GENERAL CATALOGUE

diXell®

our experience…your solutions

CO_2

T/RH%

Kwh

CO_2

Kwh

T/RH%

SYSTEMS

PROGRAMMABLE CONTROLLERS

PARAMETRIC CONTROLLERS

Unit ON: Chiller   10:00 AM 21/07

Evap. T. Input 7°C

Evap. T. Output: 5°C

Circuit 1 Probes

SET

INDEX

THE COMPANY

HEADQUARTERS Over 15.200m^2 surface area, 3.100m^2 of production area, 800m^2 of office space and over 20 years of experience in this highly specialised field of business. These statistics express the **dynamism** of a **Company** that has positioned itself among world leaders of electronics, offering a range of products that provide innovative solutions to meet the needs of the **air conditioning**, **industrial and commercial refrigeration and catering markets**.

SALES TRAINING World wide, our products are distributed and supported in **over 70 countries**, by a sales network of experienced and **qualified personnel**, guaranteeing the correct selection of controllers and an efficient after sales service. Competence, professionalism, and courtesy make our Customer Service Dept stand out. It provides our distributors and customers alike with technical support, solutions and concise answers to issues that may arise. Constant **technological development and innovation** of our products make us stand out in the market as the strategic choice for most users. This and the continuous growth of our product range requires constant training for our own staff and our distributors. To meet this challenge a fully equipped training facility with the most advance computer tecnology has been developed at our Belluno base.

RESEARCH DEVELOPMENT PRODUCTION

Continuous **research and development** means that all our contollers feature the latest generation of microprocessors. Giving due consideration to the actual needs of many users leads us to develop Dixell's fast and simple programming methods. Most operating features are carefully developed through listening closely to the requirements of our many users. Our "Research and Development" and our "Production" departments are highly flexible, which means they can respond quickly to specific customer requirements and offer appropriate solutions. Highly sophisticated equipment is now employed in the development and control of manufacturing. Here delicate and repetitive tasks are mostly carried out by "state of the art" **automatic systems**.

QUALITY **Dixell has been awarded with ISO9001 certificate** and it constantly commits itself to quality in everything it does. The quality system of Dixell is conform to the Quality System Standard **UNI EN ISO 9001:2000**.

ENVIRONMENT Dixell pays particular attention to the **respect of the enviroment** and is constantly looking for new solutions in accordance with this philosophy. This is why it is putting it's efforts into creating regulators that allow high **energy savings**, respecting the strict **RoSH** and **RAEE** standards **(European Directives 2002/95/CE and 2002/96/CE)** and using **packing materials** that are in accordance with **2004/12/CE European Directive**, that also guarantees noteworthy advantages for the end user.

APPLICATIONS

INDUSTRIAL REFRIGERATION

Industrial refrigeration requires the control of many different conditions to guarantee that products are processed and stored correctly. **Temperature**, **pressure** and **humidity** must be kept under control with reliable devices that are also simple to manage. Whether we are dealing with a **compressor rack controller** or the **smallest refrigerator** or **refrigerated transport**, controllers must provide total solutions that provide complete control. If there is an alarm, it is necessary to be advised quickly in order to intervene without delay. Therefore depending on the application Dixell provides remote assistance systems for local **monitoring**, for **supervising** or remote **control** including via **internet**. Where there are many points of sale, such as big distribution centres, the centralized management software for the Call Center is available.

COMMERCIAL REFRIGERATION

In today's modern supermarkets, control system technology for **commercial refrigeration**, both for **cabinets** and compressor racks, plays a fundamentally vital role, both for the designer and the consumer. The concepts of integration, remote access, energy savings and functional aesthetics are important considerations in this key field of refrigeration. From the simple controller for **plug-in applications** to the most sophisticated master + multiple slave system **for multiplexed cabinets**, Dixell presents its vast experience by offering products with excellent performance and durability.

FOOD SERVICE COOKING Dixell is equally competent in the field of **cooking**, just as it is in the field of refrigeration or **blast chiller** processes used in freshly-cooked food conservation. Dixell's solutions to the recent introduction of food hygiene regulations (HACCP) offer immediate advantages in terms of cost, time and operation of systems.

EQUIPMENTS CONTRACTING Experience, combined with innovation, allows our products to be used in the most diverse **industrial applications**; alarm management is very important for safety and this is why all the controllers are designed to supply effective diagnostics whether at local level or by connection to remote assistance system. Dixell devices are particularly adaptable and make the application easy to use even in the industrial automation field, thanks to the wide range of products available and their compatibility with current safety standards.

INFO For **further information** about conditioning products please see our air conditioning catalogue or check out our web site www.dixell.com.
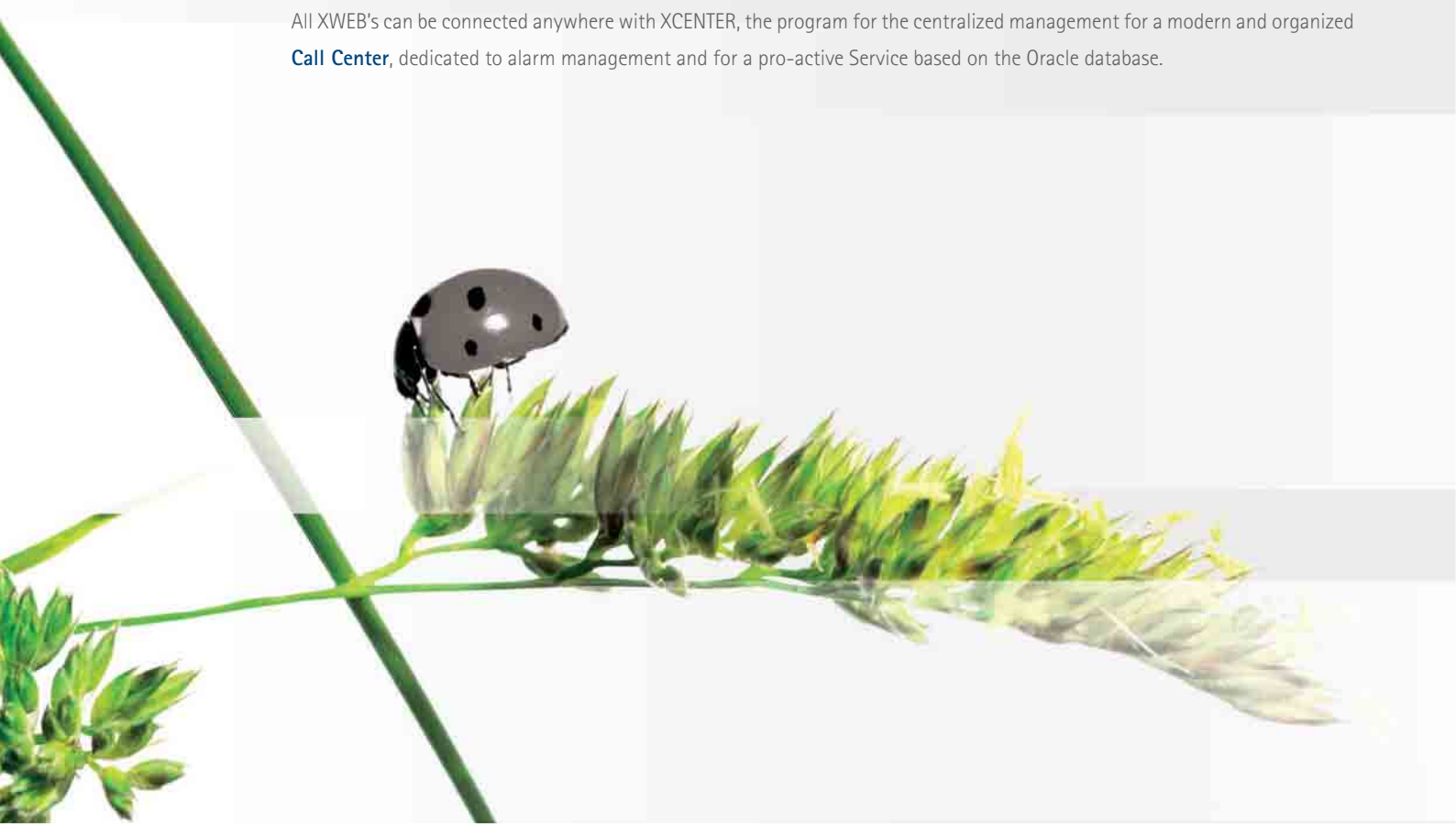
SYSTEMS

The XWEB System family is based on web technology used to satisfy monitoring and supervising requirements in Commercial and Industrial Refrigeration fields from small shops to hypermarkets, and refrigerated warehouses to food production centers. Other potential fields are: chemical-pharmaceutical, oenological, naval, museums, hospital, etc.

Dixell Systems conform to **HACCP** rules; the **CRO** (compressor rack optimization) reduced Set-point, anti-sweet heaters, lights and the power peaks are used with the result of having an optimize **energy savings**.

It is also important to have the possibility to have integration with air conditioning machines that are equipped with iCHILL and iPro Dixell controllers. For retrofitting we offer iCOOLL **wireless** (RF) modules plus relay and acquisition module families for probe inputs and alarm outputs.

All XWEB's can be connected anywhere with XCENTER, the program for the centralized management for a modern and organized **Call Center**, dedicated to alarm management and for a pro-active Service based on the Oracle database.

SYSTEMS

SECTION INDEX

GLOBAL RETAIL SOLUTION

Research, great experience, regulation and design innovation: these are the elements that allow Dixell to offer controllers and supervising systems that are in the forefront for all commercial and industrial refrigeration applications, air conditioning and catering fields. A series of specific solutions and a comprehensive range that extends from Thermometers to Multifunction Controllers, from Supervising Systems to the Call Centers, for a completely centralized plant.

In particular, Dixell systems are a range designed to satisfy all quality, user friendliness and efficiency requirements for every kind of application. Dixell, with its systems, integrates and coordinates all components of system regulation in order to optimize the efficiency and to increase energy savings.

Some of Dixell instruments that allow this are:
- the innovative suction pressure management of compressor rack's through CRO
- the dew point check and the modular management of anti-sweat heaters
- the load supervising and the electric consumption peak management

In addition the typical functions of a monitoring system:
- the temperature recording according to HACCP regulations
- the transmission and management of regulation and plant alarms

SYSTEMS

CALL CENTER

XCENTER

XWEB5000

XWEB3000

XWEB500 – XWEB500D

XWEB300D

Results prove that Dixell systems are in synergy with all regulation components ensuring:
- better performance
- greater efficiency
- a complete local and remote monitoring
- maximum environmental preservation

XCENTER, the centralized management software ideally suited for a modern and organized Call Center, completes the range of products. A powerful and affordable instrument that allows a remote plant monitoring.

APPLICATIONS

PETROL STATIONS
STORAGE CENTRES

SUPERMARKETS
HYPERMARKETS

PRODUCTION PLANTS
INDUSTRIES

AIR CONDITIONING

LIGHTING

ENERGY SAVINGS

REFRIGERATION

Market
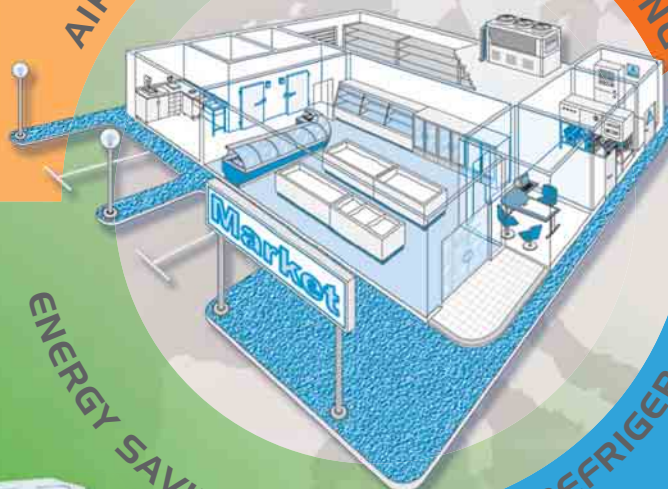
XCENTER: CENTRALIZED MANAGEMENT SOFTWARE FOR CALL CENTER

APPLICATIONS: designed and developed in order to monitor plants that are positioned in different zones, XCENTER is a flexible, reliable and user-friendly software package.

Efficient assistance is a widespread requirement among distribution centers, small and big supermarkets, industrial plants etc. XCENTER gives this type of support with alarm management, continuous devices check and the recipient management with a relative report.

XCENTER doesn't have limits regarding the number of plants and controllers that can be checked and is suitable for every kind of requirement.

- Modular software that, when installed in a server PC, communicates with clients (XWEB systems and remote PC)
- Third party system compatibility
- Database Oracle® that manages many controllers
- Data and alarms files from real installations, available for all clients
- User interface is simple to understand
- Multilanguage management
- Geo-location positioning and controllers status
- Command sending to real instruments
- Possibility to quickly modify controllers parameters
- Alarm setup and management
- Alarm report via e-mail – SMS
- Recipient list management
- Statistical data management in graphical format
- Internet connection between XCENTER and the monitoring units are by means of the standard SNMP protocol or telephone line (via dial-up or an internet provider)
- Open project that allows add-on software (warehouse and accountant management,...)

HOW TO ORDER

XCENTER | X | C | E | N | T | E | R | - | A | B | 0 | 0 | 0 |

	A		B
N° of server		**N° of client**	
0 = 0		**N** = 0	
A = 1		**B** = 2	
		L = 10	

XCENTER INSTALLATION LAYOUT
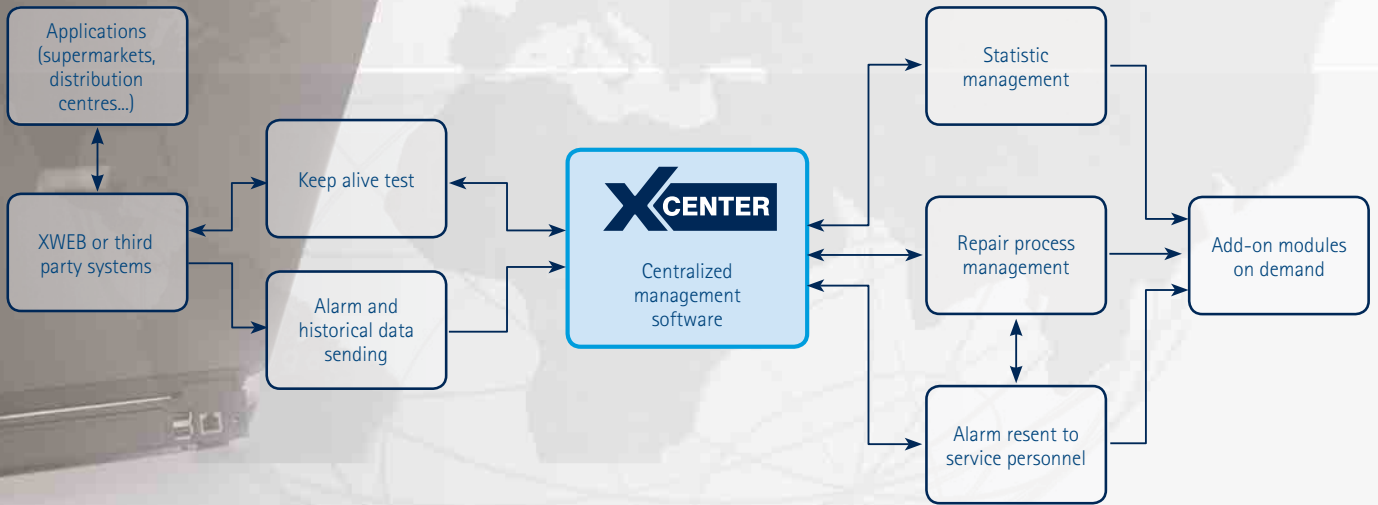
The software is composed of two modules: **server** and **client**.

The **server** can be installed in a computer with the following minimum system requirement:
- CPU Pentium® IV or similar
- 1GB RAM
- 100GB hard-disk space
- Microsoft Windows XP or Windows 2003 Server
- Permanent Internet connection
- Modem connection (optional)

The **software clients** are installed in each computer, they can operate either via an intranet or the Internet. Minimum system requirements for the clients are:
- CPU Pentium or similar
- 512MB RAM memory
- 20GB hard-disk space
- Microsoft Windows XP
- Network card and/or modem
- Microsoft Internet explorer 5.5 or higher

XCENTER INSTALLATION

ALARM MANAGEMENT

XCENTER introduces a complete new concept regarding alarm management. An alarm that keeps on repeating itself, or that happens during night time, can be treated with a different severity. The default level of severity can be increased according to the duration, the frequency, the time of the day.

COMMANDS AND PARAMETERS

The XCENTER user is authorized to interact with the controller directly from the program or it has the possibility to be connected to the XWEB and start using it just like via the browser. For every alarm the software creates a report to describe the complete history of the alarm. It is possible to add notes, collect a log file of the commands that has been sent and finally a form with all the information regarding the alarm can be filled in. Later, by retrieving this information, the operator will be able to have a complete overview of what happened.

CONTACTS

XCENTER uses a list of recipients to be contacted for local, regional and national events. Based on need, and according to the alarm severity, the right person will be alerted.

GRAPHICS

Alarms are displayed together with the log of the past 48 hours of the controller functions. It's possible to determine and understand the kind of problem and decide how and when intervene.

USER INTERFACE

The user interface is simple to understand, being similar to many proprietary software interfaces. The main window is updated in real time to display any new alarms. It is possible to group together different alarms and filter them to highlight critical situations.

KEEP ALIVE

"Keep Alive" function is meant to check periodically the hardware status of the monitored installation to ensure reliability also to critical devices.

GEO–LOCATION

Thanks to the mapping technology, it is possible to place your installations on a real geographic map. This feature lets the user quickly find information regarding any installation that sends an alarm. Each installation is marked on the map by an icon that changes colour to red when in alarm.

STATISTICS

XCENTER is provided with several models that generate powerful statistical tools, used to analyze frequent alarms, critical device installations or sites. The statistics are useful to prevent critical product or plant situations. There is also the possibility to group alarms together by typology, time interval, installation, etc... according to user requirements, it's possible to add others statistical models on the XCENTER.

D: 10 DIN Rail

XWEB300D: ALARM AND CONTROLLING WEB SERVER

APPLICATIONS: it is extremely well suited for 6 or 18 device installations such as petrol stations, mini-market, small storage centres. A simple DIN Rail mounting (4 DIN) and the absence of local user interface make the XWEB300D the ideal solution for the remote connection / assistance (via modem) to the plant. Local or remote connection from PC is made without the need for special software, only standard web browser (Microsoft Internet Explorer® or Firefox®) software is needed; the information is displayed as Web pages. The competitive price lets you to use this Web Server in applications with a only a single regulator such as compressor rack and medical close control.

- Data capture and alarm monitoring web server connectable to Dixell's controllers with serial output or to others ModBUS-RTU compatible devices
- Structure based on Linux operating system with WEB pages
- Data shown for all controller values, parameters programming and alarms
- Powerful graphs showing and exporting functions in Excel® format
- Calendar function to filter alarm transmissions to a particular service
- Alarm sending via FAX, SMS or e-mail
- Possibility to have a connection with a PDA or Smartphone
- Local or remote connection to a PC with a standard browser (Microsoft Internet Explorer® or Firefox ®) for the data display and monitoring
- 8MB or 24MB internal memory to store up to 1 year data recorded with 15 min sampling time and 6 or 18 controllers
- Standard communication protocol ModBUS-RTU
- 15VA max power absorption

XWEB300D checks the unit and, in case of malfunction alarm, it notifies the assistance centre through FAX, SMS or E-mail. It allows OEM's via direct control to decide to engage a local service call out only if necessary. XWEB300D can also records all data relevant to the function of the controlled unit and insert them into a table. In this way the OEM has important information for new models for improvement of the unit itself.

Thanks to LAN port, the connection (also via internet) to the XWEB300D is easy and safe and no special software is required. It is possible to see all the variables of a controller and to manage of all parameters and alarms. With Java Applet it is possible to generate comprehensive visual graphs.

TECHNICAL DATA

200MHz CPU
Internal memory 8MB (6 instruments) and 24MB (18 instruments)
24Vac or 110÷230Vac ±10% power supply
1 LAN output
1 RS485 serial line for device (ModBUS – RTU) connection

1 RS232 port for external modem
1 configurable relay
Programmable sampling time from 1 to 60 minutes
Optional analogue or GSM internal modem
Direct power supply for GSM modem
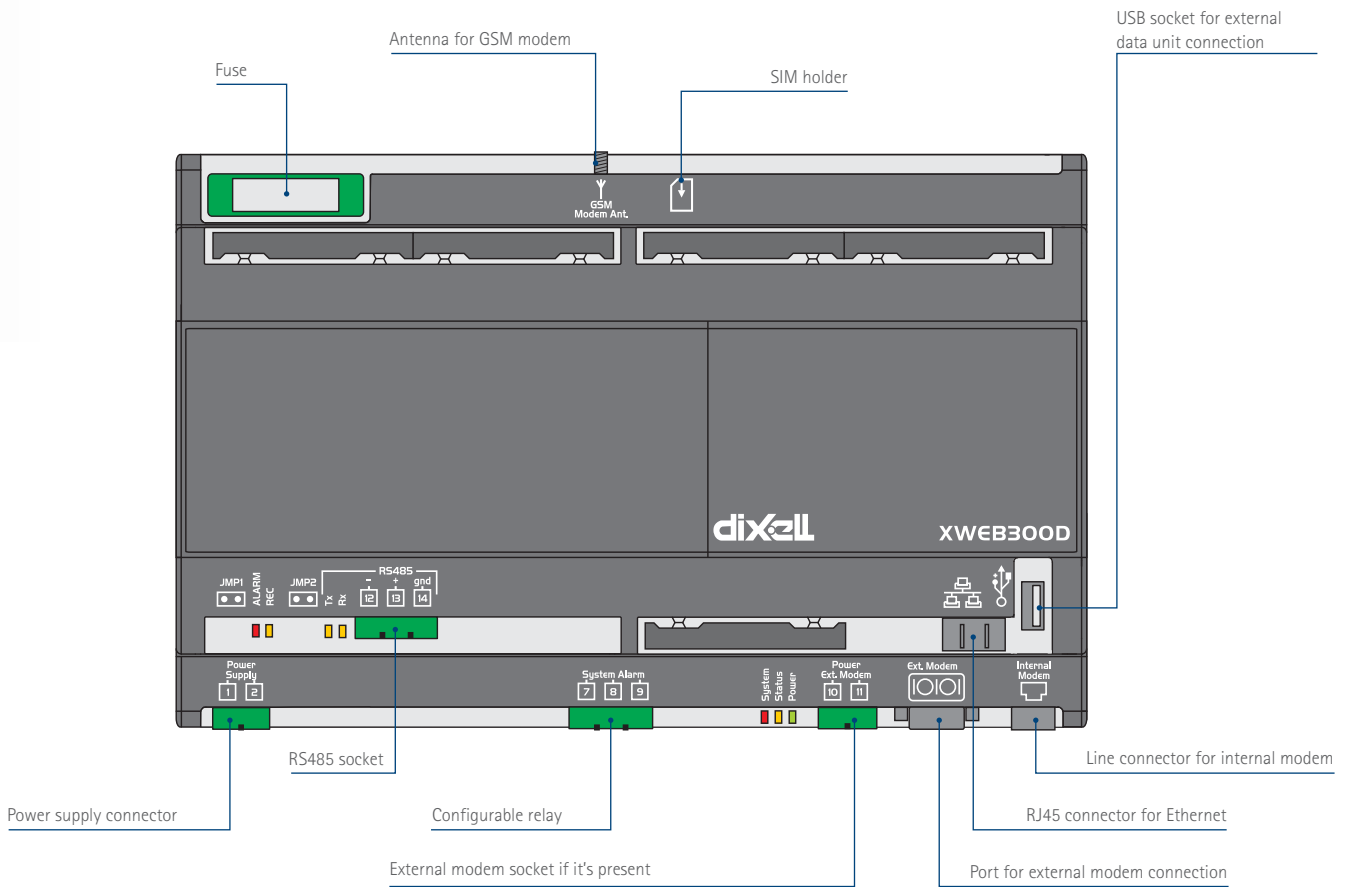
HOW TO ORDER

XWEB300D   X W E B 3 0 0 D – A B 0 0 E

	A		B		E
Power supply		**N. of instruments**		**Internal modem**	
2 = 24Vac		**B** = 6		**0** = No	
8 = 110÷230Vac		**F** = 18		**1** = Analogue modem	
				2 = GSM modem	

More information about functions and connections at pages 26÷30

D: 10 DIN Rail

210x230mm

XWEB500–XWEB500D: MONITORING AND CONTROLLING WEB SERVER

APPLICATIONS: it is extremely well suited for medium installations up to 36 or 100 devices, such as petrol stations, supermarkets or storage centres. Its innovative and useful features make the instrument suitable for medium-large applications such as production and storage goods centres. Thanks to its 2 available formats, it can be installed whether on DIN Rail or wall or panel mounting, but can also be used as desk instrument. Local or remote connection from PC is made without the need of special software, only standard web browser (Microsoft Internet Explorer® or Firefox®) software is needed; the information is displayed as Web pages.

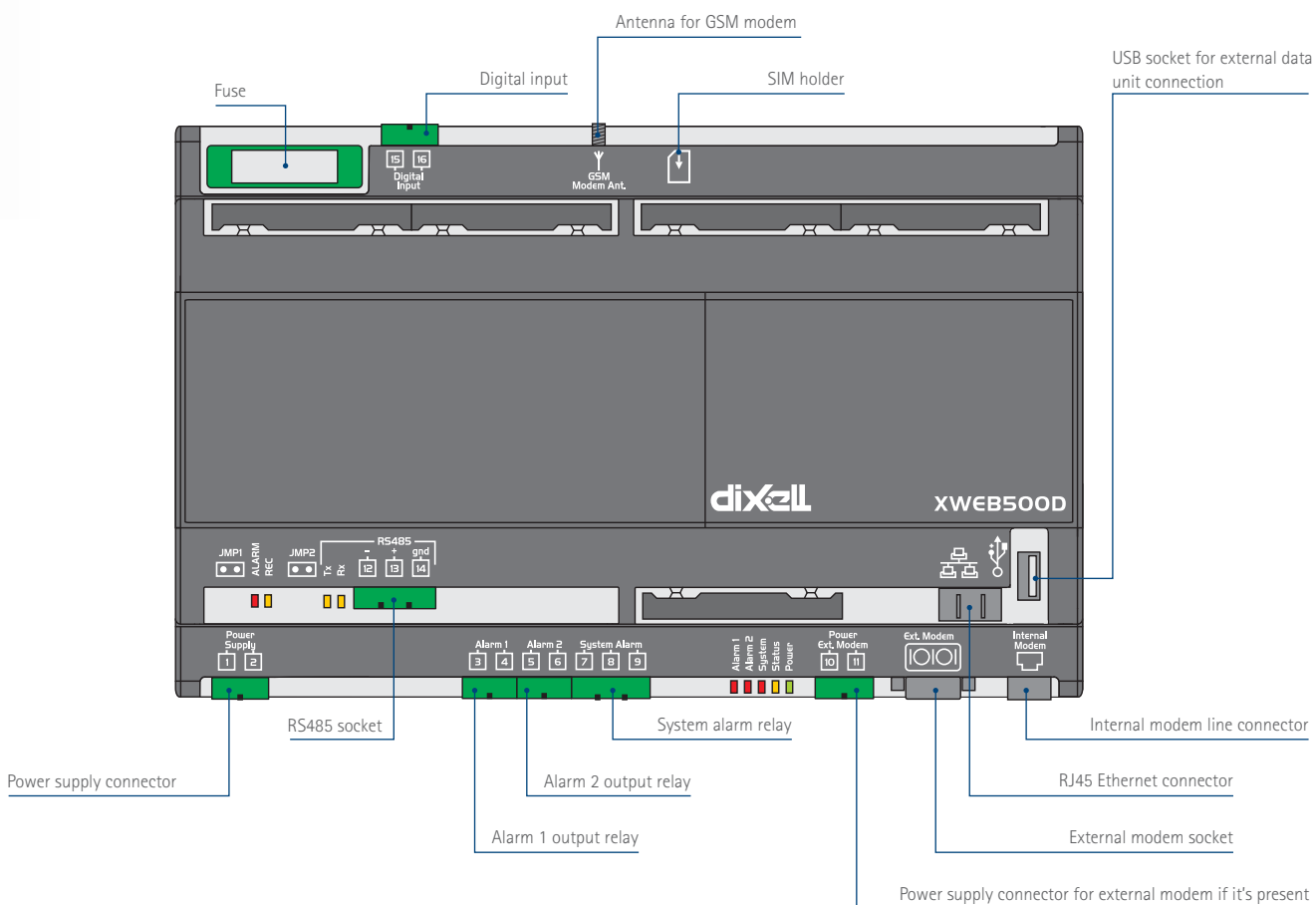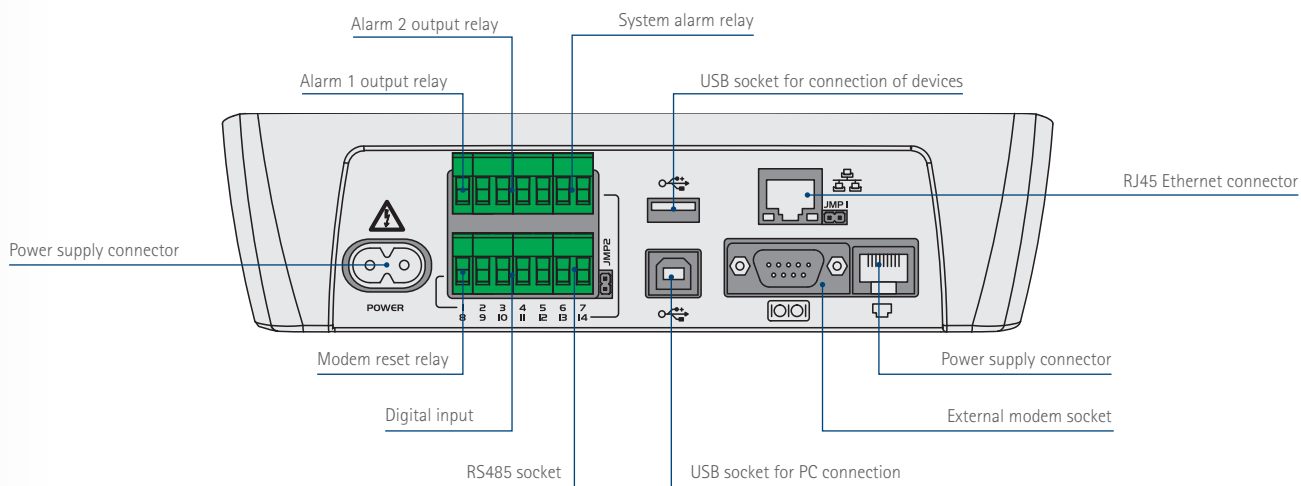- Monitoring and controlling web server connectable to Dixell's controllers with serial output or to others ModBUS-RTU compatible devices
- The unit can operate as a stand-alone server by means of the local keyboard and display (XWEB500)
- Electrical panel board on DIN Rail mounting (XWEB500D)
- Structure based on Linux operative system with WEB pages
- Controller values display and parameter and alarm management
- Powerfull tool to view graphs and export in Microsoft Excel® format
- Calendar function for alarm transmission to the "in charge" service
- Alarm sending via FAX, SMS or e-mail
- Command sending activation through digital input
- Possibility to have a connection with a PDA or Smartphone
- Local or remote connection from PC using standard browser (Microsoft Internet Explorer® or Firefox®) for the data management and display
- 48MB or 128MB internal memory to store 1 year of data with 15min sampling time (36 or 100 controllers)
- Standard communication protocol ModBUS-RTU
- 15VA max power absorption for XWEB500D and 20VA max power absorption for XWEB500

TECHNICAL DATA

200MHz CPU
48MB internal memory (36 controllers) and 128MB internal memory (100 controllers)
24Vac power supply (XWEB500D only) or 110, 230Vac ±10%
1 LAN output
1 USB output (XWEB500D) – 2 USB outputs (XWEB500)
1 RS485 serial line for device (ModBUS – RTU) connection

1 RS232 output for external modem connection
1 system alarm relay output
2 RS485 alarm relay outputs
1 digital input
Sampling time programmable from 1 to 60 minutes
Optional analogue internal modem or GSM
Direct power supply for GSM modem (XWEB500D)

Alarm 2 output relay

Alarm 1 output relay

System alarm relay

USB socket for connection of devices

Power supply connector

RJ45 Ethernet connector

Modem reset relay

Digital input

Power supply connector

External modem socket

RS485 socket

USB socket for PC connection

Fuse

Digital input

Antenna for GSM modem

SIM holder

USB socket for external data unit connection

diXell   XWEB500D

RS485 socket

System alarm relay

Power supply connector

Alarm 2 output relay

Internal modem line connector

RJ45 Ethernet connector

Alarm 1 output relay

External modem socket

Power supply connector for external modem if it's present

HOW TO ORDER

XWEB500 | X | W | E | B | 5 | 0 | 0 | - | A | 0 | 0 | 0 | E |

XWEB500D | X | W | E | B | 5 | 0 | 0 | D | - | A | B | 0 | 0 | E |

	A		B		E
Power supply		**N. of instruments**		**Internal modem**	
2 = 24Vac (for XWEB500D)		**H** = 36		**0** = No	
4 = 110Vac (for XWEB500)		**T** = 100		**1** = Analogue modem	
5 = 230Vac (for XWEB500)				**2** = GSM Modem (for XWEB500D)	
8 = 110÷230Vac (for XWEB500D)					

More information about functions and connections at pages 26÷30

370x238mm

XWEB3000: INDUSTRIAL MONITORING AND CONTROLLING WEB SERVER

APPLICATIONS: it is extremely well suited for larger installations with up to 247 devices such as supermarkets, hypermarkets or large storage and distribution centres as well as production and storage goods processing such as fast-food, restaurants, catering up to medical and pharmaceutical applications. XWEB3000 is the ideal solution for service needs (modem, ethernet and internet connection); it can operate, as a stand-alone server without using a PC but it's also simple to connect a monitor, keyboards and mouse. Local or remote connection from PC is made without the need of special software; only standard web browser (Microsoft Internet Explorer® and Firefox ®) software is needed. The alarm signalling for service is very flexible and can be done through Fax, e-mail, SMS and also via relay outputs.
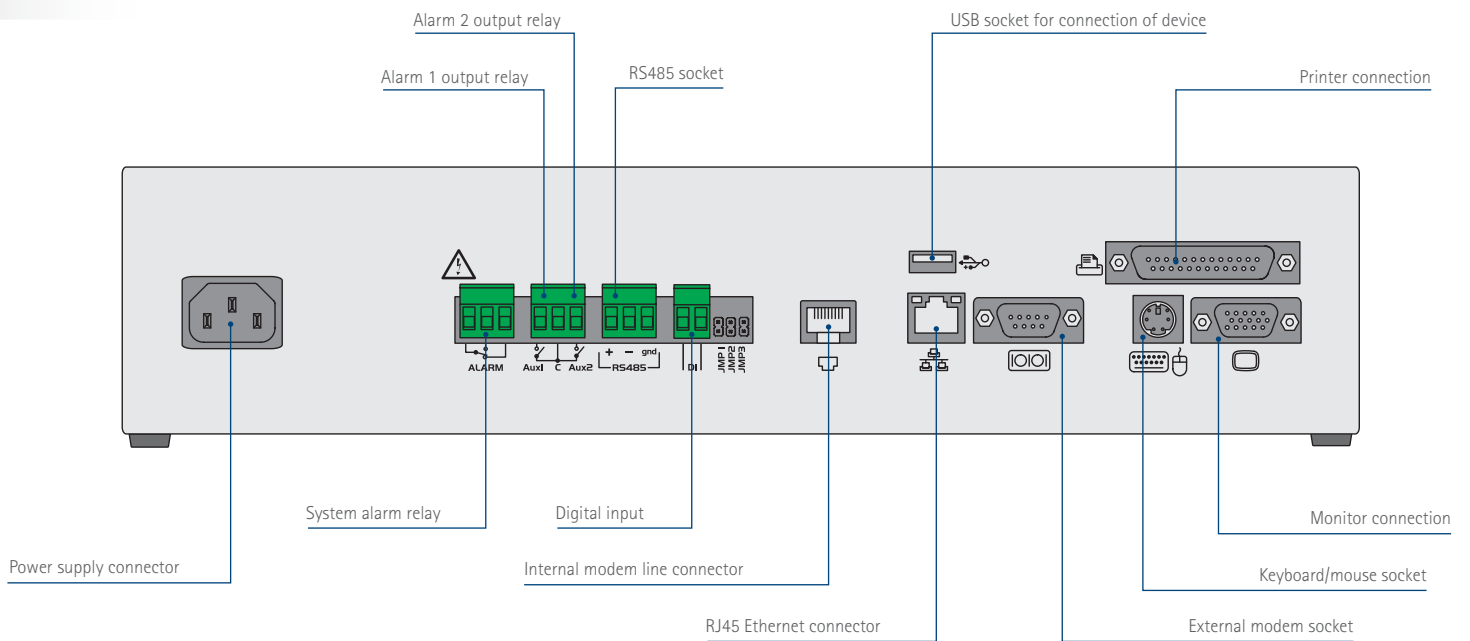
- Monitoring and controlling industrial web server connectable to Dixell's controllers with serial output or to others ModBUS-RTU compatible devices
- Structure based on Linux operating system with WEB pages
- All controller values can be showed using a special "Single View" window or using "Run Time" window where many controllers can be viewed at the same time. It is even possible to use a "Layout" view of the plant with pictures and schematics drawings
- Powerful tool to view graphs and export in Microsoft Excel® format
- Easy plant management by means of the "Scheduler" to send commands according to a custom calendar
- Calendar function and internal RTC both for alarm transmission to the "in charge" service and command sending to the controllers
- Possibility to divide the controllers set in different categories of products with their own sampling time
- Alarm sending via FAX, SMS or e-mail
- Commands sending activation through digital input
- Possibility to have a connection with PDA or Smartphone
- Local or remote connection from PC using standard browser (Microsoft Internet Explorer® or Firefox®) for the data management and display
- Standard communication protocol ModBUS-RTU
- 19" RACK or desk mounting
- 50VA max power absorption

Easy configuration, efficient management of all controller values and a display of controllers also using pictures and schematic drawings: these are some of the XWEB3000's strengths. It is an intuitive, powerful and at the same time, very versatile device. This web server allows parameter and alarm management with different levels and typologies, providing the user with the possibility to divide the controllers into different categories, each with their own sampling periods. Powerful tools include: the scheduler which is a graphic instrument created to manage commands sent to the controllers, data export used to save data in a Microsoft Excel file, and the back-up function to have data-safe protection even in the worst environmental usage, also to save all the unit setup.

TECHNICAL DATA

1,3GHz CPU	1 system alarm relay output
512MB internal memory	2 RS485 alarm relay outputs
120GB HD	1 print output (25 pin)
1 LAN output	1 digital input
2 USB outputs	1 keyboard/mouse connector
110/230Vac ±10% power supply	1 video output
1 RS485 serial line for device (ModBUS – RTU) connection	Sampling time programmable from 1 to 255 minutes
1 RS232 output for external modem connection	Analogue internal modem (optional)

Alarm 2 output relay
Alarm 1 output relay
RS485 socket
USB socket for connection of device
Printer connection
ALARM   Aux1 C Aux2   RS485   DI
System alarm relay
Digital input
Monitor connection
Power supply connector
Internal modem line connector
Keyboard/mouse socket
RJ45 Ethernet connector
External modem socket

HOW TO ORDER

XWEB3000   X W E B 3 0 0 0 - 6 0 0 0 E

	E	
Internal modem		

0 = No
1 = Yes

More information about functions and connections at pages 26÷30

370x238mm

COMPLY WITH UNI EN 12830 HACCP

# XWEB5000: MONITORING, CONTROLLING AND SUPERVISING WEB SERVER

APPLICATIONS: provided with a powerful supervision engine suited for larger installations (with up to 247 devices) in the refrigeration, conditioning and building automation field, where it's necessary to program several different interactive actions that the controller has to perform. It is extremely well suited to hypermarkets, large storage and distribution centres, as well as production and storage goods processing and is ideal for the large service centre (modem, ethernet and internet connection). The system manages the alarm transmission to the "in charge" service (via Fax, e-mail, SMS and also through relay outputs) and it can also work without a PC using direct connection of a monitor, keyboard and mouse. Local or remote connection PC is made using Microsoft Internet Explorer® and Firefox® browser.

- Monitoring, controlling and supervising web server connectable to Dixell's controllers with serial output and to others ModBUS-RTU compatible devices.
- Built-in editor with local and field simulator
- Automation algorithms (to manage the use of lights, signs, the battery charge/discharge as fork lifts,...)
- Structure based on Linux operating system with WEB pages
- All controller values can be showed using a special "Single View" window or using "Run Time" window many controllers can be viewed at the same time. It is even possible to use a "Layout" view of the plant with pictures and schematics drawings
- Powerfull tool to view graphs and export in Microsoft Excel® format
- Easy plant management by means of the "Scheduler" to send commands according to a custom calendar
- Calendar function and internal RTC both for alarm transmission to the "in charge" service and command sending to the controllers
- Possibility to divide the controllers set in different categories of products with their own sampling time
- Alarm sending via FAX, SMS or e-mail
- Commands sending activation through digital input
- Possibility to have a connection with PDA or Smartphone
- Local or remote connection from PC using standard browser (Microsoft Internet Explorer® or Firefox®) for the data management and display
- Standard communication protocol ModBUS-RTU
- 19" RACK or desk mounting
- 50VA max power absorption
- Including **CRO** system **(Compressor Rack Optimization)** to reduce plant energy costs

SUPERVISING

With XWEB5000 it's possible to intervene sending commands to monitored devices. The installer can create a supervision "Project" (or several "Projects") by programming links between the input variables (inputs, status and outputs of a controller) and defining what actions the system must take when these conditions are met. Unlike a standard PLC, where the user is required to know a specific programming language, with the XWEB5000 the "project" can be easily created using a simple graphic user interface, but importantly, without the need to learn a complex programming language. A specific software is not necessary: the supervising software has been written in JAVA and it runs on the client PC. The project is saved to the XWEB5000; several project can be run simultaneously.
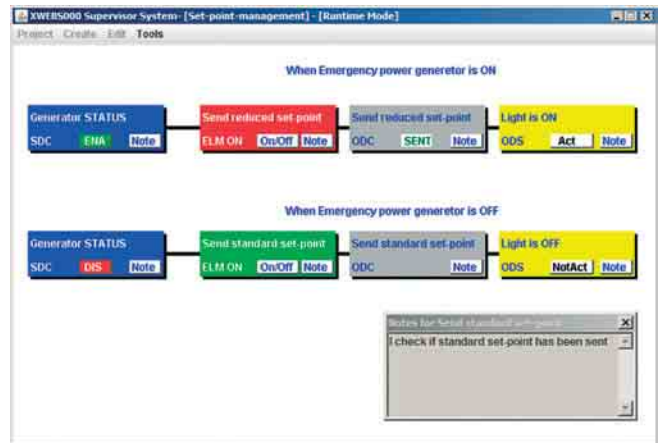
TECHNICAL DATA

1,3GHz CPU
512MB internal memory
120GB HD
1 LAN output
2 USB outputs
110/230Vac ±10% power supply
1 RS485 serial line for device (ModBUS – RTU) connection
1 RS232 output for external modem connection

1 system alarm relay output
2 RS485 alarm relay outputs
1 print output (25 pin)
1 digital input
1 keyboard/mouse connector
1 video output
Sampling time programmable from 1 to 255 minutes
Analogue internal modem (optional)
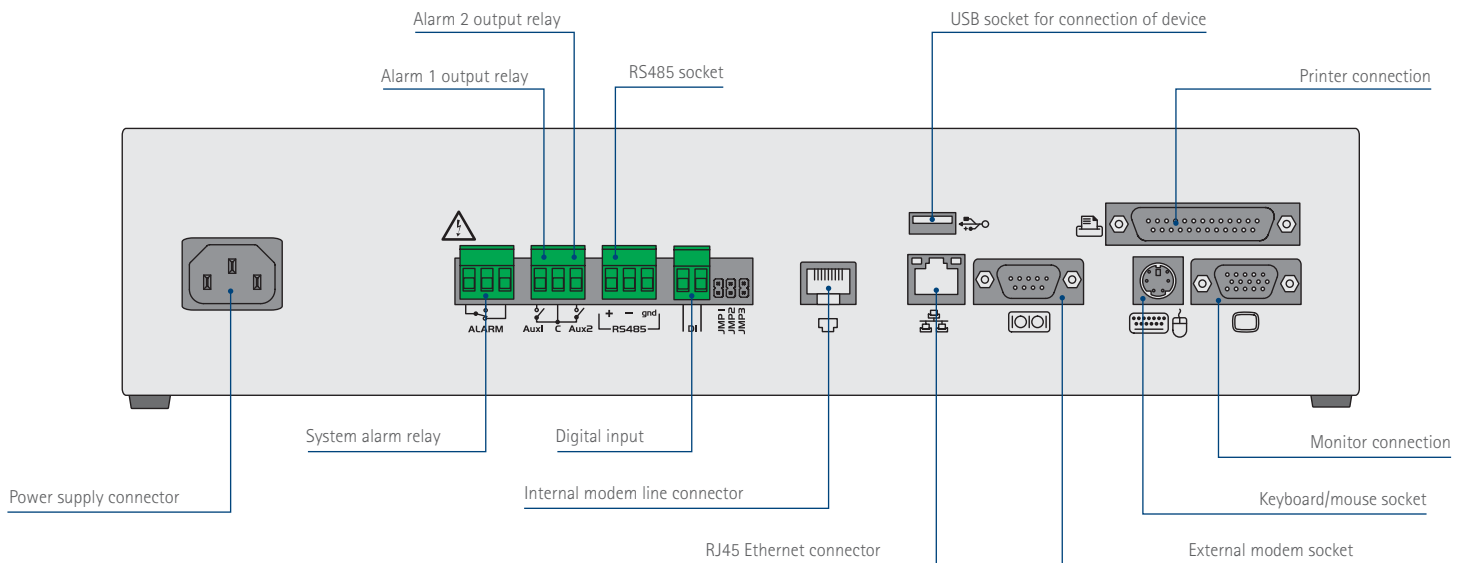
HOW TO ORDER

XWEB5000   X W E B 5 0 0 0 – 6 0 0 0 E

			E

Internal modem

0 = No
1 = Yes

More information about functions and connections at pages 26÷30

XWEB FUNCTIONS

An overview of some most important XWEB family functions.

RS485 LINE-CHECK

A powerful new tool is able to check performance and statistic data for each controller by carring out a functional test for every device connected to the RS485 network. You can then have information regarding the quality of the connection. The tool is very useful especially when there is the necessity analyse a network problem; with a statistics that allows you to easily identify which instrument has a connection problem.

PARAMETER PROGRAMMING AND RUN TIME

Thanks to the XWEB the user has an intuitive, powerful and at the same time, very versatile device, that allows him/her to modify the various functioning parameters of the instruments. It will no longer be necessary to make manual adjustments on the controller, because by using the different windows available, and with a few simple operations, it's possible to obtain the required updating. The Run Time function displays many devices together in a unique window. This is dynamic page and the data showed is updated in real time. The status of the devices connected (also from different manufacturers) is displayed simply and clearly and it's possible to modify the various functioning parameters of the instruments.
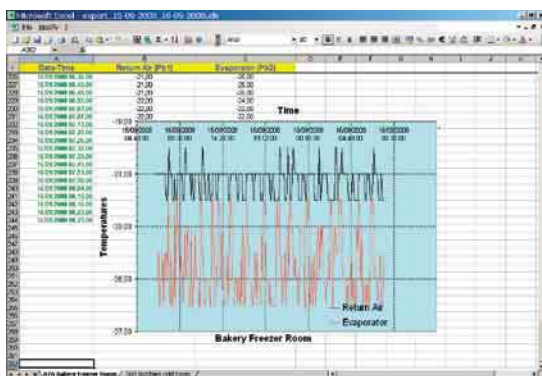

DATA EXPORT

It is possible to export all data information in a Microsoft Excel® file. The user can later use this information to build graphs or to collect data. It is possible to select a data interval and filter between different controllers.

LAYOUT AND GLOBAL COMMANDS
(FOR XWEB500D, XWEB500, XWEB3000, XWEB5000)

A powerful graphic editor that doesn't require the installation in your PC of any additional software, is what makes XWEB layout the ideal solution. Using this function the user can access all the recorded data of the controllers and even send a command to a controller. Global Commands option let you send multiple commands to one or more controllers at the same time. In addition, using the digital input it is possible to automatically start the sending of commands.
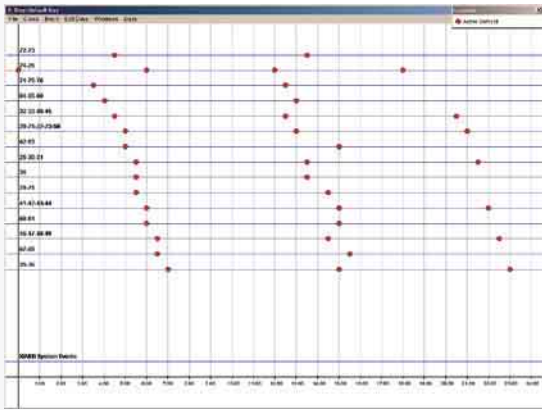
SCHEDULER
(FOR XWEB500D, XWEB500, XWEB3000, XWEB5000)

The scheduler is a powerful graphic tool to manage commands sent to the controllers. You can quickly see an overview of all daily activity. This means that energy saving routines and defrosts can be easily scheduled.

PERFORMANCE METER
(FOR XWEB500D, XWEB500, XWEB3000, XWEB5000)

This highly appreciated function allows one to verify the right temperature for single devices (wall cabinets, benches, rooms, etc.). The graphic layout offers a complete vision about the plant operating mode.
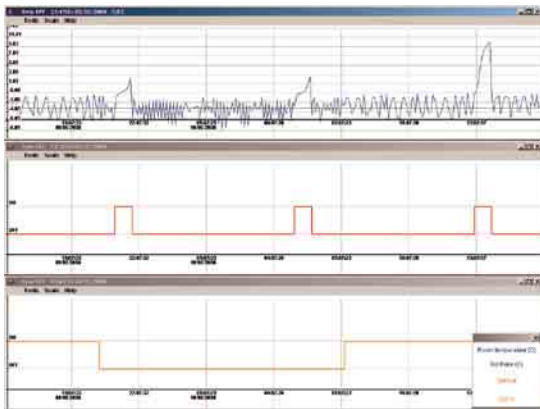
GRAPHICS
(FOR XWEB300D, XWEB500D, XWEB500, XWEB3000, XWEB5000)
CIRCULAR GRAPHICS
(FOR XWEB3000, XWEB5000)

The XWEB can supply powerful graphs, able to represent multiple analogue variables on the same pictorial system and the course of the status of the outputs and alarms. This allows the user to have a precise snapshot view of important variables, for easy diagnosis of faults. Thanks to the high sampling rate of circular graphs, they are more detailed and appreciated by service for diagnostics.

