

Communication System for Refrigeration

*Bluetooth® solution for bottle coolers,
cabinets and cold rooms*





Bluetooth® connectivity system for refrigeration

XR-CHC, XRB-CHC refrigeration controllers represent the useful connectivity solution equipped with the Bluetooth® communication system. Through the Copeland **CONNECTED** App, available both for iOS and Android, you can control bottle coolers, refrigerated cabinets, cold rooms, and more in real time. All common control tasks of the instrument are now replicated on your smartphone with all the usability of this technology. Last but not least, the Copeland **CONNECTED** App features a complete report by graphs and statistics: a very useful diagnostic tool for all "service operations". The App also gives the possibility to see functional status messages (presence of alarm conditions) related to the cabinets status. The Cloud, allows the user identification and the management of accesses with the related permission levels.

Our connectivity solution

CONTROLLER



XR-CHC & XRB-CHC

Designed for:

- Food service
- Mini markets
- Ice-creams & Pastries
- Caffeteries
- Retail

APP



Copeland **CONNECTED**

- Remove the distance between user and equipment
- Simplified maintenance
- Continuous monitoring



CLOUD



Cloud

- Simplifies the user control
- Increases the security of the accesses of the connected instruments

The Copeland **CONNECTED** App is also compatible with other families of controllers such as, **XM700** and **UNIVERSAL-BLE**. For further information, please contact Copeland Controls S.r.l.

What it does?



Service

Dedicated service functions available:

- Verify the right unit functioning through a real time regulation analysis
- Easy identification of possible faulty operations
- Prevent failures through graphs and data log analysis
- Simple and easy commissioning
- Easy tuning of the device configuration through simple parameter map download and modification

General functions



Proximity sensor

The X-MOD motion detector sensor is the ideal solution for refrigeration field, in particular for cold rooms and bottle coolers, because it is designed for light control and sales performance indication.



Bluetooth® connectivity

- Continuously updated thanks to the guaranteed official support
- Noise robust also in industrial and commercial environments
- Optimized integration with our controllers and IoT world thanks to low consumption and wide interoperability



Data sharing

Reports (temperature values and events) are easily accessible for a complete and immediate food control. It is possible to save reports as files and send them to other PCs for storage and analysis.



Reduced installation time

Thanks to the easy and fast installation of instruments and App, it is possible to install the controller in a few minutes, create new users and browse all the functionalities of this solution.



High protection

The system is provided with an advanced user control method that blocks unauthorized connections to the controller always ensuring a high security level of the system.



Safeguard of the environment

We firmly believe in the respect and safeguard of the environment and respond to the requests of eco-friendly gas usage, such as Propane. Controllers mount relays suitable for ATEX applications as they have been tested following EN60079-15.



Powerful datalogger

The powerful datalogger of the instrument allows users to save temperatures, alarms and events. Depending on the sampling time that has been selected, it is possible to save up to 1 year of data.

XR-CHC & XRB-CHC controllers

XR-CHC and XRB-CHC series are the innovative controllers designed for refrigeration applications that guarantee high usability and quality food storage. Particularly the XRB-CHC family is dedicated to bottle coolers while the XR-CHC is designed for cabinet and cold rooms. The controllers include Bluetooth® connectivity that allows interaction with mobile devices thanks to the Copeland CONNECTED App, making easier configuration, services, analysis and more.

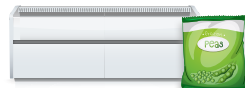
- User friendly interface
- Direct access to main functions
- Easy and intuitive installation
- Hot Key connector for quick and easy programming
- Automatic defrost management
- Pull down time
- Condenser monitor for maintenance management
- Service counters
- Firmware upgradable
- Double parameter map
- RTC with Lithium battery

XRB-CHC



- Advanced energy saving algorithms (Patented)
- Extra cooling for filling
- Anti-sweat heaters management
- Multi map
- Sales performance indication (with motion detector sensor)

XR-CHC



- Anti-sweat heaters management
- Double parameter map
- Data logger
- Dual compressor management
- Evaporator/condenser fan control

XR-CHC



- Data logger
- Real time alarm signaling
- Dual compressor management
- Evaporator/condenser fan control



Low environmental impact thanks to the compatibility with natural refrigerant applications (Propane, CO₂, ...)



Display available in multiple colors: red (standard), white, or blue



Dedicated icon for Bluetooth® communication



Lots of certifications ensuring a reliable international rules conformance.

