dixell®

GENERAL Catalogue

EMERSON
Climate Technologies

INDEX

THE COMPANY

HEADQUARTERS

Dixell, situated in Pieve d'Alpago (Belluno) and now part of the **Emerson Climate Technologies Group**, is a dynamic Company that from the year 1996 to present has positioned itself among world leaders of electronic Regulation and Control in **Industrial and Commercial Refrigeration, Conditioning and Cooking** fields thanks to continuous **Technologic Innovation** and a **focus on Energy Saving** issues.

SALES, TRAINING

Worldwide, 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 exemplary. 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 technology has been developed at our Belluno base.

IPRO ACADEMY

A center of excellence that combines innovation requests received from the HVAC/R market combined with technological opportunities, in this way guaranteeing continuous **iPro programmable platform** growth.

RESEARCH, DEVELOPMENT, PRODUCTION

Continuous **research and development** means that all of our controllers feature the latest generation of microprocessors. Giving due consideration to the actual needs of many users has lead 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, now even more competitive and flexible thanks to China bases. 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 conforms to the Quality System Standard **UNI EN ISO 9001:2008**.

ENVIRONMENT

Dixell firmly believes in the **respect and safeguard of the environment**, with particular attention to all industrial processes and to the research and development of new products.

Dixell's strengths are the realization of regulators that combine high performance with high **energy savings** and the use of eco-friendly components, in full compliance with all Italian and International laws and standards. To this end Dixell complies with the Material Compliance Program of Emerson respecting the **RoHS** directive (**2002/95/EC**) and the **REACH** regulation (**CE n. 1907/2006**), asking its suppliers accurate analysis on all purchased components. Furthermore packing materials are in accordance with **2004/12/CE European Directive**.

APPLICATIONS

REFRIGERATION

Refrigeration requires the control of many different conditions to guarantee that products are processed and stored correctly. Temperature, pressure and humidity must be monitored 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.

Often, hidden behind a **bottle cooler** or **pharmaceutical cabinet**, lies the electronic technology which is nowadays required, which is becoming more important and plays a decisive role, both for the designer and for the consumer. The concepts of integration, remote access, energy savings, functional aesthetics and connectivity are important considerations on which even the **wholesaler** can always rely on.

Even regarding **catering** and **food service**, Dixell has years of experience in offering products with excellent performance and durability including special applications such as **blast chiller** processes used in freshly-cooked food conservation. Dixell's solutions to the introduction of food hygiene regulations (HACCP) offer immediate advantages in terms of cost, time and system operation.

Compressor Racks

Catering & Food Service

REFRIGERATION

Wholesalers

Bottle Cooler

Cold Rooms

Convenience Store

Petrol Station

RETAIL

Super/Hypermarkets

Restaurant Chains

RETAIL

The complete solution that Dixell offers for the Retail field is a solution for every kind of application, from **petrol station** to **hypermarket** up to **convenience stores**. If there is an alarm, it is necessary to be advised quickly in order to intervene without delay. 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 **restaurant chains** or **distribution centers**, centralized management software for the Call Center is available.

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 all Dixell products please check out our Web Site **www.dixell.com**.

RANGE

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, most of those are oriented toward the **energy saving**, and **innovative functions** mark a range of products that includes different fields of cooling world giving a wide range of general purpose solution, for multiplexed cabinets, cabinets and rooms, bottle cooler, blast chiller, compressor racks and refrigerated trucks. Specific solutions that are used also in applications such as pharmaceutical or fan speed, food warming cabinets and ovens control and in temperature, humidity and pressure regulation.
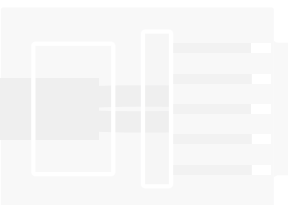
PROGRAMMABLE CONTROLLERS

The iPro family of controllers, whether dedicated for HVAC/R units or for general purposes, is characterized by the most advanced technology in **connectivity** and processing speed.

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

An **easy** and **useful HMI** is also guaranteed through graphic displays and the touch screen, as the **expandability** and the solution to many applications are satisfied with a complete range of accessories, including I/O expansion modules, proportional electronic valve management, modem, wirings, and more.

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.