CRO
(FOR XWEB5000)

The connection to the modern supervising systems (of Dixell) allows, thanks to the special CRO algorithm (Compressor Rack Optimization), to manage the compressor rack set point in the best possible way, depending on the devices connected, resulting in plant optimization and energy saving. The system, equipped with the CRO function, analyzes the information from the controller to determine if a controller needs more refrigeration power and how much. The set point will be recalculated in order to satisfy the worse instance and sent from the supervising system to the XC1000D compressor rack controller; this will be the new working set point. If the supervising system can't manage the XC1000D, it's the controller that "decides" to replace the set point (coming from the system) and will then re-define the set point in the planning phase of a refrigeration plant. The 2 graphs emphasize that when the CRO algorithm is active, in a real installation, the set point becomes on average higher, and consequently the energy consumption decreases. The dotted line represents the average weekly value.
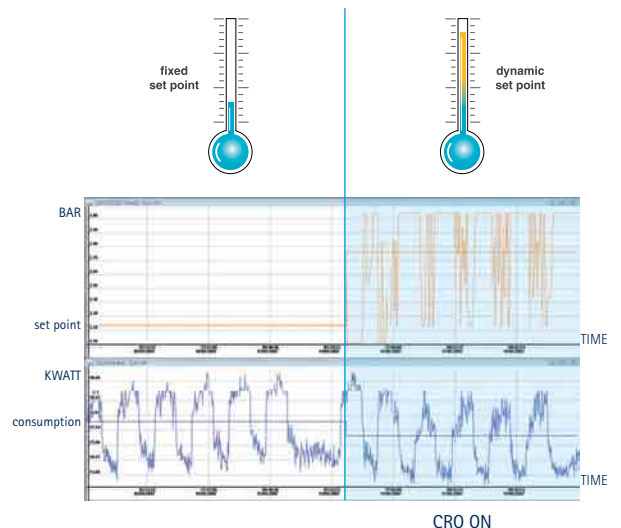
XWEB CONNECTIONS

Among many important XWEB system features, a remarkable one is the possibility of linked servers using several methods: by PDA, by local PC or remote PC.

CONNECTION VIA PALMTOP COMPUTER (PDA)

When the connection is made by means of a Palmtop computer (PDA), the XWEB automatically recognises it and makes several dedicated pages available. On them is possible to display all the values of a device and send it commands.
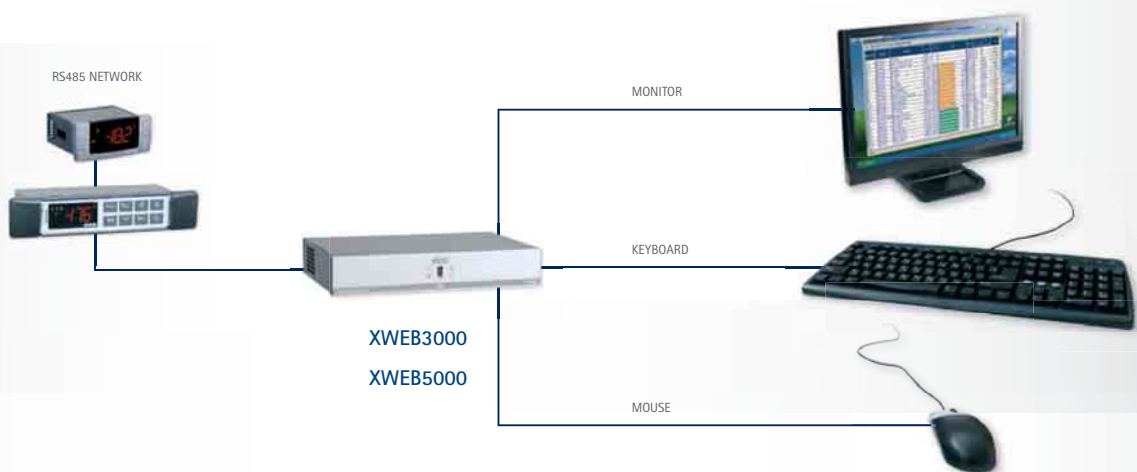
LOCAL CONNECTIONS

XWEB server and associated systems can be locally linked connecting the system to a PC.

RS485 NETWORK

XWEB300D – XWEB500D – XWEB500 – XWEB3000 – XWEB5000

Thanks to their advanced features, XWEB3000 and XWEB5000 can be used as local machine by means of monitor, keyboard and mouse connection.

RS485 NETWORK

MONITOR
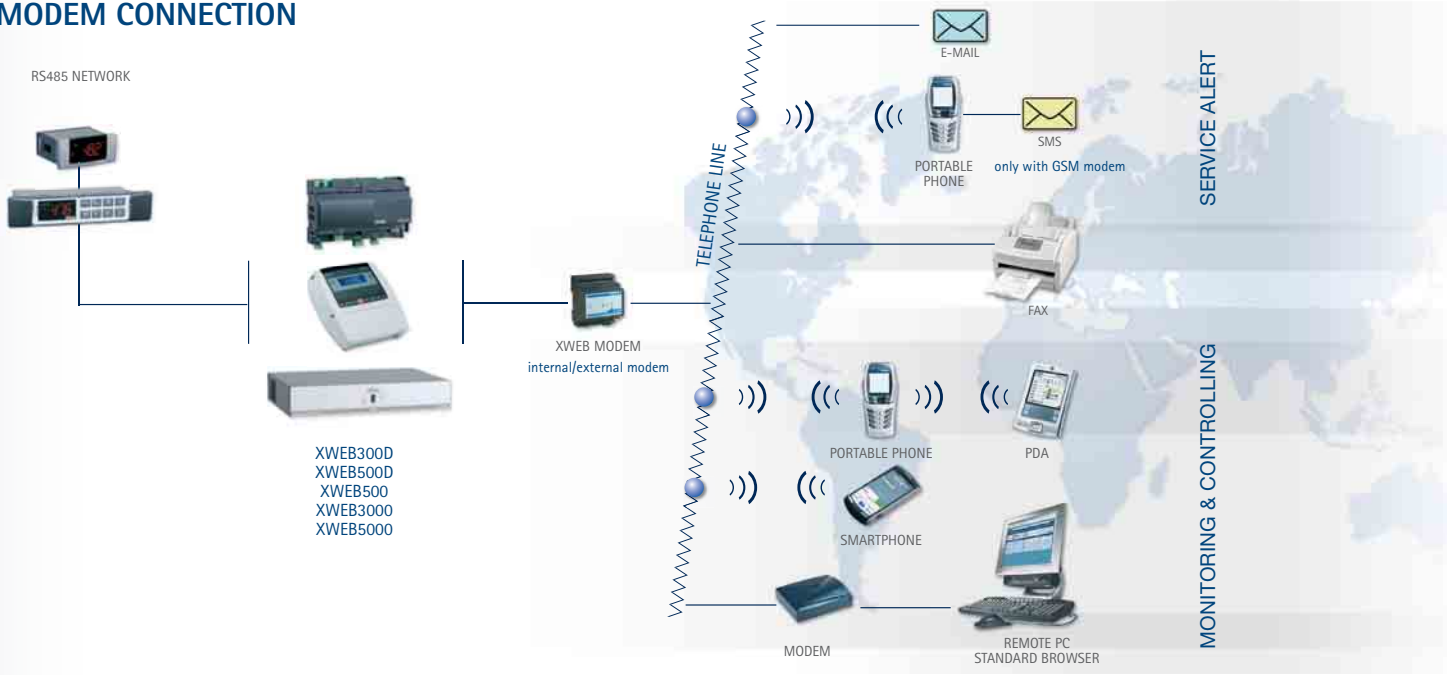
KEYBOARD

MOUSE

XWEB3000
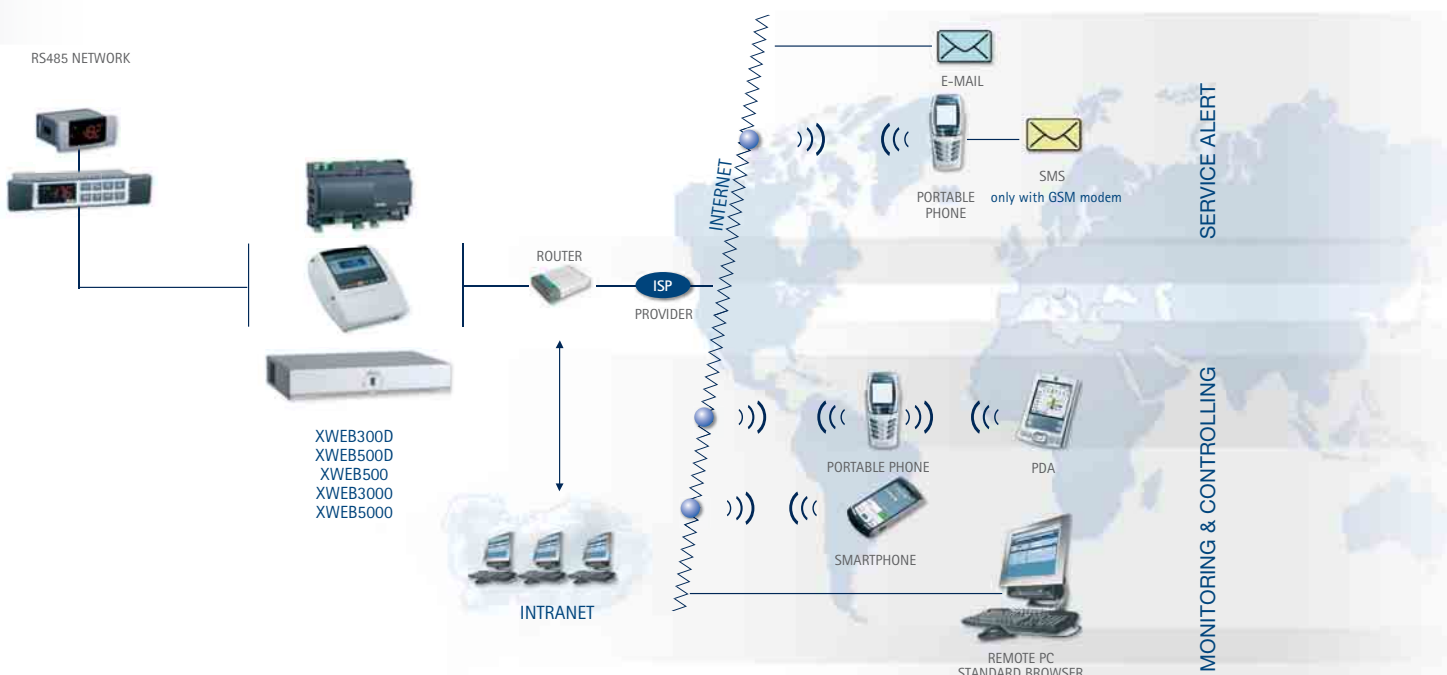XWEB5000

REMOTE CONNECTIONS

XWEB Server can be remotely accessed using several methods:
• by modem with point to point connection, also with GSM modem (only for devices that support it);
• by link in local Ethernet network, by means of standard net connector RJ45;
• by direct Internet connection, if provided with a static IP address.

MODEM CONNECTION

RS485 NETWORK

XWEB300D
XWEB500D
XWEB500
XWEB3000
XWEB5000

XWEB MODEM
internal/external modem

TELEPHONE LINE

E-MAIL

PORTABLE
PHONE

SMS
only with GSM modem

FAX

PORTABLE PHONE

PDA

SMARTPHONE

MODEM

REMOTE PC
STANDARD BROWSER

SERVICE ALERT

MONITORING & CONTROLLING

INTERNET/INTRANET CONNECTION

RS485 NETWORK

XWEB300D
XWEB500D
XWEB500
XWEB3000
XWEB5000

ROUTER

ISP
PROVIDER

INTRANET

INTERNET

E-MAIL

PORTABLE
PHONE

SMS
only with GSM modem

PORTABLE PHONE

PDA

SMARTPHONE

REMOTE PC
STANDARD BROWSER

SERVICE ALERT

MONITORING & CONTROLLING

MODEMS AND CONNECTING CABLES

XWEB MODEM	for XWEB300D/500D 500/3000/5000	Analogue serial modem PDA compatible, 56kbps (DIN Rail format) HOW TO ORDER: XWEBMODEM-200 (with 24Vac power supply) XWEBMODEM-400 (with 110Vac power supply) XWEBMODEM-500 (with 230Vac power supply)	
TC35-KIT	for XWEB300D/500D/500	GSM modem kit containing the modem, the power supply unit, the transmitting antenna with the relevant cable and the connection to controlling system	
CAB/WEB/NET	for XWEB300D/500D 500/3000/5000	Ethernet patch cable, 3m	
CAB/WEB/PC	for XWEB300D/500D 500/3000/5000	Ethernet patch cross over cable, 1m	

XWEB SYSTEMS GUIDE

	XWEB300D	XWEB500D	XWEB500	XWEB3000	XWEB5000
Applications	Small and medium	Medium and large	Medium and large	Large	Large with supervision
Format	10 DIN Rail	10 DIN Rail	210x230x87h	350x235x47h	350x235x47h
Power supply	24Vac or 110÷230Vac	24Vac or 110÷230Vac	110Vac or 230Vac	110/230Vac	110/230Vac
On–board display			•		
N. of instruments	6 - 18	36 - 100	100	247	247
CPU	200MHz	200MHz	200MHz	1,3GHz	1,3GHz
Internal memory	8 or 24MB	48 or 128MB	128MB	512MB	512MB
USB port for PC connection			•		
USB output for devices connection		•	•	•	•
Relay output	1	3	3	3	3
Digital input		•	•	•	•
LAN output	•	•	•	•	•
RS485 output	•	•	•	•	•
External modem	Analogue or GSM opt	Analogue or GSM opt	Analogue or GSM opt	Analogue	Analogue
Internal modem	Analogue or GSM opt	Analogue or GSM opt	Analogue opt	Analogue opt	Analogue opt
Sampling time	From 1 to 60 minutes	From 1 to 60 minutes	From 1 to 60 minutes	From 1 to 255 minutes	From 1 to 255 minutes
RS485 line check	•	•	•	•	•
Parameter programming	•	•	•	•	•
Run time function	•	•	•	•	•
Data export in Excel® format	•	•	•	•	•
Graphics	•	•	•	•	•
Layout function		•	•	•	•
Scheduler function		•	•	•	•
Global commands		•	•	•	•
Performance meter		•	•	•	•
Circular graphics				•	•
Supervision module					•
CRO module					•

D: 4 DIN Rail

55x80mm

ACCESSORIES: TX/RX MODULES FOR WIRELESS NETWORK – POWER ANALYSERS

WIRELESS NETWORK MODULE

- ICOOLL radio communication system for controlling and supervising units
- Cover all application fields, from single benches to cold rooms and compressor racks
- The information coming from the controller are transmitted to an XJ100 module and directly sent to the XJ150 connected to the XWEB unit
- Possibility to connect many instruments to the same XJ100
- Possibility to use XJ100 as a "bribge" for the signals sent by other modules

- Easy to use and less installation time and costs
- 0,25VA max power absorption
- Operating frequency: 433,5068MHz
- Range: 80m (no obstacles)
- Wall or panel mounting
- Power supply: XJ100 (5Vdc directly from the controller); XJ150 (5Vdc from PWS150J module)

ICOOLL

XJ100	Radio-frequency communication module to use with controllers	
XJ150	Radio-frequency communication module to use with controlling system	
PWS150J	XJ150 power supplier	Standard: EN61000-6-3 (2001) + EN 61000-6-1 (2001) ETSI EN 300 220-3 V1.1.1 (2000-09) ETSI EN 301 489-3 V1.2.1 (2000) + ETSI EN 301 489-1 V1.2.1 (2000)

POWER ANALYSERS – XWEB500 BRACKET

WM14	Power analyser, three-phase, with RS485 output. 90÷260Vac power supply. Dimensions: 107,5x90x63mm. DIN Rail and wall mounting. Housing: Self-extinguishing ABS. Operating temperature: 0÷55°C (32÷131°F). Relative humidity < 90%. Technical documentation on demand.	
WM22D	Single/three-phase, 400Vac energy analyser with RS485 output. Power supply: 230Vac. Dimensions: 162,5x90x63mm. Wall and DIN Rail mounting. Housing: self extinguishing ABS. Operating temperature: 0÷55°C (32÷131°F). Relative humidity<90%. Technical documentation on demand.	
XW–WA	XWEB500 wall mounting bracket	

D: 4 DIN Rail

XJA–XJP–XJR SERIES: RELAY AND ACQUISITION MODULES

- 4 relay output modules, managed by monitoring system (XJR)
- Digital inputs for local enable/disable of relays (XJR)
- Data acquisition modules suitable for collecting data from any kind of installation (XJP)
- Up to 6 inputs for NTC, PTC, 4÷20mA and 0÷10V and 3 digital inputs or 4 Pt100 inputs and 4 digital inputs (XJP)
- Up to 10 line voltage inputs (XJA)
- Direct line power supply 230 (110)Vac. No external transformer required
- Remote display option
- Standard communication protocol ModBUS-RTU
- Hot Key or Prog tool kit connector for a quick and easy programming
- 6VA max power absorption

HOW TO ORDER

XJR X J R 4 0 D - A 0 C 0 0

	A		C
	Power supply		**Buzzer**
	2 = 24Vac/dc **4** = 110Vac **5** = 230Vac		**0** = No **1** = Yes

XJA-XJP30/60 X J ☐ ☐ ☐ D - A B C D E

XJP40 X J P 4 0 D - A B 0 R 4

XJA50SL X J A 5 0 S L - A 0 0 0 0

	A	B	C	D	E
	Power supply	**Measurement unit**	**Alarm relay**	**Probe inputs**	**Digital inputs**
	2 = 24Vac/dc **4** = 110Vac **5** = 230Vac	**C** = °C **F** = °F **N** = No temperature	**0** = No **1** = Yes (only for XJA50D)	**P** = PTC **N** = NTC **R** = PT100 (only for XJP40D) **A** = 4÷20mA **W** = 0÷10V **0** = No	**3** = 3 digital inputs **4** = 4 digital inputs (only for XJP40D) **5** = 5 digital inputs (only for XJA50D) **6** = 6 digital inputs

XJA–XJP–XJR

## RELAY MODULE and PROBE and ALARM ACQUISITION MODULES

|	
XJA50D **XJA50SL**	Alarms/status acquisition modules, without display, able to read up to 5 + 5 independent inputs (master + slave)
XJP30D **XJP40D** **XJP60D**	Probes and alarms data acquisition modules, without display, able to read up to 9 different inputs
XJR40D	Relay module, without display, ables to manage 4 independent output relays

D: 4 DIN Rail

FEATURES	XJA50D	XJA50SL	XJP30D	XJP40D	XJP60D	XJR40D
Keyboard: push buttons						4
Power supply	24, 110, 230Vac	from controller	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac
Inputs						
Analogue			3 x NTC/PTC/ 4÷20mA/0÷10V	4x Pt100	6*x NTC/PTC/ 4÷20mA/0÷10V	
Digital inputs (power supply voltage)	5	5	3	4	3	
Digital inputs (free of voltage contacts)			3 opt		3*	4
Relay outputs						
N° 4	5A opt					no 8A / nc 5A
Other						
Hot Key/Prog Tool Kit output	pres		pres	pres	pres	pres
Remote display/keyboard output	X-REP/KB1PRG		X-REP/KB1PRG	X-REP/KB1PRG	X-REP/KB1PRG	KB1PRG
Serial output	RS485		RS485	RS485	RS485	RS485
Analog output	5	5	3	4	6	1
Buzzer						opt

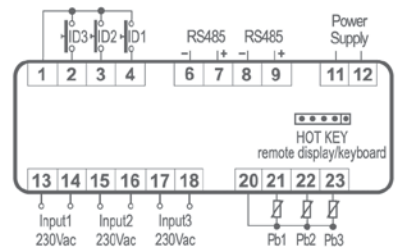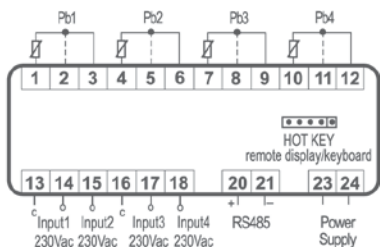*: XJP60D has 3 analogue inputs that are configurable as free of voltage digital inputs

XJA50D
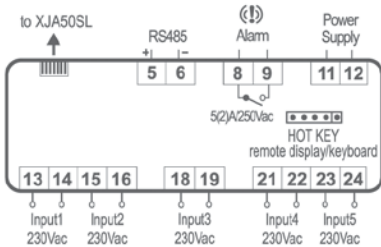
XJA50SL
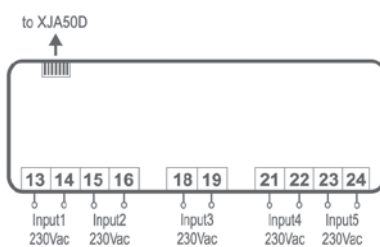
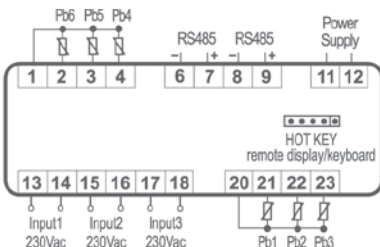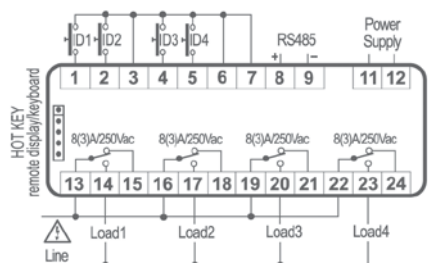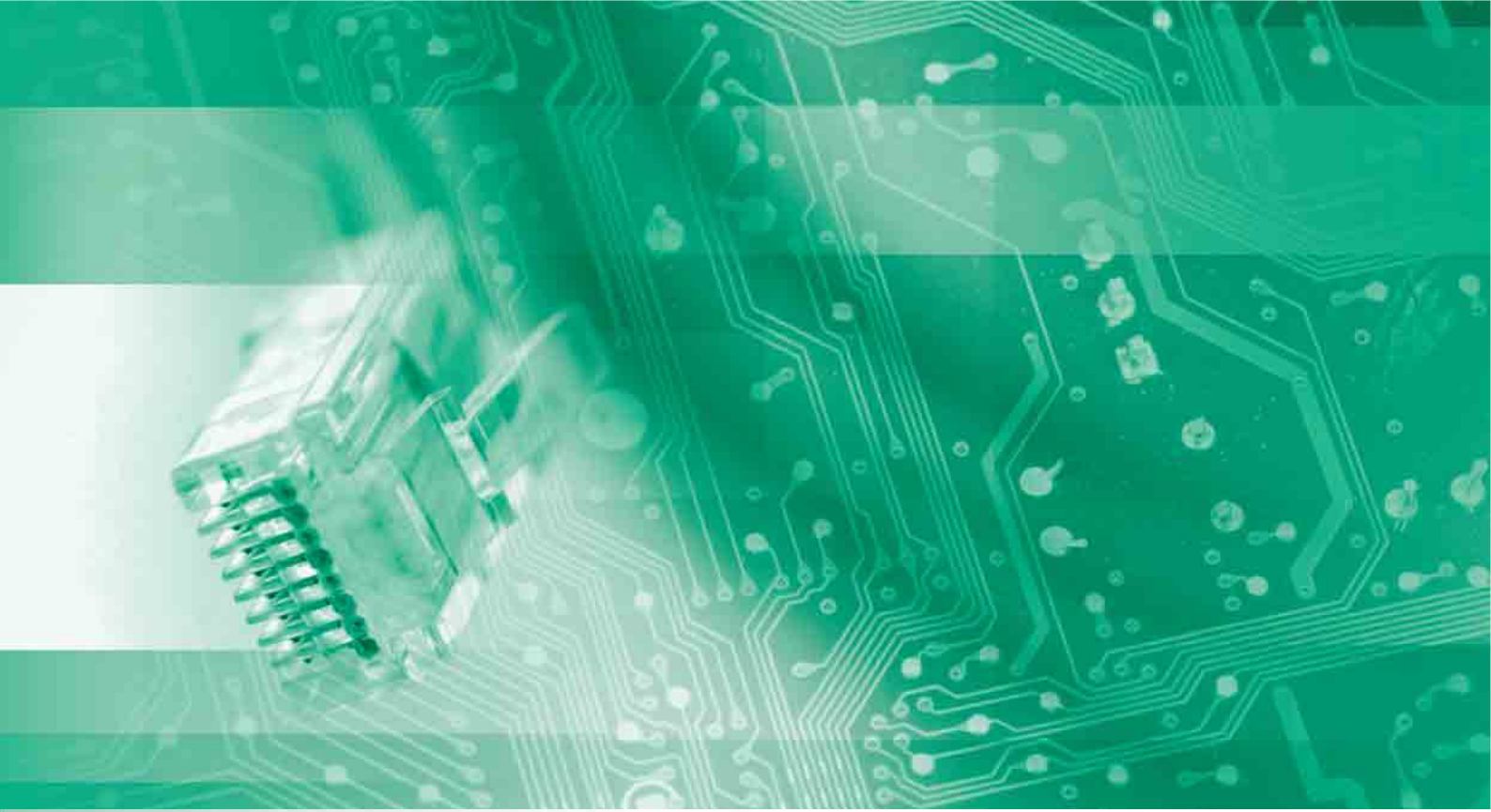
XJP30D

XJP40D

XJP60D

XJR40D

KB1–PRG
6 key programming keyboard for
XJA50D - XJP30D - XJP40D
XJP60D - XJR40D
Display: n° digits: ± 3 d.p.
Keyboard: push buttons: 6

100x64mm

The cable **CAB/KB11** (1m) is designed to connect the keyboard with the XJA-XJP-XJR modules

PROGRAMMABLE CONTROLLERS

iPro family, dedicated whether for HVAC units (iPRO Chill and Domo) or for general purposes and refrigeration (iPRO Genius), is characterized by the most advanced tecnology in connectivity and processing speed.

It is based on a powerful platform that includes one hardware configuration that is able to expand the actual solution in the market, and a software that, thanks to the ISaGRAF® development environment allows the development through standard programming languages.

An easy and useful HMI is also guaranteed through the VISOGRAPH graphic display, as the expandability and the solution to many applications are satisfied with a complete range of accessories, among which, I/O expansion modules and proportional electronic valve management, modem, wiring...

PROGRAMMABLE CONTROLLERS

SECTION INDEX

82x156mm

D: 10 DIN Rail

D: 4 DIN Rail

iProGENIUS SERIES: PROGRAMMABLE CONTROLLERS – HIGH CONNECTIVITY

The iProGenius family satisfy all requirements regarding the controlling and management of refrigeration, heating, ventilation, electric power and all building automation services.

They are suited for all applications in the PLC world and they find applications in many shopping centres, hospitals, airports, boatyards, energy management plants, and so on...

These controllers provide a high level of technology for ease of external connectivity and programmability providing simple answers to every application's needs, while ensuring a complete local or remote monitoring.

- Fully programmable controllers and high connectivity
- VISOGRAPH programmable graphic display (LCD – 240x96 pixel)
- Ethernet for connection to an intranet-internet network and to others programmable controllers for a distributed application management
- USB (host) that allows the download of applications, parameters, data/alarm logger and the applications and parameters upload
- CANBus digital communication serial protocol for the connection to other programmable controllers, to I/O expansion modules
- 2 master and slave RS485 serial output
- ModBUS-RTU standard communication protocol that allows connection to Dixell digital controllers, to XWEB supervising and controlling systems or to applications developed by third Party Systems
- BACnet communications allows the system to have easy and immediate integration with different manufactures ensuring a complete collaboration
- The possibility to have a connection to the expansion modules in order to increase system capacity
- 20VA max power absorption

TECHNICAL DATA

LINUX Operative System
200MHz CPU
32bit processor
32MB RAM memory
128MB flash memory capacity

ALARM MANAGEMENT

The alarm management system is the fundamental element that increases the plant efficiency, ensuring an immediate identification of plant problems and activates automatic strategies to prevent possible damages. The following possible options are available with iProGENIUS.
• Alarm sending management by e-mail, fax or sms
• Direct internet connection
• Point-to-point connection via modem, GSM and PDA modem
• Remote command sending via sms
• Possibility of updaiting the (iPro) on-board software via e-mail
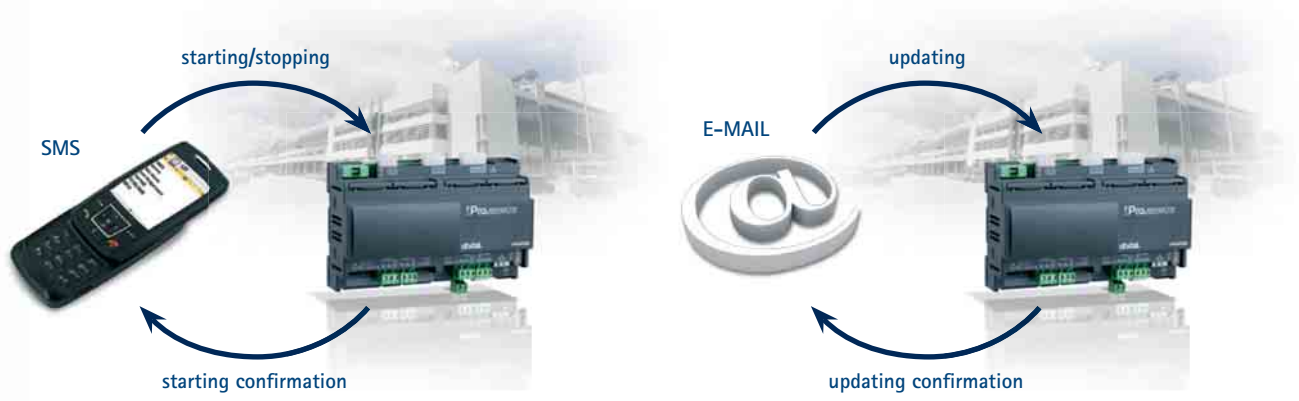
PLANT STATUS DISPLAY

The plant maintenance staff can easily have a report of application status in order to decide how and when to intervene. The report contains all of the most important values, the plant status and operating set point.

HOW TO ORDER

iProGENIUS   I P G 1 1 ☐ D – 1 B C 1 0

	B		C
Modem			**Ethernet**
0 = No			**0** = No
1 = Internal			**1** = Yes
2 = External (GSM/XWEB Modem)			

DEVELOPMENT TOOL   I S A T 0 0 L – 0 0 0 0 E

	E
Visoprog	
0 = No	
1 = Yes	

IPROEX60D   I P R O E X 6 0 D – 1 0 0 0 0

VISOGRAPH   V G I P G – A B C 0 0

|	A		B		C
Buzzer		**Kind of mounting**		**Internal probe**	
0 = No		**P** = Panel		**0** = No	
1 = Yes		**W** = Wall		**1** = Yes	

ISAGRAF®

In order to create programs that will be uploaded into the iPro series Dixell has selected ISaGRAF®; a software environment that enables you to create local or distributed control systems. ISaGRAF® offers a combination of a highly portable, robust management engine (Virtual Machine) and an intuitive application development environment (Workbench). The output of the development environment is selectable as either portable "C" source code or TIC (target independent code). The ISaGRAF® Virtual Machine is a powerful, optimized and very fast control engine that executes the TIC. Virtual Machine and all options are offered ready to use on NT, Linux, CE 3.0 and QNX. Additionally, this control engine has been designed such that the source code of the Virtual Machine is available in a toolkit format, providing portability to any OS on any hardware platform. The Enhanced options for ISaGRAF® transform this outstanding controller into a top of the line PLC, DCS or RTU.

ISAGRAF® BECAUSE

- This development environment is international, complete, standard
- Is ideal for small applications but it can manage several I/O points
- It is the most used (more than 40.000 developers in the world and more than 500.000 applications in the last 10 years)
- It includes 5 different programming languages coded according to IEC61131
- It integrates the best system for simulation and remote debugging
- It is supported all over the world (essential for training and assistance)

The ISaGRAF® Application development Workbench supports all of the standard IEC 6-1131 control program languages plus Flow Chart.

- SFC: Sequential Function Chart
- ST: Structured Text
- FBD: Function Block Diagram
- IL: Instruction List
- FC: Flow Chart
- LD: Ladder Diagram
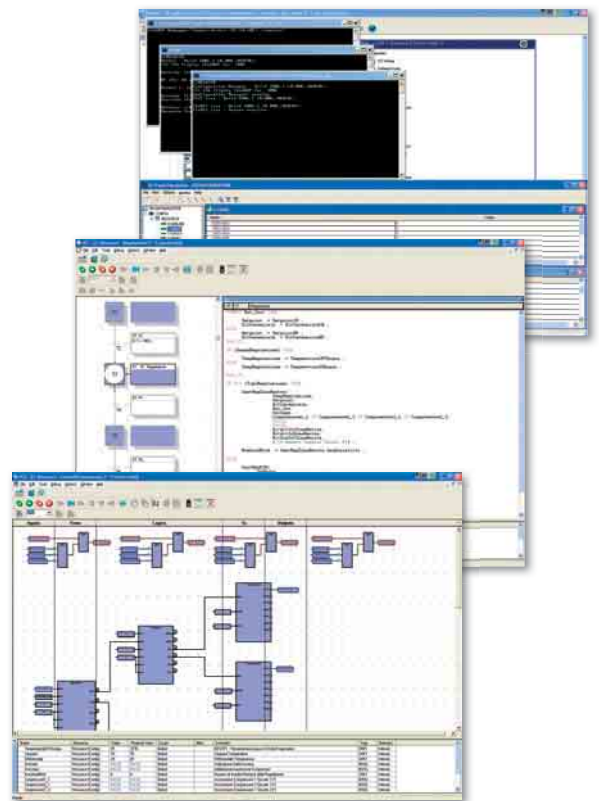
DEVELOPMENT TOOLS

ISA TOOL is a complete tool, provided by Dixell, that allows the final user to work independently to create programs for iPro controllers, taking advantage of all the programmable series potential. The pakage includes manuals and the **WIZMATE** software, a useful instrument that allows a simple iPro controllers programming mode. Another utility provided by Dixell is the **VISOPROG** software for the graphic interfaces creation of **VISOGRAPH** displays.

The user can choose among 2 options:

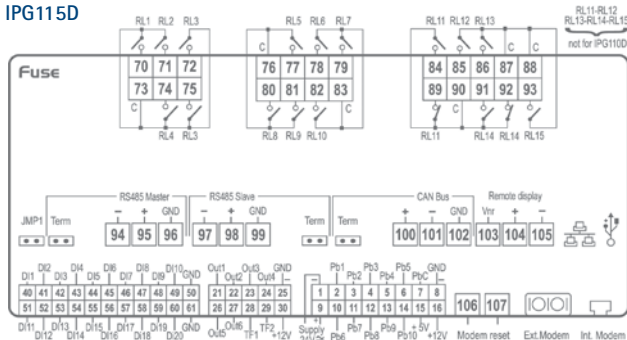**1** ISaGRAF® + MANUAL + WIZMATE

2 ISaGRAF® + MANUAL + WIZMATE + VISOPROG

iPro

PROGRAMMABLE CONTROLLERS
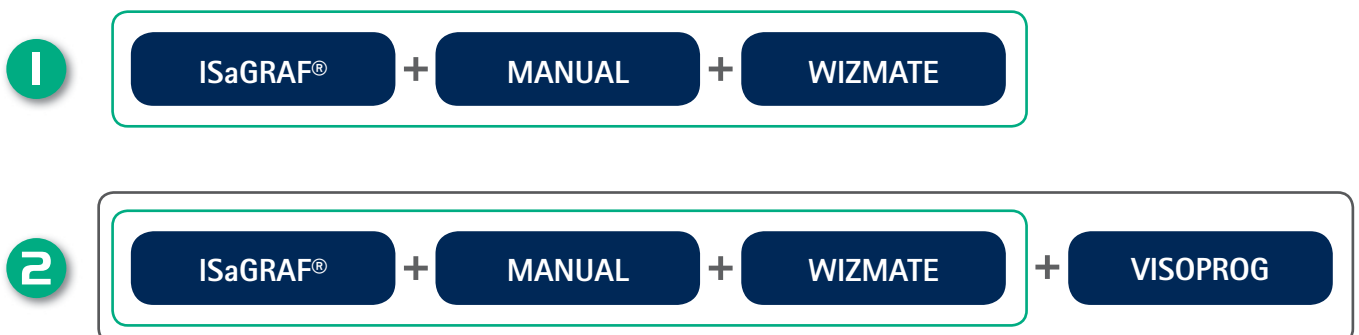
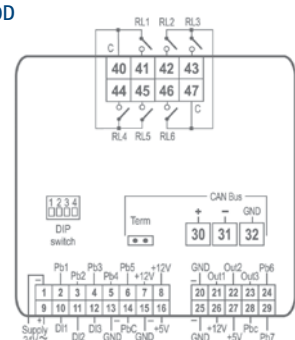**D**: 4 DIN Rail   **D**: 10 DIN Rail

IPG110D	General purposes programmable controller with 10 relay outputs
IPG115D	General purposes programmable controller with 15 relay outputs
IPROEX60D	Expansion module for iPro family programmable controllers

FEATURES	IPG110D	IPG115D	IPROEX60D
Power supply	24Vac/dc (from TF20D)	24Vac/dc (from TF20D)	24Vac/dc (from TF10D)
Probe inputs			
0÷1V - 0÷5V - 0÷10V - 2÷20mA - 4÷20mA - NTC – PTC - DI	10 config	10 config	7 config
Digital inputs			
Opto-insulated	20 config	20 config	3 config
Relay outputs			
Configurable	9 x 5A + 1 x 8A	12 x 5A + 3 x 8A	6 x 5A
Other outputs			
PWM outputs for fan speed module	2	2	
0÷10V or 4÷20mA outputs for fan speed module	2 config	2 config	
0÷10V outputs for external relay drives	4 config	4 config	3 config
Remote keyboards (up to 2)	VGIPG	VGIPG	
Master serial output	RS485	RS485	
Slave serial output	RS485	RS485	
USB	pres	pres	
Modem output	GSM, XWEB Modem opt	GSM, XWEB Modem opt	
CANBus output	pres	pres	pres
Ethernet enabled	opt	opt	
Other			
Expansion module	IPROEX60D	IPROEX60D	
DIP switch for address selection			pres
Internal modem	opt	opt	
RTC	pres	pres	
Buzzer	pres	pres	

IPG110D – IPG115D

IPROEX60D

iProGENIUS CONNECTIONS

XWEB SUPERVISING SYSTEMS

IPRO CONTROLLER

EXPANSION FOR IPRO

ModBUS - slave

ModBUS - master

CONTROLLERS

AVAILABLE PROBES

NTC temperature
PTC temperature
XH humidity
PP pressure – 4÷20mA
PPR pressure – 0÷5V (ratiometric)

0÷10V
4÷20mA

PWM
0÷10V
4÷20mA

ROOM PROBE
(TEMPERATURE / HUMIDITY)

ACTUATORS / SERVO–MOTORS

FAN MODULE

DRIVER FOR EEV   TIME-THERMOSTAT   VISOGRAPH

CANBus

LAN

ETHERNET

iPro

dixell

Term   CANBus   Remote Display
       +   gnd   Vnr
Tx Rx 100 101 102   103 104 105

Modem
Reset   Ext. Modem   Internal
106 107   Modem

STANDARD USB

INTERNAL MODEM
(PHONE LINE)

RS232

EXTERNAL MODEM (GSM / XWEB MODEM)

IPRO CONTROLLER

LOCAL / REMOTE PC

INTERNET / INTRANET

VISOGRAPH

PROGRAMMABLE GRAPHIC DISPLAY

VGIPG	Programmable graphic display (LCD – 240x96pixel) for programmable controllers

82x156mm

FEATURES	VGIPG
For models	IPG110D – IPG115D
Power supply	From controller
VISOKEY output	pres
Buzzer	opt
Mounting	wall or panel

- Great versatility and extensive customization opportunities
- Easy interface
- Complete integration with ISaGRAF® projects
- IP65 front protection
- Oriental characters support
- Keyboard lock function
- VISOPROG or iPro USB connector for an easy programming
- Up to 2 keyboards connectable to programmable controllers

max 150mt
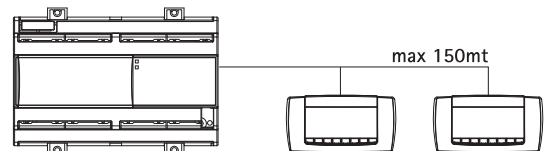
VISOKEY

Programming key for VGIPG

VISOPROG

The VISOPROG is a tool that allows one to create the VISOGRAPH keyboard graphic interfaces. The program, installed on a PC, is connected to ISaGRAF® project and has a basic interface that the user can easily customize depending on his requirements. VISOPROG allows one to transfer the user interface from a PC to a VGIPG keyboard. Follows a VISOPROG operating screens with the related VISOGRAPH final interface.
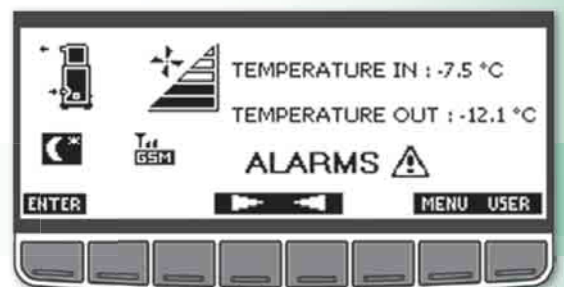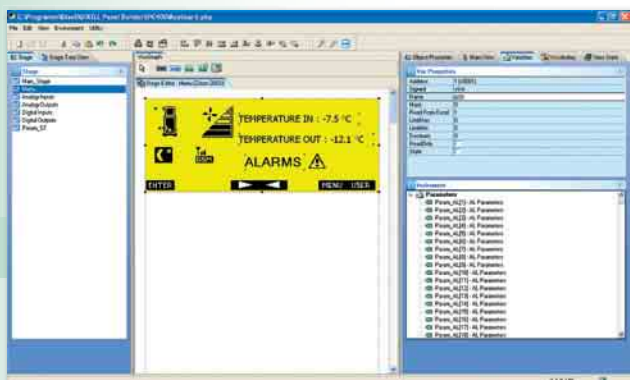
D: 4 DIN Rail

XEV20D: STEPPER ELECTRONIC EXPANSION VALVE DRIVER MANAGEMENT

- iPro controllers driver for stepper electronic expansion valves management
- Ideal to control superheat regulation
- Energy savings improvement
- Single or double circuit
- Unipolar/bipolar stepper valve support as, for example, SPORLAN, ALCO, DANFOSS, SAGINOMIA and PARKER
- Temperature analog inputs (NTC, PTC, Pt1000)
- Pressure analog inputs (0÷5V, 4÷20mA)
- 4 position DIP Switch to set the address
- LAN output fot the connection to other drivers or to parametric controllers
- CAN Bus output fot the connection to iPro controllers series
- Up to 15 connectable driver modules using CANBus serial output
- Kind of available gas: R22, R134A, R404A, R407, R410, R507

HOW TO ORDER

XEV20D | X | E | V | 2 | 0 | D | – | 1 | 1 | C | 0 | 0 |

		C		
N° of valves				
0 = 1 valve				
1 = 2 valves				

XEV20D

DRIVER for UNIPOLAR and BIPOLAR STEPPER ELECTRONIC EXPANSION VALVES

D: 4 DIN Rail

	XEV20D	Driver for unipolar and bipolar stepper electronic expansion valves can be used with iProGENIUS programmable controllers

| FEATURES	XEV20D
Power supply	24Vac/dc (from TF20D/TF40D)
Probe inputs	
0÷5V - 4÷20mA - NTC - PTC - Pt1000	up to 4 config
Other outputs	
DIP switch for address selection	pres
LAN output	pres
CANBus output	pres

XEV20D – 1 circuit
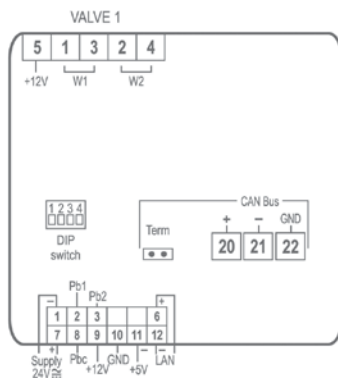
XEV20D – 2 circuits
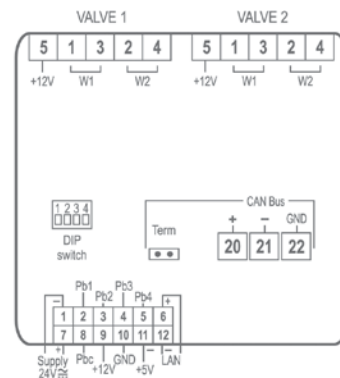
TRANSFORMER SELECTION TABLE ACCORDING TO THE VALVES KIND AND NUMBER

KIND OF VALVE	XEV20D – 1 VALVE	XEV20D – 2 VALVES
Bipolar – 4 wires **ALCO EX and EX5/8** **SPORLAN SEI-SHE** **DANFOSS ETS**	0.9A max current **TF20** (20VA) transformer	0.9A max current per valve **TF40** (40VA) transformer
Unipolar – 5/6 wires **SPORLAN** **SAGINOMIA** **PARKER ESK**	0.33A max current **TF20** (20VA) transformer	0.33A max current per valve **TF20** (20VA) transformer
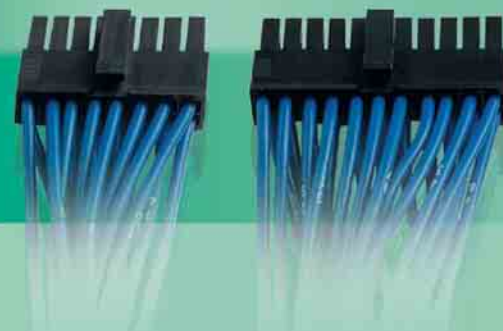
ACCESSORIES: WIRING – MODEMS

WIRING FOR PROGRAMMABLE CONTROLLERS

DWA30–KIT	for IPG110D	3 disconnectable female connectors, 10-16-22 pins with wires 3m and 2 disconnectable female connectors, 6-8 pins with wires 3m	
DWB30–KIT	for IPG115D	3 disconnectable female connectors, 10-16-22 pins with wires 3m and 3 disconnectable female connectors, 6-8-10 pins with wires 3m	
DWEX60–30KIT	for IPROEX60D	3 disconnectable female connectors, 8-10-16 pins with wires 3m	
DWXEV30	for XEV20D	Disconnectable female connectors, 12 pins with wires 3m	

MODEMS AND CABLES FOR PROGRAMMABLE CONTROLLERS

XWEB MODEM	Analogue serial modem PDA compatible, 56kbps (DIN Rail format) HOW TO ORDER: XWEBMODEM-200 (with 24Vac power supply) XWEBMODEM-400 (with 110Vac power supply) XWEBMODEM-500 (with 230Vac power supply)	
TC35–KIT	GSM modem kit containing the modem, the power supply unit, the transmitting antenna with the relevant cable and the connection to controlling system	
CAB/WEB/NET	Ethernet patch cable, 3m	
CAB/WEB/PC	Ethernet patch cross over cable, 1m	

PARAMETRIC CONTROLLERS

Different needs that crowd the refrigeration world are satisfied with a complete series of parametric controllers with an innovative design and intuitive interfaces.

Intelligent algorithms, that are oriented toward **energy savings** and innovative functions mark a range of products that includes different fields in the cooling world offers a wide range of general purpose solutions, for multiplexed cabinets, cabinets and rooms, blast chiller, compressor racks and refrigerated trucks. Specific solutions that are used also in applications such as fan speed control, heated cabinets and ovens and in temperature, humidity and pressure regulation.

