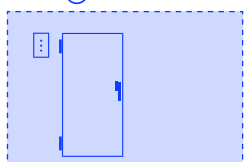
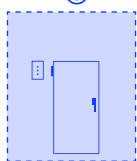


Controllers and electrical panels for cold rooms

The **XER** solution for the optimized management of cold rooms comprises controllers and electrical panels, and is designed for all applications in the retail and food service world. These controllers are suited for every kind of cold room, regardless of performances or dimensions. Now equipped with integrated EEV control and an auto-tuning algorithm, XER automatically optimizes efficiency, temperature stability and no manual valve calibration is needed. The powerful hardware platform, the easy installation mode and the intuitive configuration best meet all installers and service staff needs. Flexibility and safety are ensured by the option to add models with Circuit Breaker or Contactor to the basic configuration.

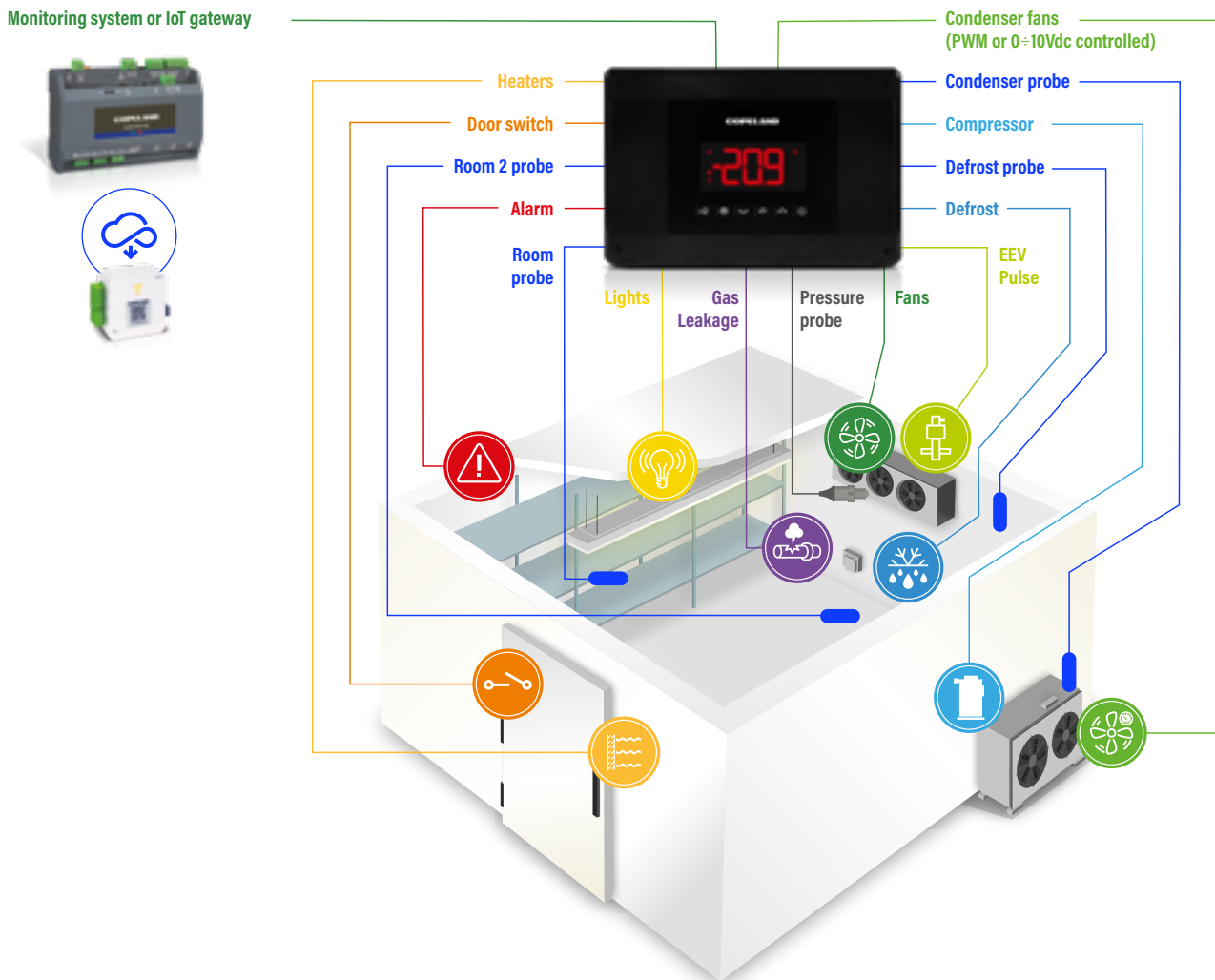
Applications

The XER family of controllers is the ideal solution for the management of all kinds of cold room application, from small shop, to a restaurant, from supermarket to a large storage center.