Radio Approvals:

- FCC for USA and Canada
- RED for Europe
- SIG for Bluetooth®

STD approvals:

- CE
- UL
- ENEC

High security degree thanks to:

- Access control by using a second level password
- 6-digit security PIN, randomly generated from the controller, to be used if Bluetooth® connection requires it



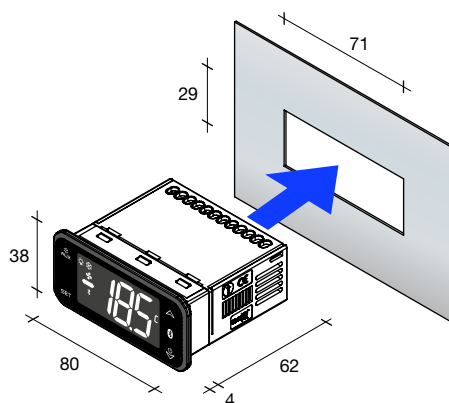
Technical features

Standard refrigeration	XR30CHC	XR60CHC	XR70CHC	XR77CHC
Bottle coolers	XRB30CHC	XRB60CHC	XRB70CHC	
Display	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.
Power supply	110, 230Vac	110, 230Vac	110, 230Vac	110, 230Vac
Probe inputs	up to 3 x NTC/Pt1000*	up to 3 x NTC/Pt1000*	up to 4 x NTC/Pt1000**	up to 4 x NTC/Pt1000**
Digital inputs	up to 2 x configurable**	up to 2 x configurable**	up to 2 x configurable**	up to 2 x configurable**
Relay outputs	16A + 8A	16A + 8A + 8A 20A + 8A + 5A	16A + 8A + 8A + 5A	16A + 16A + 5A + 7A
External ports	HOT KEY or TTL	HOT KEY or TTL	HOT KEY or TTL	HOT KEY or TTL, RS485
Terminals	spade/screw/plug-in	spade/screw/plug-in	spade/screw/plug-in	spade/screw/plug-in
Buzzer	present	present	present	present
Bluetooth	present	present	present	present
Data logger	optional	optional	optional	optional
RTC with Lithium battery	optional	optional	optional	optional

* Up to 2 NTC/Pt1000 when the digital input is configured as probe

**Up to 3 NTC/Pt1000 when the digital inputs are configured as probe

Dimensions



Main accessories



X-MOD

Motion sensor, with connection cable, able to detect the presence of human beings without any physical contact.



XJ485LE

The serial interface converts the TTL output into an RS485 signal that can be used to connect the controller to the XWEB systems.



HOT KEY 64K

Easy programmable device; it allows instruments to be programmed in a fast and simple way.



MDP/CX

Plastic anti-condensing protection cover for terminal block of controllers.



XJ485USB-KIT

USB to RS485 serial converter (2 wires) to interface with any computer, equipped with WIZMATE® software and a USB port to a network of instruments.

NOTE: the use of some accessories precludes the use of others. For further information, please contact Copeland Controls S.r.l.

App Copeland CONNECTED

Copeland CONNECTED is the application available both for iOS and Android, which makes easy and efficient installation and maintenance of the unit. The App is not a simple accessory but an integral part of the system, designed for mobile devices and compatible with XR-CHC & XRB-CHC controllers with Bluetooth® connectivity. The App can be downloaded from Google Play and Apple iTunes.

Ready to work in few minutes

With just a few steps to enter the app, identify the units that are compatible with the Copeland CONNECTED App and interact with them becoming owner, service or user (depending on the access level).



Login

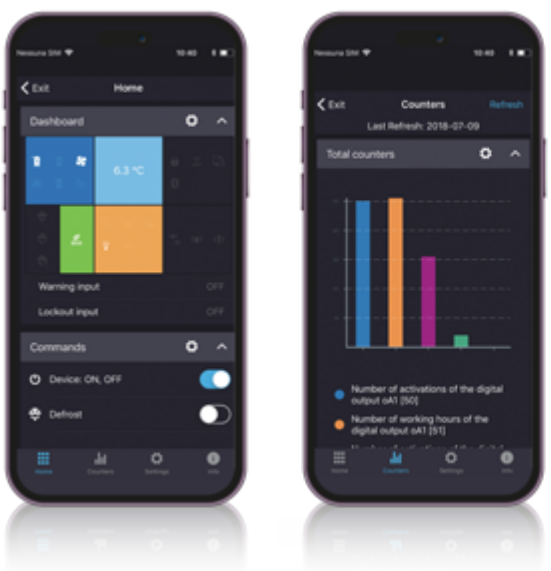
Easy access through the home page.

Device search

A simple screen lets you see all instruments with the relative permissions, alarms, and more.

Advanced visualization and analysis of the machine status

Thanks to the Copeland CONNECTED App, the user interface of the device is no longer a simple display: it is your smartphone/tablet screen, a worldwide instrument that everyone uses. The human-computer interaction is immediate and easier; alarm display, machine status command sending, and more, are now even easier and intuitive.



System status dashboard

Window for rapid check, status control, active output/alarm list visualization and more.

Commands

List of available commands (also customizable) to directly interact with the machine.

Probe visualization

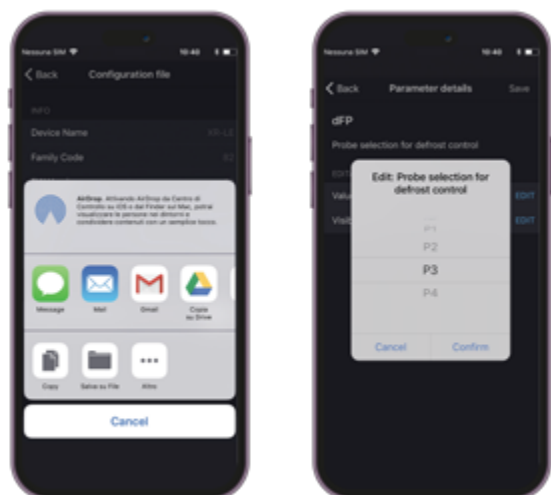
Independent probe selection for both real value and graphic visualization.