GENERAL PURPOSE REFRIGERATION CONTROLLERS

SECTION INDEX

Prime

PRIME CX SERIES: NT, MT AND LT APPLICATIONS – SERIAL OUTPUT

CX: 32x74mm

IP65

- Innovative digital controllers dedicated to heat and M.T. – L.T. refrigeration
- Easy and intuitive programming mode
- Display with icons and integrated measurement units
- On/off key
- Plastic front frame with "cut out" "WING" compatible
- Up to 2 light switches
- Energy saving cycles through digital input
- Fast freezing with dedicated set point
- Regulation stop through auxiliary probe
- Regulation restart with door open alarm
- Temperature or HACCP Max and Min functions
- Configurable digital input also as probe
- Virtual probe management
- Condenser temperature management to prevent critical plant situations
- Hot Key connector for a quick and easy programming
- Serial line connection to monitoring systems
- Connection for X-REP remote display (alternative to TTL output)
- 3VA max power absorption
- Display with red LED (10,5mm high) and icons

HOW TO ORDER

PRIME CX [X] [R] [ ] [ ] [C] [X] [–] [A] [B] [C] [D] [E]   -17.8 For blue display please contact Dixell

A		B				C					D		E			
Power supply		**Inputs**		**Buzzer**	**X–REP** (excludes TTL output)	**RS485 output** (only for XR35/75CX)					**Measurement unit**	**RTC**	**Compressor output**		**Connections**		
0 = 12Vac/dc		P = PTC	0	No	No	No				C	°C	No	0	8A	Screw		
1 = 24Vac/dc		N = NTC	1	Yes	No	No				F	°F	No	1	20A	Screw		
2 = 24Vac		S = Pt1000 only	2	No	Yes	No				H	°C Heating only for XR10CX	No	3	16A	Screw		
3 = 9÷40Vdc		for XR35/75CX	3	Yes	Yes	No				L	°F Heating only for XR10CX	No	6	8A	Faston		
4 = 110Vac			4	No	No	Yes				I	°C	Yes	7	20A	Faston		
5 = 230Vac			5	Yes	No	Yes				M	°F	Yes	8	16A	Faston		
			6	No	Yes	Yes											
			7	Yes	Yes	Yes											

PRIME CX

THERMOSTAT and CONTROLLERS with "OFF CYCLE" DEFROST for NORMAL, MEDIUM and LOW TEMPERATURE
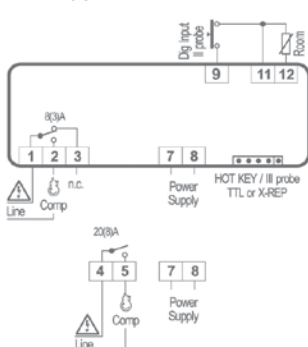
CX: 32x74mm

|	
XR10CX	Digital thermostat with heating or cooling action
XR20CX	Digital controller for N.T. with "off cycle" defrost
XR30CX	Digital controller for N.T. with "off cycle" defrost and additional configurable relay
XR35CX	Digital controller for N.T. with "off cycle" defrost, additional configurable relay and RS485
XR36CX	2 set point digital controller for N.T. with "off cycle" defrost

FEATURES	XR10CX	XR20CX	XR30CX	XR35CX	XR36CX
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.
Power supply	12, 24Vac/dc	12, 24Vac/dc	12, 24Vac/dc	24, 110, 230Vac	12, 24Vac/dc
	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac		24, 110, 230Vac
	9÷40Vdc *	9÷40Vdc *	9÷40Vdc *		9÷40Vdc *
Probe inputs					
Thermostat	NTC/PTC	NTC/PTC	NTC/PTC	PTC/Pt1000	NTC/PTC
Thermostat 2					NTC/PTC
Defrost				PTC/Pt1000	
Defrost 2					
Condenser	NTC/PTC on HOT KEY	NTC/PTC on HOT KEY	NTC/PTC on HOT KEY	PTC/Pt1000	NTC/PTC on HOT KEY
Digital inputs					
Alarm, start defrost, AUX, door switch, pressure switch, probe	config	config	config	config	config
Alarm, start defrost, AUX, door switch, pressure switch				config	
Relay outputs					
Compressor	8A, 20A opt	8A, 20A opt	8A, 20A opt	8A, 16A opt	8A, 20A opt
Compressor 2					
Thermostat 2					8A
Defrost					
Defrost 2					
Fans					
Light or alarm			8A	8A	
Anti-sweat					
Other					
Hot Key/Prog Tool Kit output	pres	pres	pres	pres	pres
Remote display output	X-REP opt	X-REP opt	X-REP opt	X-REP opt	X-REP opt
Serial output	TTL	TTL	TTL	TTL/RS485 opt	TTL
Buzzer	opt	opt	opt	opt	opt
Real time clock			opt	opt	

*: only for models with compressor = 8A
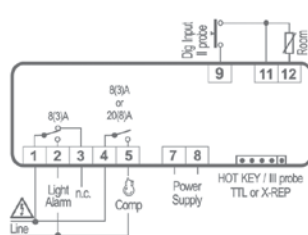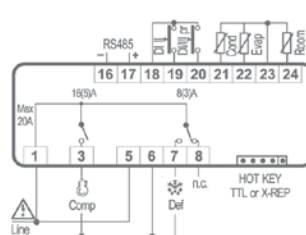
XR10CX XR20CX   XR30CX   XR35CX   XR36CX
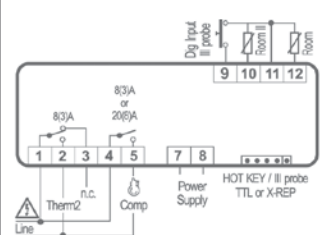
PRIME CX
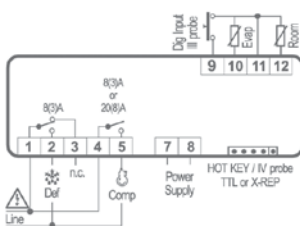
CONTROLLERS for NORMAL, MEDIUM and LOW TEMPERATURE

CX: 32x74mm

|	
XR40CX	Digital controller for M.T. and L.T. with electrical or hot gas defrost
XR50CX	Digital controller for M.T. and L.T. with electrical or hot gas defrost and auxiliary relay
XR56CX	2 set point digital controller for M.T. and L.T. with electrical or hot gas defrost and auxiliary relay

FEATURES	XR40CX	XR50CX		XR56CX	
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.
Power supply	12, 24Vac/dc	12, 24Vac/dc	24, 110, 230Vac	12, 24Vac/dc	24, 110, 230Vac
	24, 110, 230Vac	24, 110, 230Vac		24, 110, 230Vac	
	9÷40Vdc *	9÷40Vdc *		9÷40Vdc *	
Probe inputs					
Thermostat	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC
Thermostat 2				NTC/PTC	NTC/PTC
Defrost	NTC/PTC	NTC/PTC	NTC/PTC		
Defrost 2					
Condenser	NTC/PTC on HOT KEY	NTC/PTC on HOT KEY	NTC/PTC on HOT KEY	NTC/PTC on HOT KEY	NTC/PTC on HOT KEY
Digital inputs					
Alarm, start defrost, AUX, door switch, pressure switch, probe	config	config	config	config	config
Alarm, start defrost, AUX, door switch, pressure switch					
Relay outputs					
Compressor	8A, 20A opt	8A, 16A opt	20A	8A, 16A opt	20A
Compressor 2					
Thermostat 2				8A	8A
Defrost	8A	8A	8A		
Defrost 2					
Fans					
Light or alarm		8A	5A	8A	5A
Anti-sweat					
Other					
Hot Key/Prog Tool Kit output	pres	pres	pres	pres	pres
Remote display output	X-REP opt	X-REP opt	X-REP opt	X-REP opt	X-REP opt
Serial output	TTL	TTL	TTL	TTL	TTL
Buzzer	opt	opt	opt	opt	opt
Real time clock					

*: only for models with compressor = 8A

XR40CX

XR50CX
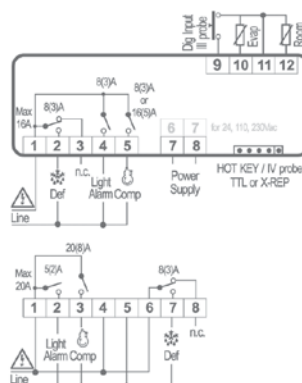
XR56CX
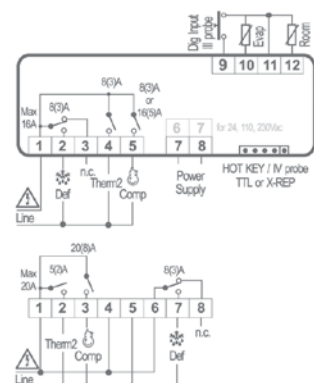
PRIME CX

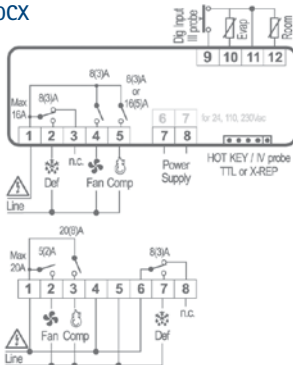## CONTROLLERS for MEDIUM and LOW TEMPERATURE

CX: 32x74mm

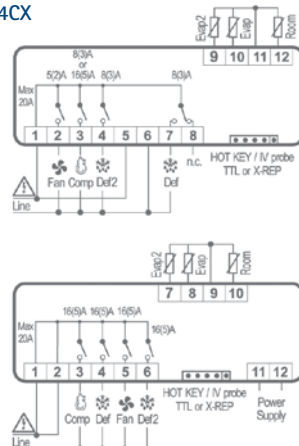|	
XR60CX	Digital controller for M.T. and L.T. ventilated applications with dual humidity function
XR64CX	Digital controller for M.T. and L.T. ventilated applications with dual evaporator
XR70CX	Digital controller for M.T. and L.T. ventilated applications with auxiliary relay and dual humidity function

FEATURES	XR60CX		XR64CX		XR70CX	
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.
Power supply	12, 24Vac/dc	24, 110, 230Vac	24, 110, 230Vac	12Vac/dc	24, 110, 230Vac	12Vac/dc
	24, 110, 230Vac					
	9÷40Vdc *					
Probe inputs						
Thermostat	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC
Thermostat 2						
Defrost	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC
Defrost 2			NTC/PTC	NTC/PTC		
Condenser	NTC/PTC on HOT KEY	NTC/PTC on HOT KEY	NTC/PTC on HOT KEY	NTC/PTC on HOT KEY	NTC/PTC on HOT KEY	NTC/PTC on HOT KEY
Digital inputs						
Alarm, start defrost, AUX,	config	config	config	config	config	config
door switch, pressure switch, probe						
Alarm, start defrost, AUX,						
door switch, pressure switch						
Relay outputs						
Compressor	8A, 16A opt	20A	8A, 16A opt	16A	8A, 16A opt	16A
Compressor 2						
Thermostat 2						
Defrost	8A	8A	8A	16A	8A	16A
Defrost 2			8A	16A		
Fans	8A	5A	5A	16A	5A	16A
Light or alarm					8A	16A
Anti-sweat						
Other						
Hot Key/Prog Tool Kit output	pres	pres	pres	pres	pres	pres
Remote display output	X-REP opt	X-REP opt	X-REP opt	X-REP opt	X-REP opt	X-REP opt
Serial output	TTL	TTL	TTL	TTL	TTL	TTL
Buzzer	opt	opt	opt	opt	opt	opt
Real time clock					opt	opt

*: only for models with compressor = 8A

XR60CX

XR64CX

XR70CX
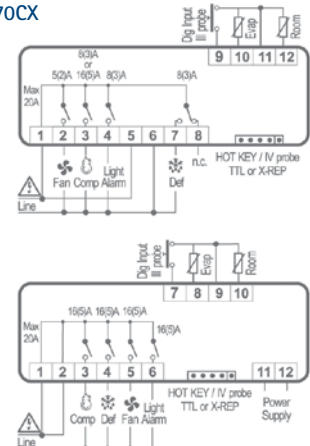
PRIME CX

CONTROLLERS for MEDIUM and LOW TEMPERATURE

CX: 32x74mm

XR71CX	Digital controller for M.T. and L.T. ventilated applications with anti-sweat heaters management
XR72CX	Digital controller for M.T. and L.T. ventilated applications with dual compressor management
XR75CX	Digital controller for M.T. and L.T. ventilated applications with auxiliary relay, dual humidity function and RS485

| FEATURES	XR71CX		XR72CX		XR75CX
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.
Power supply	24, 110, 230Vac	12Vac/dc	24, 110, 230Vac	12Vac/dc	24, 110, 230Vac
Probe inputs					
Thermostat	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC	PTC/Pt1000
Thermostat 2					
Defrost	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC	PTC/Pt1000
Defrost 2					
Condenser	NTC/PTC on HOT KEY	NTC/PTC on HOT KEY	NTC/PTC on HOT KEY	NTC/PTC on HOT KEY	PTC/Pt1000
Digital inputs					
Alarm, start defrost, AUX, door switch, pressure switch, probe	config	config	config	config	config
Alarm, start defrost, AUX, door switch, pressure switch					config
Relay outputs					
Compressor	8A, 16A opt	16A	8A, 16A opt	16A	8A, 16A opt
Compressor 2			8A	16A	
Thermostat 2					
Defrost	8A	16A	8A	16A	8A
Defrost 2					
Fans	5A	16A	5A	16A	5A
Light or alarm					8A
Anti-sweat	8A	16A			
Other					
Hot Key/Prog Tool Kit output	pres	pres	pres	pres	pres
Remote display output	X-REP opt	X-REP opt	X-REP opt	X-REP opt	X-REP opt
Serial output	TTL	TTL	TTL	TTL	TTL/RS485 opt
Buzzer	opt	opt	opt	opt	opt
Real time clock					opt

XR71CX
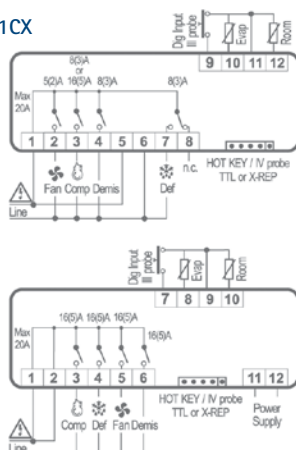
XR72CX
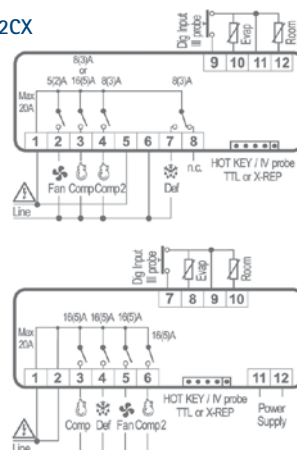
XR75CX
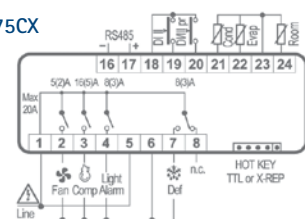
D: 4 DIN Rail

PRIME D SERIES: CONTROLLERS FOR NT, MT AND LT

- Innovative digital controllers dedicated to normal and low temperature refrigerated applications
- Direct line power supply 230 (110)Vac. No external transformer required
- Direct driving of compressors up to 1,2HP, (20A relay inside)
- Pre-programming of the main control variables, easy and intuitive programming mode
- Keyboard lock, alarm signalling by relay, display or buzzer
- Configurable digital input for door swtich, defrost, general or serious alarm
- Auxiliary relay activated through keys or digital input
- Hot Key connector for a quick and easy programming
- HACCP function
- 3VA max power absorption
- Display with red LED (13,2mm high)

HOW TO ORDER

PRIME D | X | R | | | D | – | A | B | C | D | E | `-17.8` For blue display please contact Dixell

	A		B		C		D		E
	Power supply		**Input**		**Buzzer**		**Measurement unit**		**Compressor output**
	2 = 24Vac		**P** = PTC		**0** = No		**C** = °C		**0** = 8A
	4 = 110Vac		**N** = NTC		**1** = Yes		**F** = °F		**1** = 20A
	5 = 230Vac						**H** = °C heating only for XR10D		
							L = °F heating only for XR10D		

PRIME D

THERMOSTAT and CONTROLLERS for NORMAL, MEDIUM and LOW TEMPERATURE

D: 4 DIN Rail

XR10D	Digital thermostat with heating or cooling action
XR20D	Digital controller for N.T. with "off cycle" defrost
XR30D	Digital controller for N.T. with "off cycle" defrost and additional configurable relay
XR40D	Digital controller for M.T. and L.T. with electrical or hot gas defrost

FEATURES	XR10D	XR20D	XR30D	XR40D
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.
Power supply	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac
Probe inputs				
Thermostat	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC
Defrost				NTC/PTC
Digital inputs				
Alarm, start defrost, AUX, door switch, pressure switch	config	config	config	config
Relay outputs				
Compressor	no 8A / nc 5A, 20A opt	no 8A / nc 5A, 20A opt	no 8A / nc 5A, 20A opt	no 8A / nc 5A, 20A opt
Defrost				no 8A / nc 5A
Fans				
Alarm				
Agitator				
Alarm or auxiliary			no 8A / nc 5A	
Other				
Functions	HACCP	HACCP	HACCP	HACCP
Hot Key output	pres	pres	pres	pres
Buzzer	opt	opt	opt	opt

XR10D XR20D
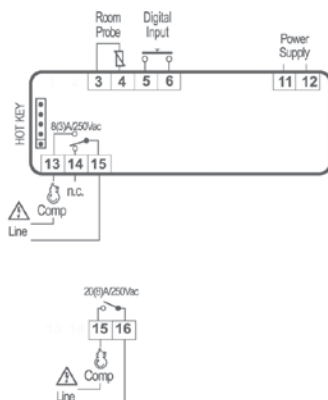
XR30D
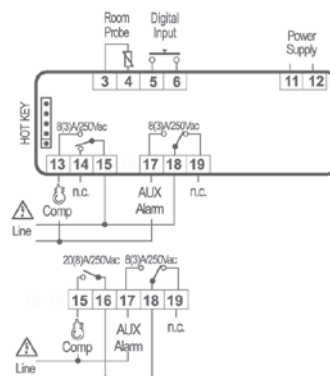
XR40D
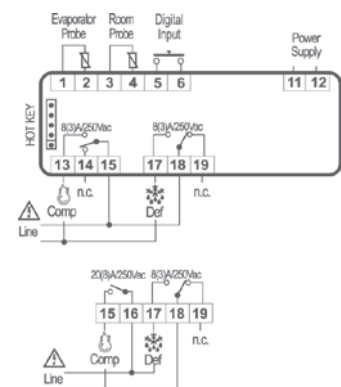
PRIME D

CONTROLLERS for MEDIUM and LOW TEMPERATURE and for MILK TANK CONTROLLERS

D: 4 DIN Rail

XR60D	Digital controller for M.T. and L.T. ventilated applications with door switch capability
XR70D	Digital controller for M.T. and L.T. for ventilated applications with door switch capability and auxiliary relay
XR80D	Digital controller for milk tank refrigerators with agitation cycle capability

FEATURES	XR60D	XR70D	XR80D
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.
Power supply	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac
Probe inputs			
Thermostat	NTC/PTC	NTC/PTC	NTC/PTC
Defrost	NTC/PTC	NTC/PTC	
Digital inputs			
Alarm, start defrost, AUX, door switch, pressure switch	config	config	
Relay outputs			
Compressor	no 8A / nc 5A, 20A opt	no 8A / nc 5A, 20A opt	no 8A / nc 5A, 20A opt
Defrost	no 8A / nc 5A	no 8A / nc 5A	
Fans	8A	8A	
Alarm		no 8A / nc 5A	no 8A / nc 5A opt
Agitator			no 8A / nc 5A
Alarm or auxiliary			
Other			
Functions	HACCP	HACCP	min/max
Hot Key output	pres	pres	pres
Buzzer	opt	opt	opt

XR60D
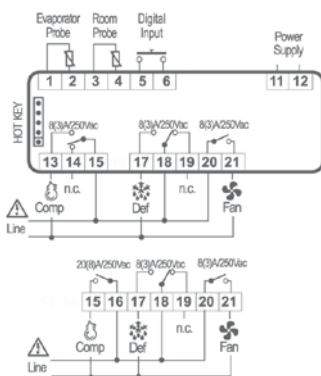
XR70D
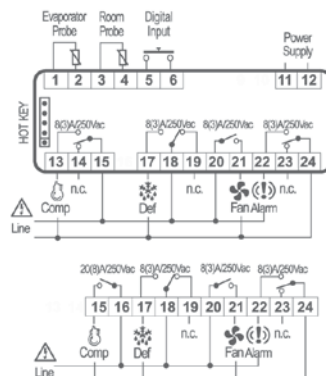
XR80D
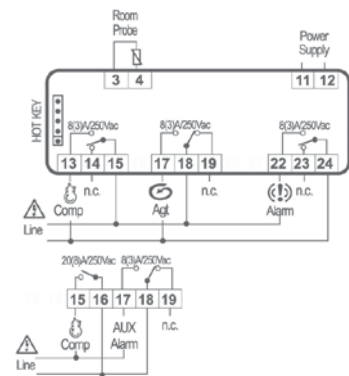
D: 4 DIN Rail

C: 32x74mm

XR100/500 SERIES: CONTROLLERS FOR NT, MT AND LT – RS485 OUTPUT

- Digital controllers suitable for both heating and cooling applications
- Built in RS485 for connection to Dixell's monitoring system
- Temperature control can be performed on probe 1, probe 2 or by the difference between probe 1 and 2
- Complete compressor and defrost management
- Recording of minimum and maximum temperatures
- Standard communication protocol ModBUS-RTU
- Hot Key or Prog tool kit connector for a quick and easy programming
- 3VA max power absorption
- Display with red LED (13,2 mm high)

HOW TO ORDER

XR100/500 | X | R | | | | | – | A | B | C | D | E |

XR40SL | X | R | 4 | 0 | S | L | – | A | 0 | 0 | 0 | 0 |

-17.8 For blue display please contact Dixell

	A		B		C		D			E		
	Power supply		**Input**		**Compressor**		**Measurement unit**			**Built-in RS485**	**4÷20mA**	**X-REP**
	0 = 12Vac/dc		**P** = PTC		**0** = 8A		C = °C		**1**	Yes	No	No
	1 = 24Vac/dc		**N** = NTC		**1** = 20A for XR110C		F = °F		**2**	Yes	No	Yes
	2 = 24Vac				and XR120C		H = °C heating for XR110C		**3**	No	Yes	No
	4 = 110Vac						L = °F heating for XR110C		**4**	No	Yes	Yes
	5 = 230Vac						K = °C no evaporator probe for XR140C					
	6 = 110/230Vac						Y = °F no evaporator probe for XR140C					

XR100

THERMOSTAT and "OFF CYCLE" DEFROST MULTIFUNCTION CONTROLLERS with RS485 OUTPUT

XR110C	Digital thermostat for heating or cooling action with built in RS485
XR120C **XR120D**	Digital controllers, with built in RS485, for N.T. with "off cycle" defrost

C: 32x74mm   **D**: 4 DIN Rail

FEATURES	XR110C	XR120C	XR120D
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.
Power supply	12Vac/dc, 24Vac/dc opt	12Vac/dc, 24Vac/dc opt	110, 230Vac
	110, 230Vac	110, 230Vac	
Probe inputs			
Thermostat	NTC/PTC	NTC/PTC	NTC/PTC
Defrost			
Display			NTC/PTC
Digital inputs			
Start defrost, pressure switch, energy saving, AUX, generic alarm, serious alarm mode	config	config	config
Door switch			pres
Relay outputs			
Compressor	8A, 20A opt	8A, 20A opt	8A
Defrost			
Fans			
Alarm			
Other			
Hot Key/Prog Tool Kit output	pres	pres	pres
Remote display output			
Serial output	RS485	RS485	RS485
Analog output			
Buzzer	pres	pres	pres
Real time clock			

XR110C
XR120C
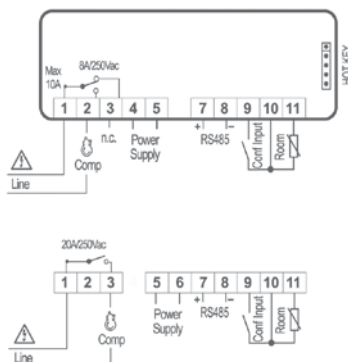
XR120D
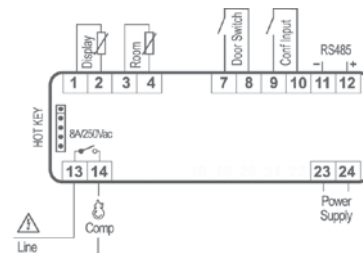
XR100

MULTIFUNCTION CONTROLLERS with RS485 OUTPUT for NORMAL, MEDIUM and LOW TEMPERATURE

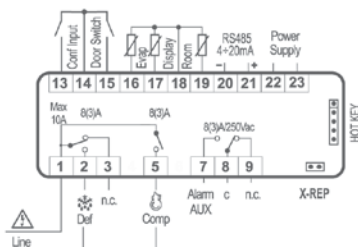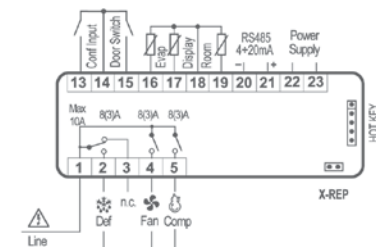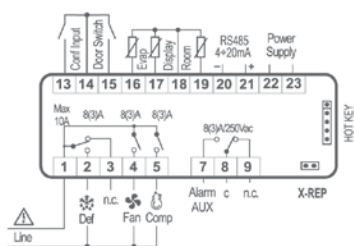|	
XR130C **XR130D**	Digital controllers for N.T. with "off cycle" defrost, additional configurable relay and built in RS485
XR140C **XR140D**	Digital controllers for M.T. and L.T. refrigerated applications with electrical or hot gas defrost function and built in RS485

C: 32x74mm   **D**: 4 DIN Rail

FEATURES	XR130C	XR130D	XR140C	XR140D
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.
Power supply	12Vac/dc	110, 230Vac	12Vac/dc	110, 230Vac
	24 Vac/dc opt		24Vac/dc opt	
Probe inputs				
Thermostat	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC
Defrost			NTC/PTC	NTC/PTC
Display	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC
Digital inputs				
Start defrost, pressure switch, energy saving, AUX, generic alarm, serious alarm mode	config	config	config	config
Door switch	pres	pres	pres	pres
Relay outputs				
Compressor	8A	8A	8A	8A
Defrost			8A	no 8A / nc 5A
Fans				
Alarm	8A	16A		
Other				
Hot Key/Prog Tool Kit output	pres	pres	pres	pres
Remote display output	X–REP opt		X–REP opt	
Serial output	RS485	RS485	RS485	RS485
Analog output	4÷20mA opt		4÷20mA opt	
Buzzer	pres	pres	pres	pres
Real time clock				

XR130C

XR130D
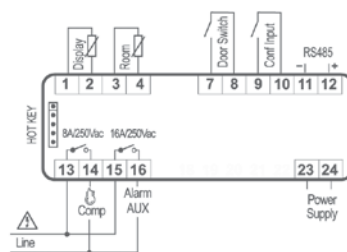
XR140C
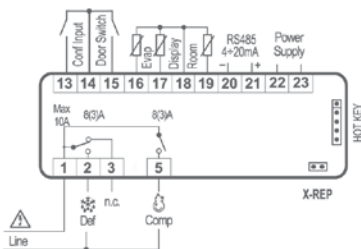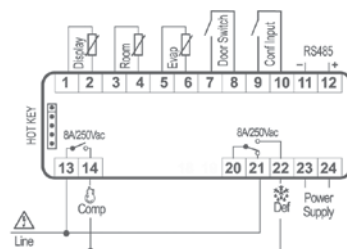
XR140D

XR100

MULTIFUNCTION CONTROLLERS with RS485 OUTPUT for MEDIUM and LOW TEMPERATURE

|		
	XR150C	Digital controller for M.T. and L.T. refrigerated applications with electrical or hot gas defrost function, auxiliary relay and built in RS485
	XR160C **XR160D**	Digital controllers for M.T. and L.T. ventilated applications with door switch capability and built in RS485

C: 32x74mm   **D**: 4 DIN Rail

FEATURES	XR150C	XR160C	XR160D
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.
Power supply	12, 24Vac/dc	12, 24Vac/dc	110, 230Vac
Probe inputs			
Thermostat	NTC/PTC	NTC/PTC	NTC/PTC
Defrost	NTC/PTC	NTC/PTC	NTC/PTC
Display	NTC/PTC	NTC/PTC	NTC/PTC
Digital inputs			
Start defrost, pressure switch, energy saving, AUX, generic alarm, serious alarm mode	config	config	config
Door switch	pres	pres	pres
Relay outputs			
Compressor	8A	8A	8A
Defrost	8A	8A	no 8A / nc 5A
Fans		8A	8A
Alarm	8A		
Other			
Hot Key/Prog Tool Kit output	pres	pres	pres
Remote display output	X–REP opt	X–REP opt	
Serial output	RS485	RS485	RS485
Analog output	4÷20mA opt	4÷20mA opt	
Buzzer	pres	pres	pres
Real time clock			

XR150C

XR160C

XR160D

XR100

MULTIFUNCTION CONTROLLERS with RS485 OUTPUT for MEDIUM and LOW TEMPERATURE

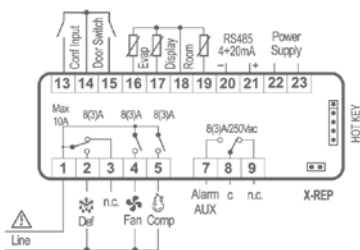|	
XR170C XR170D	Digital controllers for M.T. and L.T. for ventilated applications with door switch capability, auxiliary relay and built in RS485
XR172C	Digital controller for M.T. and L.T. for ventilated applications with door switch capability, auxiliary relay and built in RS485 for use with slave unit XR40SL
XR40SL	Slave module for XR172C controller with direct 230Vac power supply connection and 20A compressor relay

C: 32x74mm **D**: 4 DIN Rail

FEATURES	XR170C	XR170D	XR172C	XR40SL
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.	
Power supply	12, 24Vac/dc	110, 230Vac	da XR40SL	24, 110, 230Vac
Probe inputs				
Thermostat	NTC/PTC	NTC/PTC	NTC/PTC	
Defrost	NTC/PTC	NTC/PTC	NTC/PTC	
Display	NTC/PTC	NTC/PTC	NTC/PTC	
Digital inputs				
Start defrost, pressure switch, energy saving, AUX, generic alarm, serious alarm mode	config	config	config	
Door switch	pres	pres	pres	
Relay outputs				
Compressor	8A	8A		20A
Defrost	8A	no 8A / nc 5A		16A
Fans	8A	8A		8A
Alarm	8A	16A		8A
Other				
Hot Key/Prog Tool Kit output	pres	pres	pres	
Remote display output	X–REP opt		X–REP opt	
Serial output	RS485	RS485	RS485	
Analog output	4÷20mA opt		4÷20mA opt	
Buzzer	pres	pres	pres	
Real time clock				

XR170C

XR170D
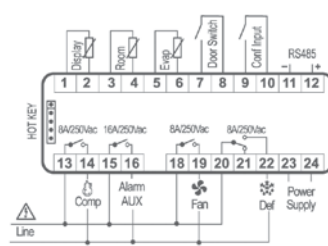
XR172C
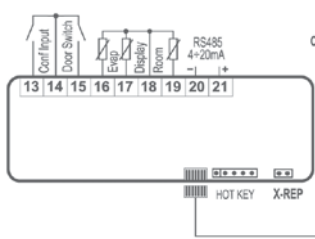
XR40SL
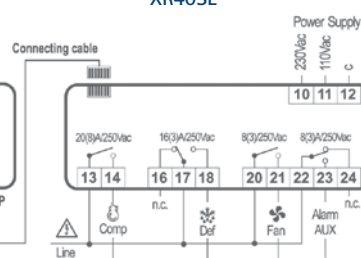
XR500

MULTIFUNCTION CONTROLLERS with RS485 OUTPUT and REAL TIME CLOCK for NORMAL, MEDIUM and LOW TEMPERATURE

XR530C **XR530D**	Digital controllers for N.T. with "off cycle" defrost, additional configurable relay, built in RS485 and internal real time clock
XR563D	Digital controller for M.T. and L.T. ventilated applications with door switch capability, light relay, built in RS485 and internal real time clock

C: 32x74mm   **D**: 4 DIN Rail

FEATURES	XR530C	XR530D	XR563D
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.
Power supply	12, 24Vac/dc	110,230Vac	110, 230Vac
Probe inputs			
Thermostat	NTC/PTC	NTC/PTC	NTC/PTC
Defrost			NTC/PTC
Display	NTC/PTC	NTC/PTC	NTC/PTC
Digital inputs			
Start defrost, pressure switch, energy saving, AUX, generic alarm, serious alarm mode	config	config	config
Door switch (light for XR563D)	pres	pres	pres
Relay outputs			
Compressor	8A	8A	8A
Defrost			no 8A / nc 5A
Fans			8A
Alarm (light for XR563D)	16A	16A	16A
Other			
Hot Key/Prog Tool Kit output	pres	pres	pres
Remote display output	X-REP opt		
Serial output	RS485	RS485	RS485
Analog output	4÷20mA opt		
Buzzer	pres	pres	pres
Real time clock	pres	pres	pres

XR530C
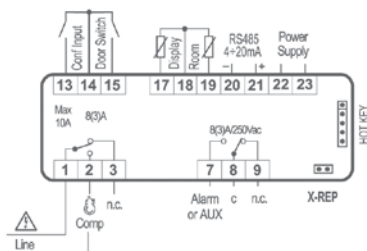
XR530D
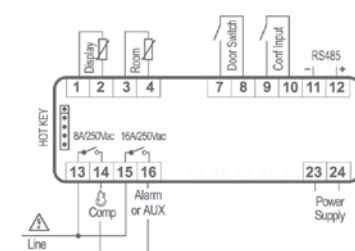
XR563D

XR500

MULTIFUNCTION CONTROLLERS with RS485 OUTPUT and REAL TIME CLOCK for MEDIUM and LOW TEMPERATURE

C: 32x74mm   **D**: 4 DIN Rail

XR570C XR570D	Digital controllers for M.T. and L.T. for ventilated applications with door switch capability, auxiliary relay, built in RS485 and internal real time clock
XR572C	Digital controller for M.T. and L.T. for ventilated applications with door switch capability, auxiliary relay, built in RS485 and internal real time clock for use with slave unit XR40SL
XR40SL	Slave module to be connected to XR572C controller with direct 230Vac power supply connection and 20A compressor relay

FEATURES	XR570C	XR570D	XR572C	XR40SL
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.	
Power supply	12, 24Vac/dc	110, 230Vac	da XR40SL	24, 110, 230Vac
Probe inputs				
Thermostat	NTC/PTC	NTC/PTC	NTC/PTC	
Defrost	NTC/PTC	NTC/PTC	NTC/PTC	
Display	NTC/PTC	NTC/PTC	NTC/PTC	
Digital inputs				
Start defrost, pressure switch, energy saving, AUX, generic alarm, serious alarm mode	config	config	config	
Door switch	pres	pres	pres	
Relay outputs				
Compressor	8A	8A		20A
Defrost	8A	no 8A / nc 5A		16A
Fans	8A	8A		8A
Alarm	8A	16A		8A
Other				
Hot Key/Prog Tool Kit output	pres	pres	pres	
Remote display output	X-REP opt		X-REP opt	
Serial output	RS485	RS485	RS485	
Analog output	4÷20mA opt		4÷20mA opt	
Buzzer	pres	pres	pres	
Real time clock	pres	pres	pres	

XR570C

XR570D
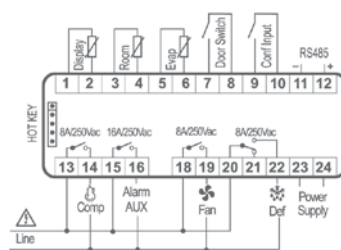
XR572C
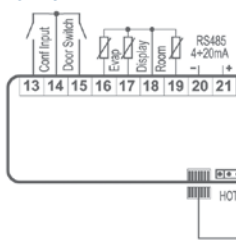
XR40SL
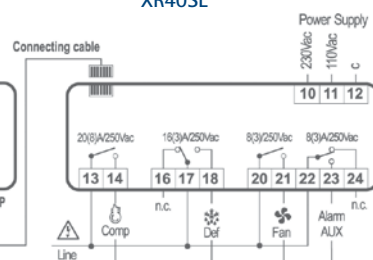
C: 32x74mm

S: 31x64mm

C: 32x74mm

28x48mm

THERMOMETER: LCD & LED THERMOMETERS

- Measurement unit integrated on the display (XA100C)
- Hot Key or Prog Tool Kit connector for a quick and easy programming (XA100C)
- 3VA max power absorption (S-C formats)
- Display with red LED 11,5mm high (S format) and 13,2mm high (C format)

HOW TO ORDER

XT11S X T 1 1 S - A B C 0 N   `-17.8` For blue display please contact Dixell

A	B	C
Power supply	**Digits n°– measurement unit**	**Display update delay**
0 = 12Vac/dc **1** = 24Vac/dc **4** = 110Vac **5** = 230Vac	**0** = °C - integer **1** = °F - integer **2** = °C - decimal point	**0** = no delay **1** = 1 min **2** = 3 min

XR100C X R 1 0 0 C - A B 0 D 0   `-17.8` For blue display please contact Dixell

A	B	D
Power supply	**Input**	**Measurement unit**
0 = 12Vac/dc **1** = 24Vac/dc **4** = 110Vac **5** = 230Vac	**O** = PTC **N** = NTC	**C** = °C **F** = °F

XA100C X A 1 0 0 C - A B 0 D U   `-17.8` For blue display please contact Dixell

A	B	D
Power supply	**Measurement unit**	**Input**
0 = 12Vac/dc **1** = 24Vac/dc **4** = 110Vac **5** = 230Vac	**C** = °C **F** = °F **B** = Bar **P** = PSI **H** = %RH **N** = No measurement unit	**P** = PTC (NTC) **T** = PTC (NTC, Pt100, TcJ, TcK, TcS) **A** = 4÷20mA, 0÷1V, 0÷10V **B** = PP07 (-0.5÷7bar) **C** = PP30 (0÷30bar) **D** = PP11 (-0.5÷11bar) **H** = XH10/20P

THERMOMETER

THERMOMETER with LIQUID CRYSTAL DISPLAY and LED THERMOMETERS

LC11	Liquid crystal thermometer – white or black colour available
XT11S	Digital thermometer with max and min log, powered directly by main voltage. Accessories: PB-KIT
XR100C	Digital thermometer powered directly by main voltage
XA100C	Configurable digital indicators

28x48mm   **S**: 31x64mm   **C**: 32x74mm

FEATURES	LC11	XT11S	XR100C	XA100C
Display: n° digits	± 3 LCD	± 3 d.p.	± 3 d.p.	± 3 d.p.
Power supply	battery – 24 month duration	12, 24Vac/dc 110, 230Vac	12, 24Vac/dc 110, 230Vac	12, 24Vac/dc 110, 230Vac
Measurement range	-40÷50°C -40÷122°F	-40÷110°C -40÷230°F	probe dependent	probe dependent
Inputs				
Probe	NTC included	NTC included	NTC/PTC	NTC, PTC, Pt100 TcJ, TcK, TcS 4÷20mA, 0÷1V, 0÷10V
Other				
Hot Key/Prog Tool Kit output				pres
Digital input				pres
Serial output				TTL
Buzzer				opt
Offset adjustment		back side trimmer		via keyboard

XT11S
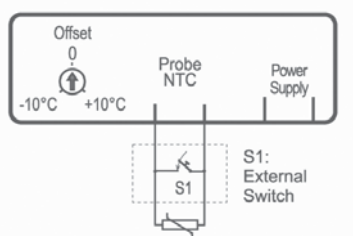
XR100C
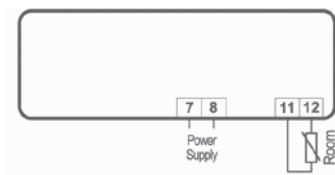
XA100C
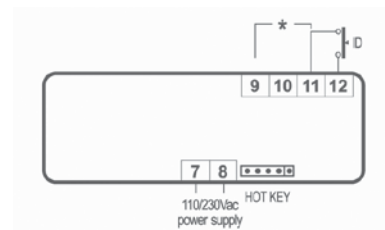
*4÷20mA, 0÷1V, 0÷10V=9(In); 11(gnd); 10(+)
*Pt100=9 - 11(10) *NTC, PTC=9(In); 10(gnd)
*TcK, TcJ, TcS=9(+) - 11(-)
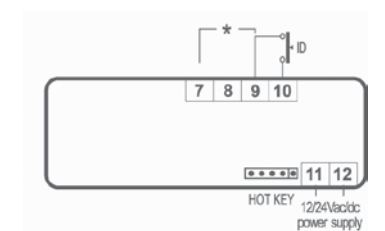
*4÷20mA, 0÷1V, 0÷10V=7(In); 9(gnd); 8(+)
*Pt100=7 - 9(8) *NTC, PTC=7(In); 8(gnd)
*TcK, TcJ, TcS=7(+) - 9(-)

WING REFRIGERATION CONTROLLERS

SECTION INDEX

D: 10 DIN Rail

32x74mm

V: 100x64mm

100x64mm

L: 38x185mm

38x185mm

L: 38x185mm

WING BASIC SERIES: CONTROLLERS FOR NT, MT AND LT APPLICATIONS – COMPACT/SPLIT FORMAT

- Multifunction WING BASIC series dedicated to N.T. and L.T. refrigerated applications
- Innovative and elegant design that enhances the aesthetics and functionality of the final product
- Direct live and neutral load connections for reduction of wiring costs
- Display with icons and integrated measurement units (L and CX formats)
- Direct driving of compressors up to 1,2HP (20A relay inside)
- Direct line power supply. No external transformer required
- Up to 8 push buttons with direct action for user friendly interface
- Maximum and minimum temperature recording
- Energy saving cycle through digital input (L and K formats)
- Continuous cycle with a dedicated set point (L and K formats)
- Virtual probe management (L and K formats)
- Hot Key connector for a quick and easy programming
- Connection for X-REP remote display (L and K formats, for LS format is an alternative to TTL output)
- Serial connection to monitoring systems (L, LS and K formats)
- 7VA max power absorption
- Display with red LED (10,5mm high) and icons (L, LS and CX formats), 13,2mm high (VS and V formats)

49

39

LS

VS

LS/VS formats are the ideal solution for OEM applications with a reduced space

panel

protection
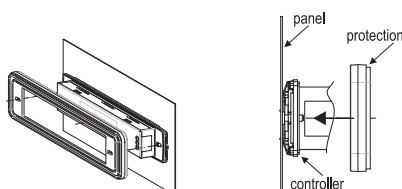
controller

Horizontal controllers are available also in a back-panel mounting version

L format is provided with a wide display with integrated icons of the real time situation and the measurement unit, for clear and continuous monitoring

HOW TO ORDER

WING L X W ☐ ☐ L - A B C D E - N

inox -17.8 For inox version and blue display please contact Dixell

A		B			C		D	E	
Power supply		Input	Light relay		Buzzer	RTC	Measurement unit	Comp. output	X–REP
2 = 24Vac	N	NTC	8A	0	No	No	C = °C	0 20A	No
4 = 110Vac	P	PTC	8A	1	Yes	No	F = °F	1 20A	Yes
5 = 230Vac	L	NTC	16A	2	No	Yes			
	M	PTC	16A	3	Yes	Yes			
	Q	NTC	16A neon						
	R	PTC	16A neon						

WING LS X W ☐ ☐ L S - A B C D E - N

inox -17.8 For inox version and blue display please contact Dixell

A		B		C			D	E	
Power supply		Input		Buzzer	RTC		Measurement unit	X–REP (excludes TTL output)	
2 = 24Vac		N = NTC	0	No	No		C = °C	1 = No	
4 = 110Vac		P = PTC	1	Yes	No		F = °F	2 = Yes	
5 = 230Vac			2	No	Yes				
			3	Yes	Yes				

WING V X W ☐ ☐ V - A B C D E

-17.8 For blue display please contact Dixell

WING VS X W ☐ ☐ V S - A B C D 0

-17.8 For blue display please contact Dixell

A		B		C		D		E	
Power supply		Input		Buzzer		Measurement unit		Compressor output	
2 = 24Vac		N = NTC		0 = No		C = °C		0 = 8A	
4 = 110Vac		P = PTC		1 = Yes		F = °F		1 = 20A	
5 = 230Vac									

WING K X W ☐ ☐ K - A B C D 0

A		B		C		D	
Power supply		Input / light relay		Housing		Measurement unit	
2 = 24Vac		N = NTC		0 = Open board "OS"		C = °C	
4 = 110Vac		P = PTC		1 = Open board + 8 DIN Rail base		F = °F	
5 = 230Vac		L = NTC / 16A neon		2 = 8 DIN Rail			
		M = PTC / 16A neon		3 = "GS" housing			

T,V KEYBOARDS ☐ ☐ ☐ ☐ - A 0 0 D 0

inox -17.8 For inox version and blue display please contact Dixell

CX KEYBOARD C X ☐ ☐ ☐ - A 0 0 N 0

-17.8 For blue display please contact Dixell

A		D	
Buzzer		Measurement unit	
0 = No		C = °C	
1 = Yes		F = °F	

WING BASIC

THERMOSTATS and "OFF CYCLE" DEFROST MULTIFUNCTION CONTROLLERS

XW10L XW10V	Digital thermostats for heating or cooling applications, with light relay
XW20L XW20LS XW20V XW20VS XW20K	Digital controllers for N.T. applications with "off cycle" defrost and light relay

L, LS: 38x185mm   **V, VS**: 100x64mm   **K**: OS/GS/8 DIN Rail

FEATURES	XW10L	XW10V	XW20L	XW20LS	XW20V	XW20VS	XW20K
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	on keyboard ± 3 d.p.
Keyboard: push buttons	6	6	6	6	6	6	CX620 - T620 - V620: 6
Power supply	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac
Probe inputs							
Thermostat	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC
Defrost				NTC/PTC			
Condenser	NTC/PTC		NTC/PTC				NTC/PTC
Display	NTC/PTC		NTC/PTC			NTC/PTC	NTC/PTC
Digital inputs							
Alarm, start defrost, door switch, pressure switch	config	config	config	config*	config	config	config
DI 2	config		config				
Relay outputs							
Compressor	20A	8A, 20A opt	20A	20A	8A, 20A opt	16A	20A
Defrost							
Fans							
Light, ON/OFF	8A, 16A opt	16A	8A, 16A opt	8A	16A	16A	16A
Alarm, AUX							
Other							
Hot Key/Prog Tool Kit output	pres	pres	pres	pres	pres	pres	pres
Serial output	TTL		TTL	TTL			TTL
Remote display output	X-REP opt		X-REP opt	X-REP opt			
Buzzer	opt	opt	opt	opt	opt	opt	on keyboard
Real time clock	opt		opt	opt			

*: configurabile also as a probe

XW10L XW20L
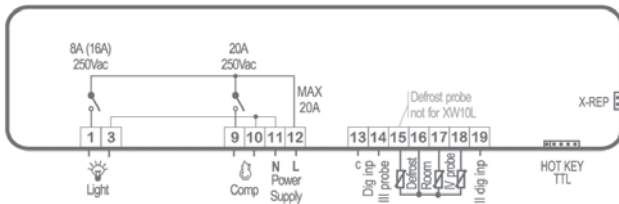
XW20LS
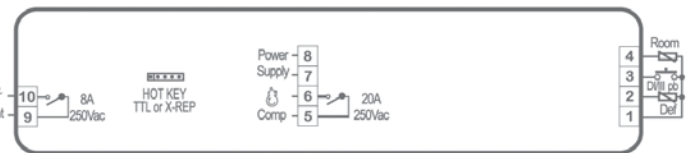
XW10V XW20V
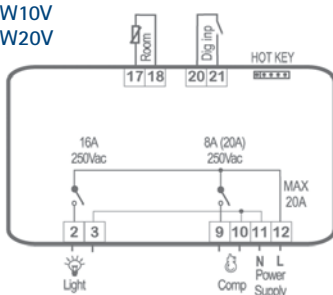
XW20VS
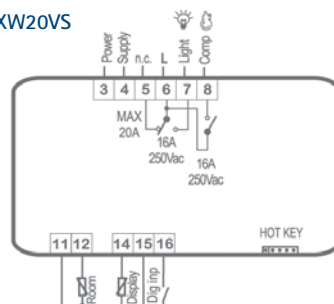
XW20K

WING BASIC

MULTIFUNCTION CONTROLLERS for NORMAL, MEDIUM and LOW TEMPERATURE

XW35VS	Digital controller for N.T. applications with "off cycle" defrost, light relay and fans	
XW40L **XW40LS** **XW40V** **XW40K**	Digital controllers for M.T. and L.T. with electrical or hot gas defrost function and light relay	

L, LS: 38x185mm   **V, VS**: 100x64mm   **K**: OS/GS/8 DIN Rail

FEATURES	XW35VS	XW40L	XW40LS	XW40V	XW40K
Display: n° digits **Keyboard: push buttons**	± 3 d.p. 6	± 3 d.p. 6	± 3 d.p. 6	± 3 d.p. 6	on keyboard ± 3 d.p. CX620 - T620 - V620: 6
Power supply	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac
Probe inputs					
Thermostat	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC
Defrost		NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC
Condenser		NTC/PTC			NTC/PTC
Display	NTC/PTC	NTC/PTC			NTC/PTC
Digital inputs					
Alarm, start defrost, door switch, pressure switch	config	config	config*	config	config
DI 2		config			
Relay outputs					
Compressor	16A	20A	20A	8A, 20A opt	20A
Defrost		8A	8A	8A	16A
Fans	8A				
Light, ON/OFF	16A	8A, 16A opt	8A	16A	16A
Alarm, AUX					
Other					
Hot Key/Prog Tool Kit output	pres	pres	pres	pres	pres
Serial output		TTL	TTL		TTL
Remote display output		X-REP opt	X-REP opt		
Buzzer	opt	opt	opt	opt	on keyboard
Real time clock		opt	opt		

*: configurabile also as a probe

XW40L
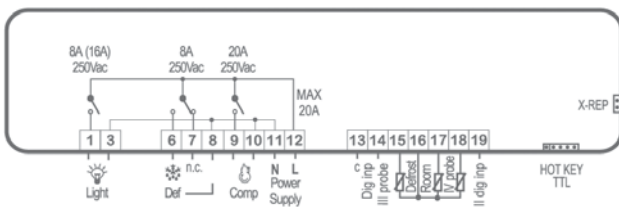
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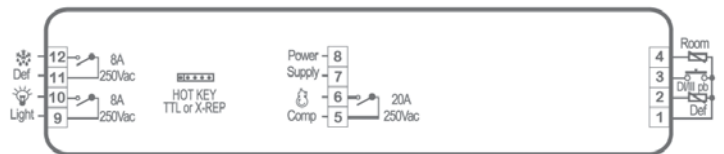
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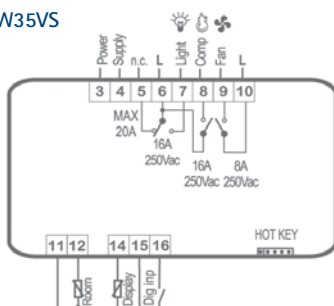
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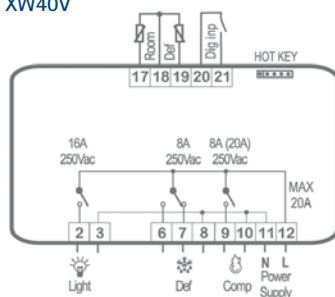
XW40K
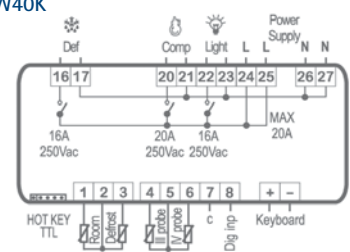
WING BASIC

MULTIFUNCTION CONTROLLERS for MEDIUM and LOW TEMPERATURE

L, LS: 38x185mm **V**: 100x64mm

XW60L
XW60LS
XW60V

Digital controllers for M.T. and L.T. for ventilated applications

FEATURES	XW60L	XW60LS	XW60V
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.
Keyboard: push buttons	6	5	6
Power supply	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac
Probe inputs			
Thermostat	NTC/PTC	NTC/PTC	NTC/PTC
Defrost	NTC/PTC	NTC/PTC	NTC/PTC
Condenser	NTC/PTC		
Display	NTC/PTC		
Digital inputs			
Alarm, start defrost, door switch, pressure switch	config	config*	config
DI 2	config		
Relay outputs			
Compressor	20A	20A	8A, 20A opt
Defrost	8A	8A	8A
Fans	8A	8A	8A
Light, ON/OFF	8A, 16A opt		16A
Alarm, AUX			
Other			
Hot Key/Prog Tool Kit output	pres	pres	pres
Serial output	TTL	TTL	
Remote display output	X-REP opt	X-REP opt	
Buzzer	opt	opt	opt
Real time clock	opt	opt	

*: configurabile also as a probe

XW60L

XW60LS
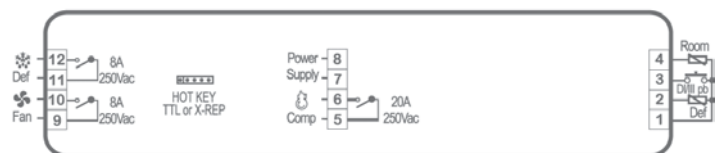
XW60

WING BASIC

MULTIFUNCTION CONTROLLERS for MEDIUM and LOW TEMPERATURE

XW60VS XW60K	Digital controllers for M.T. and L.T. for ventilated applications
XW70L	Digital controller for M.T. and L.T. for ventilated applications with light relay management and auxiliary relay output
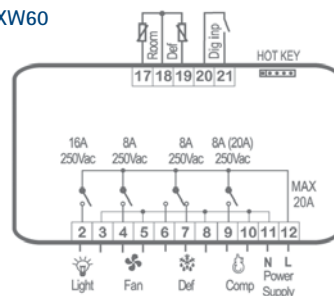
L: 38x185mm   **VS**: 100x64mm   **K**: OS/GS/8 DIN Rail