Complete cold room management

Because of its high-performance hardware and enhanced functions, XER is ready to answer most needs of the cold rooms currently on the market. The scheme here below represents all the available loads that can be managed by the XER controller, with up to 6 loads managed simultaneously.



Main features



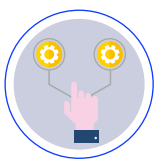
High flexibility

Thanks to the available pre-installed Circuit Breaker the new applications and the replacement of old controllers, adding some safety components, is quick and easy.



Safety

XER can be used also in long refrigerated circuits and avoid liquid return conditions. The "Pump Down" logic helps to reduce liquid return conditions when long piping is used to connect condensing unit and evaporator.



Double parameter map

Two parameter maps are available on XER; the user can select the most suitable for its application and quickly set parameters. The possibility to restore the factory default settings - a very useful operation in case of mistakes during the programming - allows automatic re-configuration of the controller to have it operating again for a subsequent and easier update.



Environmentally friendly

With our eco-friendly solutions, innovation and efficiency means respecting the environment by optimizing consumption and reducing pollution, and gas emissions. The energy consumption is guaranteed thanks to the use of modulating loads (ventilators, lights, heaters, and more) via selectable analogue outputs (PWM, 0÷10Vdc or 4÷20mA).



Real time clock with replaceable lithium battery

Controllers are equipped with a replaceable lithium battery, which ensures data-saving even during long blackout periods. The system promptly advises when the charge of the battery goes below the set threshold, allowing its preventive replacement and ensuring saved data is secure.



Homogeneous temperature control

The XER family, thanks to temperature regulation determined by the average of one or more probes (up to 4), allows having a homogeneous temperature inside the cold room. This special function is highly valued for large cold rooms where the temperature results can be different and not homogeneous, affecting the quality of the product.



Firmware update

It is possible to update the firmware of the controller by using the Wizmate® software, directly on site, without replacing the controller and avoiding machine stops, which would result in wasted energy and resources. The useful frontal output allows a quick, easy and safe update without opening the enclosure. Furthermore, the output allows to connect the Hot Key for the parameter update.



Gas leak detection

Controllers, through a gas leak detector (eg. CRLDS Series), can promptly signal possible refrigerant losses, maintaining safe conditions inside the cold room and avoiding machine stops due to gas leaks in the refrigeration circuit. A tempestive intervention reduces waste of gas and products inside the room and prevents its deterioration.



High visible signaling in case of malfunctioning or regulation failures

With the innovative Alarm Frame, any alarm condition or regulation failure can be signaled in a more effective way, making it clearly visible from longer distances.

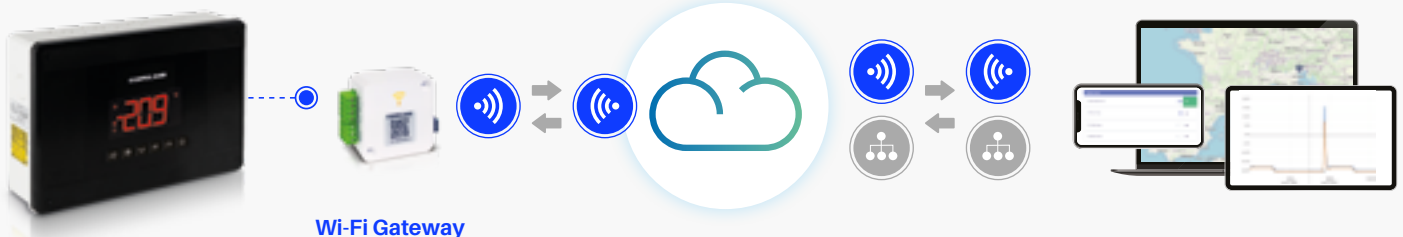


Copeland Equipment Manager ready


The XER is compatible with the "Copeland Equipment Manager" service that allows the user to remotely access data on a Cloud platform through common mobile devices. The auto-detect system installed makes it possible to connect the controller and receive the application data automatically within a few minutes, resulting in time and cost reduction for the installation.

