



EMERSON™

XR-CHC and XRB-CHC

Refrigeration controllers with Bluetooth® connectivity

PN 13/18 September



Dixell introduces its new **XR-CHC** and **XRB-CHC** controllers with Bluetooth® connectivity for refrigerated applications.

The new **Emerson™ CONNECTED** App, which is available for both iOS and Android, can be used for real time control of bottle coolers, refrigerated cabinets, cold rooms and much more. All of the instrument's commands and variables are now replicated on your smartphone. Furthermore, the Emerson™ CONNECTED App provides a comprehensive report with graphs and statistics: it is a very useful diagnostics tool for all maintenance operations.

The App also displays status messages, such as any alarm conditions.

The Dixell solution is integrated with the EmersonConnected Cloud portal, which allows users to be identified in order to manage access to the controllers and their authorisation levels securely and centrally.

Visit
<https://dxapp.cloud/>



1. Main applications

The XR-CHC and XRB-CHC families represent the ideal solution when connectivity, service and advanced maintenance are required. The XRB-CHC family is used for bottle coolers, while the XR-CHC controllers are used in retail, islands, cabinets or in cold rooms.



XRB-CHC



XR-CHC



XR-CHC

2. High connectivity

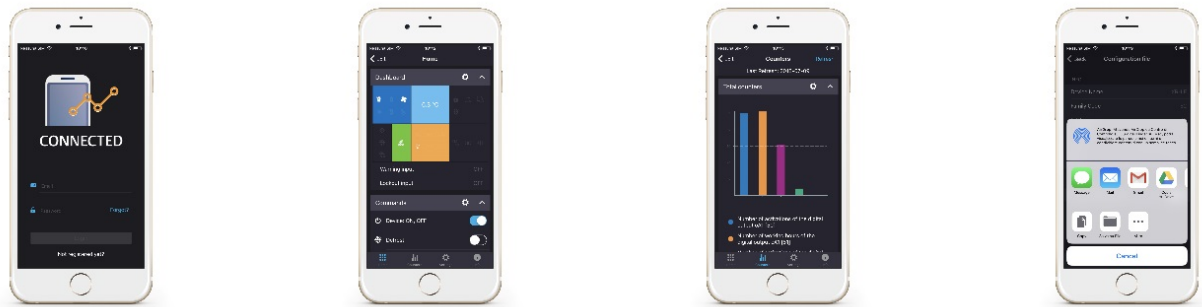
2.1 Bluetooth communication

The XR-CHC and XRB-CHC models have a Bluetooth® communication module, a consolidated technology that allows interaction with mobile devices thanks to the new Emerson™ CONNECTED App.

2.2 Emerson™ CONNECTED App

Emerson™ CONNECTED is the Dixell App that makes installation and maintenance of the unit fast and easy thanks to a clear and detailed analysis of the data collected in graph-form.

The App can be downloaded from Google Play and Apple iTunes. For more information on solutions, tutorial, certifications and much more, go to <https://dxapp.cloud/>.



2.3 EmersonConnected Cloud

The system is completed by a web portal (Cloud) that is used to:

- guarantee the identity of users who have access to every single controller
- 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 category of a previously enabled user.

2.4 A complete solution

The complete solution offered by Dixell consists of the controllers, the App and the Cloud as summarised in the diagram below.

CONTROLLER



XR-CHC & XRB-CHC



APP



Emerson™ CONNECTED

CLOUD



Cloud

3. Advanced functions

In addition to those already recognised, there are now a number of advanced functions available for the XR and XRB families that Dixell has implemented to enable management of refrigerated applications even more efficient.

3.1 Reports and data sharing

The version with internal datalogger for generating reports is available. This function saves the temperature probe values and the controller's statuses (alarms and digital inputs) in the controller's internal memory, thereby ensuring constant and immediate control of food products.

Based on the saving interval selected from the predefined ones, it will be possible to store from a minimum of one week to a maximum of one year of data.

With the Emerson™ CONNECTED App you can download the recorded data to your smartphone and export it for easy reference or storage.

3.2 Keyboard lock

To guarantee additional safety, it is possible to enable the keyboard lock function, both partially by only locking certain keys, and entirely.

3.3 Double compressor ON/OFF management (only for XR-CHC)

The controller enables adjustment with a double compressor ON/OFF. This type of adjustment manages activation rotation of the compressors, parallel start-up of compressors (with delay between activation of the first and second compressor) or installation of a second compressor with proportional logic.

3.4 Password

A password can be set to access the manufacturer's parameters menu (Pr2 level).

3.5 Temperature probes

The controllers can manage NTC, PTC and PT1000 probes:

- NTC from -40 to +110°C or from -58 to +230°F
- PTC from -50 to +150°C or from -58 to +302°F
- PT1000 from -100 to +200°C or from -148 to +392°F

3.6 Parameter configurations

Two predefined parameter configurations (maps) are managed. The map can be changed with the other one:

- with a key, properly configured
- with a digital input, properly configured
- with a serial command

The factory setting can also be restored by loading one of the predefined parameter configurations, default maps, which can never be modified. The default maps can only be restored with the properly configured key.