FEATURES	XW60VS	XW60K	XW70L
Display: n° digits	± 3 d.p.	on keyboard ± 3 d.p.	± 3 d.p.
Keyboard: push buttons	5	CX620 - T620 - V620: 6	8
Power supply	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac
Probe inputs			
Thermostat	NTC/PTC	NTC/PTC	NTC/PTC
Defrost	NTC/PTC	NTC/PTC	NTC/PTC
Condenser		NTC/PTC	NTC/PTC
Display	NTC/PTC	NTC/PTC	NTC/PTC
Digital inputs			
Alarm, start defrost, door switch, pressure switch	config	config	config
DI 2			config
Relay outputs			
Compressor	16A	20A	20A
Defrost	16A	16A	8A
Fans	8A	8A	8A
Light, ON/OFF		16A	8A, 16A opt
Alarm, AUX			8A
Other			
Hot Key/Prog Tool Kit output	pres	pres	pres
Serial output		TTL	TTL
Remote display output			X-REP opt
Buzzer	opt	on keyboard	opt
Real time clock			opt

XW60VS
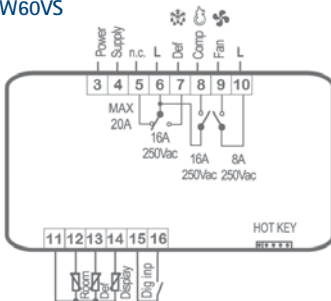
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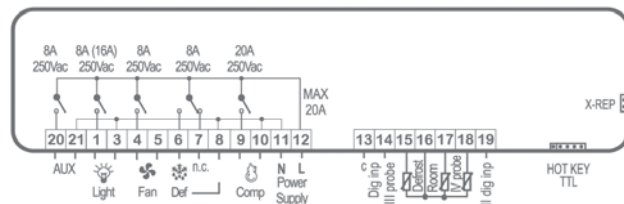
XW60K
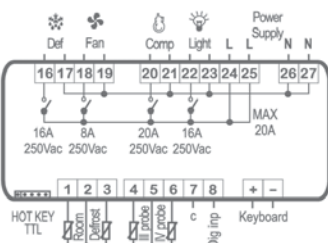
WING BASIC

KEYBOARDS for MULTIFUNCTION CONTROLLERS in K FORMAT

CX620
T620
V620

6 key keyboards for controllers in K format

32x74mm   38x185mm   100x64mm

FEATURES	CX620	T620	V620
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.
Keyboard: push buttons	6	6	6
Slave module	XW20K	XW20K	XW20K
	XW40K	XW40K	XW40K
	XW60K	XW60K	XW60K
Buzzer	opt	opt	opt

CX format is provided with a wide display with integrated icons of real time situation and measurement unit, for clear and continuous monitoring

THE POWER MODULES IN K FORMAT ARE AVAILABLE IN 4 DIFFERENT VERSIONS:

OS: open board

GS: with plastic housing 225x180x84mm

8 DIN Rail base: open board with 8 DIN bottom

8 DIN Rail: with 8 DIN plastic housing

100x64mm

38x185mm

L: 38x185mm

L: 38x185mm

WING 200/500 SERIES: CONTROLLERS FOR NT, MT AND LT APPLICATIONS – RS485 OUTPUT

- Advanced multifunction controllers for both heating and cooling applications
- Innovative and elegant design that enhances the aesthetics and functionality of the controller
- Direct load connections
- 20A compressor relay and neon light relay
- Up to 8 keys keyboard with direct access to the main functions
- Direct 230 (110)Vac power supply – No external transformer required
- Minimum and maximum temperature recording
- Standard communication protocol ModBUS-RTU
- Hot Key or Prog tool kit connector for a quick and easy programming
- 10VA max power absorption
- Display with red LED (13,2mm high)

HOW TO ORDER

WING L X W ☐ ☐ ☐ L – A B C D E

inoX -17.8 For Inox version and blue display please contact Dixell

A	B	C	D	E		
Power supply	**Input / light relay**	**Terminal blocks**	**Measurement unit**		**Built-in RS485**	**4÷20mA**	**X–REP**
4 = 110Vac	**N** = NTC / standard	**0** = Standard terminal blocks	**C** = °C	**0**	No	No	No
5 = 230Vac	**L** = NTC / neon	**1** = Disconnectable terminal blocks with screw	**F** = °F	**1**	No	No	Yes
				2	No	Yes	No
				3	No	Yes	Yes
				4	Yes	No	No
				5	Yes	No	Yes
				6	Yes	Yes	No
				7	Yes	Yes	Yes

KEYBOARDS ☐ ☐ ☐ ☐ – A 0 0 D 0

inoX -17.8 For Inox version and blue display please contact Dixell

A	D
Buzzer	**Measurement unit**
0 = No	**C** = °C
1 = Yes	**F** = °F

WING K X W ☐ ☐ ☐ K – A B C D E

A	B	C	D	E	
Power supply	**Input / light relay**	**Housing**	**Measurement unit**		**Built-in RS485**	**4÷20mA**
4 = 110Vac	**N** = NTC / standard	**0** = Open board "OS"	**C** = °C	**0**	No	No
5 = 230Vac	**L** = NTC / neon	**1** = Cover in aluminium "OA"	**F** = °F	**2**	No	Yes
		2 = "GS" housing 182x142x76mm		**4**	Yes	No
		3 = "PS" housing		**6**	Yes	Yes
		4 = "GS" housing 225x180x84mm				

WING 200

"OFF CYCLE" DEFROST ADVANCED MULTIFUNCTION CONTROLLERS for NORMAL TEMPERATURE

XW220L XW220K	Multifunction digital controllers for N.T. with "off cycle" defrost	
XW230L XW230K	Multifunction digital controllers for N.T. with "off cycle" defrost, auxiliary and alarm outputs	

L: 38x185mm   **K**: OS/OA/GS/PS

FEATURES	XW220L	XW220K	XW230L	XW230K
Display: n° digits	± 3 d.p.	on keyboard ± 3 d.p.	± 3 d.p.	on keyboard ± 3 d.p.
Keyboard: push buttons	6	T620 – V620: 6	8	T820 – V820: 8
Power supply	110, 230Vac	110, 230Vac	110, 230Vac	110, 230Vac
Probe inputs				
Thermostat	NTC	NTC	NTC	NTC
Defrost				
Display	NTC	NTC	NTC	NTC
Digital inputs				
Alarm, block alarm, pressure switch, start defrost, energy saving, ON/OFF, AUX, holiday	config	config	config	config
Door switch	pres	pres	pres	pres
Relay outputs				
Compressor	20A	20A	20A	20A
Compressor 2				
Defrost				
Defrost 2				
Fans				
ON/OFF				
Light	16A,16A neon opt	16A,16A neon opt	16A,16A neon opt	16A,16A neon opt
Alarm			8A	8A
Auxiliary			16A	16A
Other				
Hot Key/Prog Tool Kit output	pres	pres	pres	pres
Remote display output	X-REP opt		X-REP opt	
Serial output	TTL, RS485 opt	TTL, RS485 opt	TTL, RS485 opt	TTL, RS485 opt
Analog output	4÷20mA opt		4÷20mA opt	
Buzzer	pres	on keyboard opt	pres	on keyboard opt
Real time clock				

XW220L

XW220K
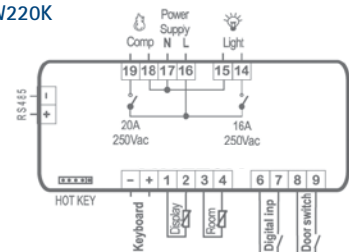
XW230L
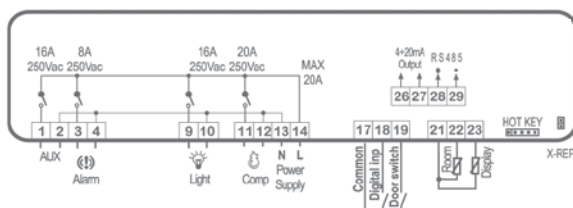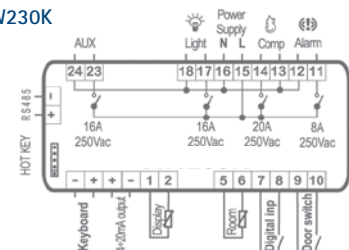
XW230K

WING 200

ADVANCED MULTIFUNCTION CONTROLLERS for MEDIUM and LOW TEMPERATURE

XW260L XW260K	Multifunction digital controllers for M.T. and L.T. ventilated applications
XW263L	Multifunction digital controller for M.T. and L.T. ventilated applications with 16A defrost standard relay
XW264L XW264K	Multifunction digital controllers for M.T. and L.T. ventilated applications with double evaporator management

L: 38x185mm   **K**: OS/OA/GS/PS

FEATURES	XW260L	XW260K	XW263L	XW264L	XW264K
Display: n° digits	± 3 d.p.	on keyboard ± 3 d.p.	± 3 d.p.	± 3 d.p.	on keyboard ± 3 d.p.
Keyboard: push buttons	6	T620 – V620: 6	6	6	T620 – V620: 6
Power supply	110, 230Vac	110, 230Vac	110, 230Vac	110, 230Vac	110, 230Vac
Probe inputs					
Thermostat	NTC	NTC	NTC	NTC	NTC
Defrost	NTC	NTC	NTC	NTC	NTC
Display (defrost 2 for XW264)	NTC	NTC		NTC	NTC
Digital inputs					
Alarm, block alarm, pressure switch, start defrost, energy saving, ON/OFF, AUX, holiday	config	config	config	config	config
Door switch	pres	pres	pres	pres	pres
Relay outputs					
Compressor	20A	20A	8A	20A	8A
Compressor 2					
Defrost	8A	8A	16A	8A	8A
Defrost 2				8A	8A
Fans	8A	8A	8A	8A	8A
ON/OFF				16A	16A
Light	16A, 16A neon opt	16A, 16A neon opt	16A, 16A neon opt	16A, 16A neon opt	16A, 16A neon opt
Alarm					
Auxiliary					
Other					
Hot Key/Prog Tool Kit output	pres	pres	pres	pres	pres
Remote display output	X-REP opt			X-REP opt	
Serial output	TTL, RS485 opt	TTL, RS485 opt	RS485	TTL, RS485 opt	TTL, RS485 opt
Analog output	4÷20mA opt	4÷20mA opt		4÷20mA opt	4÷20mA opt
Buzzer	pres	on keyboard opt	pres	pres	on keyboard opt
Real time clock					

XW260L
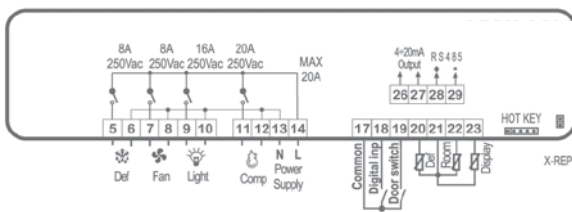
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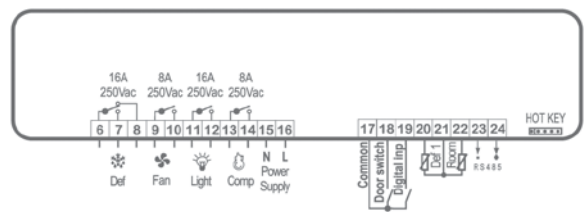
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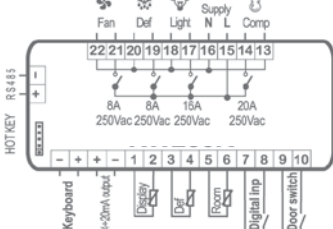
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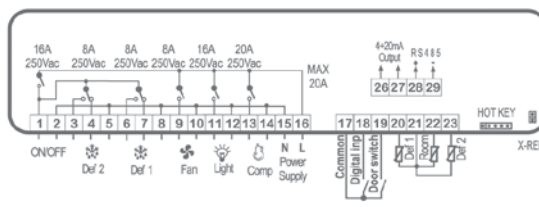
XW264K

WING 200

ADVANCED MULTIFUNCTION CONTROLLERS for MEDIUM and LOW TEMPERATURE

XW270L XW270K	Multifunction digital controllers for M.T. and L.T. ventilated applications with auxiliary relay output
XW271L XW271K	Multifunction digital controllers for M.T. and L.T. ventilated applications with anti condensing heater relay output
XW272K	Multifunction digital controller for M.T. and L.T. ventilated applications with twin compressors management

L: 38x185mm   **K**: 0S/0A/GS/PS

FEATURES	XW270L	XW270K	XW271L	XW271K	XW272K
Display: n° digits	± 3 d.p.	on keyboard ± 3 d.p.	± 3 d.p.	on keyboard ± 3 d.p.	on keyboard ± 3 d.p.
Keyboard: push buttons	8	T820 – V820: 8	8	T821 - V821: 8	T620 – V620: 6
Power supply	110, 230Vac	110, 230Vac	110, 230Vac	110, 230Vac	110, 230Vac
Probe inputs					
Thermostat	NTC	NTC	NTC	NTC	NTC
Defrost	NTC	NTC	NTC	NTC	NTC
Display	NTC	NTC	NTC	NTC	NTC
Digital inputs					
Alarm, block alarm, pressure switch, start defrost, energy saving, ON/OFF, AUX, holiday	config	config	config	config	config
Door switch	pres	pres	pres	pres	pres
Relay outputs					
Compressor	20A	20A	20A	20A	20A
Compressor 2					20A
Defrost	8A	8A	8A	8A	8A
Defrost 2					
Fans	8A	8A	8A	8A	8A
ON/OFF					
Light	16A, 16A neon opt	16A, 16A neon opt	16A, 16A neon opt	16A, 16A neon opt	16A, 16A neon opt
Alarm	8A	8A	8A	8A	8A
Auxiliary	16A	16A	16A*	16A*	
Other					
Hot Key/Prog Tool Kit output	pres	pres	pres	pres	pres
Remote display output	X-REP opt		X-REP opt		
Serial output	TTL, RS485 opt	TTL, RS485 opt	TTL, RS485 opt	TTL, RS485 opt	TTL, RS485 opt
Analog output	4÷20mA opt	4÷20mA opt	4÷20mA opt	4÷20mA opt	4÷20mA opt
Buzzer	pres	on keyboard opt	pres	on keyboard opt	on keyboard opt
Real time clock					

*: on XW271K the auxiliary relay is anti-condensing heater

XW270L – XW271L
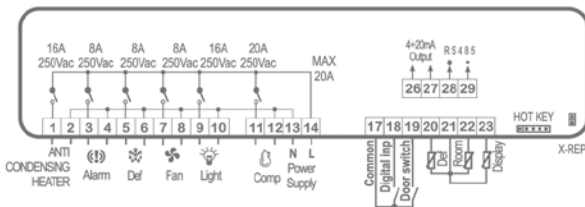
XW270K – XW271K
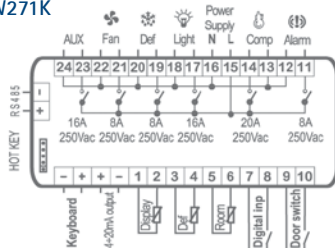
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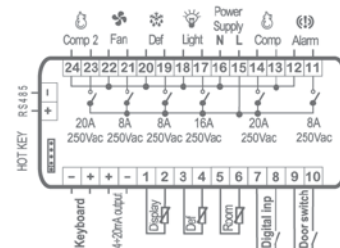
WING 500

ADVANCED MULTIFUNCTION CONTROLLERS with REAL TIME CLOCK for MEDIUM and LOW TEMPERATURE

L: 38x185mm   **K**: OS/OA/GS/PS

XW563L	Multifunction digital controller for M.T. and L.T. ventilated applications with internal real time clock	
XW570L XW570K	Multifunction digital controllers for M.T. and L.T. ventilated applications with internal real time clock and auxiliary relay output	

FEATURES	XW563L	XW570L	XW570K
Display: n° digits	± 3 d.p.	± 3 d.p.	on keyboard ± 3 d.p.
Keyboard: push buttons	8	8	T850 – V850: 8
Power supply	110, 230Vac	110, 230Vac	110, 230Vac
Probe inputs			
Thermostat	NTC	NTC	NTC
Defrost	NTC	NTC	NTC
Display		NTC	NTC
Digital inputs			
Alarm, block alarm, pressure switch, start defrost, energy saving, ON/OFF, AUX, holiday	config	config	config
Door switch	pres	pres	pres
Relay outputs			
Compressor	8A	20A	20A
Compressor 2			
Defrost	16A	8A	8A
Defrost 2			
Fans	8A	8A	8A
ON/OFF			
Light	16A, 16A neon opt	16A, 16A neon opt	16A, 16A neon opt
Alarm		8A	8A
Auxiliary		16A	16A
Other			
Hot Key/Prog Tool Kit output	pres	pres	pres
Remote display output		X-REP opt	X-REP opt
Serial output	RS485	TTL, RS485 opt	TTL, RS485 opt
Analog output		4÷20mA opt	4÷20mA opt
Buzzer	pres	pres	pres
Real time clock	pres	pres	pres

XW563L
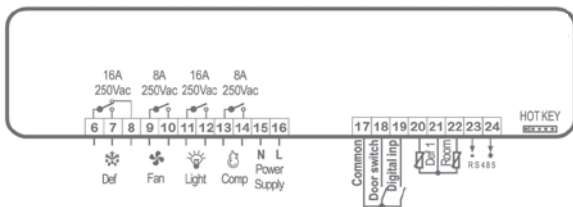
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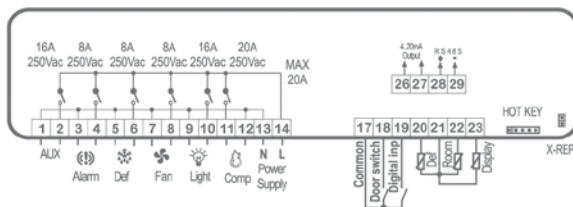
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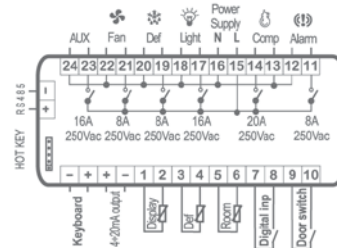
WING 200/500

KEYBOARDS for ADVANCED MULTIFUNCTION CONTROLLERS in K FORMAT

38x185mm

100x64mm

T620 V620	6 key keyboards for controllers in K format
T820 V820	8 key keyboards for controllers in K format
T821 V821	8 key keyboards for controllers in K format with key for anti-condensing heater
T850 V850	8 key keyboards for controllers in K format with real time clock

FEATURES	T620 – V620	T820 – V820	T821 – V821	T850 – V850
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.
Keyboard: push buttons	6	8	8	8
Slave module	XW220K	XW230K	XW271K	XW570K
	XW260K	XW270K		
	XW264K			
	XW272K			
Buzzer	opt	opt	opt	opt

THE POWER MODULES IN K FORMAT ARE AVAILABLE IN DIFFERENT VERSIONS:

OS: open board

OA: open board with aluminium protection

GS: standard case

PS: UL case

HACCP REFRIGERATION CONTROLLERS

SECTION INDEX

C: 32x74mm

V: 100x64mm

L: 38x185mm

COMPLY WITH UNI EN 12830 HACCP

XR700–XW700 SERIES: CONTROLLERS FOR NT, MT AND LT APPLICATIONS – SERIAL OUTPUT

- Advanced multifunction controllers with HACCP function
- Innovative and elegant design that enhances the aesthetics and functionality of the controller
- Monitoring, signaling and recording of the critical temperature
- Correct storage of products
- Direct 230Vac power supply
- Up to 4 relays and 2 digital inputs
- 6 keys keyboard with direct access to the main functions (WING format)
- Hand held infrared reader unit to download from the controllers all the data and to transfer them directly to a printer
- Hot Key or Prog tool kit connector for a quick and easy programming
- 4VA max power absorption
- Dual display with red LED (8,0mm high) and yellow LED (5,6mm high) and 14 icons

HOW TO ORDER

XR700C   X R 7 ☐ ☐ C - A B 0 D E   -17.8 For blue display please contact Dixell

	A		B		D		E
Power supply		**IR output**		**Measurement unit**		**RS485 output**	
0 = 12Vac/dc		**0** = No		**C** = °C		**0** = No	
1 = 24Vac/dc		**1** = Yes		**F** = °F		**1** = Yes	
4 = 110Vac							
5 = 230Vac							

XW700L/V   X W 7 ☐ ☐ ☐ - A B 0 D E   inoX -17.8 For Inox version and blue display please contact Dixell

	A		B		D		E
Power supply		**Input / light relay**		**Measurement unit**		**Compressor output and IR**	
4 = 110Vac		**N** = NTC / standard		**C** = °C		**0** = 8A	
5 = 230Vac		**L** = NTC / neon		**F** = °F		**1** = 20A	
						2 = 8A + IR	
						3 = 20A + IR	

DISPLAY ICONS	MEANING
°C	Celsius degrees
°F	Fahrenheit degrees
H	High temperature alarm
L	Low temperature alarm
⚠	Critical temperature (minimum or maximum)
⚠	Digital input alarm
📖!	Alarm list
🕓	Clock
🗓	Date
(((•	Infrared transmission
Menu	It signals "The function menu"
From	Start time
To	End time

COMPLETE
The **dual display** with **14** icons shows complete information about the status of the machine. Without the need to enter into the programming mode, all the main functioning of the cooling system is displayed with only one key touch.

MAIN WINDOWS

Normal operation
The controller displays temperature and time. The output status is monitored by small leds on the display.

Temperature alarm
The controller displays the temperature and how far away it is from the set point.

Book of alarms list
The last 20 alarms are recorded in the controller. The book icon flashing means that a new alarm has occurred. To see the alarm list press one of the HACCP buttons.

Complete info of events
Book of Alarms List contains the record of previous alarms - type of alarm (eg., high temp, blackout etc.), times, duration, dates, critical temperatures reached.

Safe and protected
A Security Code can be required for the following operations:
• reset alarm list;
• high/low alarm values modification;
• special functions.

<<< D I X E L L >>>
A L A R M   L I S T
ARCHIVES AVAILABLE: 01

```
* DEVICE N.01
* SET POINT            :  - 5.0°C
* LOW ALARM            :  - 15.0°C
* HIGH ALARM           :  - 0.5°C
* FROM        : 05 - 06 - 08   10:27
* TO          : 16 - 07 - 08   17:09
* ALARMS      : 04

01 - HIGH TEMPERATURE  ALARM
FROM          : 13 - 07 - 08   11:27
TO            : 13 - 07 - 08   12:13
CRITICAL T    :   04.6°C
DETECTED      : 13 - 07 - 08   12:02

02 - EXTERNAL  ALARM
FROM          : 29 - 06 - 08   01:57
TO            : 29 - 06 - 08   02:23

03 - LOW TEMPERATURE  ALARM
FROM          : 18 - 06 - 08   18:26
TO            : 18 - 06 - 08   18:53
CRITICAL T    : - 17.1°C
DETECTED      : 18 - 06 - 08   18:49

04 - EXTERNAL  ALARM
FROM          : 08 - 06 - 08   08:40
TO            : 08 - 06 - 08   10:13

* E N D   O F   A L A R M
```

End of printing

A typical report with alarms

An optional hand held infrared reader unit is available to download from controllers (up to 40) all the recorded data and to transfer them directly to a printer provided with IR port. A PC is not required.

iPRINT : THE INFRARED FACILITY

EG. HIGH TEMPERATURE ALARM

When a high (or low) temperature alarm occurs, instrument records the start ❶ and end time ❷, the date and the maximum (or minimum) temperature ❸ reached.
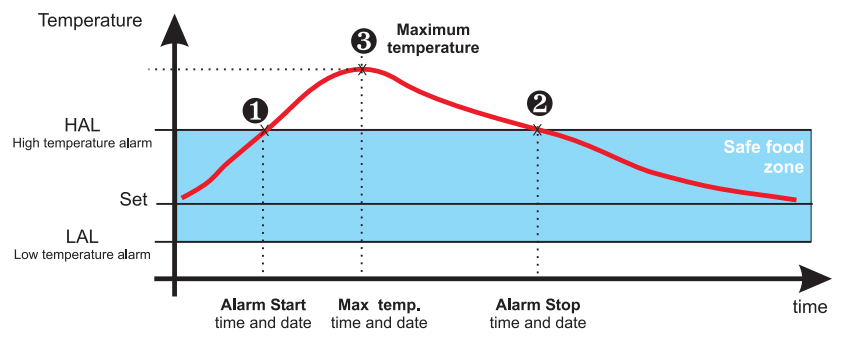
BLACKOUT ALARM
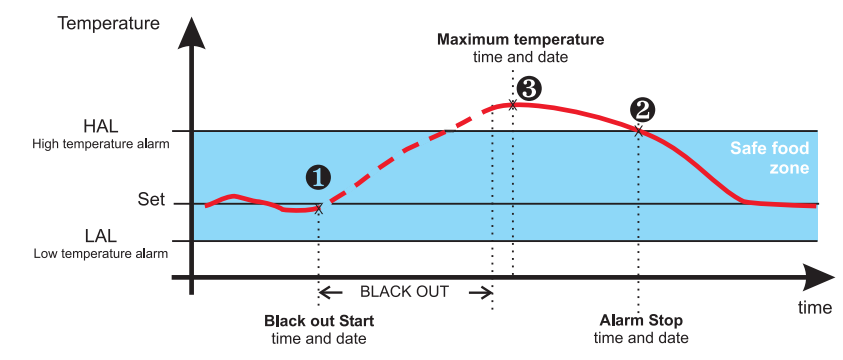
If, after a blackout, the temperature is higher than the alarm value, the start of the blackout ❶ and the end of alarm temperature ❷ together with the max temperature reached ❸ are recorded.

XR700–XW700 "OFF CYCLE" DEFROST CONTROLLERS with HACCP FUNCTION

XR720C
XW720L
XW720V

Digital controllers for N.T. with "off cycle" defrost

C: 32x74mm   **L**: 38x185mm   **V**: 100x64mm

FEATURES	XR720C	XW720L	XW720V
First display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.
Second display: n° digits	± 4 d.p.	± 4 d.p.	± 4 d.p.
Keyboard: push buttons	4	6	6
Power supply	110, 230Vac	110, 230Vac	110, 230Vac
Probe inputs			
Thermostat	NTC	NTC	NTC
Defrost			
Display	NTC	NTC	NTC
Digital inputs			
Alarm, door switch, light, defrost	config	config	config
Door switch			
Relay outputs			
Compressor	8A	8A, 20A opt	8A, 20A opt
Defrost			
Fans			
Light		8A	16A
Light, alarm			
Other			
Hot Key/Prog Tool Kit output	pres	pres	pres
Serial output		TTL	TTL
Infrared output	opt	opt	opt
Buzzer	pres	pres	pres
Real time clock	pres	pres	pres

XR720C
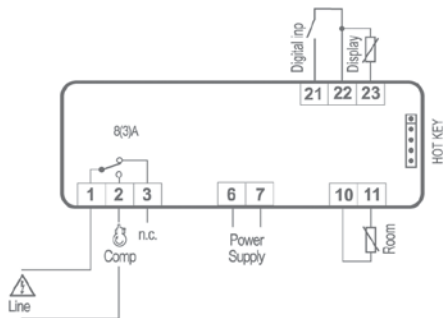
XW720L
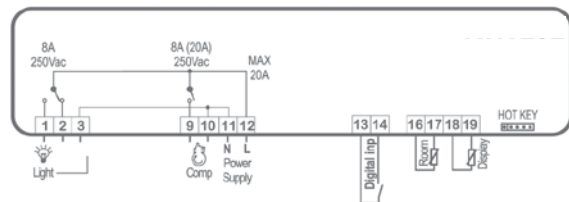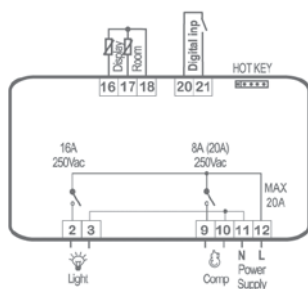
XW720V

XR700-XW700

CONTROLLERS with HACCP FUNCTION for MEDIUM and LOW TEMPERATURE

XR740C XW740L XW740V	Digital controllers for M.T and L.T. with defrost management
XR745C	Digital controller for M.T and L.T. with defrost management and RS485 serial output

C: 32x74mm   **L**: 38x185mm   **V**: 100x64mm

FEATURES	XR740C	XW740L	XW740V	XR745C
First display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.
Second display: n° digits	± 4 d.p.	± 4 d.p.	± 4 d.p.	± 4 d.p.
Keyboard: push buttons	4	6	6	4
Power supply	110, 230Vac	110, 230Vac	110, 230Vac	12, 24Vac/dc
Probe inputs				
Thermostat	NTC	NTC	NTC	NTC
Defrost	NTC	NTC	NTC	NTC
Display	NTC	NTC	NTC	NTC
Digital inputs				
Alarm, door switch, light, defrost	config	config	config	config
Door switch				pres
Relay outputs				
Compressor	8A	8A, 20A opt	8A, 20A opt	8A
Defrost	8A	8A	8A	8A
Fans				
Light		8A	16A	
Light, alarm				
Other				
Hot Key/Prog Tool Kit output	pres	pres	pres	pres
Serial output		TTL	TTL	TTL, RS485 opt
Infrared output	opt	opt	opt	opt
Buzzer	pres	pres	pres	pres
Real time clock	pres	pres	pres	pres

XR740C

XW740L
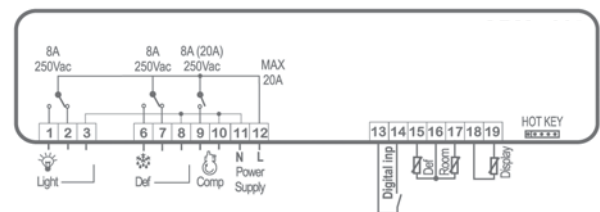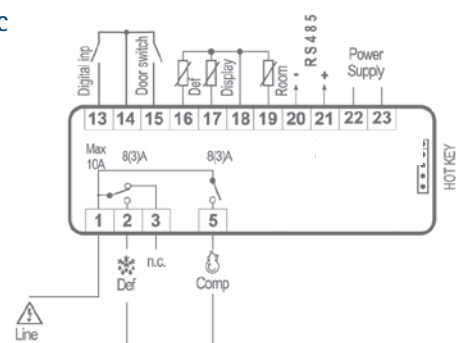
XW740V

XR745C

XR700–XW700
CONTROLLERS with HACCP FUNCTION for MEDIUM and LOW TEMPERATURE

XR760C XW760L XW760V	Digital controllers for M.T. and L.T. ventilated applications
XR775C	Digital controller for M.T. and L.T. ventilated applications with RS485 serial output

C: 32x74mm   **L**: 38x185mm   **V**: 100x64mm

FEATURES	XR760C	XW760L	XW760V	XR775C
First display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.
Second display: n° digits	± 4 d.p.	± 4 d.p.	± 4 d.p.	± 4 d.p.
Keyboard: push buttons	4	6	6	4
Power supply	110, 230Vac	110, 230Vac	110, 230Vac	12, 24Vac/dc
Probe inputs				
Thermostat	NTC	NTC	NTC	NTC
Defrost	NTC	NTC	NTC	NTC
Display	NTC	NTC	NTC	NTC
Digital inputs				
Alarm, door switch, light, defrost	config	config	config	config
Door switch				pres
Relay outputs				
Compressor	8A	8A, 20A opt	8A, 20A opt	8A
Defrost	8A	8A	8A	8A
Fans	8A	8A	8A	8A
Light		8A	16A	
Light, alarm				8A config
Other				
Hot Key/Prog Tool Kit output	pres	pres	pres	pres
Serial output		TTL	TTL	TTL, RS485 opt
Infrared output	opt	opt	opt	opt
Buzzer	pres	pres	pres	pres
Real time clock	pres	pres	pres	pres

XR760C

XW760L

XW760V

XR775C

XDL SERIES: TEMPERATURE RECORDING DEVICE FOR NT, MT AND LT APPLICATIONS

- The XDL is a temperature and status recording module for refrigerating applications that works in accordance to HACCP rules. It works with Dixell instruments equipped with the serial output or combined with XJDL40D probe module. Monitoring of temperature, alarms and digital inputs is simple and intuitive, and data can be easily downloaded on a USB key
- Connection to Dixell controllers that are provided with serial output (through PW-DL)
- Stand-alone operation in a 4 DIN module (XJDL40D provided with 4 NTC probes, 4 DI and 1 relay output)
- Fast and simple mounting
- Recorded data download on a USB key: txt format that can also be displayed in EXCEL
- Data recording: up to 1 year with sampling up to 16 minutes (settable)
- TTL and RS485 inputs with internal converter (on PW-DL or XJDL40D)
- 4VA max power absorption
- Dual display with red LED (8,0mm high) and yellow LED (5,6mm high) and 13 icons

XDL01 – PW-DL

The XDL01 data recording module is connected to PW-DL power supply that it's also an interface for Dixell instruments with TTL or RS485 serial output
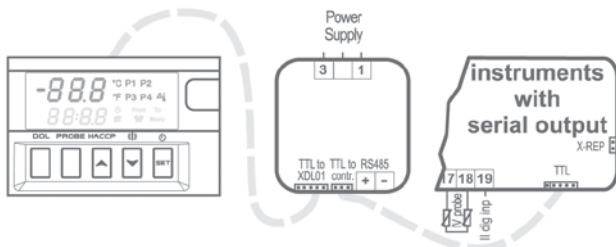
XDL01 – XJDL40D

The XDL01 data recording module it's directly connected to the XJDL40D controller available in 4DIN format. The XJDL40D has 4 built-in digital inputs, one 8A relay output and 4 NTC probe inputs
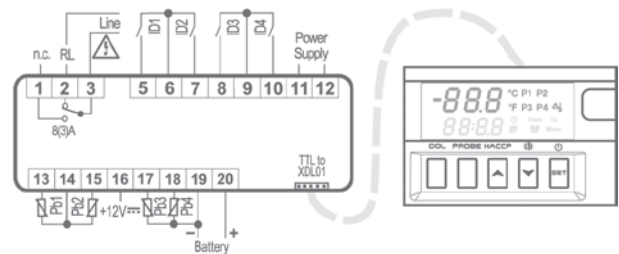
HOW TO ORDER

XDL01   `X D L 0 1 - 0 0 0 D 0`

PW-DL   `P W - D L - A 0 0 0 0`

XJDL40D `X J D L 4 0 D - A B 0 D 0`

A	B	D
Power supply	**Battery**	**Measurement unit**
2 = 24Vac	**0** = No	**0** = °C decimal
4 = 110Vac	**1** = Yes	**1** = °C integer
5 = 230Vac		**2** = °F

MULTIPLEXED CABINET REFRIGERATION CONTROLLERS

SECTION INDEX

D: 10 DIN Rail

100x64mm

32x74mm

L: 38x185mm

38x185mm

XM SERIES: CONTROLLERS FOR NT AND LT APPLICATIONS – SERIAL OUTPUT

- Multifunction controllers for multiplexed applications
- Multi-master devices (XM400/600)
- Each slave module can be driven and set through a unique keyboard held by the master unit (XM400/600)
- Up to 5 controllers linked for XM400 series and up to 8 for XM600 series
- Internal Real Time Clock
- Direct load connections (XM200/400)
- Up to 8 keys keyboard with direct access to the main functions
- Integrated electronic expansion valve drive (XM600)
- Anti-sweat heater management through a "DEW POINT" (XM600)
- Virtual probe management (XM600)
- Standard communication protocol ModBUS-RTU
- Hot Key or Prog tool kit connector for a quick and easy programming
- 10VA max power absorption
- Display with red LED (13,2 mm high), (10,5mm and icons for CX format)

MULTIPLEXED CABINET APPLICATIONS WITH CONTROLLERS IN K FORMAT

SECTION 1   SECTION 2   SECTION 3

MULTIPLEXED CABINET

XM400 OR XM600 CONTROLLERS

LAN   2 wires   up to 8

RS485 network to monitoring system

opt   opt   opt

KEYBOARD   KEYBOARD   KEYBOARD

HOW TO ORDER

XM200L | X | M | 2 | 4 | 4 | L | - | A | B | C | D | 0 |

inoX -17.8 For Inox version and blue display please contact Dixell
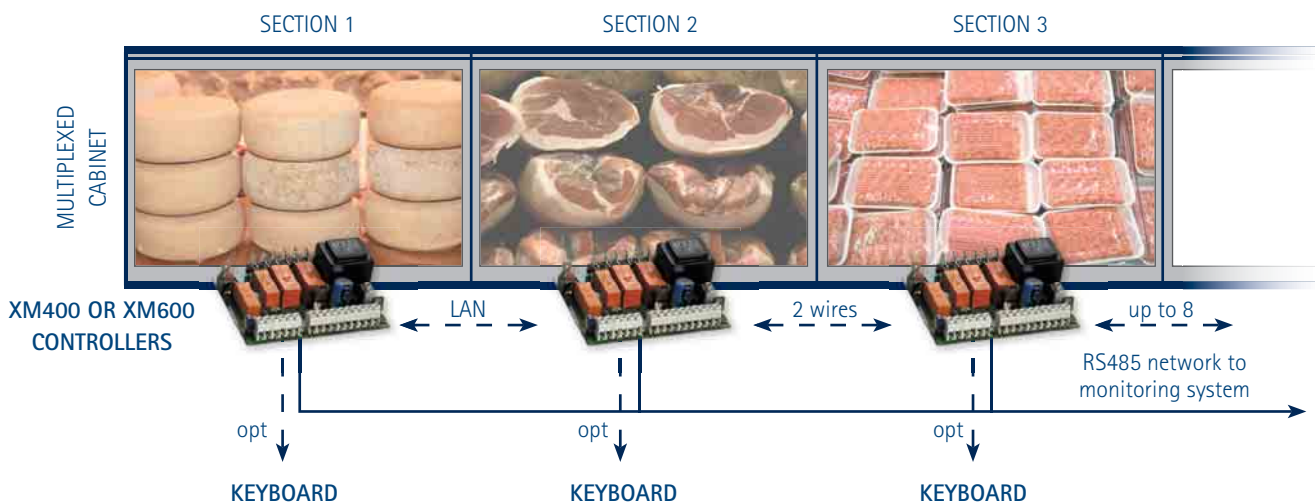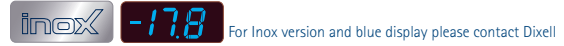
	A		B		C		D
Power supply		**Real time clock**		**Buzzer**		**Measurement unit**	
4 = 110Vac		**0** = No		**0** = No		**C** = °C	
5 = 230Vac		**1** = Yes		**1** = Yes		**F** = °F	

T, V KEYBOARDS | | | | | - | A | 0 | 0 | D | 0 |

inoX -17.8 For Inox version and blue display please contact Dixell

CX KEYBOARDS | C | X | | | - | A | 0 | 0 | N | 0 |

-17.8 For blue display please contact Dixell

	A		D
Buzzer		**Measurement unit**	
0 = No		**C** = °C	
1 = Yes		**F** = °F	

XM400K | X | M | 4 | | | K | - | A | B | C | D | E |
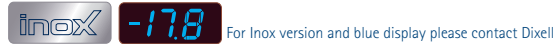
	A		B		C		D		E
Power supply		**Real time clock**		**Housing**		**Measurement unit**		**Built-in RS485**
4 = 110Vac		**0** = No		**0** = Open board "OS"		**C** = °C		**0** = No
5 = 230Vac		**1** = Yes		**1** = "GS" housing		**F** = °F		**1** = Yes

XM600K | X | M | 6 | | | K | - | A | B | C | D | E |

	A		B			C			D		E		
	Power supply		**Input**		**RTC**	**RS485**	**Housing**		**Measurement unit**		**Modulating output**		**Connections**
	0 = 12Vac/dc		**N** = NTC/4÷20mA	**0**	No	No	8 DIN Rail		**C** = °C/bar		**0**	No	Discon+screw
	2 = 24Vac		**O** = NTC/0÷10V	**1**	No	Yes	8 DIN Rail		**F** = °F/psi		**1**	No	Screw
	4 = 110Vac		**P** = Pt1000/4÷20mA	**2**	Yes	No	8 DIN Rail				**2**	4÷20mA/0÷10V	Discon+screw
	5 = 230Vac		**Q** = Pt1000/0÷10V	**3**	Yes	Yes	8 DIN Rail				**3**	4÷20mA/0÷10V	Screw
	6 = 110÷230Vac			**4**	No	No	Open board				**4**	12V/30mA/PWM	Discon+screw
				5	No	Yes	Open board				**5**	12V/30mA/PWM	Screw
				6	Yes	No	Open board						
				7	Yes	Yes	Open board						

XM200/400

MULTIPLEXED CABINET CONTROLLERS for NORMAL and LOW TEMPERATURE

XM244L	Multifunction controller for multiplexed N.T. and L.T. ventilated applications with 4 defrost management
XM440K	Multifunction controller for multiplexed N.T. and L.T. applications with electrical or hot gas defrost function

L: 38x185mm   **K**: OS/GS

FEATURES	XM244L	XM440K
Display: n° digits	± 3 d.p.	on keyboard ± 3 d.p.
Keyboard: push buttons	5	CX640 – T640 – V640: 6
Power supply	110, 230Vac	110, 230Vac
Probe inputs		
Thermostat	NTC	NTC
Defrost	NTC	NTC
Defrost 2	NTC	
Defrost 3	NTC	
Defrost 4	NTC	
Display		NTC
AUX		
Suction pressure		
Suction temperature		
Digital inputs		
Start defrost, pressure switch, AUX, generic alarm, serious alarm mode, light, ON/OFF, holiday		config
Energy saving		pres
Relay outputs		
Compressor	8A	8A
Defrost	8A	20A
Defrost 2	8A	
Defrost 3	8A	
Defrost 4	8A	
Fans	8A	
Light		16A
Alarm		
AUX		
Other		
Hot Key/Prog Tool Kit output	pres	pres
Remote display output		X-REP
Serial output	TTL	TTL, RS485 opt
4÷20mA/0÷10V output		
12V/30mA/PWM output		
Buzzer	opt	on keyboard opt
Real time clock	opt	opt
Valve driver output up to 30W		

XM244L
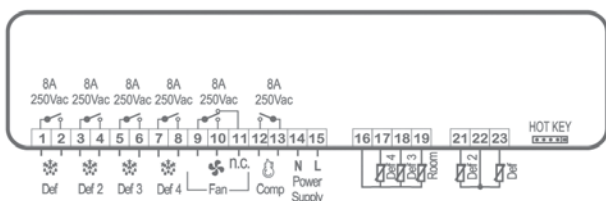
XM440K
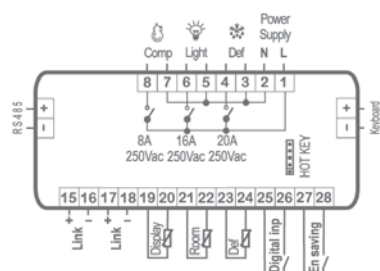
XM400

MULTIPLEXED CABINET CONTROLLERS for NORMAL and LOW TEMPERATURE

K: 0S/GS

XM460K	Multifunction controller for N.T. and L.T. ventilated applications with 20A defrost relay and light relay
XM463K	Multifunction controller for N.T. and L.T. ventilated applications with defrost relay and light relay
XM470K	Multifunction controller for N.T. and L.T. ventilated applications with auxiliary output

FEATURES	XM460K	XM463K	XM470K
Display: n° digits	on keyboard ± 3 d.p.	on keyboard ± 3 d.p.	on keyboard ± 3 d.p.
Keyboard: push buttons	CX640 – T640 – V640: 6	CX640 – T640 – V640: 6	T840 – V840: 8
Power supply	110, 230Vac	110, 230Vac	110, 230Vac
Probe inputs			
Thermostat	NTC	NTC	NTC
Defrost	NTC	NTC	NTC
Defrost 2			
Defrost 3			
Defrost 4			
Display	NTC	NTC	NTC
AUX			
Suction pressure			
Suction temperature			
Digital inputs			
Start defrost, pressure switch, AUX, generic alarm, serious alarm mode, light, ON/OFF, holiday	config	config	config
Energy saving	pres	pres	pres
Relay outputs			
Compressor	8A	8A	8A
Defrost	20A	16A	20A
Defrost 2			
Defrost 3			
Defrost 4			
Fans	8A	8A	8A
Light	16A	16A	16A
Alarm			
AUX			8A
Other			
Hot Key/Prog Tool Kit output	pres	pres	pres
Remote display output	X-REP	X-REP	X-REP
Serial output	TTL, RS485 opt	TTL, RS485 opt	TTL, RS485 opt
4÷20mA/0÷10V output			
12V/30mA/PWM output			
Buzzer	on keyboard opt	on keyboard opt	on keyboard opt
Real time clock	opt	opt	opt
Valve driver output up to 30W			

XM460K

XM463K

XM470K

XM600

ADVANCED CONTROLLERS for NORMAL and LOW TEMPERATURE with EEV MANAGEMENT

K: OS/8 DIN Rail

XM660K	Advanced multifunction controller for N.T. and L.T. ventilated applications
XM669K	Advanced multifunction controller for N.T. and L.T. ventilated applications with ON/OFF electronic valve management

FEATURES	XM660K	XM669K
Display: n° digits	on keyboard ± 3 d.p.	on keyboard ± 3 d.p.
Keyboard: push buttons	CX660: 6	CX660: 6
Power supply	12Vac/dc - 24, 110, 230Vac - 110÷230Vac	12Vac/dc - 24, 110, 230Vac - 110÷230Vac
Probe inputs		
Thermostat	NTC/PTC/Pt1000 config	NTC/PTC/Pt1000 config
Defrost	NTC/PTC/Pt1000 config	NTC/PTC/Pt1000 config
Defrost 2		
Defrost 3		
Defrost 4		
Display	NTC/PTC/Pt1000 config	NTC/PTC/Pt1000 config
AUX	NTC/PTC/Pt1000 config	NTC/PTC/Pt1000 config
Suction pressure		NTC/PTC/Pt1000/4÷20mA/0÷5V config
Suction temperature		NTC/PTC/Pt1000 config
Digital inputs		
Start defrost, pressure switch, AUX, generic alarm, serious alarm mode, light, ON/OFF, holiday	2 config	2 config
Energy saving		
Relay outputs		
Compressor	8A	8A
Defrost	16A	16A
Defrost 2		
Defrost 3		
Defrost 4		
Fans	8A	8A
Light	16A	16A
Alarm		
AUX		
Other		
Hot Key/Prog Tool Kit output	pres	pres
Remote display output	X-REP	X-REP
Serial output	RS485	RS485
4÷20mA/0÷10V output	opt	opt
12V/30mA/PWM output	opt	opt
Buzzer	on keyboard opt	on keyboard opt
Real time clock	pres	pres
Valve driver output up to 30W		pres

XM660K

XM669K

PARAMETRIC CONTROLLERS

XM600

ADVANCED CONTROLLERS for NORMAL and LOW TEMPERATURE with EEV MANAGEMENT

XM670K	Advanced multifunction controller for N.T. and L.T. ventilated applications with auxiliary and alarm outputs
XM679K	Advanced multifunction controller for N.T. and L.T. ventilated applications with auxiliary and alarm outputs and ON/OFF electronic valve management

K: OS/8 DIN Rail

FEATURES	XM670K	XM679K
Display: n° digits	on keyboard ± 3 d.p.	on keyboard ± 3 d.p.
Keyboard: push buttons	CX660: 6	CX660: 6
Power supply	12Vac/dc - 24, 110, 230Vac - 110÷230Vac	12Vac/dc - 24, 110, 230Vac - 110÷230Vac
Probe inputs		
Thermostat	NTC/PTC/Pt1000 config	NTC/PTC/Pt1000 config
Defrost	NTC/PTC/Pt1000 config	NTC/PTC/Pt1000 config
Defrost 2		
Defrost 3		
Defrost 4		
Display	NTC/PTC/Pt1000 config	NTC/PTC/Pt1000 config
AUX	NTC/PTC/Pt1000 config	NTC/PTC/Pt1000 config
Suction pressure		NTC/PTC/Pt1000/4÷20mA/0÷5V config
Suction temperature		NTC/PTC/Pt1000 config
Digital inputs		
Start defrost, pressure switch, AUX, generic alarm, serious alarm mode, light, ON/OFF, holiday	3 config	3 config
Energy saving		
Relay outputs		
Compressor	5A	5A
Defrost	16A	16A
Defrost 2		
Defrost 3		
Defrost 4		
Fans	8A	8A
Light	16A	16A
Alarm	8A	8A
AUX	8A	8A
Other		
Hot Key/Prog Tool Kit output	pres	pres
Remote display output	X-REP	X-REP
Serial output	RS485	RS485
4÷20mA/0÷10V output	opt	opt
12V/30mA/PWM output	opt	opt
Buzzer	on keyboard opt	on keyboard opt
Real time clock	pres	pres
Valve driver output up to 30W		pres

XM670K

XM679K
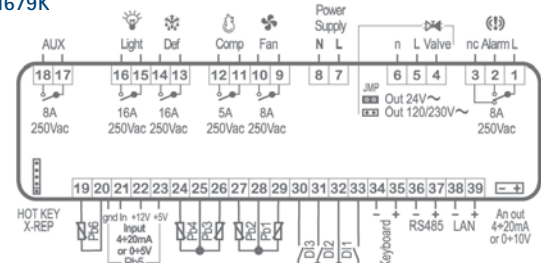
XM400/600

KEYBOARDS for MULTIPLEXED CABINET CONTROLLERS in K FORMAT

CX640 **T640** **V640**	6 key keyboards for XM400 controllers
T840 **V840**	8 key keyboards for XM400 controllers
CX660	6 key keyboard for XM600 controllers

32x74mm   38x185mm   100x164mm

FEATURES	CX640 – T640 – V640	T840 – V840	CX660
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.
Keyboard: push buttons	6	8	6
Slave module	XM440K XM460K XM463K	XM470K	XM660K XM669K XM670K XM679K
Buzzer	opt	opt	opt

CX format is provided with a wide display with integrated incons of real time situation and of measurement unit, for clear and continuous monitoring

THE POWER MODULES IN K FORMAT ARE AVAILABLE IN 3 DIFFERENT VERSIONS:

OS: open board for XM400 and XM600   **GS:** standard plastic case for XM400   **8 DIN Rail:** with 8 DIN plastic housing for XM600

CONTROLLERS CAN BE COMBINED WITH:

XM-RTC: real time clock standard board
XM-RTCB: real time clock board with lithium battery

XM-FC16: female connectors kit 16 pins for XM660K and XM670K
XM-FC21: female connectors kit 21 pins for XM669K and XM679K

ELECTRONIC EXPANSION VALVE DRIVERS

SECTION INDEX

D: 4 DIN Rail

XEV SERIES: SUPERHEAT MANAGEMENT – SERIAL OUTPUT

- Drivers for ON/OFF (pulsed) and stepper electronic expansion valve management
- ON/OFF (pulsed) expansion valve support with 30W max power and coil c.a.
- Temperature analog inputs (NTC, PTC, PT1000)
- Pressure analog inputs (0÷5V, 4÷20mA)
- Possibility to broadcast via LAN the pressure signal to multiplexed cabinets
- Alarm management (visual, relay)
- Cool Defrost for defrost time reduction
- Standard communication protocol ModBUS-RTU
- Hot Key or Prog tool kit connector for a quick and easy programming
- 6VA max power absorption
- Display with red LED (10,5mm high) and icons

HOW TO ORDER

XEV [X][E][V][ ][ ][D]–[A][B][C][D][E]   `-17.8` For blue display please contact Dixell

A	B	C	D	E
Power supply	**Temperature probe**	**Pressure probe**	**Measurement unit**	**Buzzer**
2 = 24Vac **4** = 120Vac **5** = 230Vac	**P** = Pt1000 **N** = NTC	**0** = 0÷5V **1** = 4÷20mA **2** = PP11 **3** = PP30 **2** = PPR15 **3** = PPR30	**C** = °C/bar **F** = °F/psi **P** = °C/psi	**0** = No **1** = Yes

FAST RECOVERY
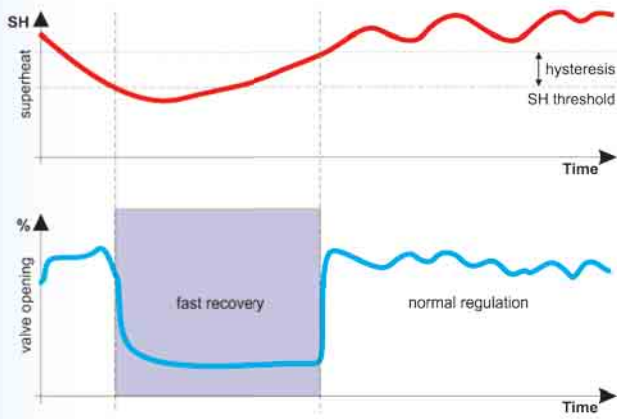
The XEV series uses a special algorithm to return to a normal situation of regulation after verifying a superheat alarm condition. Dixell's Fast Recovery algorithm corrects the superheat problems more rapidly than the traditional systems because if a critical situation occurs, the regulation system increases its speed of reaction.