PROBES and ACCESSORIES

A complete series of probes & transducers for temperature, humidity, and pressure ensures that for every application the end user has the right level of accuracy and the appropriate lead time.
A family of useful accessories such as modems, wirings, serial interfaces, programming kits, and protections makes it easy, fast, and accurate to use each instrument in every situation, especially with a remote connection or for energy analysis.

CORPORATE and HOMOLOGATIONS

All the production conforms to **CE** 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 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.

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.

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.

GOST–R

Voluntary certificate valid for the Russian Market. It certifies quality of supplied goods and their conformity with norms and standards Russian Federation.

GENERAL PURPOSE REFRIGERATION CONTROLLERS

SECTION INDEX

CX: 32x74mm

S: 31x64mm

C: 32x74mm

THERMOMETER: TEMPERATURE DISPLAY

- Measurement unit integrated on the display
- Hot Key or Prog Tool Kit connector for quick and easy programming (XA100C and XT11CX)
- 3VA max power absorption
- Display with red LED 11,5mm high (S format) or 13,2mm high (C and CX formats)
- Temperature alarm (XT11CX)

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	**0** = °C - integer	**0** = No delay
1 = 24Vac/dc	**1** = °F - integer	**1** = 1 min
4 = 110Vac	**2** = °C - decimal point	**2** = 3 min
5 = 230Vac		

XT11CX   X T 1 1 C X - A B C D 0   -17.8   For blue display please contact Dixell

A	B	C	D
Power supply	**Inputs**	**Display update delay**	**Measurement unit**
4 = 110Vac	**P** = PTC	**0** = No delay	**C** = °C
5 = 230Vac	**N** = NTC	**1** = 1 min	**F** = °F
		2 = 3 min	

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

LED THERMOMETERS

| XT11S | Digital thermometers with max and min log, powered directly by main voltage |
| XT11CX | |

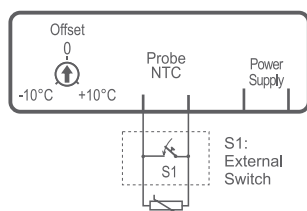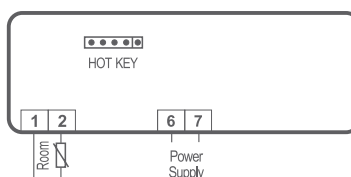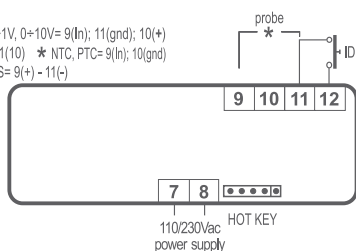| XA100C | Configurable digital indicator |

CX: 32x74mm

S: 31x64mm   C: 32x74mm
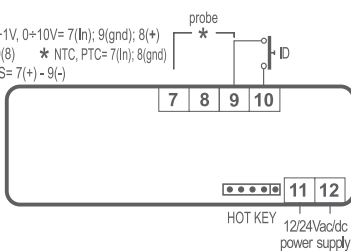
FEATURES	XT11S	XT11CX	XA100C
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.
Power supply	12, 24Vac/dc 110, 230Vac	110, 230Vac	12, 24Vac/dc 110, 230Vac
Measurement range	-40÷50°C -40÷122°F	probe dependent	probe dependent
Inputs			
Probe	NTC included	NTC, PTC	NTC, PTC, Pt100 TcJ, TcK, TcS 4÷20mA, 0÷1V, 0÷10V
Other			
Temperature alarm		pres	
Hot Key/Prog Tool Kit output		pres	pres
Digital input			pres
Serial output			TTL
Buzzer			opt
Offset adjustment	back side trimmer	via keyboard	via keyboard