3.7 Advanced defrost control

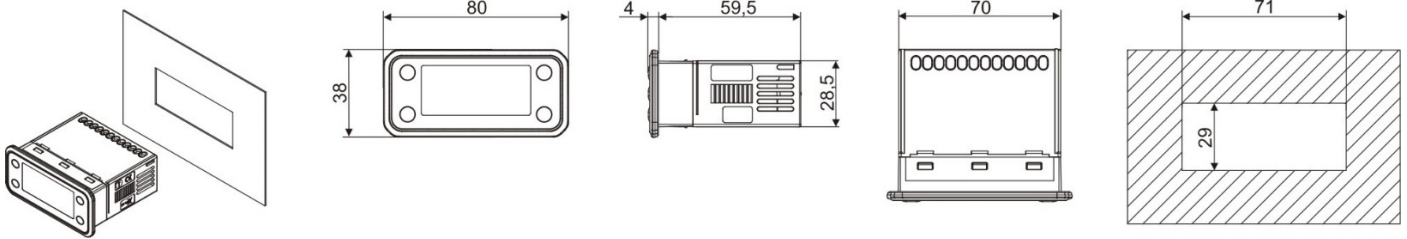
The controllers manage the defrost mode in different ways:

- **automatic:** it is possible to set defrost start-up simultaneously with activation of the energy saving mode;
- **random (only for XR-CHC):** a maximum of 20 controllers are only virtually connected to the same network and defrosting is carried out at "random"; this minimises the system's mains power supply overload due to simultaneous start-up of multiple defrosting modes.

4. Hardware features

Housing	Self-extinguishing ABS
Mounting	Panel mounting
Connectors	Screw connectors, disconnectable or faston
Power supply	110 or 230Vac
Power absorption	3.5VA max
Analogue inputs	Up to 4x NTC, PTC or PT1000
Digital inputs	Up to 2x free of voltage contact
Relay outputs	See models table
Serial outputs	TTL 5-wire slave
Internal clock	Optional

4.1 Dimensions



4.2 Models

4.2.1 XR-CHC

	XR30CHC	XR60CHC	XR70CHC	XR77CHC
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*	up to 3*	up to 4**	up to 4**
Digital inputs	up to 2 configurable**	up to 2 configurable**	up to 2 configurable**	up to 2 configurable**
Relay outputs	16+8A	16+8+8A 20+8+5A	16+8+5+8A	16+16+5+7A
External ports	HOT KEY, TTL	HOT KEY, TTL	HOT KEY, TTL	HOT KEY, RS485
Connections	spade, screw or disconnectable	spade, screw or disconnectable	spade, screw or disconnectable	spade, screw or disconnectable
Buzzer	present	present	present	present
Datalogger	optional	optional	optional	optional
Real time clock with lithium battery	optional	optional	optional	optional

* Up to 2 NTC, PTC or PT1000 if the digital input is configured as a probe

** Up to 3 NTC, PTC or PT1000 if the digital inputs are configured as a probe




4.2.2 XRB-CHC

	XRB30CHC	XRB60CHC	XRB70CHC
Display	± 3 d.p.	± 3 d.p.	± 3 d.p.
Power supply	110, 230Vac	110, 230Vac	110, 230Vac
Probe inputs	up to 3*	up to 3*	up to 4**
Digital inputs	up to 2 times configurable**	up to 2 times configurable**	up to 2 times configurable**
Relay outputs	16+8A	16+8+8A 20+8+5A	16+8+5+8A
External ports	HOT KEY, TTL	HOT KEY, TTL	HOT KEY, TTL
Connections	spade, screw or disconnectable	spade, screw or disconnectable	spade, screw or disconnectable
Buzzer	present	present	present
Datalogger	optional	optional	optional
Real time clock with lithium battery	optional	optional	optional

* Up to 2 NTC, PTC or PT1000 if the digital input is configured as a probe

** Up to 3 NTC, PTC or PT1000 if the digital inputs are configured as a probe

5. Main accessories

	<p>X-MOD Movement sensor with 2m connection cable, able to detect human presence nearby.</p>
	<p>XJ485LE Serial interface that converts a TTL signal in RS485, so that the instrument can be connected to XWEB EVO systems.</p>
	<p>XJ485USB-KIT USB to RS485 serial (2-wire) converter for monitoring a single or multiple controllers connected via the network to a computer with a USB communication port and with Wizmate® software installed.</p>

6. How to order

XR_0CHC – AB1DEF

XR77CHC – AB5DEF

A		B		D			E		F		
Power supply		Inputs/Display		Measurement unit		RTC	Compressor output		Connections	Datalogger	
4	110Vac	N	NTC/Pt1000/Red	B	°C	Battery	1	16A	Screw	1	Counters**
5	230Vac	R	NTC/Pt1000/Blue	C	°C	No	3	20*	Screw	3	Full***
		W	NTC/Pt1000/White	E	°F	Battery	5	16A	Disconnectable		
				F	°F	No	7	20A*	Disconnectable		
							9	16A	Spade		
							B	20A*	Spade		

* Only for XR60CHC

** Number of alarms and activations of digital outputs (total and daily ones), maximum 90 days

*** Number of alarms and activations of digital outputs (360 days). Up to 4 probes and device statuses (60 days with 15min sampling)

XR B_0CHC – AB1DEF

A		B		D			E		F		
Power supply		Inputs/Display		Measurement unit		RTC	Compressor output		Connections	Datalogger	
4	110Vac	N	NTC/Pt1000/Red	B	°C	Battery	1	16A	Screw	1	Counters**
5	230Vac	R	NTC/Pt1000/Blue	C	°C	No	3	20A*	Screw	3	Full***
		W	NTC/Pt1000/White	E	°F	Battery	5	16A	Disconnectable		
				F	°F	No	7	20A*	Disconnectable		
							9	16A	Spade		
							B	20A*	Spade		

* Only for XR60CHC

** Number of alarms and activations of digital outputs (total and daily ones), maximum 90 days

*** Number of alarms and activations of digital outputs (360 days). Up to 4 probes and device statuses (60 days with 15min sampling)

7. Prices

Contact our Sales Department for a quotation or for further information.

8. Availability and orders

The XR-CHC and XRB-CHC models will be available from September 2018. Contact our Sales Department for delivery times.