REFRIGERATION CIRCUIT

The diagram shows the different ways to connect the XEV drivers to a generic application like a single cooling unit or multiplexed cabinet. The valve is driven by the XEV module that is in turn commanded, by the activation of the digital input, from the temperature controller.

SINGLE SYSTEM: section 1 of the schematic diagram shows how connections would be arranged for a single cooling system.

MULTIPLEXED CABINET: to reduce installation costs, it is possible to use a single suction pressure transducer as shown in the overall schematic diagram. This transducer's pressure signal is repeated to the other controllers across a digital LAN connection that guarantees optimal noise immunity.
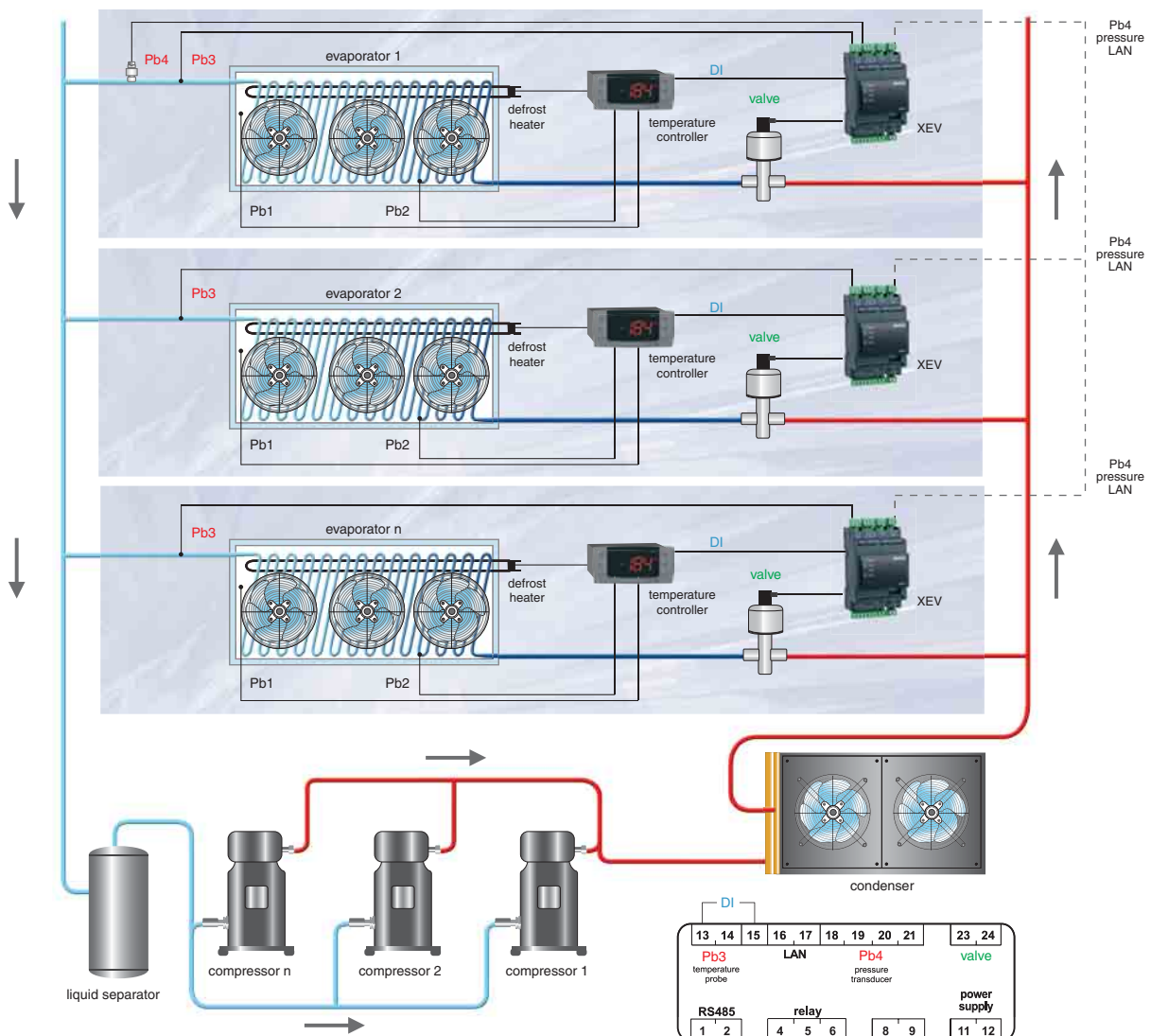
XEV

DRIVERS for ON/OFF and STEPPER ELECTRONIC EXPANSION VALVE MANAGEMENT

XEV11D	ON/OFF electronic expansion valve driver
XEV12D	ON/OFF electronic expansion valve driver with integrated display
XEV21D	Stepper electronic expansion valve driver
XEV22D	Stepper electronic expansion valve driver with integrated display

D: 4 DIN Rail

FEATURES	XEV11D	XEV12D	XEV21D	XEV22D
Kind of valves	ON/OFF	ON/OFF	stepper	stepper
Display: n° digits		± 3 d.p.		± 3 d.p.
Keyboard: push buttons		3		3
Power supply	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac
Probe inputs				
Suction pressure	4÷20mA/0÷5V config	4÷20mA/0÷5V config	4÷20mA/0÷5V config	4÷20mA/0÷5V config
Suction temperature	Pt1000/NTC config	Pt1000/NTC config	Pt1000/NTC config	Pt1000/NTC config
Digital inputs				
Free of voltage	pres	pres	pres	pres
High voltage	pres	pres	pres	pres
Relay output				
Alarm	8A config	8A config	8A config	8A config
Other				
Valve driver output up to 30W	pres	pres		
Hot Key/Prog Tool Kit output	pres	pres	pres	pres
Remote keyboard output	KB1-PRG		KB1-PRG	
Serial output	RS485	RS485	RS485	RS485
Alarm recovery by LAN	pres	pres	pres	pres

XEV11D
XEV21D
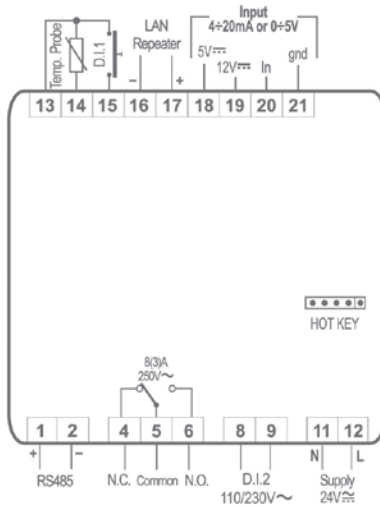
XEV12D
XEV22D
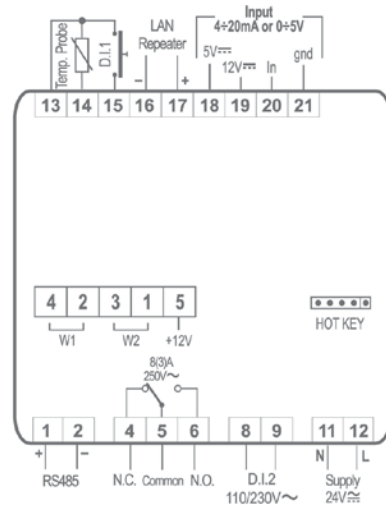
KB1-PRG
6 key programming keyboard for XEV11D – XEV21D
Display: n° digits: ± 3 d.p.
Keyboard: push buttons: 6

100x64mm

For the connection between the keyboard and the XEV11D – XEV21D modules the **CAB/KB11** cable is available, 1m

REFRIGERATED ROOM & TEMP./HUMIDITY CONTROLLERS

SECTION INDEX

PANEL MOUNTING

WALL MOUNTING

230x210mm

COOL MATE

XLR100 COOL MATE SERIES: CONTROLLERS FOR NT, MT AND LT APPLICATIONS – SERIAL OUTPUT

- Advanced multifunction refrigeration controllers suitable for both heating and cooling applications
- Temperature control can be performed on probe 1, probe 2 or by the difference between probe 1 and 2
- Complete compressor and defrost management
- Maximum and minimum temperature recording
- Direct line power supply 230 (110)Vac. No external transformer required
- Instant visibility of machine status via display icons
- Clear alarm signals thanks to the front lid
- Fast and easy wiring
- Designed to be wall or panel mounted
- Standard communication protocol ModBUS-RTU
- Hot key or Prog tool kit connector for a quick and easy programming
- 10VA max power absorption
- Display with red LED (30,5mm high) and 11 icons

HOW TO ORDER

XLR100 | X | L | R | 1 | | | – | A | B | C | D | E | -17.8 For blue display please contact Dixell

A	B	C	D	E
Power supply	**Input / kind of output**	**RTC**	**Measurement unit**	**Built–in RS485**
2 = 24Vac **4** = 110Vac **5** = 230Vac **8** = 110÷230Vac	**N** = NTC / standard **P** = PTC / standard **O** = NTC / direct loads **Q** = PTC / direct loads	**1** = No **3** = Yes	**C** = °C **F** = °F	**2** = No **3** = Yes

XLR100

ADVANCED MULTIFUNCTION CONTROLLERS for NORMAL, MEDIUM and LOW TEMPERATURE COLD ROOMS

230x210mm

XLR130	"off cycle" defrost digital controller for N.T.
XLR170	Digital controller for M.T. and L.T. ventilated applications

FEATURES	XLR130	XLR170
Display: n° digits	± 3 d.p.	± 3 d.p.
Keyboard: push buttons	8	8
Power supply	24, 110, 230Vac	24, 110, 230Vac
	110÷230Vac	110÷230Vac
Probe inputs		
Thermostat	NTC/PTC	NTC/PTC
Defrost		NTC/PTC
Display	NTC/PTC	NTC/PTC
Digital inputs		
Alarm, block alarm, pressure switch, start defrost, energy saving, ON/OFF, AUX, holiday	config	config
Door switch	pres	pres
Relay outputs		
Compressor	20A	20A
Defrost		16A
Fans		8A
Light	16A	16A
AUX	20A	20A
Alarm	8A	8A
Other		
Hot Key/Prog Tool Kit output	pres	pres
Serial output	RS485 opt	RS485 opt
Buzzer	pres	pres
Real time clock	opt	opt

XLR130

direct load
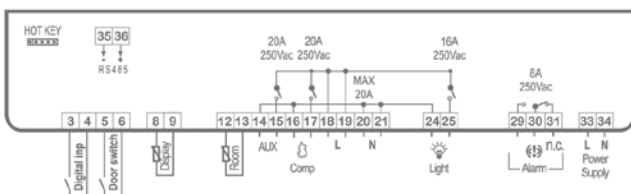
XLR170
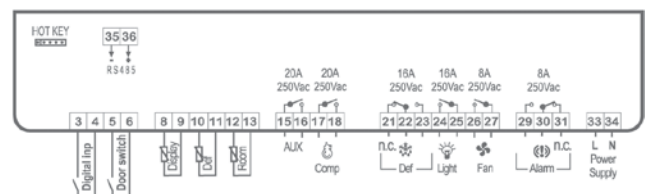
direct load
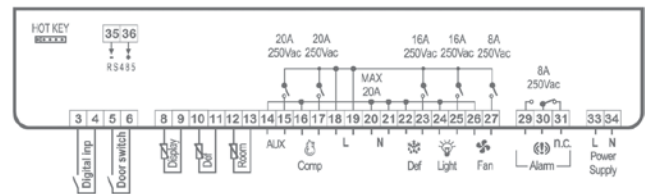
PANEL MOUNTING

WALL MOUNTING

230x210mm

COOL MATE

XLR400 COOL MATE SERIES: CONTROLLERS FOR NT AND LT APPLICATIONS
DUAL TEMP. MANAGEMENT – SERIAL OUTPUT

- Advanced multifunction refrigeration controllers with dual temperature management
- Ideal for heating-cooling applications such as a heated bain-marie counter with refrigerated under-counter storage
- Designed for a dual refrigeration circuit or 2 independent circuits
- Integrated defrost management
- Cooling or heating action selectable by user
- Direct line power supply 230 (110)Vac. No external transformer required
- Instant visibility of machine status via display icons
- Clear alarm signals thanks to the front lid
- Designed to be wall or panel mounted
- Standard communication protocol ModBUS-RTU
- Hot key or Prog tool kit connector for a quick and easy programming
- 10VA max power absorption
- Dual display with red LED (25,3mm high) and yellow LED (20,3mm high) and 13 icons

TYPICAL APPLICATIONS

1 circuit – 2 evaporators

2 indipendent circuits
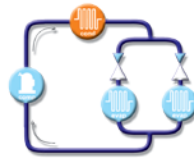
Heating and cooling application
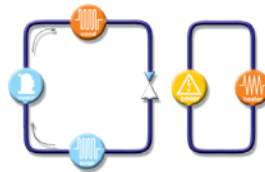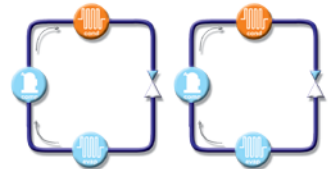
2 heating applications
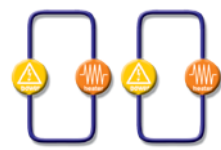
HOW TO ORDER

XLR400 X L R 4 ☐ ☐ – A 0 C D E

	A	C	D	E
	Power supply	**RTC**	**Measurement unit**	**Built–in RS485**
	2 = 24Vac **4** = 110Vac **5** = 230Vac **8** = 110÷230Vac	**0** = No **1** = Yes	**C** = °C **F** = °F	**0** = No **1** = Yes

XLR400

ADVANCED MULTIFUNCTION CONTROLLERS with DUAL TEMP. MANAGEMENT for NORMAL and LOW TEMP. COLD ROOMS

230x210mm

XLR460	Digital controller for cold rooms with dual temperature management (N.T. + L.T.)
XLR470	Digital controller for cold rooms with dual temperature management (L.T. + L.T.)

FEATURES	XLR460	XLR470
First display: n° digits	± 3 d.p.	± 3 d.p.
Second display: n° digits	± 4 d.p.	± 4 d.p.
Keyboard: push buttons	8	8
Power supply	24, 110, 230Vac	24, 110, 230Vac
	110÷230Vac	110÷230Vac
Probe inputs		
Thermostat	NTC	NTC
Thermostat 2	NTC	NTC
Defrost	NTC	NTC
Defrost 2		NTC
Digital inputs		
Alarm, block alarm, pressure switch, start defrost, energy saving, ON/OFF, AUX, holiday	config	config
Door switch	pres	pres
Relay outputs		
Compressor	20A	20A
Compressor 2	20A	20A
Defrost	16A	16A
Defrost 2		5A
Fans	8A	5A
Fans 2		5A
Light	16A	16A
Alarm	8A	8A
Other		
Hot Key/Prog Tool Kit output	pres	pres
Serial output	RS485 opt	RS485 opt
Buzzer	pres	pres
Real time clock	opt	opt

XLR460

XLR470
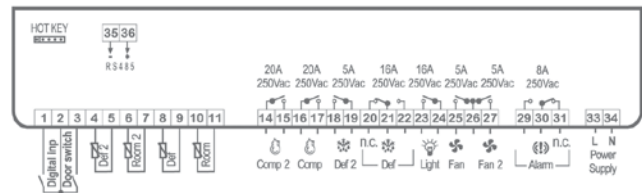
PANEL
MOUNTING

WALL
MOUNTING

230x210mm

COOL MATE

XLH200/300 COOL MATE SERIES: CONTROLLERS FOR NT, LT AND MATURING APPLICATIONS – TEMP./HUMIDITY MANAGEMENT – SERIAL OUTPUT

- Advanced multifunction controllers with temperature and humidity management
- Cooling and heating action for safe storage of products
- Defrost management
- Possibility of excluding humidity control
- Dehumidifying action by cooling circuit
- Running and stopping programmable cycles with different set points (XLH300)
- Automatic cycles of extraction fans (XLH300)
- Direct line power supply 230 (110)Vac. No external transformer required
- Instant visibility of machine status via display icons
- Clear alarm signals thanks to the front lid
- Designed to be wall or panel mounted
- Standard communication protocol ModBUS-RTU
- Hot key or Prog tool kit connector for a quick and easy programming
- 10VA max power absorption
- Dual display with red LED (25,3mm high) and yellow LED (20,3mm high) and 17 icons

HOW TO ORDER

XLH200/300 | X | L | H | | | | – | A | 0 | 0 | D | E |

	A		D		E
Power supply		**Measurement unit**		**Built-in RS485**	
2 = 24Vac		**C** = °C		**0** = No	
4 = 110Vac		**F** = °F		**1** = Yes	
5 = 230Vac					
8 = 110÷230Vac					

XLH200/300

ADVANCED MULT. CONT. with TEMP./HUMIDITY MANAGEMENT for N. and L. TEMP. COLD ROOMS AND MATURING ROOMS

230x210mm

XLH260	Digital controller for N.T. and L.T. cold rooms with temperature and humidity management
XLH360	Digital controller for maturing rooms with temperature and humidity management

FEATURES	XLH260	XLH360
First display: n° digits	± 3 d.p.	± 3 d.p.
Second display: n° digits	± 4 d.p.	± 4 d.p.
Keyboard: push buttons	6	8
Power supply	24, 110, 230Vac	24, 110, 230Vac
	110÷230Vac	110÷230Vac
Probe inputs		
Thermostat	NTC	NTC
Defrost	NTC	NTC
Humidity	4÷20mA	4÷20mA
Digital inputs		
Alarm, block alarm, pressure switch, start defrost, energy saving, ON/OFF, AUX, holiday	config	config
Door switch	pres	pres
Relay outputs		
Compressor	20A	20A
Defrost	16A	
Defrost, extractor fans		16A config
Fans	8A	8A
Heater control	20A	20A
Humidifying	8A	8A
Dehumidifying, light	16A config	16A config
Alarm		
Extractor fans		
Other		
Hot Key/Prog Tool Kit output	pres	pres
Serial output	RS485 opt	RS485 opt
Buzzer	pres	pres

XLH260
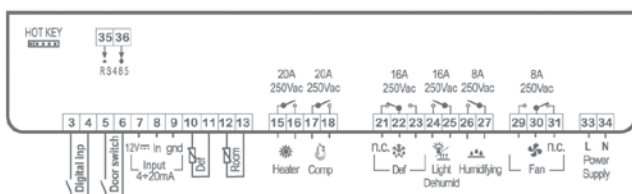
XLH360
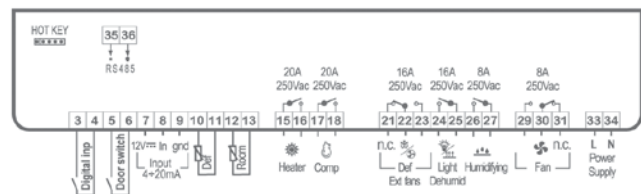
100x64mm
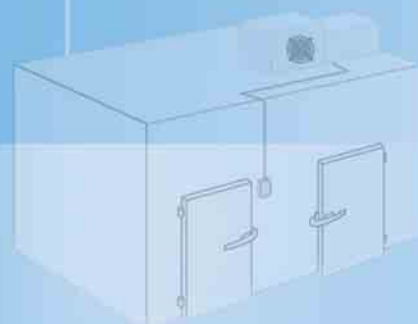
XW200/500 + V–KIT SERIES: CONTROLLERS FOR MT, LT APPLICATIONS – SPLIT FORMAT – SERIAL OUTPUT

- **V–KIT**: a wall/panel mounting housing kit for vertical format keyboards (V600 and V800 series) for remote connection to XW200K and XW500K Series refrigeration controllers
- Designed for cold rooms applications
- LT and MT models available
- Connections: 2 wire electric cable up to 100 m
- IP55 against water sprinkles
- Easy and quick to install
- 100m maximum distance is possible
- Direct line power supply 230 (110)Vac from the controller. No external transformer required
- Standard communication protocol ModBUS-RTU
- Hot key or Prog tool kit connector for a quick and easy programming
- 10VA max power absorption
- Display with red LED (13,2mm high)

COLD ROOM APPLICATION

The Dixell V-KIT allows the user to mount the keyboard near to the cold-room door. Connection between the power board (eg. XW270K) and the keyboard is via a 2 core cable. The maximum distance possible is 100m. The door-switch facility is activated when the door is open, the light is automatically switched on, while the compressor, up to 1.5HP, and the evaporator fan can be simultaneously stopped.

The innovative design of this housing gives a quick and effective solution for a variety of different applications, such as cold-rooms, benches and industrial environments where it is difficult to mount the keyboard on a wall. It's available in 3 different colours making it suitable for all applications, even where appearance plays part. A main feature is ease of assembly and with IP55 protection, it can be used in environments that may be subject to water spray or rigorous cleaning routines.

The V–KIT is suitable for all vertical format keyboards.

For more information about keyboards and WING modules that can be used with V-KIT, please check the information regarding XW200/500 Series.

BLAST CHILLER/FREEZER REFRIGERATION CONTROLLERS

SECTION INDEX

XB SERIE: CONTROLLERS FOR BLAST CHILLER AND TEMPERATURE MAINTENANCE APPLICATIONS – SERIAL OUTPUT

L: 38x185mm

- Design to comply with the rules concerning preparation and chilling of foodstuffs (HACCP)
- Four configurable cycles: pre-set according to the most common food – safety applications: soft chill, hard chill and freezing
- Output for remote display to monitor the core temperature of goods
- Internal real time clock
- Printer output (XB07PR) for temperature and blast chiller cycles reports
- All different phases monitorated and shown on the display
- Ultra violet sterilization cycle management
- Standard communication protocol ModBUS-RTU
- Hot Key 128 or Prog tool kit connector for a quick and easy programming
- 5VA max power absorption
- Dual display with red LED (8,0mm high) and yellow LED (5,6mm high) and 14 icons
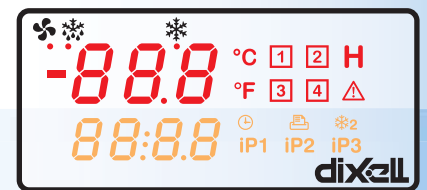
HOW TO ORDER

XB X B 5 7 0 L - A B C D E   **-17.8** For blue display please contact Dixell

	A		B		C		D		E
	Power supply		**Input**		**X-REP output**		**Measurement unit**		**Printer output**
	2 = 24Vac		**N** = NTC		**0** = No		**C** = °C		**0** = No
	4 = 110Vac		**P** = PTC		**1** = Yes		**F** = °F		**1** = Yes
	5 = 230Vac								

HACCP: A POSITIVE SOLUTIONS

The XB570L controller is dedicated to blast chiller applications and gives a solution to HACCP system.

With the XB570L, food is rapidly cooled (both at +3°C and at −18°C) immediately after it has been cooked, to avoid the proliferation of bacteria that occurs when food is allowed to cool naturally or in a normal refrigerator.

Ease of use and complete management of each blast chilling phase is guaranteed by 4 cycles that can be adjusted to suit any type of food. It is possible to display the temperature of either the air or the food insertion probe.

The hygiene of the blast chiller is guaranteed by an extra configurable output for sterilization by means of ultraviolet rays.

The optional XB07PR printer can be connected to the XB570L controllers to provide the user with a written report of all the main data required: cycle start and stop times, duration, the temperature of the product or the coldroom, all at regular intervals, via an internal time clock.

```
* START CYCLE  3
DATE : 13/04/2008
PROBES REPORT   15:19
 Insr.Probe : - 1.4°C
 Room Probe : -22.6°C
PROBES REPORT   15:20
 Insr.Probe : - 2.4°C
 Room Probe : -22.6°C
START PHASE 1      15:20
 Room SET  : -30.0°C
 I.Prb SET : -18.0°C
 TIME      : 240 min
PROBES REPORT   15:25
 Insr.Probe : - 2.6°C
 Room Probe : -22.6°C
PROBES REPORT   15:30
 Insr.Probe : - 2.6°C
 Room Probe : -23.6°C
PROBES REPORT   15:35
 Insr.Probe : - 3.4°C
 Room Probe : -25.6°C
PROBES REPORT   15:40
 Insr.Probe : - 4.2°C
 Room Probe : -28.6°C
PROBES REPORT   15:45
 Insr.Probe : - 5.0°C
 Room Probe : -30.6°C
PROBES REPORT   15:50
 Insr.Probe : - 6.5°C
 Room Probe : -30.6°C
PROBES REPORT   15:55
 Insr.Probe : - 8.0°C
 Room Probe : -30.6°C
PROBES REPORT   16:00
 Insr.Probe : - 9.5°C
 Room Probe : -30.6°C
PROBES REPORT   16:05
 Insr.Probe : -12.6°C
 Room Probe : -30.6°C
PROBES REPORT   16:10
 Insr.Probe : -18.0°C
 Room Probe : -30.6°C
END PHASE   1      16:10
 Duration  : 49 min
* END  CYCLE  3    16:10
 Duration  : 51 min

START HOLDING      16:10
 Room SET  : -18.0°C
```

FREEZING CYCLE: HOW IT IS ACHIEVED

The XB570L has 4 different soft and hard chill cycles in it's memory. These can also be modified by the User.

Each cycle is defined with independent time and temperature parameters to set each control phase and can be combined even with the hold phase.

The four cycles are directly selectable from the keyboard. The control of each cycle is carried out using the insert probe or by time duration.

INSERT PROBE   ROOM PROBE
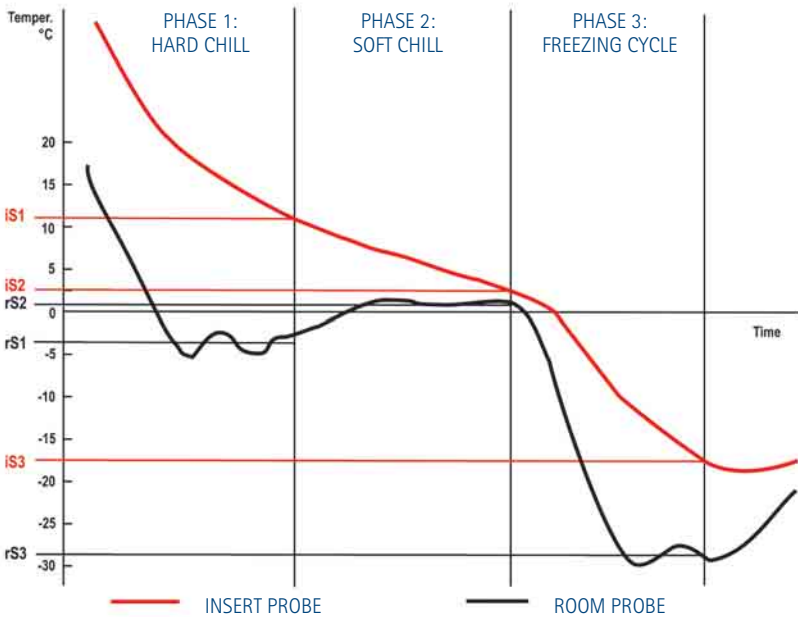
The drawing shows a typical freezing cycle

Each cycle (Cy1, Cy2, Cy3 and Cy4) can be programmed with three different phases according to the food type.

• **First phase: hard chill**

Limits bacteria reproduction during the initial phase (from high temperature down to 2 °C). During "Hard Chill", both compressor and fan are always "on" until the end cycle temperature is reached.

• **Soft chill phase**

Reduces the variation between the surface and core temperatures of the product. During "Soft Chill" the temperature of the room is regulated by the ambient probe: compressor is cycled to maintain a particular air temperature.

• **Freezing cycle phase**

Freezes the product in the shortest possible time. During the "Freezing Cycle" both compressor and fan are always on until the end temperature is reached.

• **Holding phase**

The holding phase maintains the final temperature reached by the chilling cycle.

XB

BLAST CHILLER DIGITAL CONTROLLER

L: 38x185mm

XB570L	Blast chiller digital controller with four configurable cycles, RTC, printer output and serial output

FEATURES	XB570L
First display: n° digits	± 3 d.p.
Second display: n° digits	± 4 d.p.
Keyboard: push buttons	8
Power supply	24, 110, 230Vac
Probe inputs	
Thermostat	NTC/PTC
Defrost	NTC/PTC
Insert 1	NTC/PTC
Insert 2	NTC/PTC
Insert 3	NTC/PTC
Digital inputs	
Alarm	config
Door switch	pres
Relay outputs	
Compressor	20A
Defrost	8A
Fans	8A
Light	16A
AUX	8A
Alarm	16A
Other	
Hot Key 128/Prog Tool Kit output	pres
Remote display output	X–REP opt
Printer output	XB07PR opt
Serial output	RS485
Buzzer	pres
Real time clock	pres

XB570L

COMBINED TEMP./HUMIDITY REFRIGERATION CONTROLLERS

SECTION INDEX

V: 100x64mm

100x64mm

35x185mm

L: 35x185mm

XH SERIES: CONTROLLERS FOR MT AND LT APPLICATIONS, MATURING ROOM AND FREEZING/PROVING CABINET – SERIAL OUTPUT

- Advanced multifunction controllers with temperature and humidity management
- Cooling and heating action for safe storage of products
- Defrost management
- Possibility of excluding humidity control
- Dehumidifying action by cooling circuit
- Running and stopping programmable cycles with different set points (XH300)
- Automatic cycles of extraction fans (XH300)
- Freezing and proving cycles fully configurable by user (XH400)
- Freezing phase without humidity control (XH400)
- Innovative and elegant design that enhances the aesthetics and functionality of the final product
- Up to 8 push buttons with direct action for user friendly interface
- Direct line power supply 230 (110)Vac. No external transformer required
- Standard communication protocol ModBUS-RTU
- Hot key or Prog tool kit connector for a quick and easy programming
- 10VA max power absorption
- Dual display with red LED (8,0mm high) and yellow LED (5,6mm high) and 14 icons

HOW TO ORDER

XH | X | H | | | | L | - | A | 0 | C | D | 0 |

XH240K | X | H | 2 | 4 | 0 | K | - | A | 0 | 0 | 0 | 0 |

inoX -17.8 For Inox version and blue display please contact Dixell

	A			C			D	
Power supply			**Buzzer**			**Measurement unit**		
2 = 24Vac			**0** = No			**C** = °C - %RH		
4 = 110Vac			**1** = Yes			**F** = °F - %RH		
5 = 230Vac								

KEYBOARDS | | H | 6 | 2 | 0 | – | 0 | 0 | C | D | 0 |

inoX -17.8 For Inox version and blue display please contact Dixell

	C			D	
Buzzer			**Measurement unit**		
0 = No			**C** = °C - %RH		
1 = Yes			**F** = °F - %RH		

DISPLAY ICONS	MEANING
°C	Celsius degrees
°F	Fahrenheit degrees
❄	Compressor
☀	Heater control
((!))	Alarm
❖	Fans
%RH	RH%
↓↓↓	Dehumidifying
♨♨	Humidifying
set	Temperature and humidity setting
⊓⊔	Running cycle (for XH300/400)
⧗	Cycle duration setting (for XH300)
☀	Light

COMPLETE

The **dual display** and the **14** icons show complete information about the status of the machine. Without the need to enter into the programming mode, all the main functioning of the cooling system are displayed with only one key touch.

XH200: TEMPERATURE AND HUMIDITY CONTROL

A neutral zone algorithm is used both for temperature and humidity.
Instruments are provided with a compressor output (with defrost) and heating elements to control temperature.
Humidifier and dehumidifier (depending on model) outputs are provided for humidity. This assures both variables are kept inside the set band (neutral zone)
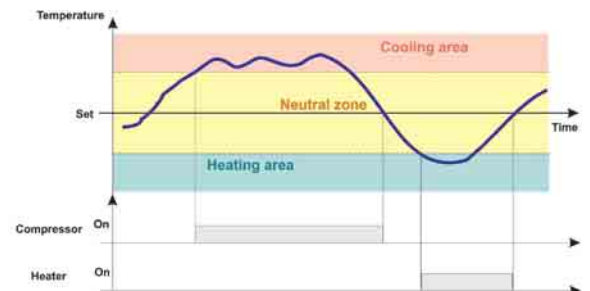
XH300: EG. MATURING CYCLE WITH RUNNING AND STOPPING PHASE

T1: pre-cycle only with temperature control

T2: cycle with temperature and humidity control

T3: stopping phase
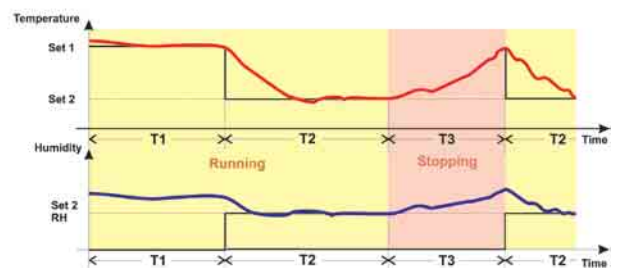
XH400: EG. FREEZING/PROVING WITH HOLDING

T1: freezing phase only temperature control

T2: proving phase humidity and temperature control
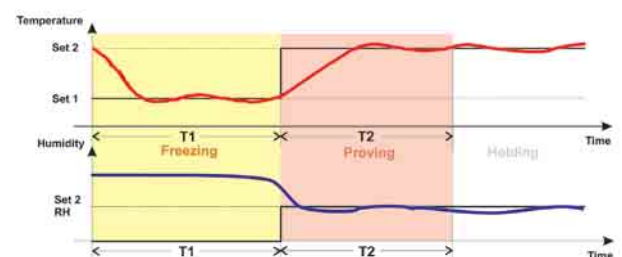
XH200

CONTROLLERS for MEDIUM and LOW TEMPERATURE with TEMPERATURE and HUMIDITY MANAGEMENT

XH240L XH240V XH240K	Multifunction digital controllers for M.T. and L.T. with temperature and humidity management
XH260L XH260V	Multifunction digital controllers for M.T. and L.T. with temperature and humidity management, defrost management and dehumidifying/light configurable relay

L: 38x185mm   **V**: 100x64mm   **K**: OS/GS

FEATURES	XH240L	XH240V	XH240K	XH260L	XH260V
First display: n° digits	± 3 d.p.	± 3 d.p.	on keyboard ± 3 d.p.	± 3 d.p.	± 3 d.p.
Second display: n° digits	± 4 d.p.	± 4 d.p.	on keyboard ± 4 d.p.	± 4 d.p.	± 4 d.p.
Keyboard: push buttons	6	6	TH620–VH620: 6	6	6
Power supply	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac
Probe inputs					
Thermostat	NTC	NTC	NTC	NTC	NTC
Defrost				NTC	NTC
Humidity	4÷20mA	4÷20mA	4÷20mA	4÷20mA	4÷20mA
Digital inputs					
Heater safety, door switch	config	config	config	config	config
Relay outputs					
Compressor	20A	8A	20A	20A	8A
Defrost				8A	8A
Defrost, extractor fans					
Fans	8A	8A	8A	8A	8A
Heater control	8A	8A	16A	8A	8A
Humidifying	8A	8A	8A	8A	8A
Dehumidifying, light				8A	8A
Light	8A	8A			
Other					
Hot Key/Prog Tool Kit output	pres	pres	pres	pres	pres
Serial output	TTL	TTL	TTL	TTL	TTL
Buzzer	opt	opt	on keyboard opt	opt	opt

XH240L
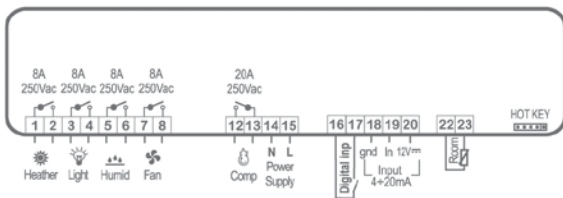
XH260L
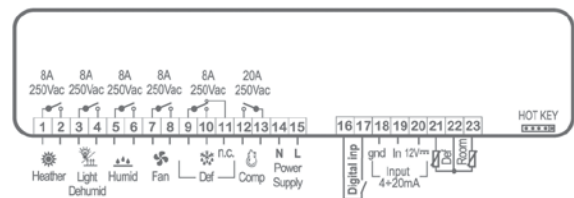
XH240V
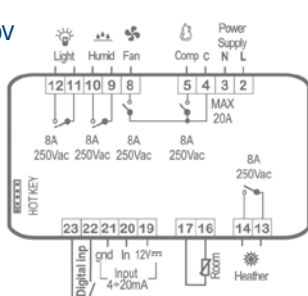
XH260V
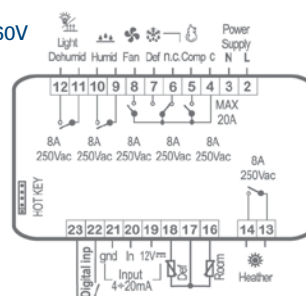
XH240K
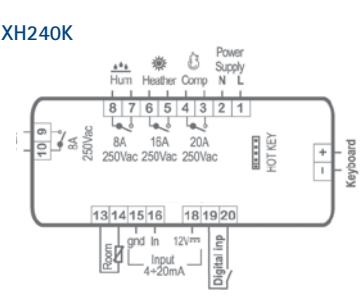
XH300

CONTROLLERS for MATURING ROOMS with TEMPERATURE and HUMIDITY MANAGEMENT

XH340L **XH340V**	Multifunction digital controllers for maturing rooms with management of: temperature and humidity, running and stopping cycles, cooling and heating action
XH360L **XH360V**	Multifunction digital controllers for maturing rooms with management of: temperature and humidity, running and stopping cycles, cooling and heating action, defrost

L: 38x185mm   **V**: 100x64mm

FEATURES	XH340L	XH340V	XH360L	XH360V
First display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.
Second display: n° digits	± 4 d.p.	± 4 d.p.	± 4 d.p.	± 4 d.p.
Keyboard: push buttons	8	8	8	8
Power supply	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac
Probe inputs				
Thermostat	NTC	NTC	NTC	NTC
Defrost			NTC	NTC
Humidity	4÷20mA	4÷20mA	4÷20mA	4÷20mA
Digital inputs				
Heater safety, door switch	config	config	config	config
Relay outputs				
Compressor	20A	8A	20A	8A
Defrost				
Defrost, extractor fans			8A	8A
Fans	8A	8A	8A	8A
Heater control	8A	8A	8A	8A
Humidifying			8A	8A
Dehumidifying, light	8A	8A	8A	8A
Light	8A	8A		
Other				
Hot Key/Prog Tool Kit output	pres	pres	pres	pres
Serial output	TTL	TTL	TTL	TTL
Buzzer	opt	opt	opt	opt

XH340L
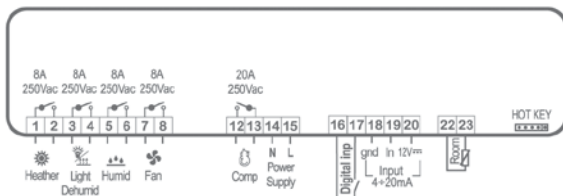
XH360L
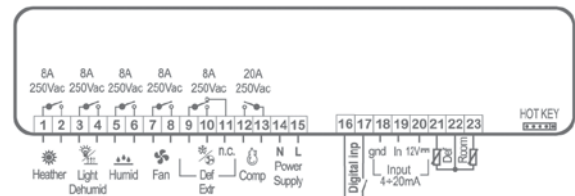
XH340V
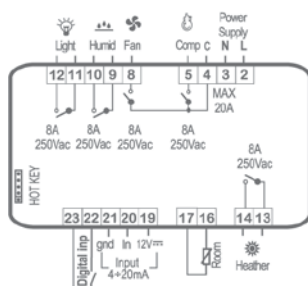
XH360V
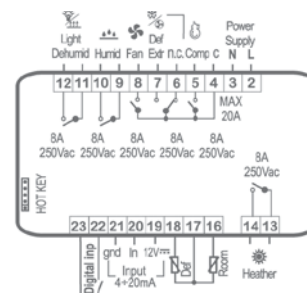
XH400

CONTROLLER for FREEZING and PROVING CABINETS with TEMPERATURE and HUMIDITY MANAGEMENT

L: 38x185mm

XH460L

Multifunction digital controller for freezing and proving cabinets with freezing phase without humidity control

FEATURES	XH460L
First display: n° digits	± 3 d.p.
Second display: n° digits	± 4 d.p.
Keyboard: push buttons	8
Power supply	24, 110, 230Vac
Probe inputs	
Thermostat	NTC
Defrost	NTC
Humidity	4÷20mA
Digital inputs	
Heater safety, door switch	config
Relay outputs	
Compressor	20A
Defrost	8A
Defrost, extractor fans	
Fans	8A
Heater control	8A
Humidifying	8A
Dehumidifying, light	8A
Light	
Other	
Hot Key/Prog Tool Kit output	pres
Serial output	TTL
Buzzer	opt

XH460L
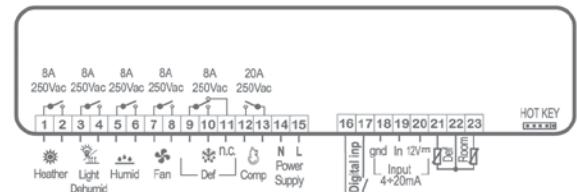
XH

KEYBOARDS for MULTIFUNCTION CONTROLLER in K FORMAT

38x185mm   100x164mm

TH620
VH620

6 key keyboards for XH200 controller in K format

FEATURES	TH620	VH620
First display: n° digits	± 3 d.p.	± 3 d.p.
Second display: n° digits	± 4 d.p.	± 4 d.p.
Keyboard: push buttons	6	6
Slave module	XH240K	XH240K
Buzzer	opt	opt

THE POWER MODULE IN K FORMAT IS AVAILABLE IN 2 DIFFERENT VERSIONS:

OS: open board

GS: with plastic housing 190x140x70mm

DUAL TEMPERATURE REFRIGERATION CONTROLLERS

SECTION INDEX

V: 100x64mm

C: 32x74mm

L: 38x185mm

XR400–XW400 SERIES: CONTROLLERS FOR NT, MT AND LT APPLICATIONS – SERIAL OUTPUT

- Advanced multifunction refrigeration controllers with dual temperature management
- Ideal for heating-cooling applications such as bain-marie with under-counter refrigerated storage
- Designed for a dual refrigeration circuit or 2 independent circuits
- Integrated defrost management
- Cooling or heating action settable by user
- Instant visibility of machine status via display icons
- Standard communication protocol ModBUS-RTU
- Hot key or Prog tool kit connector for a quick and easy programming
- 4VA max power absorption
- Dual display with red LED (8,0mm high) and yellow LED (5,6mm high) and 14 icons

More information about typical applications at page 102

HOW TO ORDER

XR400 | X | R | 4 | | | C | – | A | B | C | D | 0 | `-17.8` For blue display please contact Dixell

	A		B		C		D
	Power supply		**Buzzer**		**RTC**		**Measurement unit**
	0 = 12Vac/dc **1** = 24Vac/dc **2** = 24Vac **4** = 110Vac **5** = 230Vac		**0** = No **1** = Yes		**0** = No **1** = Yes		**C** = °C **F** = °F

XW400 | X | W | 4 | | | | – | A | B | C | D | 0 | `inoX` `-17.8` For Inox version and blue display please contact Dixell

	A		B		C		D
	Power supply		**Buzzer**		**RTC**		**Measurement unit**
	2 = 24Vac **4** = 110Vac **5** = 230Vac		**0** = No **1** = Yes		**0** = No **1** = Yes		**C** = °C **F** = °F

XR400–XW400

ADVANCED MULTIFUNCTION CONTROLLERS with DUAL TEMPERATURE MANAGEMENT for NORMAL TEMPERATURE

XR420C
XW420L
XW420V

Advanced multifunction controllers for N.T. with "off cycle" defrost and light relay

C: 32x74mm   **L**: 38x185mm   **V**: 100x64mm

FEATURES	XR420C	XW420L	XW420V
First display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.
Second display: n° digits	± 4 d.p.	± 4 d.p.	± 4 d.p.
Keyboard: push buttons	4	8	8
Power supply	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac
Probe inputs			
Thermostat	NTC/PTC	NTC/PTC	NTC/PTC
Thermostat 2	NTC/PTC	NTC/PTC	NTC/PTC
Defrost			
Digital inputs			
Safety, start defrost, door switch	config	config	config
Safety, start defrost, door switch			
Relay outputs			
Compressor	8A	20A	8A
Compressor 2	8A	8A	8A
Defrost			
Fans			
Light	8A	8A	8A
Light 2			
Other			
Hot Key/Prog Tool Kit output	pres	pres	pres
Serial output	TTL	TTL	TTL
Buzzer	opt	opt	opt
Real time clock	opt	opt	opt

XR420C
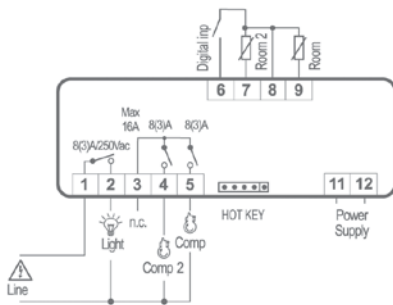
XW420V
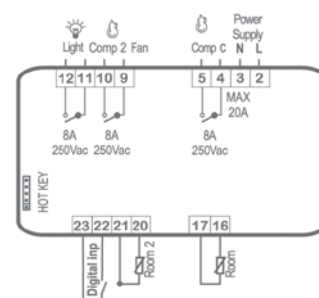
XW420L
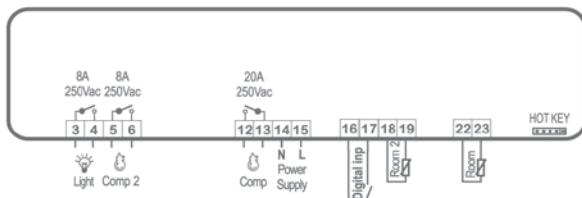
XR400–XW400

ADVANCED MULTIFUNCTION CONTROLLERS with DUAL TEMP. MANAGEMENT for MEDIUM and LOW TEMP.

XR460C
XW460L
XW460V

Advanced multifunction controllers for M.T. and L.T. ventilated applications with defrost relay

C: 32x74mm   **L**: 38x185mm   **V**: 100x64mm

FEATURES	XR460C	XW460L	XW460V
First display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.
Second display: n° digits	± 4 d.p.	± 4 d.p.	± 4 d.p.
Keyboard: push buttons	4	8	8
Power supply	12, 24Vac/dc	24, 110, 230Vac	24, 110, 230Vac
Probe inputs			
Thermostat	NTC/PTC	NTC/PTC	NTC/PTC
Thermostat 2	NTC/PTC	NTC/PTC	NTC/PTC
Defrost	NTC/PTC	NTC/PTC	NTC/PTC
Digital inputs			
Safety, start defrost, door switch	config	config	config
Safety, start defrost, door switch	config		
Relay outputs			
Compressor	8A	20A	8A
Compressor 2	8A	8A	8A
Defrost	8A	8A	8A
Fans	8A	8A	8A
Light		8A	8A
Light 2		8A	8A
Other			
Hot Key/Prog Tool Kit output	pres	pres	pres
Serial output	TTL	TTL	TTL
Buzzer	opt	opt	opt
Real time clock	opt	opt	opt

XR460C

XW460V

XW460L

COMPRESSOR RACK REFRIGERATION CONTROLLERS

SECTION INDEX

D: 4 DIN Rail

C: 32x74mm

XC400/600 SERIES: CONTROLLERS FOR APPLICATIONS UP TO 6 SCREW COMPRESSOR/FAN OUTPUT – SERIAL OUTPUT

- The series are designed for compressor rack up to 6 compressors/fans
- Compressor types: multi-stages, differing power, semi-hermetic, scroll and screw
- Proportional band or neutral zone control
- Type of probes (NTC / PTC / 4÷20mA) selectable by parameter
- Low and high safety pressure-switch inputs
- Digital input for liquid level alarm
- Alarm digital input for each load
- Type of gas setting: to control temperature or pressure
- Hours run meter with maintenance warning for each stage
- 4÷20mA output for fan speed controllers or inverters
- Standard communication protocol ModBUS-RTU
- Hot key or Prog tool kit connector for a quick and easy programming
- 5VA max power absorption
- Dual display with red LED (8,0mm high) and yellow LED (5,6mm high) and 14 icons
- Standard compressor protection
- Type of refrigerants: R22, R134A, R404A, R507, R717 (others available)
- 12-14 pin disconnectable connectors for XC600 series

HOW TO ORDER

XC400/600 X C ☐ ☐ ☐ ☐ – A B C D E

	A		B		C		D	PWM		E
Power supply		**Measurement unit**		**Buzzer**		**4÷20mA**			**Inputs**	
0 = 12Vac/dc		**C** = °C		**0** = No		0	No	No	**A** = PP11	
1 = 24Vac/dc		**F** = °F		**1** = Yes		1	No	Yes	**B** = PP30	
2 = 24Vac		**B** = Bar				2	Yes	No	**C** = NTC	
4 = 110Vac		**P** = PSI				3	Yes	Yes	**D** = PTC	
5 = 230Vac									**E** = 4÷20mA	
									F = Suction PP11;	
									Condenser PP30	

CONNECTIONS

2 different version of terminal block are available depending on the model of the controllers:
SCREW for XC400
DISCONNECTABLE for XC600
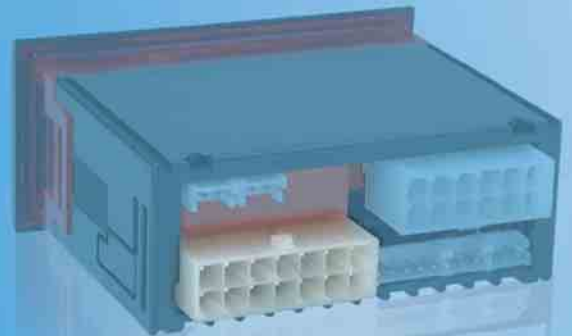
SCREW COMPRESSORS

The XC642C is designed for screw compressors. It has a PTC probe for monitoring cylinder head temperature and control liquid injection cooling. The control algorithm can manage compressors with up to 4 steps.