XT11S

Offset
0
-10°C   +10°C
Probe NTC
Power Supply
S1: External Switch
S1

XT11CX

HOT KEY
1 2   6 7
Room
Power Supply

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(-)

probe
✱
ID
9 10 11 12
7 8   HOT KEY
110/230Vac power supply

✱ 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(-)

probe
✱
ID
7 8   9 10
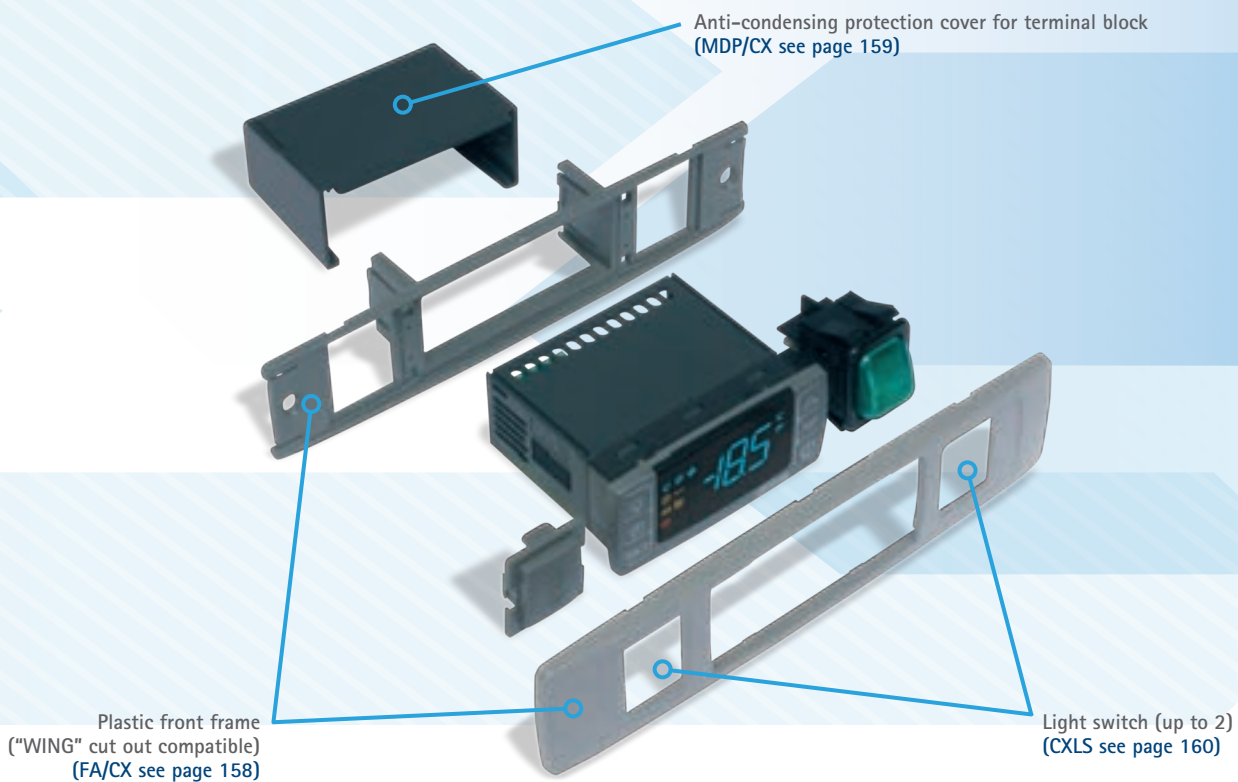HOT KEY   11 12
12/24Vac/dc power supply

CX: 32x74mm

Prime

PRIME CX SERIES: NT and LT APPLICATIONS

- Innovative digital controllers dedicated to heat and NT and LT refrigeration
- Easy and intuitive programming mode
- On/off key
- Energy saving cycles through digital input
- Fast freezing with dedicated set point
- Outputs restart with door open alarm
- Temperature Max and Min functions
- Configurable digital input also as probe
- Virtual probe management
- Cycles for milk cooling and storage systems
- Functions for refrigerated air dryers in automation processes
- Condenser temperature management to prevent critical plant situations
- Hot Key or Prog Tool Kit connector for quick and easy programming
- Serial connection to monitoring systems (direct for XR35/75/77CX or via XJ485CX)
- Connection for X-REP remote display (alternative to TTL output)
- 3VA max power absorption
- Display with red LED (10,5mm high) and icons

Anti–condensing protection cover for terminal block
(MDP/CX see page 159)

Plastic front frame
("WING" cut out compatible)
(FA/CX see page 158)

Light switch (up to 2)
(CXLS see page 160)