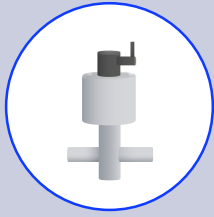
- Maintenance optimization avoids unnecessary costs
- Optimized food preservation enabled by accurate reporting of all variables
- Data analysis for critical situations and waste detection

Modbus RTU Protocol



Wi-Fi Gateway

 **LESS THAN 10 MINUTES**
to display your data online!



EEV integration

The EEV integration ensures precise and efficient cooling performance by continuously regulating superheating for optimal system balance. Thanks to its auto-tuning algorithm, the valve automatically adapts to changing conditions, simplifying setup, reducing commissioning time, and maintaining maximum efficiency without manual adjustments.

Main accessories



XJ485USB-KIT

USB to RS485 serial converter.



XJ485CX

Serial interface converts the TTL output into an RS485.



KIT CABLE GLANDS

Cable gland kit.

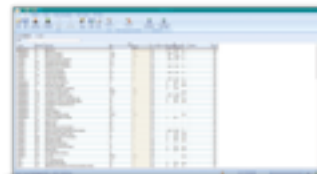


HOT KEY 64K

Key for parameter programming. On request: cable and connector for external connection.



USB type C connector available; please contact Copeland Controls S.r.l.



WIZMATE PROG-TOOL KIT

Programming tool for a quick and easy parameter update.



KIT CONTACTOR

Kit for the management of the three-phase contactor (eg. defrost). It is composed of: contactor, feed-through terminal blocks and wires for XER163P and XER163PV.



KIT CIRCUIT BREAKER

Kit for unit safety. It is composed of: circuit breaker, feed-through terminal block and wires for XER241P, XER261P and XER261PV.



KIT POWER SOURCE

Power source for external devices. It is composed of: AC/DC power source 230Vac/24Vdc (15W), DIN bar, screws.

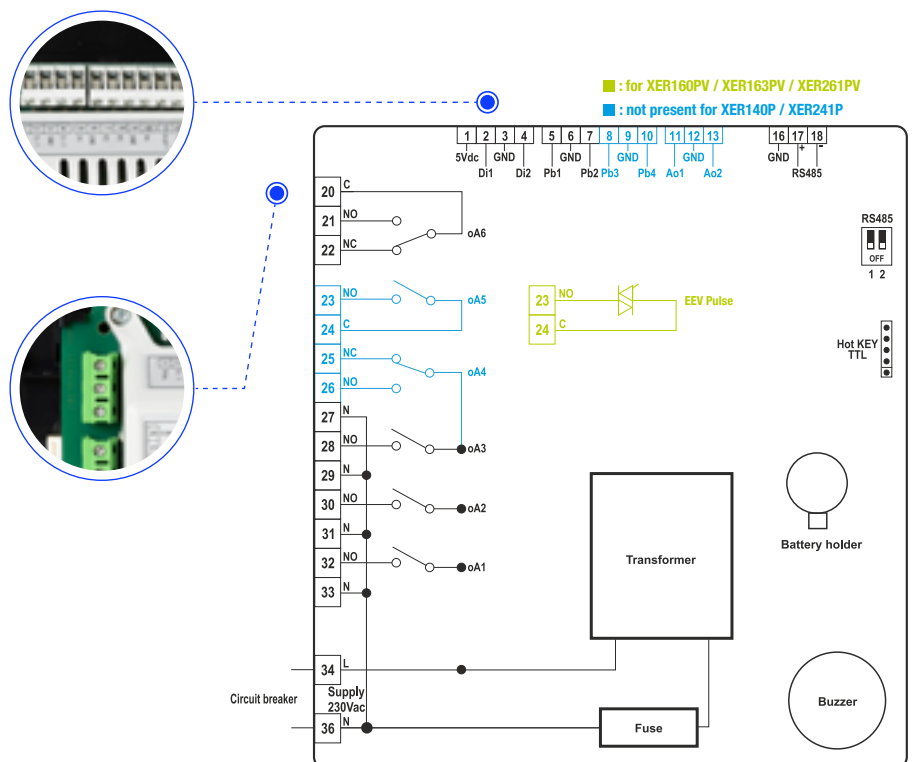
Note: For further information on the composition of the kits, please contact Copeland Controls S.r.l.