DYNAMIC SET POINT

The dynamic set point guarantees excellent plant efficiency, considering the real operative conditions. The condensing set point is changed according to the external temperature, to maintain optimum condensing temperature.

PROPORTIONAL BAND ADJUSTMENT

A pressure value is set (set point) and an adjustment band (Pbd) is positioned over the set point. The adjustment band is then divided into equal parts, one for each stage being controlled. As the pressure increases and passes the various stages, the controller activates each load. As the pressure decreases, the loads are turned off. In this way, above the adjustment band all the compressors will be running, while below the band they will all be off. The switching on and off of the loads is carried out in such a way as to balance the run hours. The graph shows, in a simplified way, the adjustment algorithm with 4 equal loads.

NEUTRAL ZONE ADJUSTMENT

A pressure value (Set-point) and a band that is symmetric compared with the Set value (Pbd) can be programmed. Within this band a state of system equilibrium can exist, where the instrument will mantain the status of the outputs. If the pressure moves outside this band the switching on and off of available outputs begins, subject to delays set in parameters "don" (delay between two consecutive starts) and "dof" (delay between two consecutive stops), always respecting the protection times of each compressor. The graph illustrates, in a simplified way, neutral zone regulation with equal loads.

XC400/600

UP to 6 COMPRESSOR and/or FAN SIMULTANEOUS MANAGEMENT CONTROLLERS

C: 32x74mm   **D**: 4 DIN Rail

XC420C	Digital controller for managing up to 2 compressors or fans
XC440C XC440D	Digital controllers for managing up to 4 compressors or fans
XC460D	Digital controller for managing up to 6 compressors or fans
XC642C	Digital controller for managing up to 4 step screw compressors
XC650C	Digital controller for simultaneous management of up to 5 compressors and fans

FEATURES	XC420C	XC440C	XC440D	XC460D	XC642C	XC650C
First display (suction): n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.
Second display (condensing): n° digits	± 4 d.p.	± 4 d.p.	± 4 d.p.	± 4 d.p.	± 4 d.p.	± 4 d.p.
Power supply	12, 24Vac/dc	12, 24Vac/dc	24, 110, 230Vac	24, 110, 230Vac	12, 24Vac/dc	12, 24Vac/dc
Probe inputs						
Regulation	NTC/PTC/4÷20mA	NTC/PTC/4÷20mA	NTC/PTC/4÷20mA		NTC/PTC/4÷20mA	
Liquid injection					PTC	
Suction				NTC/PTC/4÷20mA		NTC/PTC/4÷20mA
Condensing				NTC/PTC/4÷20mA		NTC/PTC/4÷20mA
Digital inputs						
Low pressure switch					pres	pres
High pressure switch					pres	pres
Alarm	2	4	5	6	4	5
ON/OFF, liquid level	config	config	config		config	config
Relay outputs						
Loads	2 x 8A	4 x 8A	5 x 5A	6 x 5A	5 x 6A	5 x 6A
Alarm	8A	8A				
Logger						
Alarms	last 10	last 10	last 10	last 10	last 10	last 10
Other						
Hot Key/Prog Tool Kit output	pres	pres	pres	pres	pres	pres
Serial output	TTL	TTL	TTL	TTL	TTL	TTL
Alarm output					12V	12V
Triac output					trigger opt	trigger opt
Fan output			4÷20mA opt	4÷20mA opt	4÷20mA opt	4÷20mA opt
Buzzer	opt	opt	opt	opt	opt	opt

XC420C

XC440C

XC440D

XC460D

XC642C

XC650C

XC200L SERIES: CONTROLLERS FOR INDUSTRIAL APPLICATIONS UP TO 6 SCREW COMP. AND 4 FAN OUTPUTS – SERIAL OUTPUT
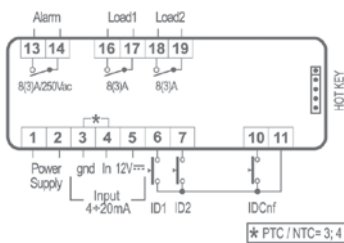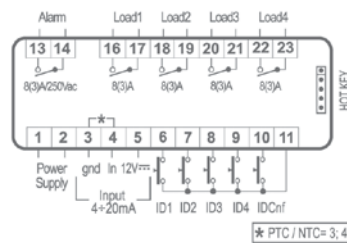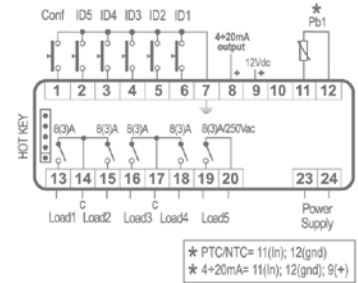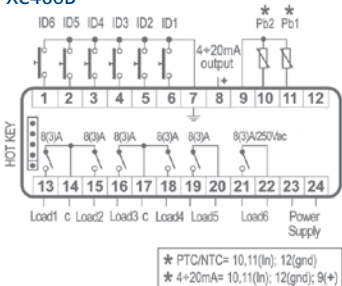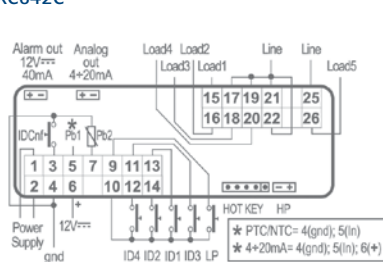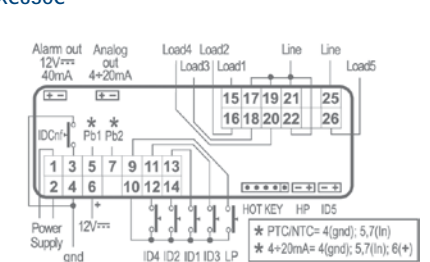
100x64mm

L: 38x185mm

- XC200L controllers are the solution for rack compressor and fans management in industrial applications
- Scroll, semi-hermetic, multi stages, with different power and screw compressor management
- 1 compressor up to 4 capacity step management
- Simultaneous condensing pressure and suction display
- Control of condensation fan speed using a 4÷20mA or 0÷10V or PWM command
- Pump-down function (start and stop)
- Single compressor stand-by through key
- Alarm data logger (up to 100 events)
- Energy saving and ON/OFF by RTC or digital input
- Timed start and stop through RTC
- Temperature/pressure thermoregulation
- Thermoregulation of the compressors (time running hours or number of start-up per hour)
- Auxiliary relays
- Remote OFF
- Standard communication protocol ModBUS-RTU
- Hot key 64 or Prog tool kit connector for a quick and easy programming
- 10VA max power absorption
- Dual display with red LED (8,0mm high) and yellow LED (5,6mm high) and 8 icons

HOW TO ORDER

XC200L | X | C | 2 | 6 | | L | – | A | B | C | D | 0 |

A	B	C	D
Power supply	**Measurement unit**	**RTC**	**Buzzer**
0 = 12Vac/dc **1** = 24Vac/dc	**0** = °C/bar **1** = °F/PSI **2** = °C/Kpa	**0** = No **1** = Yes	**0** = No **1** = Yes

VI620 | V | I | 6 | 2 | 0 | – | A | B | 0 | D | 0 |

A	B	D
Internal probe	**Buzzer**	**Measurement unit**
0 = No **S** = Yes	**0** = No **1** = Yes	**0** = °C/bar **1** = °F/PSI **2** = °C/Kpa

SCREW COMPRESSOR MANAGEMENT

Thanks to its high flexibility the XC200L can manage in the best way all the variables for a screw compressor as shown in the pictures below.

Thermal compressor - "Kriwan"

Compressor discharge temperature

Capacity step control
Start unloading discharge shut-off valve
Power: 25%
Power: 50%
Power: 75%

Intermittent valve

Direct start
Part-winding start
Star-delta start

Oil temperature probe

Oil ball valve
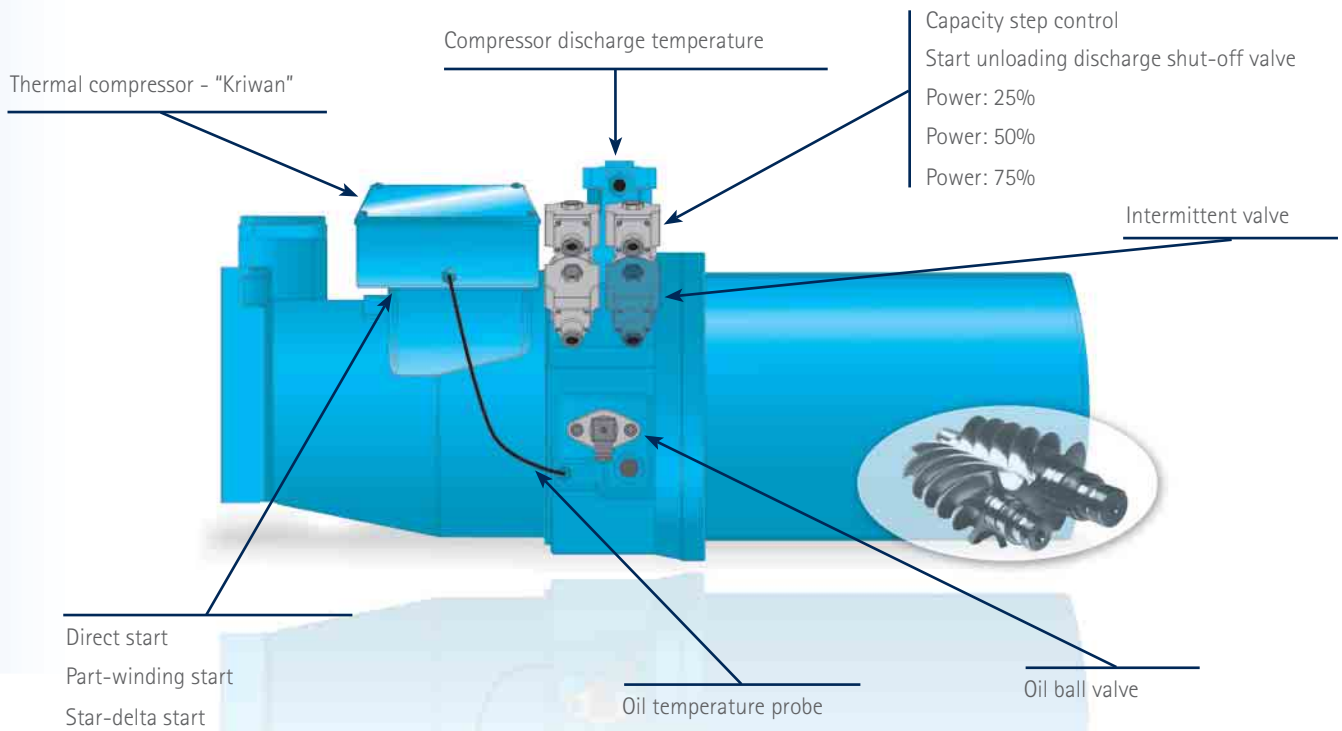
In addition:
- thermal compressor alarm management also with unit in stand-by
- cooling liquid injection with PTC probe
- high temperature alarm of the compressor discharge side with PTC probe
- oil alarm management from pressure switch or ball valve also with unit in stand-by

PROPORTIONAL BAND ADJUSTMENT

As the pressure/temperature increases and passes the various stages (step1, step2, ...), the controller activates each load. As the pressure/temperature decreases, the loads are turned off. This way, above the adjustment band all the compressors will be running, while below the band they will all be off. The switching on and off of the loads is carried out in such a way as to balance the run hours/number of start-up per hour. The graph shows, in a simplified way, the adjustment algorithm with 6 equal loads.
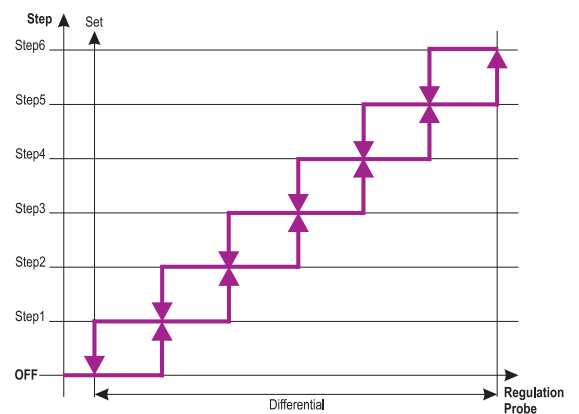
NEUTRAL ZONE ADJUSTMENT

A pressure/temperature value (set-point) and a band can be programmed. Within this band a state of system equilibrium can exist, where the instrument will maintain the status of the outputs. If the pressure moves outside this band the switching on and off of available outputs begins, subject to delays set in dedicated parameters, always respecting the protection times of each compressor. The graph illustrates, in a simplified way, neutral zone regulation with equal loads.
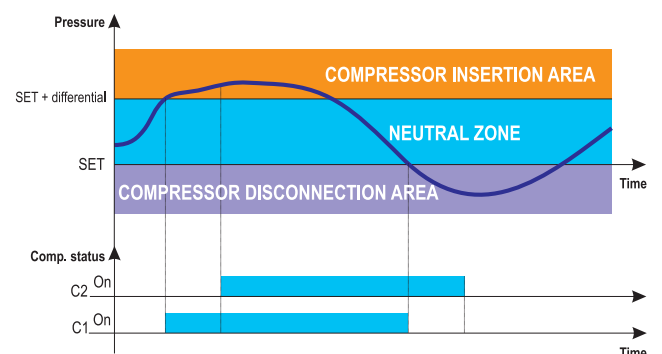
XC200L

ADVANCED CONTROLLERS for SIMULTANEOUS MANAGEMENT of UP to 6 COMPRESSORS and 4 FANS

L: 38x185mm

XC260L	Advanced digital controller for industrial applications compressor racks with up to 6 compressors and 4 fans or 1 compressor and 4 capacity step control simultaneous management
XC261L	Advanced digital controller for industrial applications compressor racks with 14 relay outputs and with up to 6 compressors and 4 fans or 1 compressor and 4 capacity step control simultaneous management

FEATURES	XC260L	XC261L
First display: n° digits	± 3 d.p.	± 3 d.p.
Second display: n° digits	± 4 d.p.	± 4 d.p.
Keyboard: push buttons	6	6
Power supply	12, 24Vac/dc	12, 24Vac/dc
Probe inputs		
Thermoregulation	10 x NTC/PTC/4÷20mA/0÷5V config	10 x NTC/PTC/4÷20mA/0÷5V config
Digital inputs		
Security	18 config	18 config
Relay outputs		
Loads	10 x 5A config	14 x 5A config
Other		
Hot Key 64/Prog Tool Kit output	pres	pres
Remote keyboard (up to 2) output	VI620	VI620
Serial output	TTL	TTL
Outputs for condensing fan	2 x PWM e 2x0÷10V/4÷20mA config	2 x PWM e 2x0÷10V/4÷20mA config
Analog outputs for free cooling, heat recovery, external relay	4 x 0÷10V config	4 x 0÷10V config
Buzzer	opt	opt
Real time clock	opt	opt

XC260L
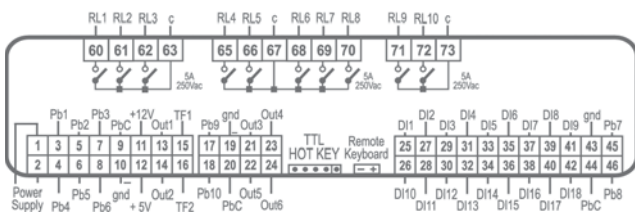
XC261L
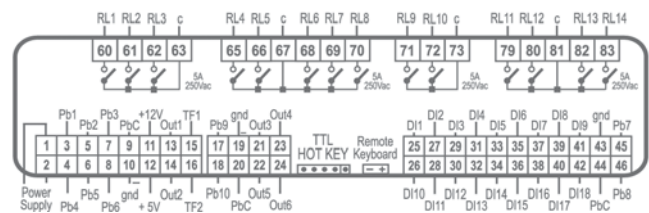
XC200L

KEYBOARD for XC200L CONTROLLERS

100x64mm

VI620	6 key keyboard for XC200L controllers

First display: n° digits	± 3 d.p.
Second display: n° digits	± 4 d.p.
Keyboard: push buttons	6
Power supply	from controller
Buzzer	opt

M: 72x144mm

XC700/800/900M SERIES: CONTROLLERS FOR APPLICATIONS UP TO 11 COMP./FAN OUTPUTS – SERIAL OUTPUT

- The XC700/800/900M series are designed for application involving the control and management of compressors and fans in compressor racks
- Management of compressor racks with up to 9 compressors and 6 fans (max 11 loads)
- Proportional band or dead band control
- Load activation: in set sequence or with automatic rotation
- Delay times and safeties setting
- Temperature and pressure display depending of the gas (also for ammonia)
- Reduced set point for energy saving management
- Alarm input management: for each load, high and low pressure switch, liquid level
- Operating data recording: pressure and loads
- Last 10 alarms recording: kind of alarm, date and time for service calling
- Graph and operating data printing via infrared, together with parameters and alarms (XC900M)
- Built in run time meters for each stage + "maintenance due" signal
- Standard communication protocol ModBUS-RTU
- Hot key or Prog tool kit connector for a quick and easy programming
- 12VA max power absorption
- Dual display with red LED (13,2mm high), green LED (13,2mm high)
- Standard compressor protection
- Type of refrigerant: R22, R134A, R404A, R507, R717 (other available)
- Resolution: 1/100 bar for suction, 1/10 bar for condensing

HOW TO ORDER

XCM   X   C   ☐ ☐ ☐   M   –   A   B   0   D   E

A	B	D	E
Power supply	**Input**	**Measurement unit**	**Extended memory for infrared**
2 = 24Vac **4** = 110Vac **5** = 230Vac	**A** = Suction PP07; Condensing PP30 **B** = Suction PP07; Condensing NTC **C** = Suction NTC; Condensing PP30 **D** = Suction PP11; Condensing NTC **E** = Suction PP11; Condensing PP30 **N** = NTC	**1** = Bar - °C **2** = PSI - °F **3** = KPA - °C	**0** = No **1** = Yes

```
Dixell-XC911M
Alarm List

Code      From         To
A14F   15:02 29/06   15:04 29/06
A14F   15:01 29/06   15:02 29/06
A04C   12:13 29/06   12:14 29/06
A01F   11:54 29/06   11:59 29/06

Index:
ErOL  Low pressure-switch alarm
ErOH  High pressure-switch alarm
A01C  Suction probe alarm
A01F  Condensing probe alarm
A02C  Compr. digit. input alarm
A02F  Fan digital input alarm
A03C  Suction low pressure alarm
A04C  Suction high press. alarm
A03F  Condensing low press. alr
A04F  Condensing high press. alr
 A05  Liquid level alarm
A11F  Clock faulty
A11L  Data clock lost
 A12  Output number not valid
A13L  EEPROM data not valid
A13F  EEPROM broken (service)
A14C  Compr maintenance call
A14F  Fan maintenance call

Print date:02/07/2008
Print time:09:20
```

```
Dixell-XC911M
Graphics Print

Section:     Suction
Range:       -25.3 - -14.7 °C
nz/db:       10.0 °C
Set Point:   -20.0 °C
Interval:    1 Sec
Marker Int:  00:30 (mm:ss)
Start date:  06/07/2008 14:05:56
End date:    06/07/2008 14:08:11

   Power        Temperature
```

```
Print date:06/07/2008
Print time:14:08
```

```
Type:Compressor (Cnf)
Label  Value  M.U.  Range
**********************************
CPnU    5     Num   1/5
CtyP    1     Num   0/1
CPSt    1     Num   1/1
rty     bP    Flag  db/ bP
Sty     F     Flag  rt/ F
FtyP    r404  Num   r22/ 134
PbC     ntC   Num   Cur/ntC
CAL     0.02  Num   -1.00/1.00
SEP     1     Flag  0/1
rSIP    1     Flag  0/1
LLI     1     Flag  0/1
ALIP    1     Flag  0/1
StPP    1     Flag  0/1
PSc     0     Num   0/255

Type:Fan (Cnf)
Label  Value  M.U.  Range
**********************************
nFn     6     Num   0/6
PbC     ntC   Num   Cur/ntC
CAL     0.05  Num   -1.00/1.00
SEP     1     Flag  0/1
PSc     0     Num   0/255

Print date:12/07/2008
Print time:16:34
```

```
Type:Fan (Opr)
Label  Value  M.U.  Range
**********************************
SetN   10.68  Bar   7.07/28.87
SatR   14.02  Bar   7.07/28.87
dEU    bAr    Flag  bAr/ °C
Pbd    2.00   Bar   0.10/5.00
don    4      Sec   0/255
doF    9      Sec   0/255
rot    no     Flag  no/YES
LSE    7.07   Bar   2.52/28.86
HSE    28.87  Bar   7.06/28.87
LAL    6.09   Bar   0.00/5.68
HAL    8.99   Bar   0.00/24.32
tAo    0      Min   0/255
PEn    9      Num   0/15
PEI    10     Min   1/15
FPP    0      Flag  0/1
FPr    3      Num   0/6
rELP   AbS    Num   AbS/rEL
PSo    0      Num   0/255
```

XC09PR: an infrared thermal printer suitable for XC900M compressor racks controllers. Can print alarms, parameters and data recorded by the instrument

PROPORTIONAL BAND ADJUSTMENT

A pressure value is set (set point) and an adjustment band (Pbd) is positioned over the set point. The adjustment band is then divided into equal parts, one for each stage being controlled. As the pressure increases and passes the various stages, the controller activates each load. As the pressure decreases, the loads are turned off. In this way, above the adjustment band all the compressors will be running, while below the band they will all be off. The switching on and off of the loads is carried out in such a way as to balance the run hours. The graph shows, in a simplified way, the adjustment algorithm with 4 equal loads.

NEUTRAL ZONE ADJUSTMENT

A pressure value (Set-point) and a band that is symmetric compared with the Set value (Pbd) can be programmed. Within this band a state of system equilibrium can exist, where the instrument will mantain the status of the outputs. If the pressure moves outside this band the switching on and off of available outputs begins, subject to delays set in parameters "don" (delay between two consecutive starts) and "dof" (delay between two consecutive stops), always respecting the protection times of each compressor. The graph illustrates, in a simplified way, neutral zone regulation with equal loads.

XC700/800/900M

CONTROLLERS for MANAGING UP to 6 COMPRESSORS or FANS

M: 72x144mm

XC706M — Digital controller with up to 6 outputs for compressor racks

FEATURES	XC706M
First display (suction/temperature): n° digits	4 d.p.
Second display (suction/pressure): n° digits	4 d.p.
Power supply	24, 110, 230Vac
Probe inputs	
Suction	NTC/4÷20mA
Condensing	
Digital inputs	
Low pressure switch	pres
High pressure switch	
Liquid level	pres
Load safety	6
Relay outputs	
Loads	6 x 8A
Alarms	2 x 8A
Logger	
Alarms	last 10
Data	
Other	
Hot Key/Prog Tool Kit output	pres
Serial output	RS485
Infrared output	
Reduced set point	pres
Buzzer	pres
Real time clock	pres

XC706M
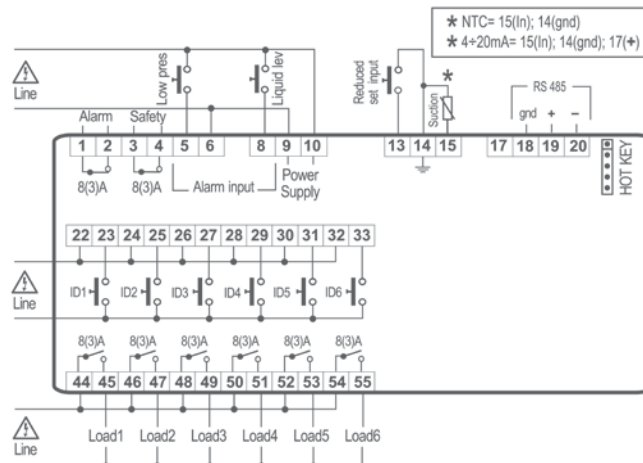
XC700/800/900M

CONTROLLERS for the SIMULTANEOUS MANAGEMENT of UP to 11 COMPRESSORS or FANS

M: 72x144mm

XC807M	Digital controller with up to 7 outputs for compressor racks
XC811M	Digital controller with up to 11 outputs for compressor racks
XC907M	Digital controller with up to 7 outputs for compressor racks plus data recording
XC911M	Digital controller with up to 11 outputs for compressor racks plus data recording

FEATURES	XC807M	XC811M	XC907M	XC911M
First display (suction): n° digits	4 d.p.	4 d.p.	4 d.p.	4 d.p.
Second display (condensing): n° digits	4 d.p.	4 d.p.	4 d.p.	4 d.p.
Power supply	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac
Probe inputs				
Suction	NTC/4÷20mA	NTC/4÷20mA	NTC/4÷20mA	NTC/4÷20mA
Condensing	NTC/4÷20mA	NTC/4÷20mA	NTC/4÷20mA	NTC/4÷20mA
Digital inputs				
Low pressure switch	pres	pres	pres	pres
High pressure switch	pres	pres	pres	pres
Liquid level	pres	pres	pres	pres
Load safety	7	11	7	11
Relay outputs				
Loads	7 x 8A	11 x 8A	7 x 8A	11 x 8A
Alarms	2 x 8A	2 x 8A	2 x 8A	2 x 8A
Logger				
Alarms	last 10	last 10	last 10	last 10
Data			pressure, loads	pressure, loads
Other				
Hot Key/Prog Tool Kit output	pres	pres	pres	pres
Serial output	RS485	RS485	RS485	RS485
Infrared output			pres	pres
Reduced set point	pres	pres	pres	pres
Buzzer	pres	pres	pres	pres
Real time clock	pres	pres	pres	pres

XC807M
XC907M
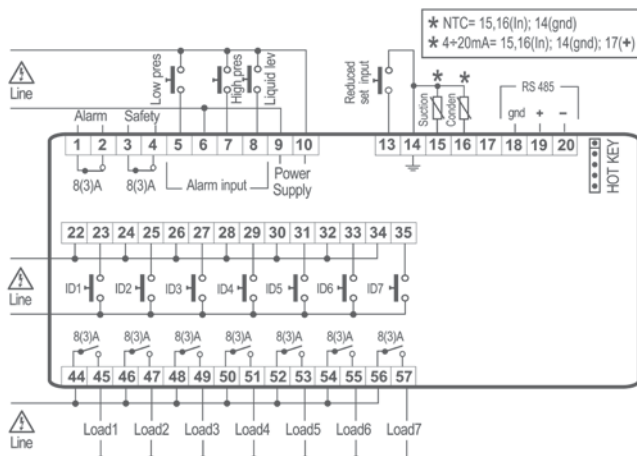
XC811M
XC911M
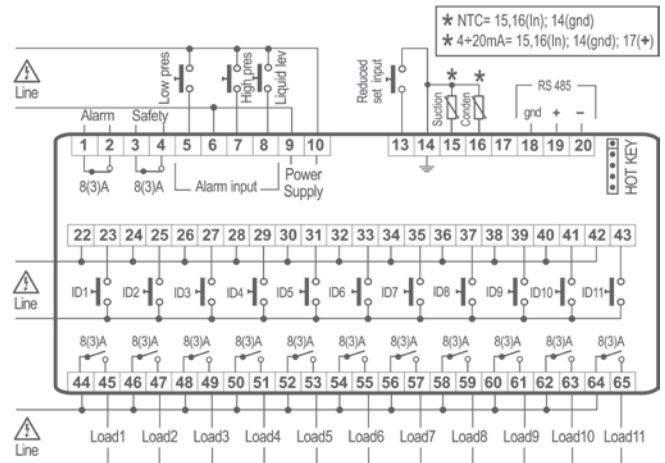
82x156mm

XC1000D SERIES: CONTROLLERS FOR APPLICATIONS UP TO 15 COMPRESSOR/FAN OUTPUTS – SERIAL OUTPUT

- XC1000D series for compressors and condensing fans monitoring and management of medium-large compressor racks
- VISOGRAPH programmable graphic display (LCD – 240x96 pixel)
- Scroll, semi-hermetic, multi stages, with different power and screw compressor management
- Proportional band or dead band control
- Temperature and pressure display depending on the gas (Freon, NH_3, CO_2 ...)
- Concise information about the variables of the compressor rack through the VISOGRAPH display
- Great versatility and extensive customization opportunities
- 2 analogue outputs for frequency compressors

- 2 analogue outputs for inverter for fans
- Reduced set point for energy saving management
- Hourly run time signals for maintenance
- Dynamic set point for energy saving
- Sub-cooling management
- Last 100 alarm conditions storage and display
- Special algorithms for energy saving
- Standard communication protocol ModBUS-RTU
- Hot key or Prog tool kit connector for a quick and easy programming
- 12VA max power absorption
- Type of refrigeratant gas: R22, R134A, R404A, R507, R717
- Resolution 1/100bar, 1/10°C, 1°F, 1PSI

HOW TO ORDER

XC1000D | X | C | 1 | 0 | | | D | - | 1 | B | 0 | D | E

	B		D		E
Measurement unit		**4÷20mA**		**Input**	
C = °C **F** = °F **B** = Bar **P** = PSI **K** = Kpa		**0** = No **1** = Yes		**C** = NTC **D** = PTC **E** = 4÷20mA **F** = Suction PP11; Delivery PP30 **G** = Ratiometric	

VISOGRAPH | V | G | C | 8 | 1 | 0 | - | A | B | 0 | 0 | 0

	A		B
Buzzer		**Kind of mounting**	
0 = No **1** = Yes		**P** = Panel **W** = Wall	

KINDS OF CIRCUIT

The XC1000D series is able to manage in the best possible way the majority of applications for refrigeration circuits.

1 SUCTION CIRCUIT
1 CONDENSATION CIRCUIT

2 SUCTION CIRCUITS
1 CONDENSATION CIRCUIT

2 SUCTION CIRCUITS
2 CONDENSATION CIRCUITS
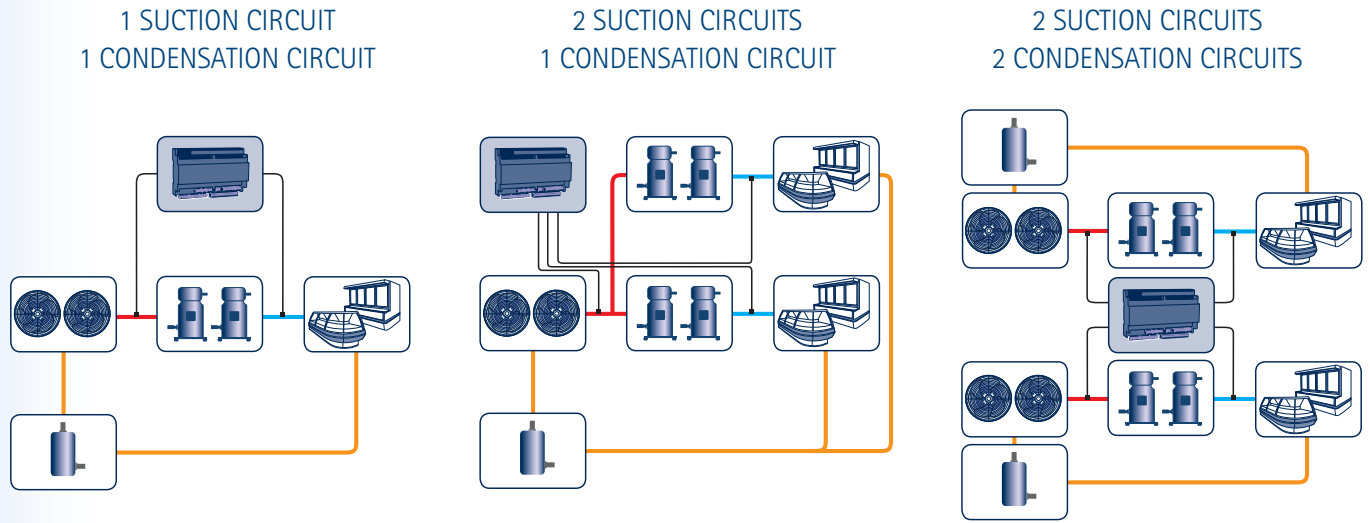
CO_2 REGULATION

CO_2 use is increasing thanks to the advantages it offers in cooling plants. For this reason there is also a greater demand for accessories. Thanks to special algorithms and an appropriate pressure range, the XC1000D series can manage and monitor CO_2 plants that work in cascade connection with sub-critical cycle.

STANDARD REGULATION

NEUTRAL ZONE ADJUSTMENT

A pressure value (set-point) and a band that is symmetric compared with the set value can be programmed. Within this band a state of system equilibrium can exist, where the instrument will maintain the status of the outputs. If the pressure moves outside this band the switching on and off of available outputs begins, subject to delays set in the parameters "delay between two consecutive starts" and "delay between two consecutive stops", always respecting the protection times of each compressor. The graph illustrates, in a simplified way, neutral zone regulation with equal loads.
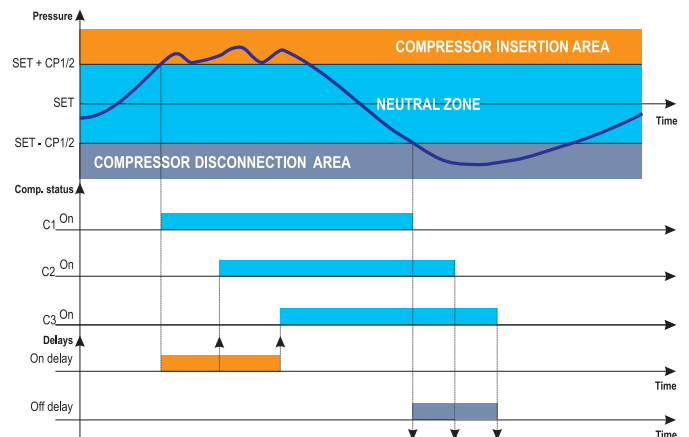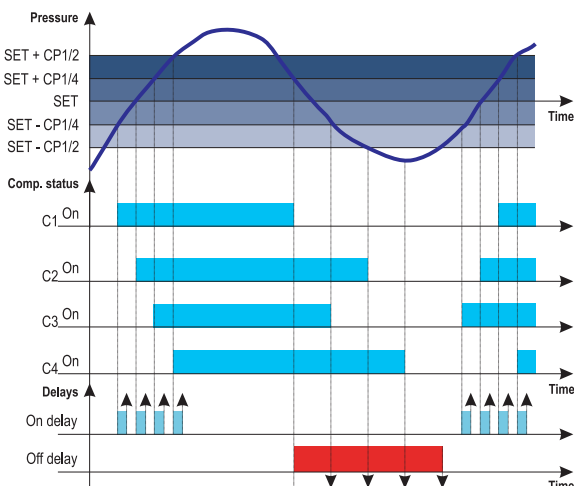
PROPORTIONAL BAND ADJUSTMENT

A pressure value is set (set point) and an adjustment band is positioned over the set point. The adjustment band is then divided into equal parts, one for each stage being controlled. As the pressure increases and passes the various stages, the controller activates each load. As the pressure decreases, the loads are turned off. In this way, above the adjustment band all the compressors will be running, while below the band they will all be off. The switching on and off of the loads is carried out in such a way as to balance the running hours. The graph shows, in a simplified way, the adjustment algorithm with 4 equal loads.

ENERGY SAVING MANAGEMENT

The new XC1000D series gives to the user several solutions that let you to manage energy savings, so important when we deal with "compressor management". The controllers have a special algorithm that lets you to optimize the effi ciency of the plant, ensuing energy savings. The following are a range of the most important solutions that Dixell offers to customers to achieve energy savings.

COMPRESSORS WITH INVERTER
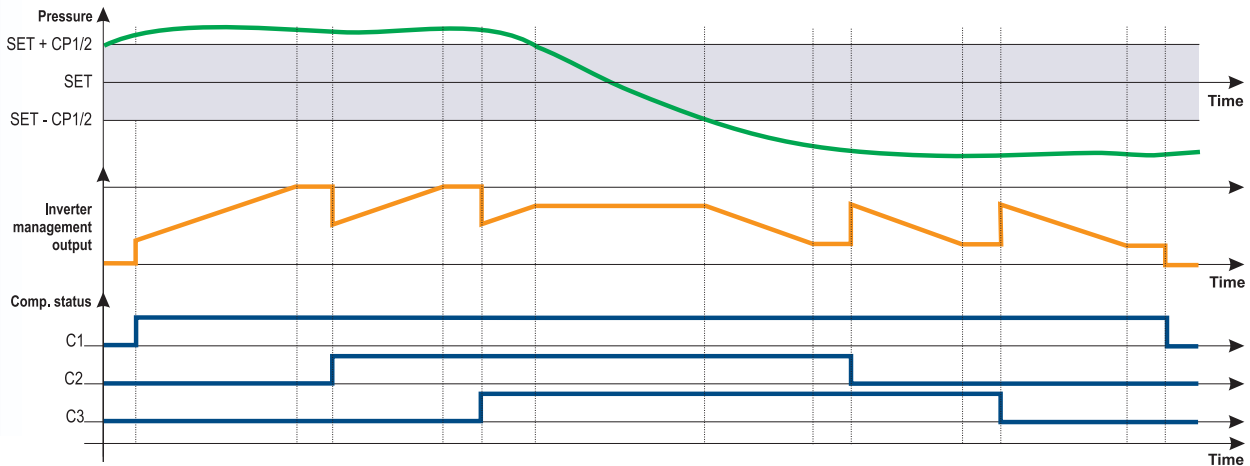
When the plant needs more power (when the temperature gets out of the band) the inverter compressor (C1) frequency increases. If this is not enough, the other compressors (C2, C3, ...) will be activated in sequence. At the same time the controller will modulate the inverter compressor frequency in order to have a uniform increase of the plant power.

FANS WITH INVERTER
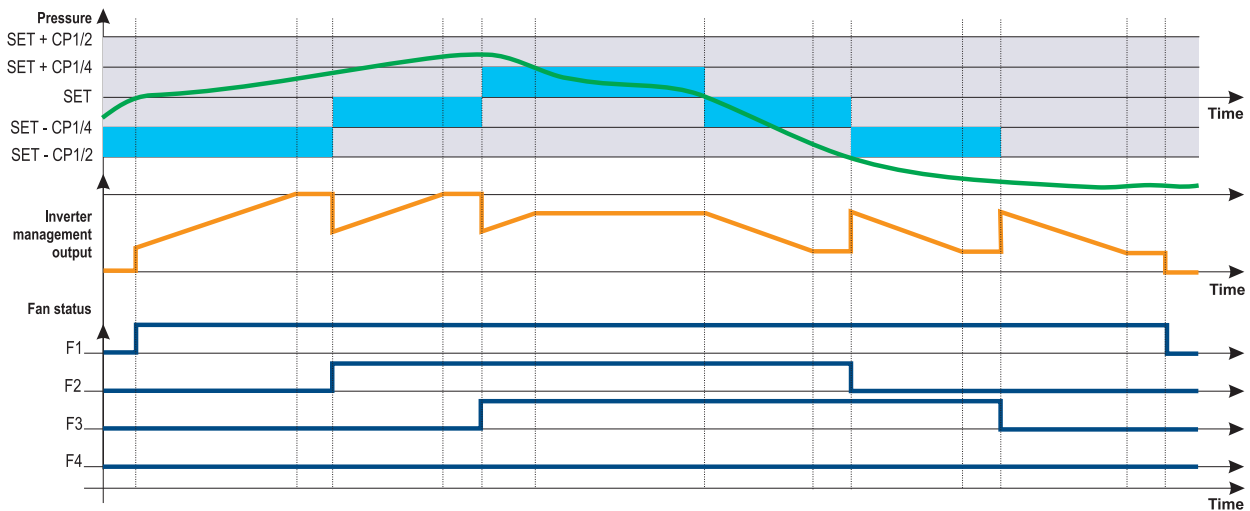
When the plant needs more power (when the temperature gets out of the band) the inverter fan (F1) frequency increases. If it is not enough, the other fans (F2, F3, ...) will be activated in sequence. At the same time the controller will modulate the inverter fan frequency in order to have a uniform increase of the plant power.

SUCTION DYNAMIC SET POINT

Suction temperature/pressure optimization can depending on retail space temperature.
The dynamic set point guarantees excellent plant effi ciency, considering the real operational conditions. The plant modifi es the suction temperature/pressure according to the retail space temperature so the refrigeration power changes depending on the real thermodynamic exchange.
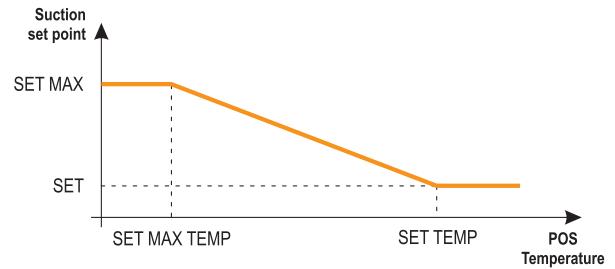
CONDENSER DYNAMIC SET POINT

Condenser temperature/pressure optimization can depend on the external temperature.
The condenser temperature/pressure is modifi ed according to the external temperature. The condensing set point is automatically adjusted according to the external temperature, to get an optimum condensing temperature.
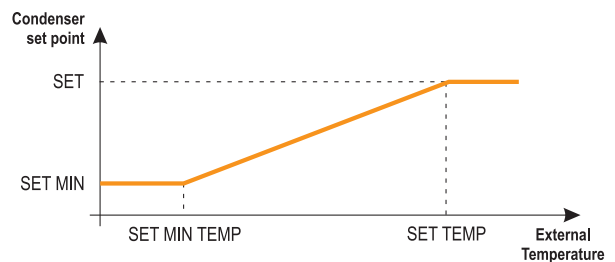
REDUCED SET POINT

An internal 7 day clock can automatically change the adjustment's set point, depending on a particular system's individual requirements, to enter an energy saving cycle during nights and weekends, when less power is required. This energy saving cycle can also be initiated from an external source via a digital input.
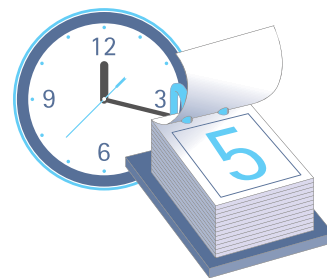
SUPERVISION SET

The connection to the modern supervising systems (of Dixell) allows, thanks to the CRO special algorithm (Compressor Rack Optimization), to manage in the best way the compressor rack set point depending on the devices connected, with the result of having an optimize energy saving on the plant. The system, equipped with the CRO function, analyzes the information from the controller in the application to determine if a controller needs more refrigeration power and the quantity. The set point will be re-calculate in order to satisfy the worse instance and sent from the supervising system to the XC1000D; this will be the working set point (fig. 1). If the supervising system can't manage the XC1000D, is the controller that "decided" to replace the set point (coming from the system) and will then define the set point in the program phase.
The 2 graphs (fig. 2) emphasize that when the CRO algorithm is active, in a real installation, the set point becomes on average higher, and consequently the energy consumption decreases. The dotted line represents the average weekly value.

fig. 1
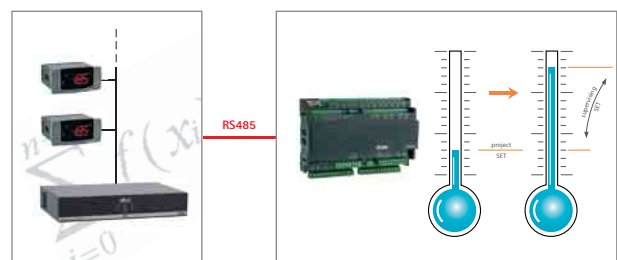
fig. 2
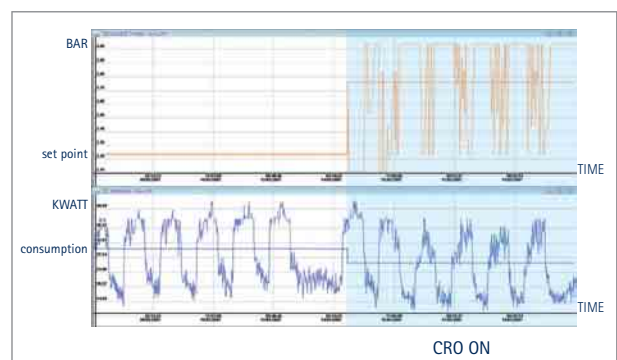
XC1000D

ADVANCED CONTROLLERS for the SIMULTANEOUS MANAGEMENT of UP to 8 COMPRESSORS and FANS

XC1008D — Advanced digital controller for compressor racks with up to 8 compressors and fans simultaneous management

D: 10 DIN Rail

FEATURES	XC1008D
Power supply	24Vac/dc (from TF10D)
Probe inputs	
Suction 1	NTC/PTC/4÷20mA/0÷5V
Suction 2	
Condensing 1	NTC/PTC/4÷20mA/0÷5V
Condensing 2	
Auxiliary 1	NTC/PTC
Auxiliary 2	NTC/PTC
Auxiliary 3	
Auxiliary 4	
Digital inputs	
Low pressure switch 1 (main voltage)	pres
Low pressure switch 2 (main voltage)	
High pressure switch 3 (main voltage)	pres
High pressure switch 4 (main voltage)	
Safety loads (main voltage)	8
Free of voltage	4 config
Relay outputs	
Loads	8 x 7A config
Alarms	2 x 8A
Other	
Hot Key/Prog Tool Kit output	pres
Remote display output	VGC810
Serial output	RS485
Inverter compressor output	4÷20mA/0÷10V opt
Inverter fan output	4÷20mA/0÷10V opt
Buzzer	on keyboard opt
External module connections	LAN opt

XC1008D
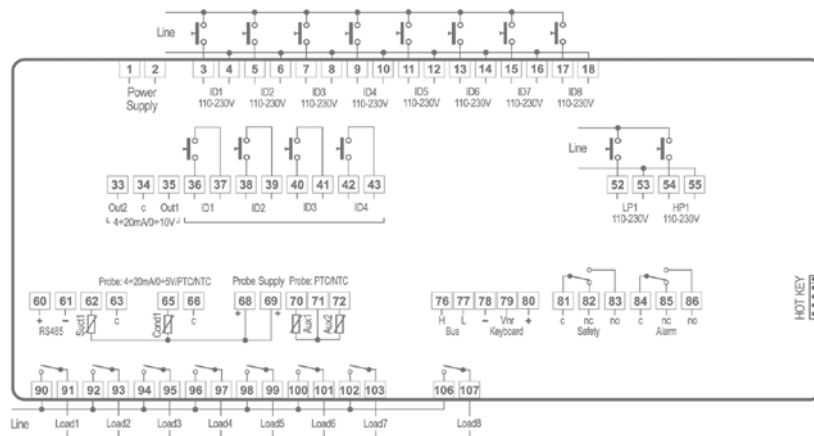
XC1000D

ADVANCED CONTROLLERS for the SIMULTANEOUS MANAGEMENT of UP to 15 COMPRESSORS and FANS

XC1011D	Advanced digital controller for compressor racks with simultaneous management up to 11 compressors and fans
XC1015D	Advanced digital controller for compressor racks with simultaneous management up to 15 compressors and fans

D: 10 DIN Rail

FEATURES	XC1011D	XC1015D
Power supply	24Vac/dc (from TF20D)	24Vac/dc (from TF20D)
Probe inputs		
Suction 1	NTC/PTC/4÷20mA/0÷5V	NTC/PTC/4÷20mA/0÷5V
Suction 2	NTC/PTC/4÷20mA/0÷5V	NTC/PTC/4÷20mA/0÷5V
Condensing 1	NTC/PTC/4÷20mA/0÷5V	NTC/PTC/4÷20mA/0÷5V
Condensing 2	NTC/PTC/4÷20mA/0÷5V	NTC/PTC/4÷20mA/0÷5V
Auxiliary 1	NTC/PTC	NTC/PTC
Auxiliary 2	NTC/PTC	NTC/PTC
Auxiliary 3	NTC/PTC	NTC/PTC
Auxiliary 4	NTC/PTC	NTC/PTC
Digital inputs		
Low pressure switch 1 (main voltage)	pres	pres
Low pressure switch 2 (main voltage)	pres	pres
High pressure switch 3 (main voltage)	pres	pres
High pressure switch 4 (main voltage)	pres	pres
Safety loads (main voltage)	11	15
Free of voltage	4 config	4 config
Relay outputs		
Loads	11 x 7A config	15 x 7A config
Alarms	2 x 8A	2 x 8A
Other		
Hot Key/Prog Tool Kit output	pres	pres
Remote display output	VGC810	VGC810
Serial output	RS485	RS485
Inverter compressor output	2 x 4÷20mA/0÷10V opt	2 x 4÷20mA/0÷10V opt
Inverter fan output	2 x 4÷20mA/0÷10V opt	2 x 4÷20mA/0÷10V opt
Buzzer	on keyboard opt	on keyboard opt
External module connections	LAN opt	LAN opt

XC1011D
XC1015D
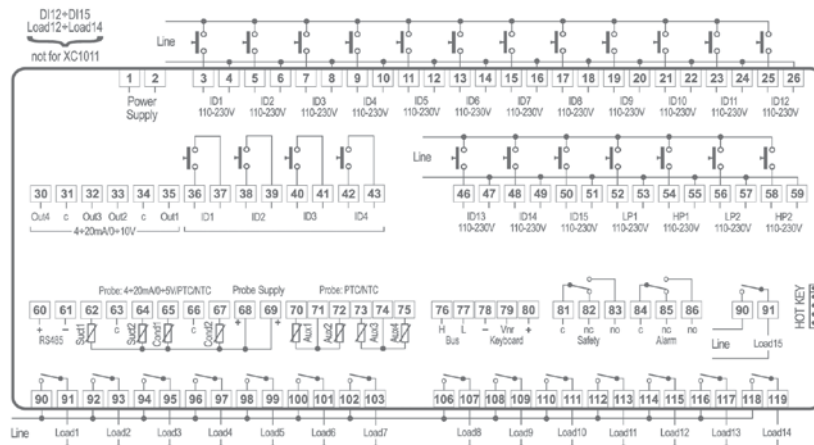
VISOGRAPH

PROGRAMMABLE GRAPHIC DISPLAY

	VGC810	Programmable graphic display (LCD – 240x96pixel) for XC1000D controllers

82x156mm

FEATURES	VGC810
For models	XC1008D
	XC1011D
	XC1015D
Power supply	from controller
VISOKEY output	pres
Buzzer	opt
Mounting	wall or panel

- Great versatility and extensive customization opportunities
- IP65 front protection
- Keyboard lock function
- Easy programming through VISOKEY

max 100mt
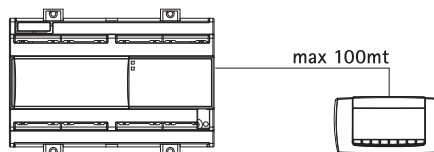
VISOGRAPH keyboards can be wall or panel mounted
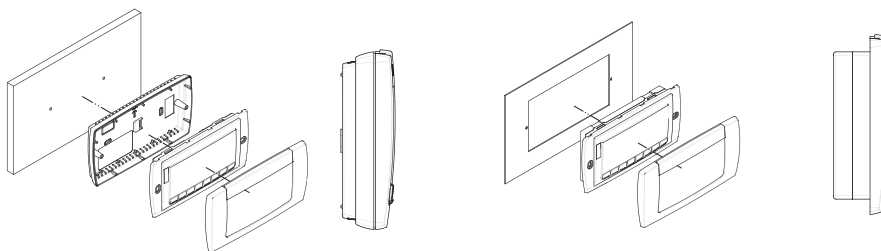
VISOGRAPH keyboards instantly provide complete information about the machine variables