Counters

Total and daily counters visualization.

Simplified maintenance and cost saving

Loading a new parameter map, update the firmware or set the instrument, doesn't take long and doesn't require complicated operations; with just a few steps it is possible to complete these operations in an easy and fast way. Through the intuitive and basic interface, it is simple to make all operations in a short time with less margins of error.



Set point

Depending on permissions it is possible to quickly check and modify the set point.

Configuration manager

Quickly and easily read, write, create, share or import the configuration for your controller.

Parameter modification

Depending on permissions, it is possible to read and modify each parameter.

Firmware update

The update procedure is safe, does not change the parameter configuration, and preserves calibration data.

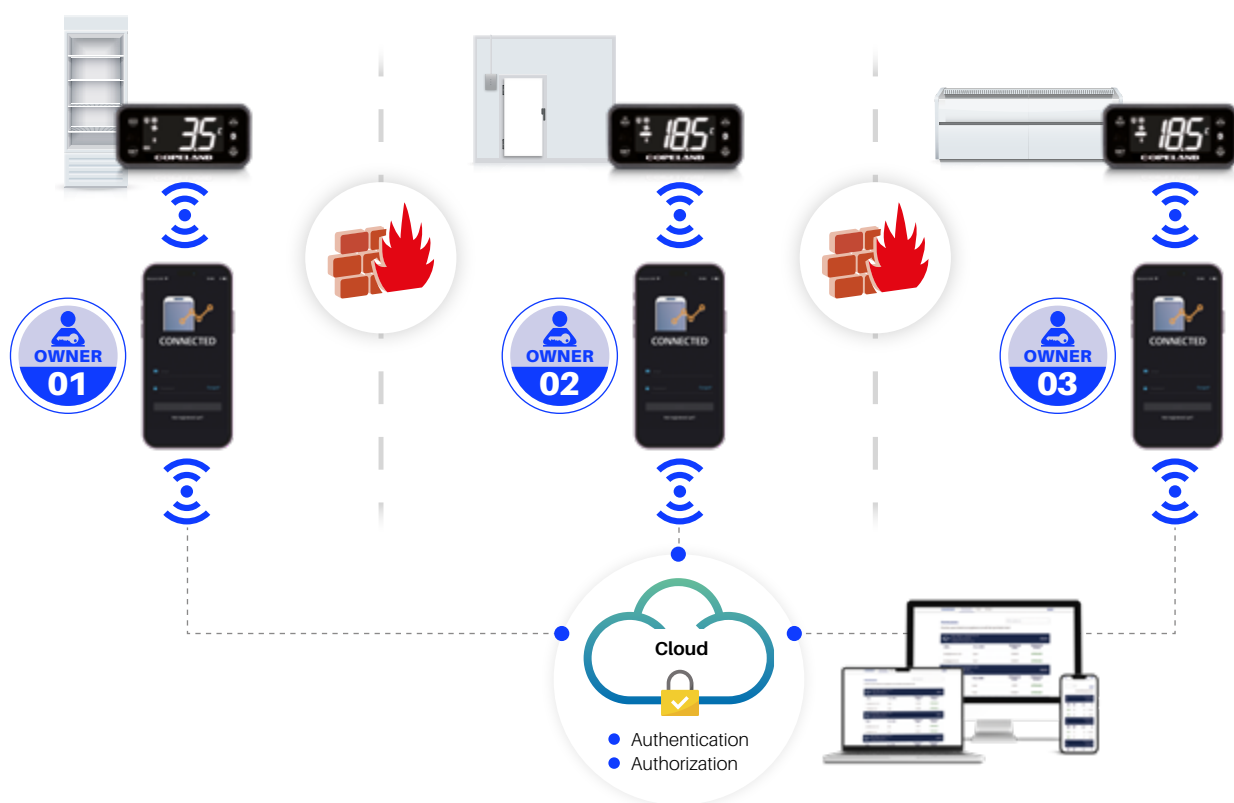
Appliance information

Depending on the permission it is possible to see/modify the information concerning the instrument and the unit.

Cloud

The Cloud simplifies the user control and increases the security of the accesses of the connected instruments. This web portal is used to:

- Guarantee the identity of users who have access to every single controller and block access to unauthorised or malicious users
- Enable new users with predefined functions according to the categories: owner (controller owner and admin), service and user
- Modify or disable the access and the role of a user





Copeland Controls S.r.l. | Z.I. Via dell'Industria, 27
32016 Alpago (BL) ITALY - dixell@copeland.com
Release 3.0 - 1582006700-GB

To learn more, visit copeland.com

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