Features

MODELS	XER140P	XER160P	XER160PV	XER163P	XER163PV
			EEV Pulse	contactor	contactor + EEV Pulse
Dimensions	226x340mm	226x340mm	226x340mm	226x340mm	226x340mm
Display: n° digits	3	3	3	3	3
Alarm frame	present	present	present	present	present
Power supply	230Vac	230Vac	230Vac	230Vac	230Vac
Probe inputs	2 NTC, PT1000 all configurable	4 NTC, PT1000 all configurable	4 NTC, PT1000 all configurable 1 4÷20mA, 0÷5Vdc	4 NTC, PT1000 all configurable	4 NTC, PT1000 all configurable 1 4÷20mA, 0÷5Vdc
Digital inputs	2 configurable	2 configurable	2 configurable	2 configurable	2 configurable
Relay outputs	2x20A SPST + 1x16A SPST + 1x8A SPDT all configurable	2x20A SPST + 1x16A SPST + 1x16A SPDT + 1x8A SPST + 1x8A SPDT all configurable	2x20A SPST + 1x16A SPST + 1x16A SPDT + 1x8A SPDT all configurable + 1xSSR (200mA)	1x20A SPST + 1x16A SPST + 1x16A SPDT + 1x8A SPST + 1x8A SPDT all configurable + 1x7,5kW (2500V 230Vac x3 (AC1))	1x20A SPST + 1x16A SPST + 1x16A SPDT + 1x8A SPDT all configurable + 1xSSR (200mA) 1x7,5kW (2500V 230Vac x3 (AC1))
Hot Key output	present	present	present	present	present
0 ÷ 10Vdc output		optional	optional	optional	optional
PWM output	optional	optional	optional	optional	optional
Serial outputs	TTL + RS485 optional	TTL + RS485 optional	TTL + RS485 optional	TTL + RS485 optional	TTL + RS485 optional
24Vdc power source	optional	optional	optional	optional	optional
Real Time Clock	optional	optional	optional	optional	optional
Connectors	screw	screw	screw	screw	screw

Connections

The relay output configuration with 4 direct loads and 2 additional relays, allows the XER to be suitable for the most applications present in the cold room market. Each relay can be configured during installation guaranteeing high flexibility for the user. The inclined terminals make the installation easier, and the rising clamp terminals can accept cross-section cables up to 4mmq without precautions. This simplifies and increases connection speed.



Features

MODELS	XER241P	XER261P	XER261PV
	circuit breaker	circuit breaker	circuit breaker + EEV Pulse
Dimensions	226x340mm	226x340mm	226x340mm
Display: n° digits	3	3	3
Alarm frame	present	present	present
Power supply	230Vac	230Vac	230Vac
Probe inputs	2 NTC, PT1000 all configurable	4 NTC, PT1000 all configurable	4 NTC, PT1000 all configurable 1 4÷20mA, 0÷5Vdc
Digital inputs	2 configurable	2 configurable	2 configurable
Relay outputs	2x20A SPST + 1x16A SPST + 1x8A SPDT all configurable	2x20A SPST + 1x16A SPST + 1x16A SPDT + 1x8A SPST + 1x8A SPDT all configurable	2x20A SPST + 1x16A SPST + 1x16A SPDT + 1x8A SPDT all configurable + 1xSSR (200mA)
Hot Key output	present	present	present
0÷10Vdc output		optional	optional
PWM output	optional	optional	optional
Serial outputs	TTL + RS485 optional	TTL + RS485 optional	TTL + RS485 optional
24Vdc power source	optional	optional	optional
Real Time Clock	optional	optional	optional
Connectors	screw	screw	screw

Mounting

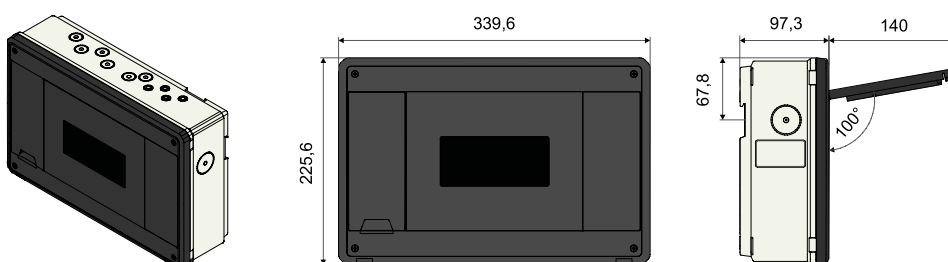
The XER family features quick and easy DIN Rail or wall mounting. The cable glands ensure an IP protection degree of the product and the hinges, which keep the electronic part mounted with the rest of the box, allow a safe and easy wiring.



24Vdc Power source to supply external devices, such as the gas leak detector or the emergency button.



Dimensions





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To learn more, visit [copeland.com](https://www.copeland.com)

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