		Hz	SUCT= -25.3 °C	
3/5	↑	85%	SET = -26.0 °C	⚠
4/5	↑	Hz 95%	COND= 36.5 °C SET = 35.0 °C	⚠

ES 1   OFF 1   PARAM   SERVICE   UNIT   ALARM
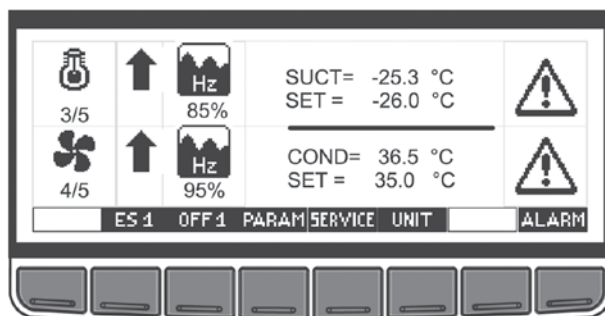
VISOKEY

Key to transfer programs on VGC810 keyboard

REFRIGERATED TRUCK CONTROLLERS

SECTION INDEX

L: 38x185mm

38x185mm

XW20/35/40/60/300 SERIES: CONTROLLERS FOR NT, MT AND LT APPLICATIONS – COMPACT/SPLIT FORMAT

- Multifunction controllers in compact and split format designed for refrigerated trucks (8-40Vdc power supply)
- Up to 6 push buttons with direct action for user friendly interface
- Maximum and minimum temperature recording
- Possibility of controlling one LT and one NT compartment or one refrigerated and one heated compartment (XW300)
- 3 operating modes: cooling, heating and neutral zone (XW300)
- "on demand" defrost for optimum defrost cycles management (XW300)
- Service hours count for system maintenaince cycles (XW300)
- Thermostatic command for shutter opening (XW300)
- Hot Key or Prog tool kit connector for a quick and easy programming
- 3VA max power absorption (10VA max for XW300)
- Display with red LED (13,2 mm high)

HOW TO ORDER

XW20/35/40/60 `X W ☐ ☐ L - 3 B C D 0 - N`   inox -17.8 For Inox version and blue display please contact Dixell

	B		C		D
	Input		**Buzzer**		**Measurement unit**
	N = NTC **P** = PTC		**0** = No **1** = Yes		**C** = °C **F** = °F

KEYBOARD `T 6 3 0 - A 0 0 D 0`   inox -17.8 For Inox version and blue display please contact Dixell

	A		D
	Buzzer		**Measurement unit**
	0 = No **1** = Yes		**C** = °C **F** = °F

XW300 `X W 3 ☐ 0 K - 3 N C D E`

C		D		E		
Housing		**Measurement unit**			**Built-in RS485**	**4÷20mA**
0 = Open board "OS" **2** = "GS" housing 182x142x76mm **4** = "GS" housing 225x180x84mm		**C** = °C **F** = °F		**0** **2** **4** **6**	No No Yes Yes	No Yes No Yes

XW20/35/40/60

MULTIFUNCTION CONTROLLERS for REFRIGERATED TRUCKS with NORMAL, MEDIUM and LOW TEMPERATURE

XW20L	Multifunction controller for refrigerated trucks with N.T., "off cycle" defrost and light relay
XW35L	Multifunction controller for refrigerated trucks with N.T., "off cycle" defrost, light relay and fan relay
XW40L	Multifunction controller for refrigerated trucks with M.T. – L.T., defrost management and light relay
XW60L	Multifunction controller for refrigerated trucks with M.T. – L.T. ventilated applications, defrost management and light relay

L: 38x185mm

FEATURES	XW20L	XW35L	XW40L	XW60L
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.
Keyboard: push buttons	6	6	6	6
Power supply	8-40Vdc	8-40Vdc	8-40Vdc	8-40Vdc
Probe inputs				
Thermostat	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC
Defrost			NTC/PTC	NTC/PTC
Digital inputs				
Alarm, start defrost, door switch, pressure switch	config	config	config	config
Relay outputs				
Compressor	8A	8A	8A	8A
Defrost			8A	8A
Fans		8A		8A
Light	8A	8A	8A	8A
Other				
Hot Key/Prog Tool Kit output	pres	pres	pres	pres
Buzzer	opt	opt	opt	opt

XW20L
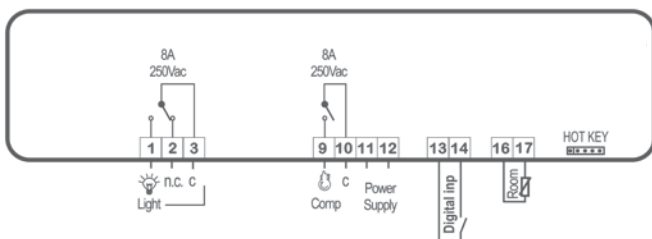
XW35L
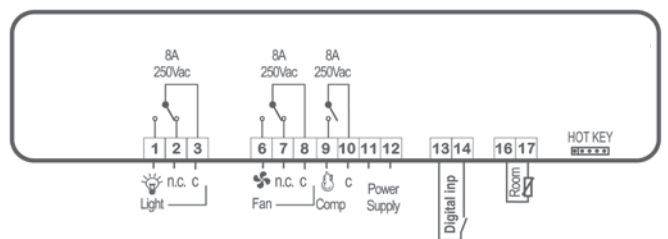
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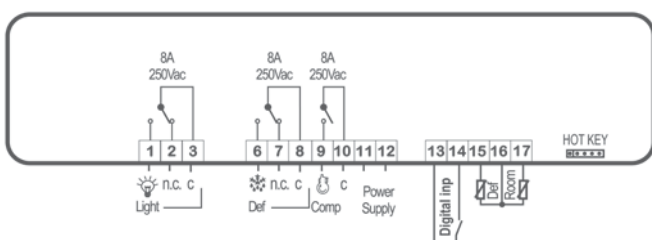
XW60L
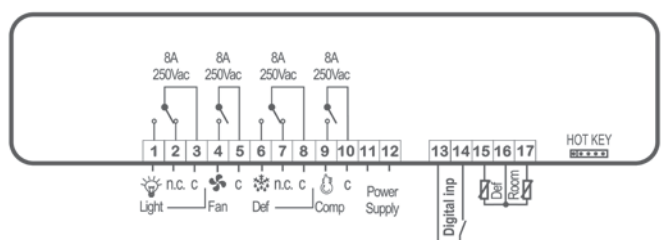
XW300

MULT. CONTR. for REFRIG. TRUCKS with MT – LT and KEYBOARD for ADVANCED MULT. CONTR. in K FORMAT

	XW360K	Multifunction digital controller for refrigerated trucks with M.T. – L.T. ventilated applications
	XW370K	Multifunction digital controller for refrigerated trucks with M.T. – L.T. ventilated applications, heater and shutter management

K: OS/GS

FEATURES	XW360K	XW370K
Display: n° digits	± 3 d.p.	± 3 d.p.
Keyboard: push buttons	T630: 6	T630: 6
Power supply	8-40Vdc	8-40Vdc
Probe inputs		
Thermostat	NTC	NTC
NT thermostat		NTC
Defrost	NTC	NTC
"on demand" defrost (odd)	NTC	NTC
Digital inputs		
Generic alarm, block alarm, pressure switch, start defrost, change working mode, heater output	config	config
Door switch	pres	pres
Relay outputs		
Compressor	8A	8A
Defrost	8A	8A
Fans	8A	8A
Heater control		8A
Light	8A	8A
Shutter		8A
Other		
Hot Key/Prog Tool Kit output	pres	pres
Serial output	RS485 opt	RS485 opt
Analog output	4÷20mA opt	4÷20mA opt
Buzzer	on keyboard opt	on keyboard opt

XW360K
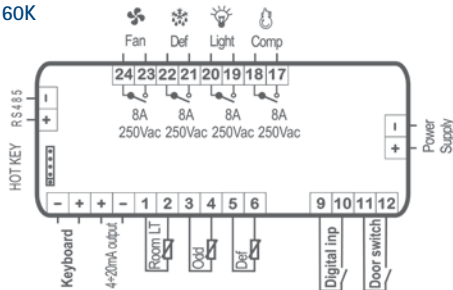
XW370K
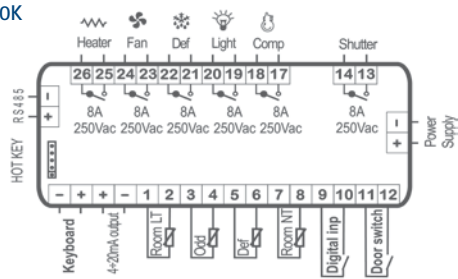
T630
6 key keyboard for controllers in K format

Display: n° digits ± 3 d.p.
Keyboard: push buttons: 6
Slave module: XW360K – XW370K
Buzzer: opt

The power modules in K format are available in different versions:

OS: open board   **GS:** standard case

FAN SPEED CONTROLLERS

SECTION INDEX

176x200mm

139x158mm

D: 4 DIN Rail

73x70mm

XV SERIES: SINGLE-PHASE FAN SPEED CONTROLLERS

- Choked phase speed controllers to control pressure and temperature in refrigerating systems including cooling fans
- Inputs for regulation by temperature and pressure
- XM600 series compatible (4÷20mA/0÷10V or OC/PWM output) for anti-sweet heaters or evaporator fans applications
- Direct or inverse action for condenser or evaporator fans
- Cut off, minimum speed and max speed at start up functions
- Trigger output for managing another module
- 1VA max power absorption
- Measurement range: 0÷100%

HOW TO ORDER

XV05PD   X V 0 5 P D – 5 0 0 0 0

XV05/10/22PK   X V   P K – 5 0 0 0 0

XV100   X V 1   – 5 B C D 0

	B	C	D
	Format	**Type of action**	**Regulation input**
	0 = DIN **5** = Enclosure IP55	**D** = Direct + Cut Off **R** = Inverse + Cut Off	**N** = NTC probe **A** = Current (4÷20mA) **V** = 0÷1V/0÷10V

XV100

SINGLE-PHASE SPEED CONTROLLERS

XV05PD **XV05PK**	Speed controllers designed for single-phase A.C. motors up to 500W, 2A, PWM input
XV10PK	Speed controller designed for single-phase A.C. motors up to 1000W, 4A, PWM input
XV22PK	Speed controller designed for single-phase A.C. motors up to 2200W, 9,5A, PWM input

PD: 4 DIN Rail   **PK**: 73x70mm

FEATURES	XV05PD	XV05PK	XV10PK	XV22PK
Power supply	230Vac	230Vac	230Vac	230Vac
Control input	PWM from XV100, XM600	PWM from XV100, XM600	PWM from XV100, XM600	PWM from XV100, XM600
Direct-inverse function				
Full speed input at start up				
Trigger signal	pres	pres	pres	pres
Minimum speed function				
Cut off function				

XV05PD
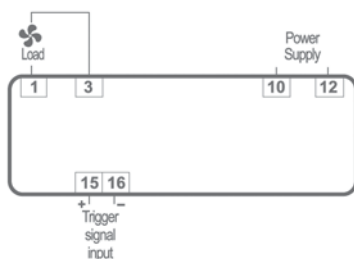
XV05PK
XV10PK
XV22PK
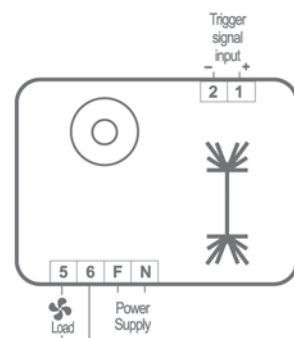
XV100

SINGLE-PHASE SPEED ADVANCED CONTROLLERS

XV105D	Speed controller designed for single-phase A.C. motors up to 500W, with input for NTC, 4÷20mA, 0÷1V or 0÷10V
XV110K	Speed controller designed for single-phase A.C. motors up to 1kW, with input for NTC, 4÷20mA, 0÷1V or 0÷10V
XV150K	Speed controller designed for single-phase A.C. motors up to 5kW, with input for NTC, 4÷20mA, 0÷1V or 0÷10V

D: 4 DIN Rail   **K**: 139x158mm   **K**: 176x200mm

FEATURES	XV105D	XV110K	XV150K
Power supply	230Vac	230Vac	230Vac
Control input	NTC	NTC	NTC
	4÷20mA	4÷20mA	4÷20mA
	0÷1V/0÷10V	0÷1V/0÷10V	0÷1V/0÷10V
Direct-inverse function	pres	pres	pres
Full speed input at start up	pres	pres	pres
Trigger signal	pres	pres	pres
Minimum speed function	pres	pres	pres
Cut off function	pres	pres	pres

XV150D
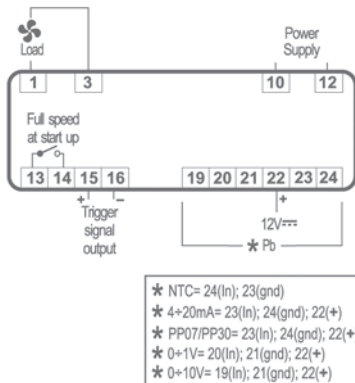
XV110K
XV150K
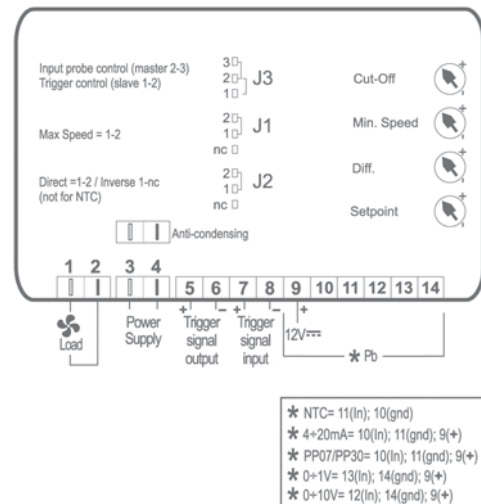
ACCESSORY

XV-ACK: anti-condensing kit for XV110K and XV150K models

Resistance at 25°C (77°F): 100÷600Ohm
Rated operating voltage: 120Vac or 220Vac
Max. operating voltage: 260Vac
Steady state current at 25°C (77°F): : 12A±30% (120Vac) 9A±30% (220Vac)

TIME/TEMPERATURE/HUMIDITY/PRESSURE CONTROLLERS

SECTION INDEX

R: 72x72mm

C: 32x74mm

D: 4 DIN Rail

XT100 SERIES: NTC, PTC, Pt100, TcJ, TcK, TcS, 4÷20mA, 0÷1V, 0÷10V
MULTI–PROBE CONTROLLERS – SERIAL OUTPUT

- Universal controllers to manage temperature, humidity and pressure in both the industrial and commercial applications
- Stock optimization: thanks to the multi-probe inputs
- 1 or 2 stage ON/OFF or PID with direct or reverse action
- Temperature inputs: PTC, NTC, Pt100; thermocouple J, K or S by selecting the parameters
- Pressure or humidity inputs: 4÷20mA, 0÷1V or 0÷10V by selecting the parameters
- Direct line power supply. No external transformer required
- Display with integrated measurement unit (°C / °F / RH / bar / PSI)
- Standard communication protocol ModBUS-RTU
- Hot key or Prog tool kit connector for a quick and easy programming
- 3VA max power absorption
- Display with red LED (10,5 mm high) and 5 icons

HOW TO ORDER

XA100 | X | A | 1 | 0 | 0 | C | – | A | B | 0 | D | U |

XT100 | X | T | 1 | | | | – | A | B | C | D | U |

-17.8 For blue display please contact Dixell

	A		B			C		D
	Power supply		**Measurement unit**			**Buzzer**	**SSR**	**Input**
	0 = 12Vac/dc		**C** = °C		**0**	No	No	**P** = PTC (NTC)
	1 = 24Vac/dc		**F** = °F		**1**	Yes	No	**T** = PTC (NTC, Pt100, TcJ,TcK, TcS)
	2 = 24Vac		**B** = Bar		**2**	No	Yes	**A** = 4÷20mA, 0÷1V, 0÷10V
	4 = 110Vac		**P** = PSI		**3**	Yes	Yes	**B** = PP07 (-0.5÷7bar)
	5 = 230Vac		**H** = %RH					**C** = PP30 (0÷30bar)
			N = No unit of measurement				SSR = 4÷20mA for D and R formats	**D** = PP11 (-0.5÷11bar)
								H = XH10/20P

XT100

INDICATOR and 1 STAGE DIGITAL CONTROLLERS

XA100C	Configurable digital indicator
XT110C **XT110D**	ON/OFF configurable digital 1 stage controllers
XT111C **XT111D** **XT111R**	ON/OFF configurable digital 1 stage controllers with alarm relay

C: 32x74mm   **D**: 4 DIN Rail   **R**: 72x72mm

FEATURES	XA100C	XT110C	XT110D	XT111C	XT111D	XT111R
Display: n° digits	± 3½ d.p.	± 3½ d.p.	± 3½ d.p.	± 3½ d.p.	± 3½ d.p.	± 3½ d.p.
Power supply	12, 24Vac/dc	12, 24Vac/dc	24Vac/dc	12, 24Vac/dc	24Vac/dc	24Vac/dc
	110, 230Vac	110, 230Vac	24, 110, 230Vac	110, 230Vac	24, 110, 230Vac	24, 110, 230Vac
Probe inputs						
NTC, PTC, Pt100, TcJ, TcK, TcS, 4÷20mA, 0÷1V, 0÷10V	config	config	config	config	config	config
Relay outputs						
Stage 1		8A	no 8A / nc 5A	8A	no 8A / nc 5A	8A
Stage 2						
Stage 3						
Stage 4						
Alarm				8A	no 8A / nc 5A	8A
Other						
Digital input	pres	pres	pres	pres	pres	pres
Hot Key/Prog Tool Kit output	pres	pres*	pres	pres*	pres	pres
Serial output	TTL	TTL*	TTL	TTL*	TTL	TTL
Analog output			4÷20mA opt		4÷20mA opt	4÷20mA opt
Buzzer	opt	opt	opt	opt	opt	opt

*: Prog Tool Kit output and serial output only for models with 12/24Vac/dc probe supply

XA100C

XT110C
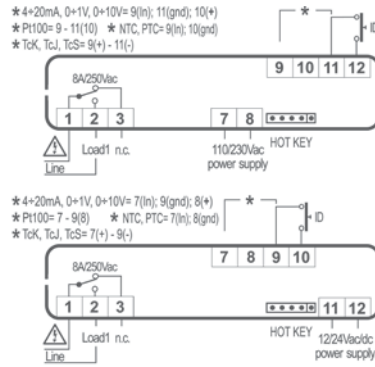
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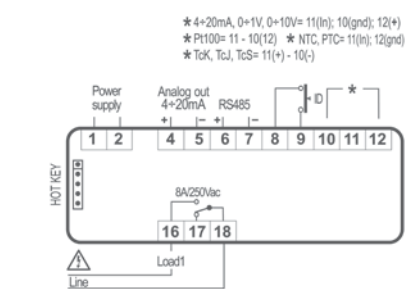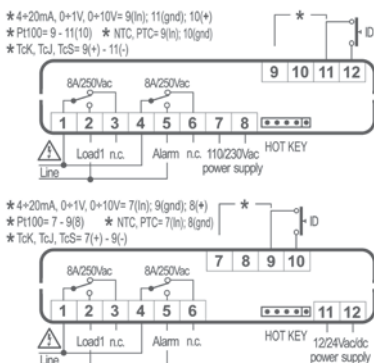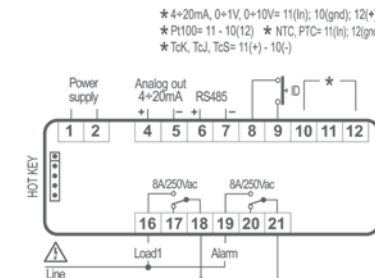
XT111C

XT111D

XT111R
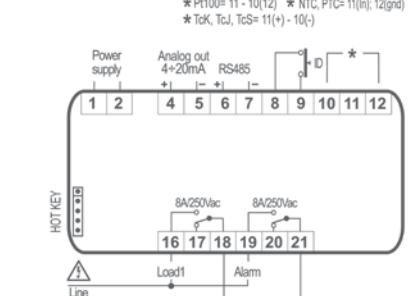
XT100

2 STAGE DIGITAL CONTROLLERS

XT120C **XT120D**	ON/OFF configurable digital 2 stage controllers
XT121C **XT121D** **XT121R**	ON/OFF configurable digital 2 stage controllers with alarm relay

C: 32x74mm **D**: 4 DIN Rail **R**: 72x72mm

FEATURES	XT120C	XT120D	XT121C	XT121D	XT121R
Display: n° digits	± 3½ d.p.	± 3½ d.p.	± 3½ d.p.	± 3½ d.p.	± 3½ d.p.
Power supply	12, 24Vac/dc	24Vac/dc	12, 24Vac/dc	24Vac/dc	24Vac/dc
	110, 230Vac	24, 110, 230Vac	110, 230Vac	24, 110, 230Vac	24, 110, 230Vac
Probe inputs					
NTC, PTC, Pt100, TcJ, TcK, TcS, 4÷20mA, 0÷1V, 0÷10V	config	config	config	config	config
Relay outputs					
Stage 1	8A	no 8A / nc 5A	8A	no 8A / nc 5A	8A
Stage 2	8A	no 8A / nc 5A	8A	no 8A / nc 5A	8A
Stage 3					
Stage 4					
Alarm			8A	no 8A / nc 5A	8A
Other					
Digital input	pres	pres	pres	pres	pres
Hot Key/Prog Tool Kit output	pres*	pres	pres*	pres	pres
Serial output	TTL*	TTL	TTL*	TTL	TTL
Analog output		4÷20mA opt		4÷20mA opt	4÷20mA opt
Buzzer	opt	opt	opt	opt	opt

*: Prog Tool Kit output and serial output only for models with 12/24Vac/dc probe supply

XT120C

XT120D
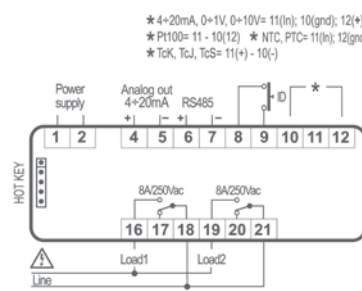
XT121C
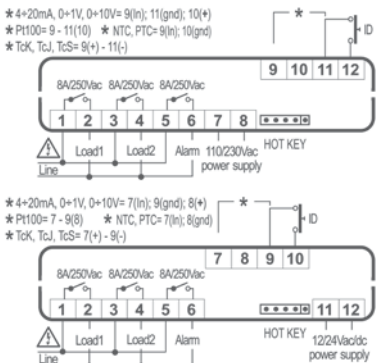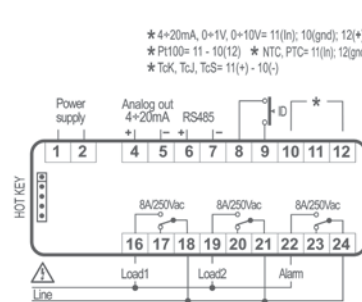
XT121D

XT121R
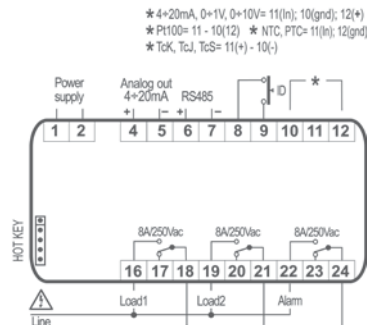
XT100

NEUTRAL ZONE DIGITAL CONTROLLERS

XT130C XT130D	ON/OFF configurable digital neutral zone controllers
XT131C XT131D XT131R	ON/OFF configurable digital neutral zone controllers with alarm relay

C: 32x74mm **D**: 4 DIN Rail **R**: 72x72mm

FEATURES	XT130C	XT130D	XT131C	XT131D	XT131R
Display: n° digits	± 3½ d.p.	± 3½ d.p.	± 3½ d.p.	± 3½ d.p.	± 3½ d.p.
Power supply	12, 24Vac/dc	24Vac/dc	12, 24Vac/dc	24Vac/dc	24Vac/dc
	110, 230Vac	24, 110, 230Vac	110, 230Vac	24, 110, 230Vac	24, 110, 230Vac
Probe inputs					
NTC, PTC, Pt100, TcJ, TcK, TcS, 4÷20mA, 0÷1V, 0÷10V	config	config	config	config	config
Relay outputs					
Stage 1	8A	no 8A / nc 5A	8A	no 8A / nc 5A	8A
Stage 2	8A	no 8A / nc 5A	8A	no 8A / nc 5A	8A
Stage 3					
Stage 4					
Alarm			8A	no 8A / nc 5A	8A
Other					
Digital input	pres	pres	pres	pres	pres
Hot Key/Prog Tool Kit output	pres*	pres	pres*	pres	pres
Serial output	TTL*	TTL	TTL*	TTL	TTL
Analog output		4÷20mA opt		4÷20mA opt	4÷20mA opt
Buzzer	opt	opt	opt	opt	opt

*: Prog Tool Kit output and serial output only for models with 12/24Vac/dc probe supply

XT130C

XT130D
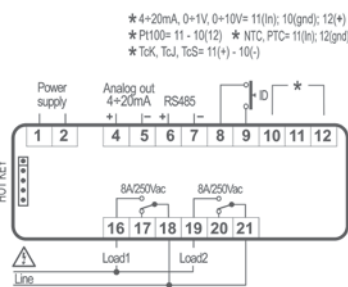
XT131C
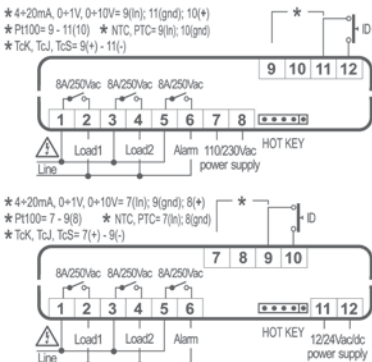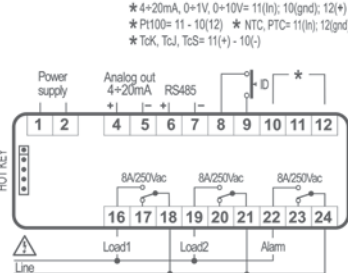
XT131D

XT131R
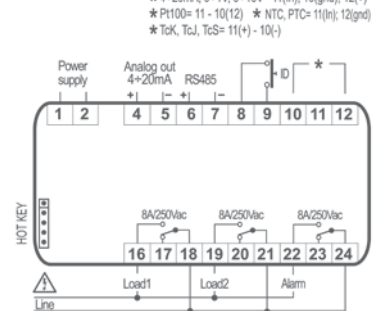
XT100

2 STAGE PID and 4 STAGE DIGITAL CONTROLLERS

XT141C **XT141D** **XT141R**	PID configurable digital 2 stage controllers with alarm relay
XT151D	ON/OFF configurable digital 3 stage controller with alarm relay
XT160D	ON/OFF configurable digital 4 stage controller

C: 32x74mm   **D**: 4 DIN Rail   **R**: 72x72mm

FEATURES	XT141C	XT141D	XT141R	XT151D	XT160D
Display: n° digits	± 3½ d.p.	± 3½ d.p.	± 3½ d.p.	± 3½ d.p.	± 3½ d.p.
Power supply	12, 24Vac/dc 110, 230Vac	24Vac/dc 24, 110, 230Vac	24Vac/dc 24, 110, 230Vac	24Vac/dc 24, 110, 230Vac	24Vac/dc 24, 110, 230Vac
Probe inputs					
NTC, PTC, Pt100, TcJ, TcK, TcS, 4÷20mA, 0÷1V, 0÷10V	config	config	config	config	config
Relay outputs					
Stage 1	8A	no 8A / nc 5A	8A	no 8A / nc 5A	no 8A / nc 5A
Stage 2	8A	no 8A / nc 5A	8A	no 8A / nc 5A	no 8A / nc 5A
Stage 3				no 8A / nc 5A	no 8A / nc 5A
Stage 4					8A
Alarm	8A	no 8A / nc 5A	8A	8A	
Other					
Digital input	pres	pres	pres	pres	pres
Hot Key/Prog Tool Kit output	pres*	pres	pres	pres	pres
Serial output	TTL*	TTL	TTL	TTL	TTL
Analog output		4÷20mA opt	4÷20mA opt	4÷20mA opt	4÷20mA opt
Buzzer	opt	opt	opt	opt	opt

*: Prog Tool Kit output and serial output only for models with 12/24Vac/dc probe supply

XT141C

XT141D
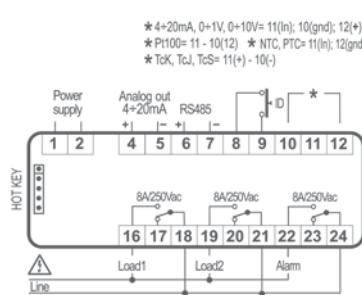
XT141R
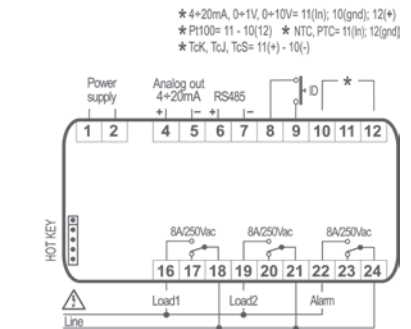
XT151D
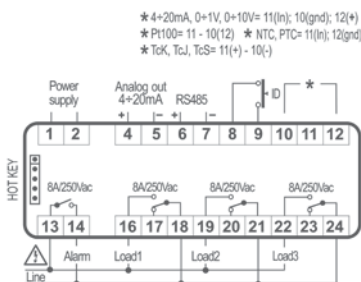
XT160D
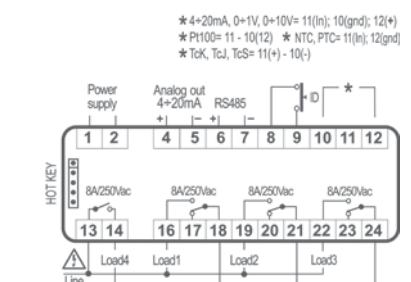
STANDARD DISPLAY: TEMPERATURE

temperature

DISPLAY DURING A CYCLE: COUNT DOWN TIME

h / min

min / sec

XT200 SERIES: NTC, PTC, Pt100, TcJ, TcK, TcS, MULTI-PROBE CONTROLLERS WITH TIME/TEMPERATURE CYCLES – SERIAL OUTPUT

- Controllers with temperature management by timed cycles
- Stock optimization: thanks to the multi-probe inputs
- 1 or 2 stage ON/OFF with direct or reverse action
- Temperature inputs: PTC, NTC, Pt100; thermocouple J, K or S by selecting the parameters
- Direct line power supply. No external transformer required
- Display with integrated measurement unit (°C/°F)
- Standard communication protocol ModBUS-RTU
- Hot key or Prog tool kit connector for a quick and easy programming
- Max cycle duration: 19h - 59min
- 3VA max power absorption
- Display with red LED (10,5 mm high) and 5 icons

C: 32x74mm

HOW TO ORDER

XT200 X T 2 ▢ ▢ C – A B C T E   -17.8 For blue display please contact Dixell

	A		B			C		E
	Power supply		**Measurement unit**			**Buzzer**	**SSR**	**Time**
	0 = 12Vac/dc		**C** = °C		**0**	No	No	**0** = h / min
	1 = 24Vac/dc		**F** = °F		**1**	Yes	No	**1** = min / sec
	4 = 110Vac				**2**	No	Yes	
	5 = 230Vac				**3**	Yes	Yes	

XT200

1 or 2 STAGE DIGITAL CONTROLLERS with SINGLE DISPLAY

XT210C	ON/OFF configurable digital 1 stage controller
XT211C	ON/OFF configurable digital 1 stage controller with alarm relay
XT220C	ON/OFF configurable digital 2 stage controller
XT221C	ON/OFF configurable digital 2 stage controller with alarm relay

C: 32x74mm

FEATURES	XT210C	XT211C	XT220C	XT221C
Display: n° digits	± 3½ d.p.	± 3½ d.p.	± 3½ d.p.	± 3½ d.p.
Power supply	12, 24Vac/dc	12, 24Vac/dc	12, 24Vac/dc	12, 24Vac/dc
	110, 230Vac	110, 230Vac	110, 230Vac	110, 230Vac
Probe inputs				
NTC, PTC, Pt100, TcJ, TcK, TcS	config	config	config	config
Relay outputs				
Stage 1	8A	8A	8A	8A
Stage 2			8A	8A
Alarm		8A		8A
Other				
Digital input	pres	pres	pres	pres
Hot Key/Prog Tool Kit output	pres	pres	pres	pres
Serial output	TTL	TTL	TTL	TTL
Buzzer	opt	opt	opt	opt

XT210C

XT211C
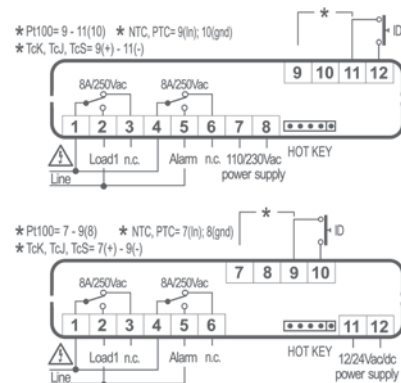
XT220C
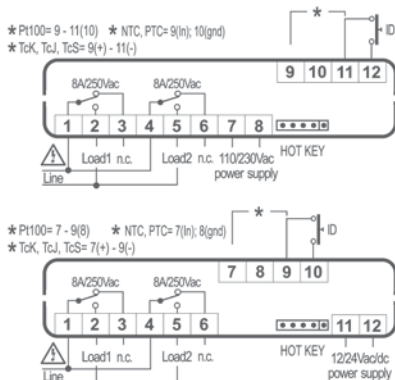
XT221C
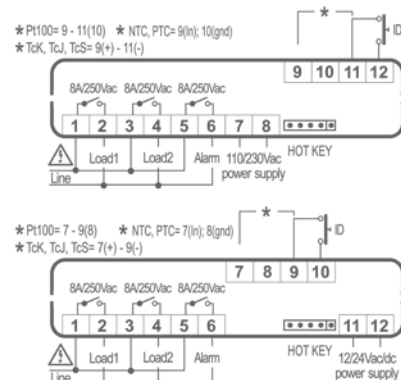
C: 32x74mm

XT400 SERIES: CONTROLLERS WITH TIME/TEMPERATURE CYCLE MANAGEMENT – SERIAL OUTPUT

- Controllers with timed cycles for oven applications and cooking cycles
- Simultaneous display of temperature (upper display) and count down time (lower display)
- Door switch facility
- End cycle signalling
- Instant visibility of machine status via display icons
- Standard communication protocol ModBUS-RTU
- Hot key or Prog tool kit connector for a quick and easy programming
- 5VA max power absorption
- Dual display with red LED (8,0mm high) and yellow LED (5,6mm high) and 13 icons

HOW TO ORDER

XT400 | X | T | 4 | 2 | 0 | C | - | A | B | C | D | E | -17.8 For blue display please contact Dixell

A	B	C	D	E
Power supply	Measurement unit	Buzzer	Type of probe	RTC
1 = 24Vac **4** = 110Vac **5** = 230Vac	**C** = °C **F** = °F	**0** = No **1** = Yes	**N** = NTC **P** = PTC	**0** = No **1** = Yes

XT400

TIMED CYCLE DIGITAL CONTROLLER with DUAL DISPLAY

C: 32x74mm

XT420C	ON/OFF configurable digital 1 stage controllers with timed cycle management

FEATURES	XT420C
First display: n° digits	± 3 d.p.
Second display: n° digits	± 4 d.p.
Power supply	24, 110, 230Vac
Probe inputs	
Thermostat	NTC/PTC
Digital inputs	
Safety, start defrost, door switch	config
Relay outputs	
Load	8A
Light	8A
Other	
Hot Key/Prog Tool Kit output	pres
Serial output	TTL
Buzzer	opt
Real time clock	opt

XT420C
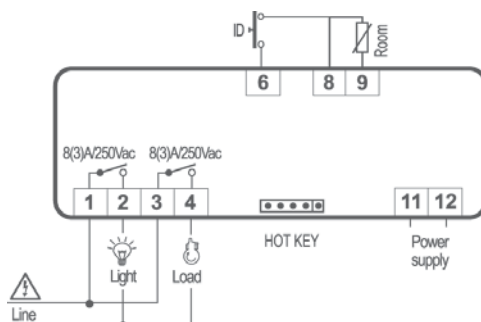
oven temperature

percentage of top/bottom power

hour/cooking cycles

ceiling temperature

bottom temperature

hour/cooking cycles

M: 144x72mm

M: 144x72mm

XF SERIES: CONTROLLERS FOR COOKING OVEN APPLICATIONS

- Up to 9 programmable cooking cycles
- Start of cooking cycle settable by real time clock
- "Economy" function for energy saving
- Pt100 or TCJ/TCK probes selectable by user
- Management of the steam injection: automatic or manual mode
- Custom versions on request
- Hot key connector for a quick and easy programming
- 5VA max power absorption
- Display with red LED 13,2mm (n° 2), 10,5mm (timer)

To set the target set point (ceiling and bottom)	To set cooking time	To start and stop the cooking cycles
To set cooking cycle start	To set the daily repetition of the cooking cycle	To set cooking programs
To start and stop the steam extractor	To start and stop the steam generator	Enable the steam injection
To start and stop the energy saving function	To switch the light	On/off button

HOW TO ORDER

XF X F ☐ ☐ ☐ M – A B C D E

A	B	C	D	E
Power supply	**Inputs**	**Buzzer**	**Measurement unit**	**Outputs for SSR**
2 = 24Vac **4** = 110Vac **5** = 230Vac	**P** = Pt100 **J** = J thermocouple **K** = K thermocouple	**0** = No **1** = Yes	**C** = °C **F** = °F	**0** = Standard outputs **1** = 12V-20mA for SSR

XF

COOKING OVEN DIGITAL CONTROLLERS

M: 144x72mm

XF320M	Digital controller for cooking ovens with separated ceiling and bottom power regulation, with steam injection and internal RTC for starting and cooking time management
XF330M	Digital controller for cooking ovens with separated ceiling and bottom temperature regulation, with steam injection and internal RTC for starting and cooking time management, auxiliary ON/OFF relay

FEATURES	XF320M	XF330M
Temperature display: n° digits	n° 1 x 3	n° 2 x 3
Clock display: n° digits	4	4
Power % indicator	bargraph	
Power supply	24, 110, 230Vac	24, 110, 230Vac
Probe inputs		
Zone	Pt100/TCJ/TCK	
Ceiling		Pt100/TCJ/TCK
Bottom		Pt100/TCJ/TCK
Steam	Pt100/TCJ/TCK	
Relay outputs		
Ceiling	8A	8A
Bottom	8A	8A
Fans		
ON/OFF		8A
Light	8A	8A
Steam generator	12A	12A
Steam injection	8A	8A
Steam extractor	8A	8A
Other		
Digital input		
Hot Key output	pres	pres
Buzzer	opt	opt

XF320M
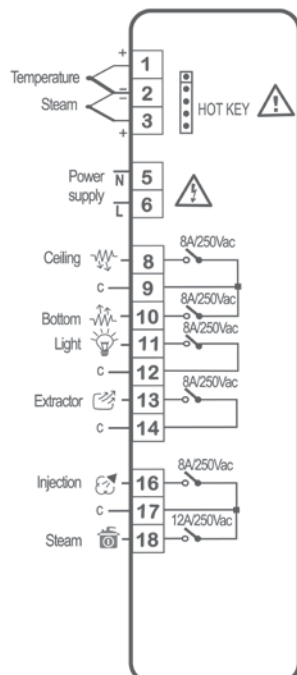
XF330M

XF
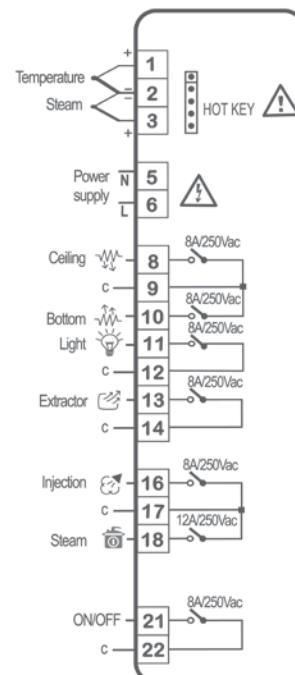
COOKING OVEN DIGITAL CONTROLLERS

M: 144x72mm

XF331M	Digital controller for cooking ovens with separated ceiling and bottom temperature regulation, with steam injection and internal RTC for starting and cooking time management
XF332M	Digital controller for cooking ovens with separated ceiling and bottom temperature regulation, with steam injection, fans management and internal RTC for starting and cooking time management

FEATURES	XF331M	XF332M
Temperature display: n° digits	n° 2 x 3	n° 2 x 3
Clock display: n° digits	4	4
Power % indicator		
Power supply	24, 110, 230Vac	24, 110, 230Vac
Probe inputs		
Zone		
Ceiling	Pt100/TCJ/TCK	Pt100/TCJ/TCK
Bottom	Pt100/TCJ/TCK	Pt100/TCJ/TCK
Steam		
Relay outputs		
Ceiling	8A	8A
Bottom	8A	8A
Fans		12A
ON/OFF	8A	
Light	8A	8A
Steam generator	12A	
Steam injection	8A	8A
Steam extractor		8A
Other		
Digital input	pres	
Hot Key output	pres	pres
Buzzer	opt	opt

XF331M
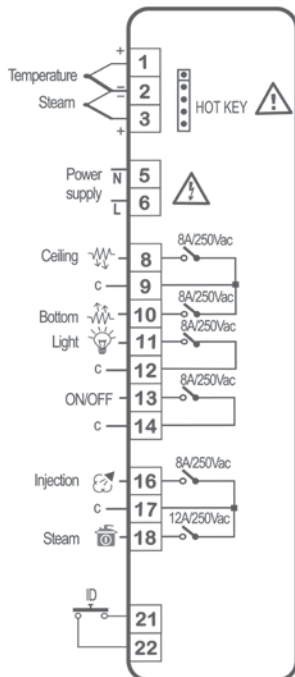
XF332M
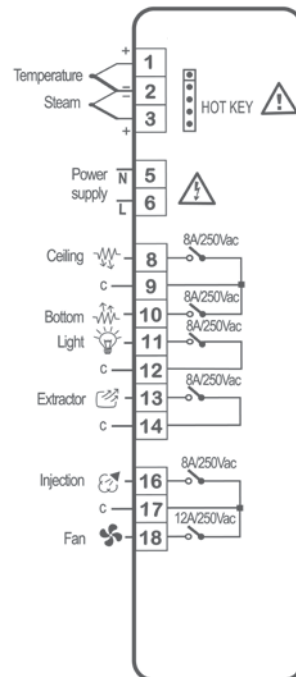
PROBES & ACCESSORIES

A complete series of probes and transducers for temperature, humidity and pressure ensures the final user to have a range of useful accessories for easy, fast and accurate use of each instrument in every application.

PROBES

SECTION INDEX

PROBES

TEMPERATURE PROBES
PTC PROBES

The probes with PTC thermistor are designed for both cooling and heating applications. The temperature range is –50÷150°C (–58÷230°F).

PROBE	DESCRIPTION	CABLE	TEMP. RANGE	
S6	General purpose, resinated, IP67, inox steel cap "dimension Ø6x30mm"	PVC - 1,5/2,0m	–30÷80°C –22÷176°F	
S6.R	Water proof, resinated, IP67, inox steel cap "dimension Ø6x40mm"	PVC -1,5/2,0m	–30÷80°C –22÷176°F	
S6.S	Water proof, resinated, inox steel cap "dimension Ø6x40mm"	Silicone - 1,5/2,0m	–50÷120°C –58÷248°F	
S6.SH	Heating applications, inox steel cap "dimension Ø6x40mm"	Silicone - 1,5/2,0m	–50÷150°C –58÷302°F	
SA6	Perforated for air, inox steel cap "dimension Ø6x30mm"	PVC - 1,5/2,0m	0÷80°C 32÷176°F	
ST6	Pipemount fitting	PVC -1,5/2,0m	0÷80°C 32÷176°F	
SC5.5	Probe fixed with threaded male, inox steel cap "dimension Ø6x80mm"	PVC - 2,0m	–30÷80°C –22÷176°F	

NTC PROBES

The probes with NTC thermistor are designed for applications where high accuracy and the short responce time is important. The probe passes several tests, this is why we guarantee a very high reliability.

PROBE	DESCRIPTION	CABLE	TEMP. RANGE	
NS6	General purpose, resinated, IP67, inox steel cap "dimension Ø6x30mm"	PVC - 1,5/3,0m	-30÷80°C -22÷176°F	
NS6W	General purpose, resinated, IP67, with 6,3mm faston, inox steel cap "dimension Ø6x30mm", for WING split	PVC - 1,5m	-30÷80°C -22÷176°F	
NS6S	General purpose, resinated, IP67, inox steel cap "dimension Ø6x30mm"	Silicone - 1,5	-40÷110°C -40÷230°F	
NS6SJ	General purpose, resinated, IP67, 2 pole connector, inox steel cap "dimension Ø6x30mm"	Silicone - 1,5/3,0m	-40÷110°C -40÷230°F	
NS6SW	General purpose, resinated, IP67, with 6,3mm faston, inox steel cap "dimension Ø6x30mm", for WING split	Silicone - 1,5m	-40÷110°C -40÷230°F	
NG6	General purpose, over-molded, IP67, thermoplastic cap "dimension Ø6x15mm"	Thermoplastic 1,5/3,0m	-40÷110°C -40÷230°F	
NG6F	General purpose, over-molded, IP67, with 2,8mm faston, thermoplastic cap "dimension Ø6x15mm", for XT11S 12Vac, 24Vac/dc	Thermoplastic 1,5/2,0m	-40÷110°C -40÷230°F	
NG6W	General purpose, over-molded, IP67, with 6,3mm faston, thermoplastic cap "dimension Ø6x15mm", for WING split	Thermoplastic 1,5/3,0m	-40÷110°C -40÷230°F	
NG6K	General purpose, over-molded, IP68, Hot Key connector, thermoplastic cap "dimension Ø6x15mm"	Thermoplastic 1,5m	-40÷110°C -40÷230°F	
NG6P	General purpose, over-molded, IP68, thermoplastic cap "dimension Ø5x20mm"	Thermoplastic 1,5/3,0m	-40÷110°C -40÷230°F	
NX6P	Thermoplastic, IP68, inox steel cap "dimension Ø6x20mm"	Thermoplastic 1,5/3,0m	-40÷110°C -40÷230°F	
NX6PJ	Thermoplastic, IP68, 2 pole connector, inox steel cap "dimension Ø6x20mm"	Thermoplastic 1,5/3,0m	-40÷110°C -40÷230°F	
NY6P	Thermoplastic, IP68, inox steel cap "dimension Ø6x50mm"	Thermoplastic 1,5/3,0m	-40÷110°C -40÷230°F	
NY6PJ	Thermoplastic, IP68, 2 pole connector, inox steel cap "dimension Ø6x50mm"	Thermoplastic 1,5/3,0m	-40÷110°C -40÷230°F	
NT6–55	Pipemount fitting "Ø4÷Ø30mm in diameter", IP55, over-molded, copper sensor	Thermoplastic 1,5m	-40÷110°C -40÷230°F	
NT6–67	Pipemount fitting "Ø4÷Ø30mm in diameter", IP67, over-molded, thermoplastic sensor	Thermoplastic 1,5m	-40÷110°C -40÷230°F	
NT6	Pipemount fitting	PVC - 1,5/2,0m	0÷80°C 32÷176°F	
N6F2	General purpose, resinated, IP67, with 2,8mm faston, double insulation, nylon cap "dimension Ø7x30mm", for XT11S 230Vac	PVC - 1,5/2,0m	-30÷105°C -22÷221°F	

PT1000 PROBES

PT1000 probes are suitable for all applications where the temperature is between -50÷120°C (-58÷248°F) and it is important to maintain precision over long distances.

PROBE	DESCRIPTION	CABLE	TEMP. RANGE	
PMG5P	Thermoplastic wire, IP68, cap dimension Ø5x20mm	Thermoplastic 1,5÷3,0m	-50÷110°C -58÷230°F	
PMP4–67	Pipemount fitting Ø4÷Ø30mm in diameter, IP67, over-molded	Thermoplastic 1,5÷3,0m	-50÷110°C -58÷230°F	
PMT6–67	Pipemount fitting Ø4÷Ø30mm in diameter, IP67, over-molded	Thermoplastic 1,5÷3,0m	-50÷120°C -58÷248°F	

PRODUCT PROBE

The product probes with NTC or PT1000 sensor allow to simulate and display the temperature of the goods and manage alarms according to the temperature near the product and not the air around it. Thanks to the magnets, these probes are particularly suitable for use on shelves.

PROBE	DESCRIPTION	CABLE	TEMP. RANGE	
NGPOP	NTC sensor, thermoplastic, IP68, 100x100mm	Thermoplastic – 5m	-40÷110°C -40÷230°C	
PMGPOP	PT1000 sensor, thermoplastic, IP68, 100x100mm	Thermoplastic – 5m	-50÷120°C -58÷248°C	

PTC/NTC INSERT PROBES

The insert probes with PTC or NTC sensor are suitable for applications where is important to know the core temperature of goods. They general are used togheter with cooking oven or blast chiller controllers.

PROBE	DESCRIPTION	CABLE	TEMP. RANGE	
SPC10PS	PTC sensor, plastic handle, inox steel cap "dimension Ø3,5x100mm"	Silicone - 3m	-38÷80°C -36÷176°F	
NPC10PS	NTC sensor, plastic handle, inox steel cap "dimension Ø3,5x100mm"	Silicone - 3m	-30÷80°C -86÷176°F	
SPC10IS	PTC sensor, plastic handle, inox steel cap "dimension Ø3,5x100mm"	Silicone - 3m	-50÷120°C -58÷248°F	
NPC10IS	NTC sensor, plastic handle, inox steel cap "dimension Ø3,5x100mm"	Silicone - 3m	-50÷120°C -58÷248°F	
SPC10IA	PTC sensor, plastic handle, inox steel cap "dimension Ø3,5x100mm"	Silicone for use with food - 3m	-50÷120°C -58÷248°F	
NPC10IA	NTC sensor, plastic handle, inox steel cap "dimension Ø3,5x100mm"	Silicone for use with food - 3m	-50÷120°C -58÷248°F	

PT100 THERMORESISTORS

Thermoresistance (RTD) probes are suitable when an high precision and a low response time is necessary. The operating range of the PT100 sensor is from -70÷500°C (-94÷932°F), the precision is according to standard IEC751.

PROBE	DESCRIPTION	CABLE	TEMP. RANGE	
PT6	General purpose, 3 wires, inox steel cap "dimension Ø6x100mm"	PVC - 2m	-30÷105°C -22÷221°F	
PT6.S	Protected, 3 wires, inox steel cap "dimension Ø6x50mm"	Silicone - 2m	-60÷200°C -76÷392°F	
PT6.F	Protected, 3 wires, inox steel cap "dimension Ø6x100mm"	Vetrotex - 2m	-60÷350°C -76÷662°F	
PT310	Compact, with male connection, 2 wires, inox steel cap "dimension Ø3x100mm"	Silicone - 2m	-70÷500°C -94÷932°F	
PT315	Compact, with male connection, 2 wires, inox steel cap "dimension Ø3x150mm"	Silicone - 2m	-70÷500°C -94÷932°F	

TC THERMOCOUPLES

Thermcouple (TC) probes are suitable when a short response time and high shock resistance are necessary. The operating range of the TCJ sensor is from 0÷600°C (32÷1112°F) and the range of the TCK is from 0÷1150°C (32÷2102°F), the precision is according to standard IEC584-2.

PROBE	DESCRIPTION	TEMP. RANGE	
TJ6	General purpose, protected, Fe-CO, cap "dimension Ø6x100mm", 2,0/3,0m vetrotex cable	-30÷350°C -22÷662°F	
TK6	General purpose, protected, Cr-Al, cap "dimension Ø6x100mm", 2,0/3,0m vetrotex cable	0÷350°C 32÷662°F	
TJD215	DIN connector, Fe-CO, cap "dimension Ø2x150mm"	0÷600°C 32÷1112°F	
TJD320	DIN connector, Fe-CO, cap "dimension Ø3x200mm"	0÷600°C 32÷1112°F	
TKD215	DIN connector, Cr-Al, cap "dimension Ø2x150mm"	0÷1150°C 32÷2102°F	
TKD320	DIN connector, Cr-Al, cap "dimension Ø3x200mm"	0÷1150°C 32÷2102°F	
CMJ	Compensating female connector, Fe-CO, for TJD215 and TJD320	-40÷200°C -40÷392°F	
CMK	Compensating female connector, Cr-Al, for TKD215 and TKD320	-40÷200°C -40÷392°F	

HUMIDITY PROBES

XH10P and XH20P humidity probes are suitable for all those applications where it is necessary to detect and control humidity. Such applications are: refrigeration, drying processes etc.

Power consumption: 22mA max

Protection: IP65

Storage temperature: -30÷85°C (22÷185°F)

HOW TO ORDER

XH10/20 | X | H | | | P | - | 0 | B | 0 | 0 | 0 |

	B	
Output		
0 = 4÷20mA		
1 = 0÷10Vdc		
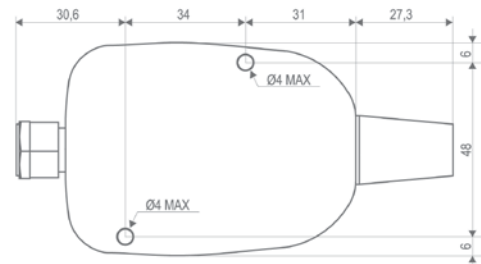
PROBE	POWER SUPPLY	ACCURACY	OUTPUT	OPERATING TEMPERATURE	MEASUREMENT RANGE
XH10P	9÷18Vac - 19÷35Vdc	±5%	4÷20mA	0÷60°C (32÷140°F)	30÷90% R.H.
	15÷35Vdc	±5%	0÷10Vdc	0÷60°C (32÷140°F)	30÷90% R.H.
XH20P	9÷18Vac - 19÷35Vdc	±3%	4÷20mA	0÷70°C (32÷158°F)	0÷99% R.H.
	15÷35Vdc	±3%	0÷10Vdc	0÷70°C (32÷158°F)	0÷99% R.H.

PRESSURE PROBES
PRESSURE TRANSDUCERS

Pressure transducer supply a standard output current signal (4÷20mA). The silicon sensor is assembled in a waterproof steel housing filled with oil that guarantees stable and constant measurement besides protection against vibrations and duration equivalent to millions of pressure cycles. The tip of the probe is made of 316L steel and this allows the probes to be placed in contact with ammonia and all kinds of corrosive gases in general.

PP07	2 wires transducer with 4÷20mA output and measurement range −0,5÷7bar
PP11	2 wires transducer with 4÷20mA output and measurement range −0,5÷11bar
PP30	2 wires transducer with 4÷20mA output and measurement range 0÷30bar
PP30FE	2 wires transducer with 4÷20mA output, female fitting and measurement range 0÷30bar

Power supply:	8÷28Vdc
Output:	4÷20mA
Protection:	IP65
Operating temperature:	−20÷80°C (−4÷176°F)
Storage temperature:	−35÷80°C (−31÷176°F)
Accuracy:	1% F.S.

PP07 – PP11 – PP30
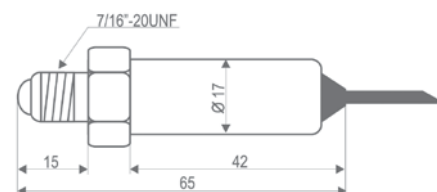
PP30FE
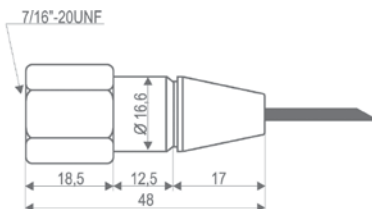
RATIOMETRIC PRESSURE TRANSDUCERS

Pressure transducer supply a standard output ratiometric signal (0÷5V). The design is ideal for demanding HVAC and refrigeration applications where long term reliability is necessary. The electrical interface is a rugged industry accepted connector. This device maintains accuracy through a wide temperature range.

PPR15	3 wires ratiometric transducer with 0÷5V output and measurement range 0÷15bar
PPR30	3 wires ratiometric transducer with 0÷5V output and measurement range 0÷35bar

Power supply:	4,5÷5,5Vdc
Output:	0,5÷4,5Vdc
Measurement range:	PPR15 (0÷15bar) - PPR30 (0÷35bar)
Protection:	IP65
Operating temperature:	−40÷135°C (−40÷275°F)
Storage temperature:	−40÷135°C (−40÷275°F)
Accuracy:	1,2% F.S.
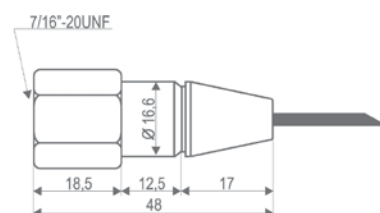
ACCESSORIES

SECTION INDEX

ACCESSORIES

MODEMS AND CABLES FOR SYSTEMS AND PROGRAMMABLE CONTROLLERS

XWEB MODEM	for XWEB300D/500D/500 3000/5000 IPG110/115D	Analogue serial modem PDA compatible, 56kbps (DIN Rail format) HOW TO ORDER: XWEBMODEM-200 (with 24Vac power supply) XWEBMODEM-400 (with 110Vac power supply) XWEBMODEM-500 (with 230Vac power supply)	
TC35-KIT	for XWEB300D/500D/500 IPG110/115D	GSM modem kit containing the modem, the power supply unit, the transmitting antenna with the relevant cable and the connection to controlling system	
CAB/WEB/NET	for XWEB300D/500D/500 3000/5000 IPG110/115D	Ethernet patch cable, 3m	
CAB/WEB/PC	for XWEB300D/500D/500 3000/5000 IPG110/115D	Ethernet patch cross over cable, 1m	

iCOOLL MODULES FOR WIRELESS NETWORK

XJ100	Radio-frequency communication module to use with controllers	
XJ150	Radio-frequency communication module to use with controlling system	
PWS150J	XJ150 power supplier	

PROGRAMMING KEYS

HOT KEY	Key for a quick and easy Dixell's controllers programming. Dimensions 0,8x16x46mm	
HOT KEY 64	Key for a quick and easy XC200L controllers programming. Dimensions 0,8x16x46mm	
HOT KEY 128	Key for a quick and easy XB570L controller programming. Dimensions 0,8x16x46mm	
VISOKEY	Key for a quick and easy VISOGRAPH display programming. Dimensions 0,8x16x46mm	
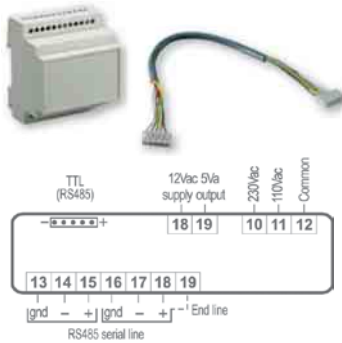
PROGRAMMING KEYBOARD

KB1-PRG	6 keys programming keyboard for XEV series and XJA-XJP-XJR modules	
CAB/KB11	KB1-PRG keyboard cable, 1m	

PROGRAMMING TOOL

WIZ TOOL KIT	Programming kit made up of CD and DIN Rail module with connections for Hot Key and RS485 for Dixell instruments; it allows the user to connect controllers to a PC running Windows 2000/XP OS. The CD-rom included: **WIZMATE** (to program an instrument or a Hot Key). The Kit includes: the CAB/PTK2 wire for DIN module instrument connection, the CAB/PTK485 wire for DIN module RS485 (built-in) instrument connection, the CAB/SW9-9 wire for PC connections. How to order: PROG-TOOL 400 (with 110Vac power supply) PROG-TOOL 500 (with 230Vac power supply)	

SERIAL INTERFACE

XJ485CX	The XJ485CX serial interface converts the TTL output into a RS485 signal that can be used to connect the controller to the controlling and supervising system. Dimensions: 1,6x16x46mm. Multipolar connector included, 0,2m	
XJRS485	The XJRS485 opto-insulated serial interface converts the TTL output into a RS485 signal that can be used to connect the controller via an RS485 network to the controlling and supervising system. Format: 4 DIN Rail	
CAB/RS1	Multipolar connector for XJRS485, 1m	
CAB/RS2	Multipolar connector for XJRS485, 2m	
CAB/RS3	Multipolar connector for XJRS485, 3m	
CAB/RS5	Multipolar connector for XJRS485, 5m	

REMOTE DISPLAY

X–REP	Remote display for temperature reading to be used with compatible Dixell's controllers. The front panel is IP65 and makes the installation easy wherever the controlled temperature needs to be displayed. Display: n° digits ± 3 d.p. Power Supply: from the controller How to order: X-REP-00000 X-REP-10000 (for XJA, XJP)	
CAB/REP1	Multipolar connector for X-REP, 1m; to use with XR100/500C, WING BASIC, XW200/500L, XM, XB series	
CAB/REP3	Multipolar connector for X-REP, 3m; to use with XR100/500C, WING BASIC, XW200/500L, XM, XB series	
CAB/REP5	Multipolar connector for X-REP, 5m; to use with XR100/500C, WING BASIC, XW200/500L, XM, XB series	
CAB51F	Cable for X-REP, 1m; to use with XJA, XJP and PRIME CX series	
CAB52F	Cable for X-REP, 2m; to use with XJA, XJP and PRIME CX series	
CAB55F	Cable for X-REP, 5m; to use with XJA, XJP and PRIME CX series	

CONNECTIONS

CAB/OS1	Multipolar connector for XR Slave, 1m	
CAB/OS2	Multipolar connector for XR Slave, 2m	
CAB/OS3	Multipolar connector for XR Slave, 3m	
CW15–KIT	Female connectors 12-14 pins with wires 1,5m	
CF–KIT	Female connectors 12-14 pins with faston	
CAB/CJ15	Connector with 1,5m wires for analog output, DI and HP, for XC600 and XC200L	
CAB/CJ30	Connector with 3m wires for analog output, DI and HP, for XC600 and XC200L	
LW30–KIT	3 disconnectable female connectors, 22-8-16 pins with wires 3m for XC200L	
DWA30–KIT	3 disconnectable female connectors, 10-16-22 pins with wires 3m and 2 disconnectable female connectors, 6-8 pins with wires 3m. For IPG110D	
DWB30–KIT	3 disconnectable female connectors, 10-16-22 pins with wires 3m and 3 disconnectable female connectors, 6-8-10 pins with wires 3m. For IPG115D	
DWEX60–30KIT	3 disconnectable female connectors, 8-10-16 pins with wires 3m. For IPROEX60D	
DWXEV30	Disconnectable female connectors, 12 pins with wires 3m. For XEV20D	

PRINTERS

XB07PR	Compact thermal printer designed for connection to the XB570L controller. It provides a hard copy print out of the cycles. Paper width 58mm. EASYLOCK fixing system that allows to adapt the printer to the panel thickness without further supports. Operating Voltage range: 3.5÷8V. Dimensions: 85.5x85x55mm	
XC09PR	The XC09PR is an infrared thermal printer suitable for use with XC900M compressor racks controllers. It allows alarms, parameters and data recorded by the instrument to be printed out. Dimensions: 135x125x70mm	

ADAPTERS

C–BOX	Wall adapter for C and CX format controllers, IP55, dimensions: 108x108x90mm	
C–BOX2	Wall adapter for C and CX format controllers, IP55, dimensions: 170x105x82mm	
VS–BOX	Wall adapter for VS format controllers, IP55, dimensions: 135x74x72mm	
VS–BOX2	Wall adapter for VS format controllers, IP55, dimensions: 170x105x82mm	
V–KIT/W	Wall adapter for vertical keyboards, IP55, dimensions: 100x64x43mm, white colour	
V–KIT/B	Wall adapter for vertical keyboards, IP55, dimensions: 100x64x43mm, black colour	
V–KIT/G	Wall adapter for vertical keyboards, IP55, dimensions: 100x64x43mm, grey colour	
FA64	Frame adapter for smaller 31x64 models to fit larger 32x74 instrument cut outs	
FA/CX	Multifunction frame adapter from L to CX format controllers with the possibility to mount up to 2 CXLS light switches	

FILTERS

FT–IL	Inductive load filter 0,1µF/100Ohm 250V	
FT–PW	Line filter	

TRANSFORMERS

TF3	The TF3 3VA model is available in the following versions: 230/12Vac, 110/12Vac and 24/12Vac. Others models with internal thermofuse (130°C) and UL, CSA, VDE approval are available	
TF5	The TF5 5VA model is available in the following versions: 230/12Vac, 110/12Vac and 24/12Vac	
TF10	The TF10 10VA model is available in the following versions: 230/12Vac, 110/12Vac and 24/12Vac	
TF10D	The TF10D (DIN Rail mounting) 10VA model is available in the following versions: 230/24Vac and 110/24Vac. 2 DIN Rail format	
TF20D	The TF20D (DIN Rail mounting) 20VA model is available in the following versions: 230/24Vac and 110/24Vac. 2 DIN Rail format	
TF40D	The TF40D (DIN Rail mounting) 40VA model is available in the following versions: 230/24Vac and 110/24Vac. 4 DIN Rail format	
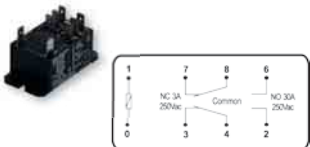
GASKETS AND PROTECTIONS

MDP/CX	Plastic protection for C and CX formats against dripping on terminal blocks	
RG–C	Front panel rubber gasket for C format, IP65 mounting	
RG–R	Front panel rubber gasket for R format, IP65 mounting	
RG–L	Front panel rubber gasket for L format, IP65 mounting (STANDARD)	
RG–LX	Front panel rubber gasket for L format, IP65 mounting (INOX)	
RG–V	Front panel rubber gasket for V format, IP65 mounting	
RG–M	Front panel rubber gasket for M format, IP65 mounting	
PG–L	Plastic multipurpose protection for L format, IP65	
PG–MF	Plastic multipurpose protection with protective front cover for M format, IP66	

LIGHT SWITCHES

PB–KIT	A kit composed by two connectors and a push button, that permits monitoring of the maximum and minimum temperatures and the reset function of the XT11S	
LS–R	Red light switch 16A/250Vac	
LS–G	Green light switch 16A/250Vac	
LS–Y	Yellow light switch 16A/250Vac	
CLS–R	Red light switch 16A/250Vac for C format models	
CLS–G	Green light switch 16A/250Vac for C format models	
CLS–Y	Yellow light switch 16A/250Vac for C format models	
CXLS–R	Red light switch 16A/250Vac for FA/CX	
CXLS–G	Green light switch 16A/250Vac for FA/CX	
CXLS–Y	Yellow light switch 16A/250Vac for FA/CX	
WLS–R	Red light switch 16A/250Vac for Wing Series	
WLS–G	Green light switch 16A/250Vac for Wing Series	
WLS–Y	Yellow light switch 16A/250Vac for Wing Series	

VARIOUS

XW–WA	XWEB500 wall mounting bracket	
XM–RTC	Real time clock board for XM series	
XM–RTCB	Real time clock board with lithium battery for XM series	
XM–FC16	Female connectors 16 pins for XM660K and XM670K	
XM–FC21	Female connectors 21 pins for XM669K and XM679K	
XV–ACK	Anti-condensing kit for XV110K and XV150K models	
iPRINT	Hand held infrared reader unit used to download recorded data from the controllers (up to 40) and transfer it directly to a printer provided with IR port. A PC is not required. To use with XR700-XW700 and XLR700 series.	
T92	Relay with a 30A current (3HP/240Vac or 1HP/110Vac) suitable for all those applications where the load current is higher than the rating value of the relays mounted on the instruments. Contacts: 2C/O - 2N/O. Rated current: 30/3 (NO/NC). Rated/max. voltage: 250/480Vac. Rated breaking capacity: 7500VA. Nominal coil voltage: 240Vac. Nominal coil power: 1.7W/4VA. Coil contact: fast-on: 8mm. Dimensions: 30,5x52,3x34,6mm. Ambient temperature: -40÷65°C (-40÷149°F)	

DIMENSIONS & CUT OUT

LS, CXLS – PANEL MOUNTING   **WLS** – PANEL MOUNTING   **CLS** – PANEL MOUNTING
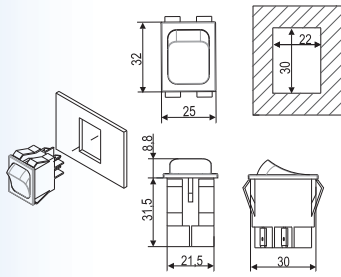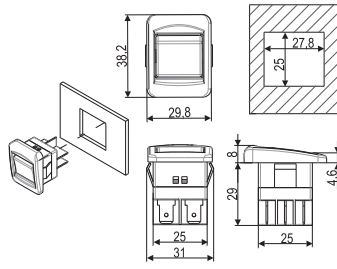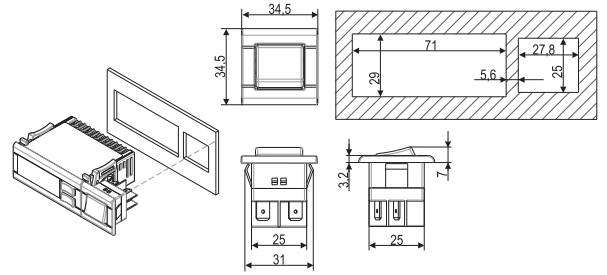
LC11 (28,5x48) – PANEL MOUNTING   **XT11S, REP (31x64)** – PANEL MOUNTING
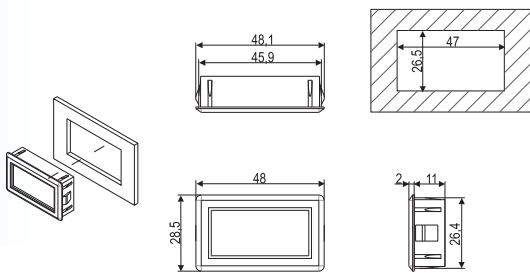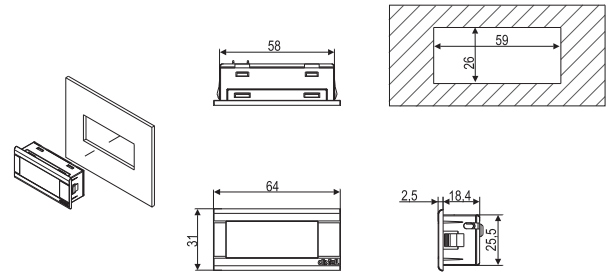
C (32x74) – PANEL MOUNTING
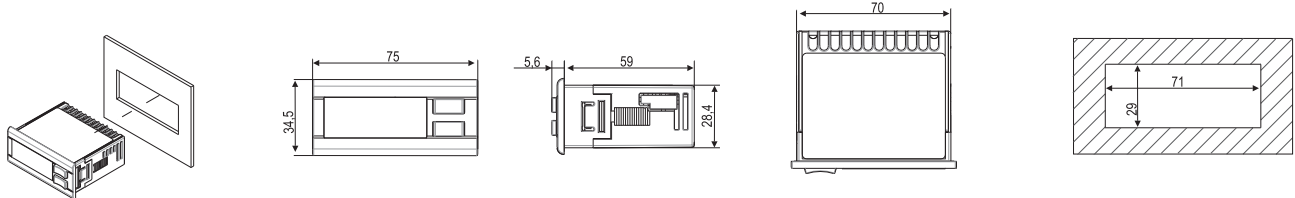
CX, KEYBOARD (32x74) – PANEL MOUNTING

❶ X = 70
Y = 59,5

❷ X = 73,5
Y = 18
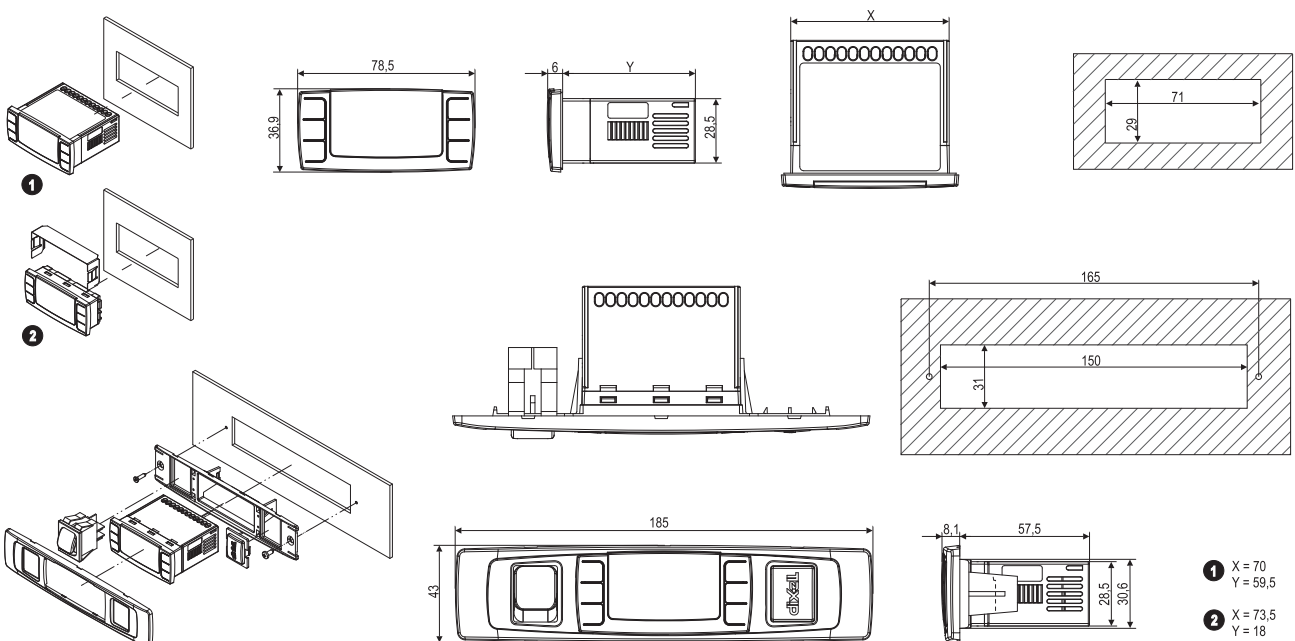
size in mm

XDL (45x70) – WALL MOUNTING
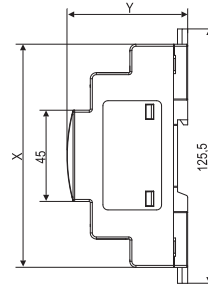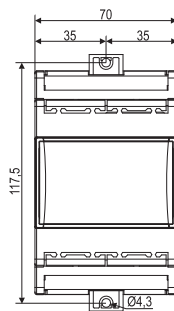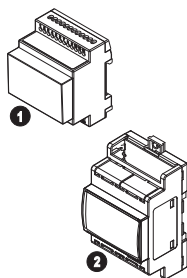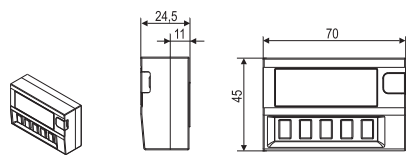
ICOOLL (80x56) – WALL MOUNTING

R (72x72) – PANEL MOUNTING

M (144x72 – 72x144) – PANEL MOUNTING

XCM X = 81 Y = 91   XF X = 68 Y = 77

4 DIN (DIN RAIL) – WALL OR DIN RAIL MOUNTING

❶ X = 84,5   ❷ X = 110
   Y = 64   Y = 59,5
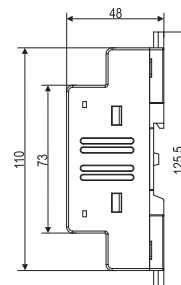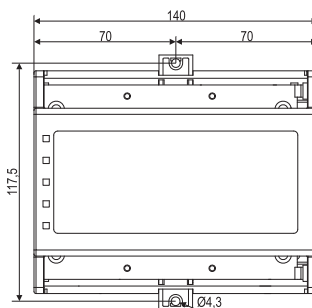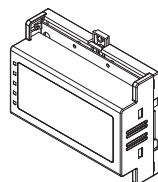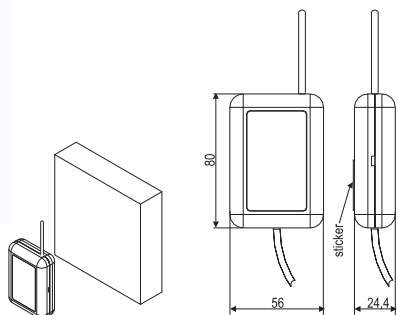
8 DIN (DIN RAIL) – WALL OR DIN RAIL MOUNTING
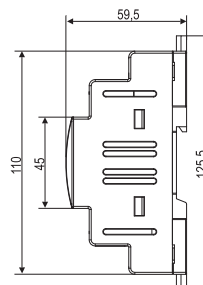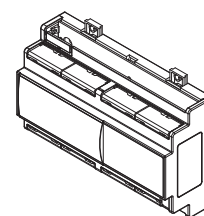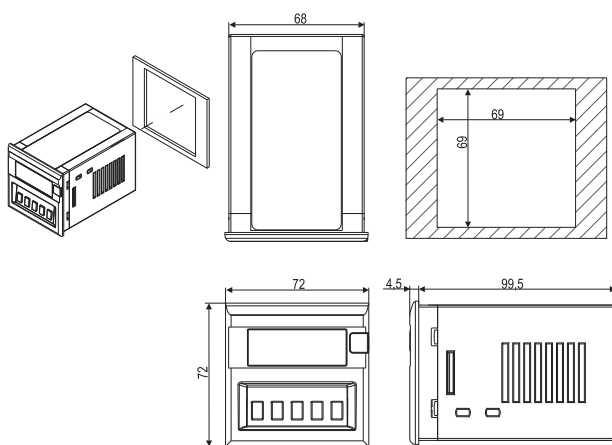
10 DIN (DIN RAIL) – WALL OR DIN RAIL MOUNTING

size in mm

175
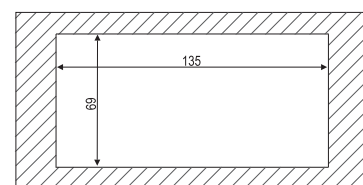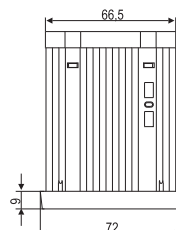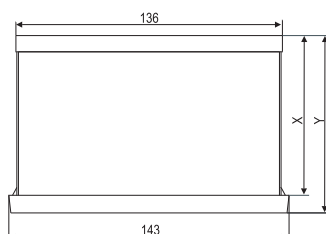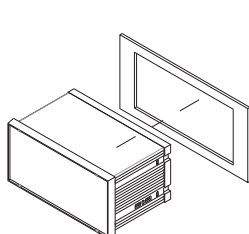
VISOGRAPH (82x156) – WALL OR PANEL MOUNTING

24,7

133

127

69

9 16,6 10

156

82
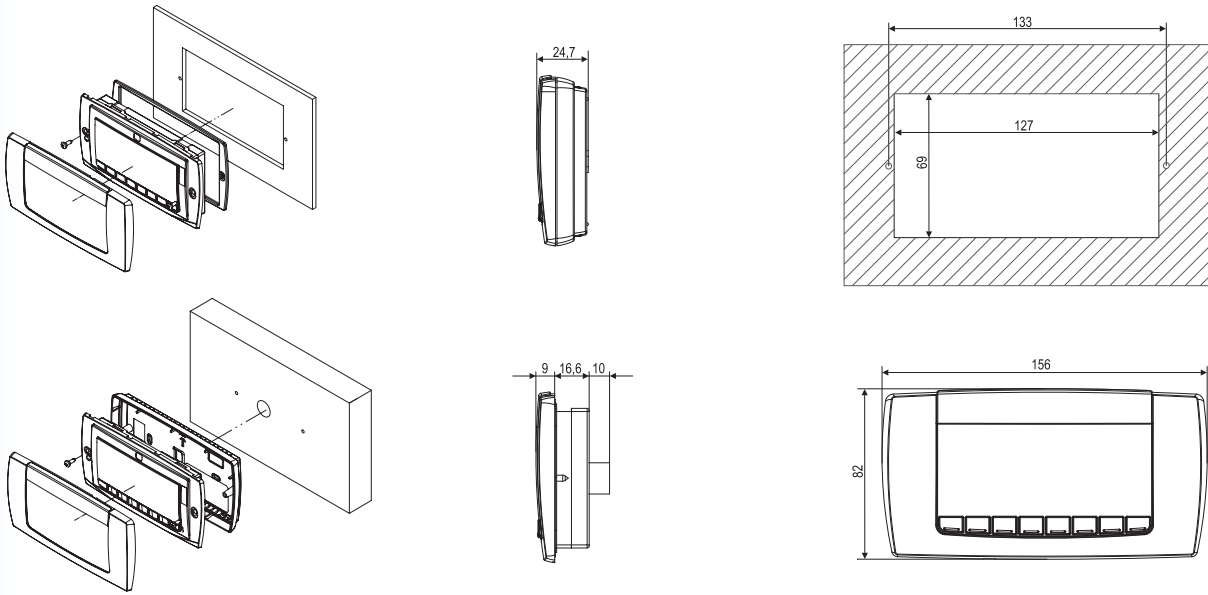
L, LS, KEYBOARD (38x185) – PANEL MOUNTING

165

150

31

12 Y

30

185

38

148

165

150

31

6 Y

30

185

38

148

protection panel

controller

165

24,3 3,6 2,1 13,4 24,3

10,4

52,9

23,9

3,1

6 Y

30

~ 15

148

panel protection

controller

M3
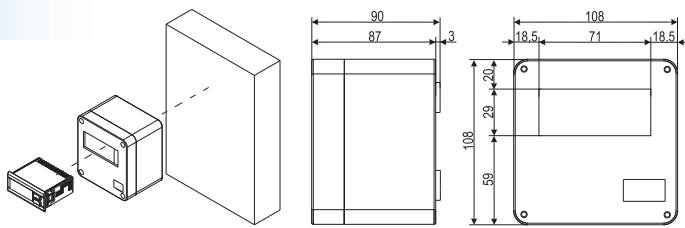
165

0,8
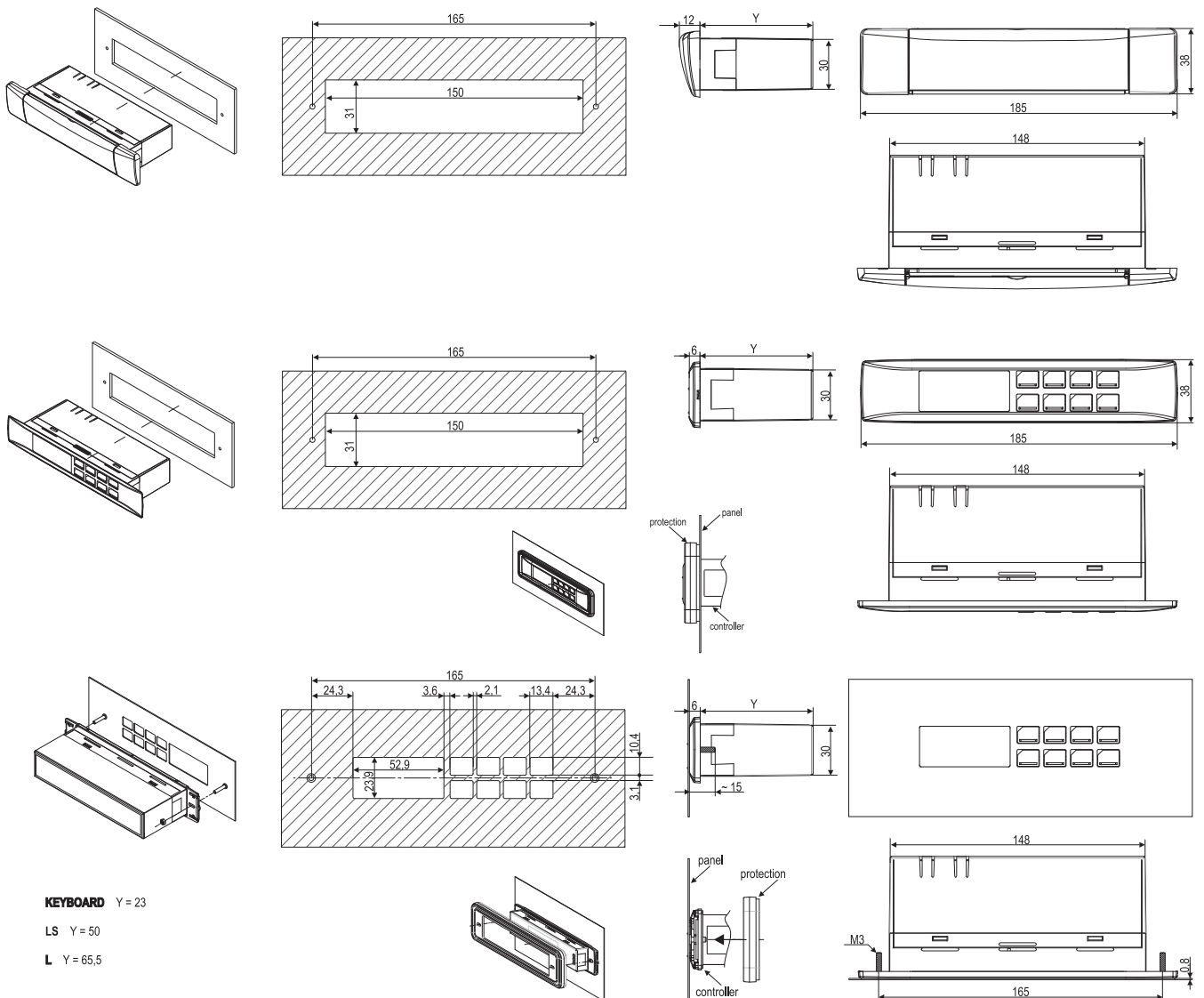
KEYBOARD Y = 23

LS Y = 50

L Y = 65,5

size in mm

V, VS, KEYBOARD (100x64) – PANEL MOUNTING

KEYBOARD Y = 24

VS Y = 40

V Y = 59

V–KIT (100x64) – WALL MOUNTING
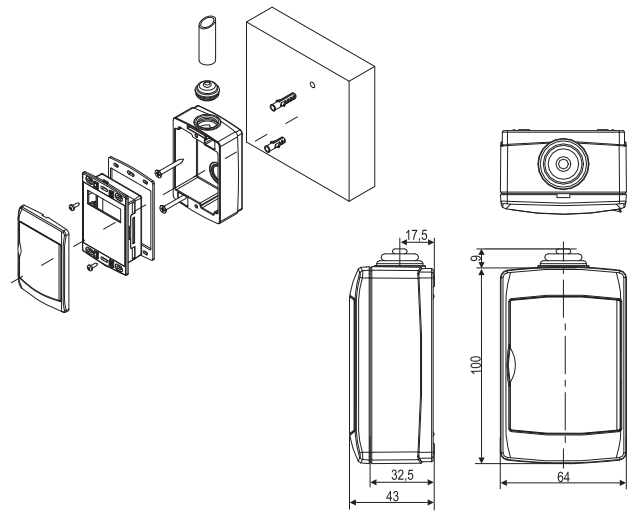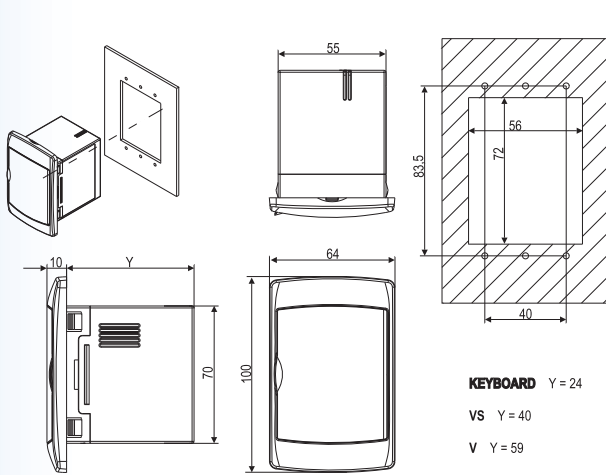
C–BOX (108x108) – WALL MOUNTING
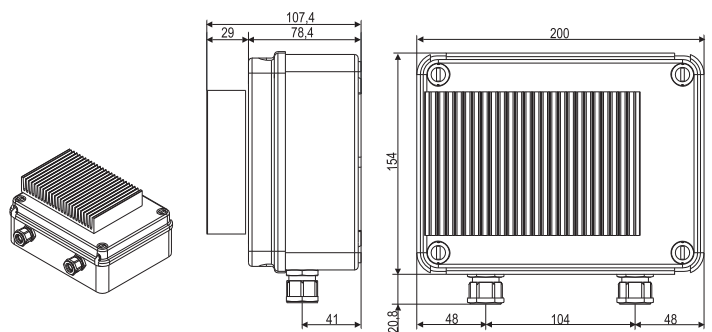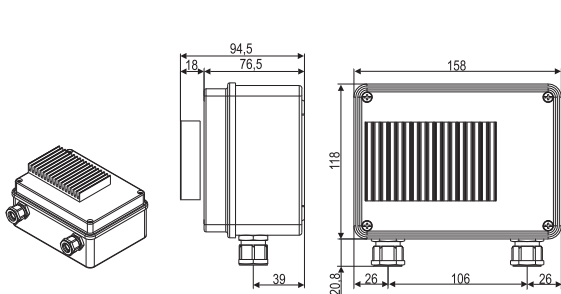
VS–BOX (135x74) – WALL MOUNTING
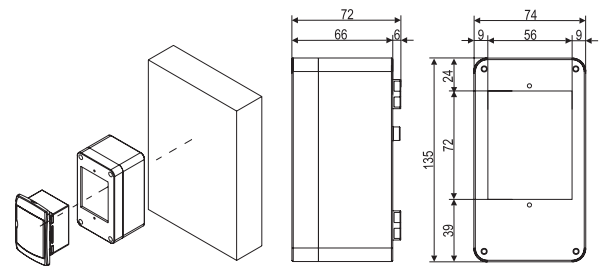
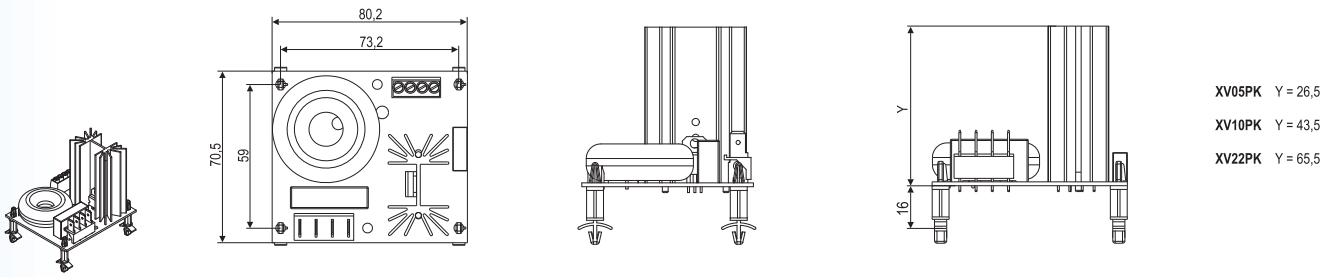## C–BOX2 (170x105) – WALL MOUNTING

VS–BOX2 (135x74) – WALL MOUNTING
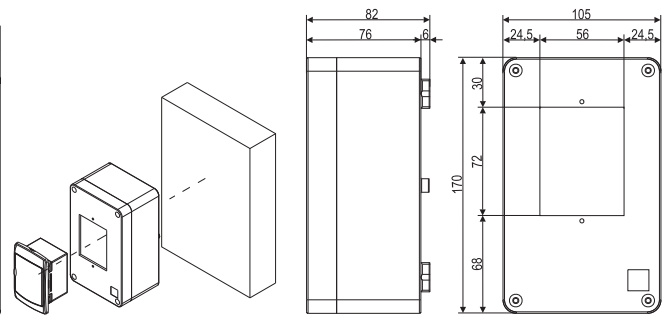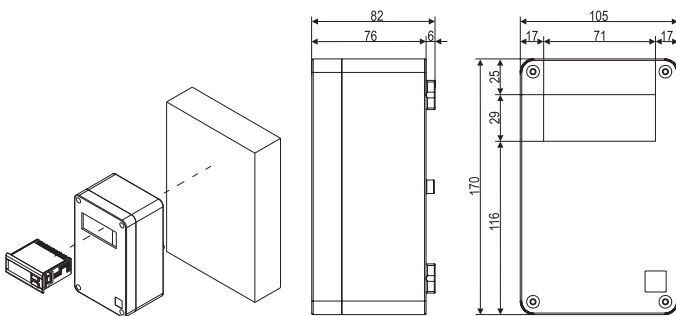
XV110K (118x158)

XV150K (154x200)

size in mm

PK (70x80) – PANEL MOUNTING

XV05PK	Y = 26,5
XV10PK	Y = 43,5
XV22PK	Y = 65,5

XLR, XLH, XWEB500 (230x210) – WALL OR PANEL MOUNTING
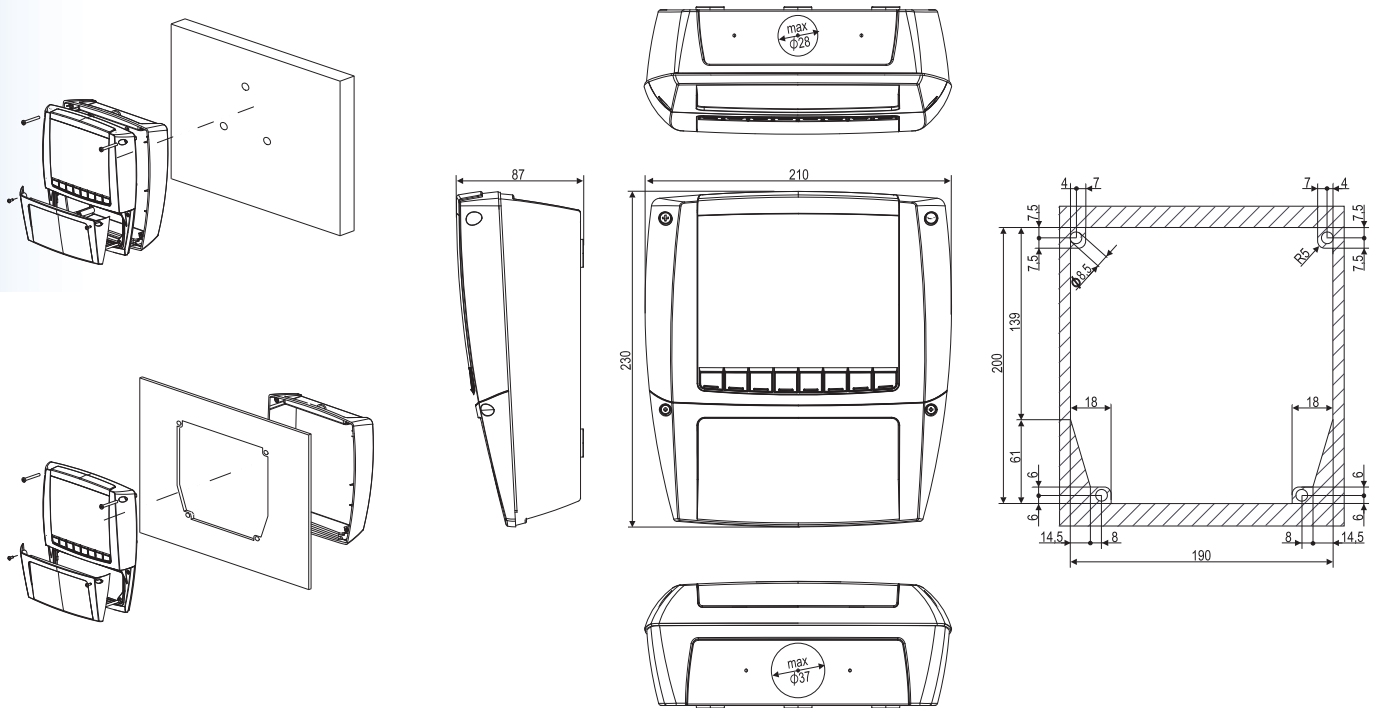
XWEB3000, XWEB5000 (370x238) – 19'' RACK MOUNTING

size in mm
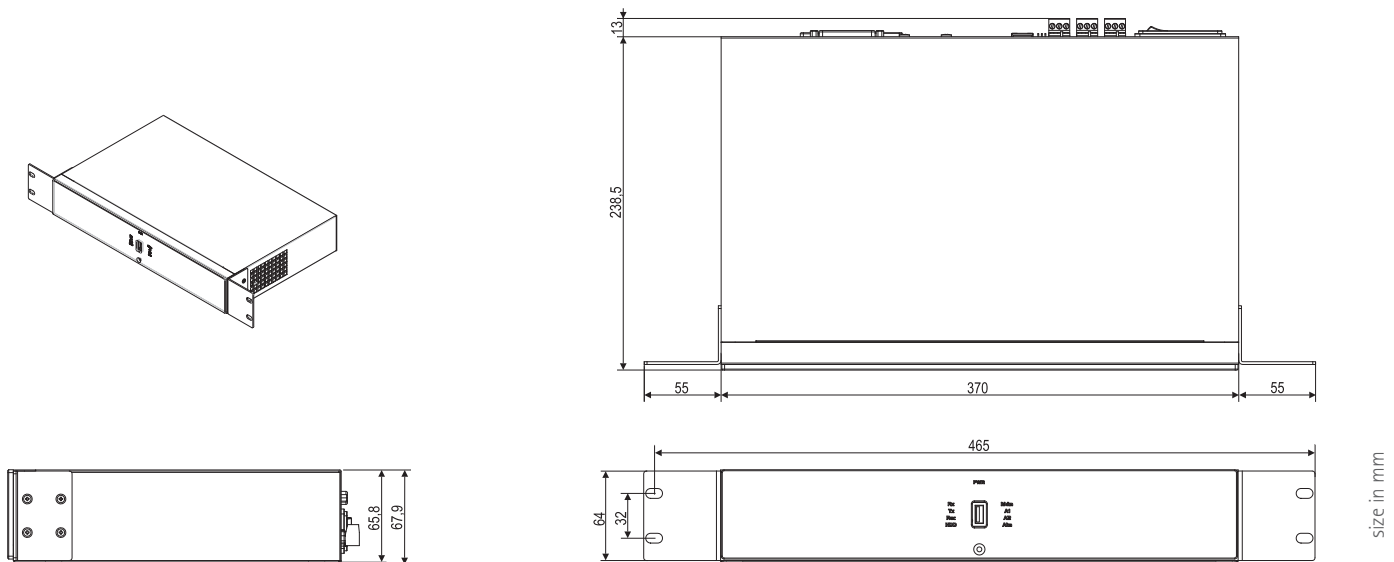
GENERAL TECHNICAL FEATURES

The following technical features are ordinary for the products present in this catalogue, other main features are write on the prelimunary section of the series.

HOUSING: self extinguishing ABS

MOUNTING: S, REP formats panel mounting in a 26x59mm panel cut-out
C, CX formats, CX horizontal keyboards panel mounting in a 29x71mm panel cut-out
D format (4, 8, 10 modules) DIN rail and wall for compatible models
L, LS formats, T horizontal keyboards panel mounting in a 31x150mm panel cut-out
V, VS formats, V vertical keyboards panel mounting in a 72x56mm panel cut-out
K format, power modules panel mounting with screws
XLR, XLH formats panel or wall mounting
M format panel mounting in a 69x135mm panel cut-out
R format panel mounting in a 69x69mm panel cut-out
VG format panel mounting in a 69x127mm panel cut-out or wall mounting

FRONT PROTECTION: S, REP, C, L, LS, V, VS, XLR, XLH, R formats, C and T horizontal keyboards, V vertical keyboards, VG keyboards IP54 with gasket
M format IP54 with gasket

DISPLAY: single display red LED
dual display 1st: red LED - 2nd: yellow LED

ACCURACY: better than 1% of F.S.

DATA STORAGE: EEPROM memory

OPERATING TEMPERATURE: 0÷60°C (32÷140°F)

STORAGE TEMPERATURE: -30÷85°C (22÷185°F)

RELATIVE HUMIDITY: 20÷85%

MEASUREMENT RANGE: probe dependent

Resolution: 0,1°C or 1°F

CONNECTIONS: C, D, XLR, XLH formats screw-terminal block $\leq$ 2.5mm^2
M, R formats disconnectable screw-terminal block $\leq$ 2.5mm^2
L, V, K formats, T horizontal keyboards, V vertical keyboards screw-terminal block $\leq$ 2.5mm^2 and 6,3mm faston
S, REP, LS, VS formats 2,8mm and 6,3mm faston

CORPORATE AND HOMOLOGATIONS

All the production conforms to Œ norms with regards to low voltage and electromagnetic compatibility. For many models, Dixell has the voluntary mark at approval Authority (**ENEC, usULc**) ensuring a reliable international rules conformance.

CE	**CE mark** It indicates conformity to the European Directives issued to guarantee the safety of the users and the environment. It is obligatory for all products distributed within the European Community. It does not replace the voluntary Quality Mark.
ЄN03	**ENEC mark** Voluntary quality mark recognised as equivalent to the single national marks of the Countries adherent to the accord. It certifies that a product conforms to the European norms EN, and that it has been manufactured by a company with quality systems conforming to ISO 9000 norms.
c UL us	**UL mark** Voluntary quality mark, valid for the American Market. It certifies conformity of a product to the American safety directives, which sometimes differ from European ones.

Manuals and updating are available on our Web Site.
The continuous improvement of Dixell's products can cause some variations in the information included in this catalogue even without notice.

diXell®