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 output** (excludes TTL output)	**Measurement unit**	**RTC**	**Compressor output**	**Connections**
0 = 12Vac/dc	**N** = NTC	**0** = No	No	**C** = °C	No	**0** = 8A	Screw
1 = 24Vac/dc	**P** = PTC	**1** = Yes	No	**F** = °F	No	**1** = 20A	Screw
2 = 24Vac		**2** = No	Yes	**H** = °C heating (only for XR10CX)	No	**3** = 16A	Screw
4 = 110Vac		**3** = Yes	Yes	**L** = °F heating (only for XR10CX)	No	**6** = 8A	Faston
5 = 230Vac				**I*** = °C	Yes supercap	**7** = 20A	Faston
				M* = °F	Yes supercap	**8** = 16A	Faston
				***** Only for XR30/70CX			

XR35/75/77CX

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**	**Measurement unit**	**RTC**	**Compressor output**
0 = 12Vac/dc (only for XR77CX)	**N** = NTC	**6** = No	**C** = °C	No	**0** = 8A
1 = 24Vac/dc (only for XR77CX)	**S** = Pt1000	**7** = Yes	**F** = °F	No	**3** = 16A
4 = 110Vac			**I** = °C	Yes supercap	
5 = 230Vac			**M** = °F	Yes supercap	

XR80CX

X R 8 0 C X – A B C D E   -17.8   For blue display please contact Dixell

A	B	C	D	E
Power supply	**Inputs**	**Buzzer**	**Measurement unit**	**Compressor output**
0 = 12Vac/dc	**N** = NTC	**0** = No	**C** = °C	**0** = 8A
4 = 110Vac	**P** = PTC	**1** = Yes	**F** = °F	**3** = 20A
5 = 230Vac				

PRIME CX

THERMOSTAT and CONTROLLERS with "OFF CYCLE" DEFROST for STATIC APPLICATIONS

CX: 32x74mm

XR10CX	Digital thermostat with heating or cooling action
XR20CX	Digital controller for NT with "off cycle" defrost
XR30CX	Digital controller for NT with "off cycle" defrost and additional configurable relay
XR35CX	Digital controller for NT with "off cycle" defrost, additional configurable relay and RS485
XR40CX	Digital controller for NT and LT with electrical or hot gas defrost

FEATURES	XR10CX	XR20CX	XR30CX	XR35CX	XR40CX
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.
Power supply	12, 24Vac/dc 24, 110, 230Vac	12, 24Vac/dc 24, 110, 230Vac	12, 24Vac/dc 24, 110, 230Vac	110, 230Vac	12, 24Vac/dc 24, 110, 230Vac
Probe inputs					
Thermostat	NTC, PTC	NTC, PTC	NTC, PTC	NTC, Pt1000	NTC, PTC
Thermostat 2					
Defrost				NTC, Pt1000	NTC, PTC
Defrost 2					
Condenser	NTC, PTC on HOT KEY	NTC, PTC on HOT KEY	NTC, PTC on HOT KEY	NTC, 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	8A, 20A	8A, 20A	8A, 16A	8A, 20A
Compressor 2					
Thermostat 2					
Defrost					8A
Defrost 2					
Fans					
Light or alarm			8A	8A	
Anti-sweat					
Agitator					
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	X-REP opt
Serial output	TTL	TTL	TTL	RS485	TTL
Buzzer	opt	opt	opt	opt	opt
Real time clock			opt	opt	

XR10CX – XR20CX
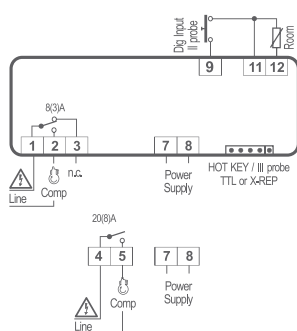
XR30CX
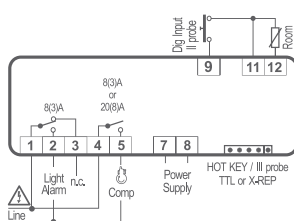
XR35CX
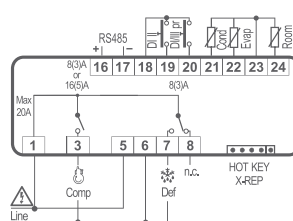
XR40CX
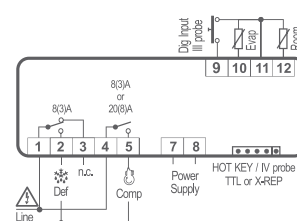
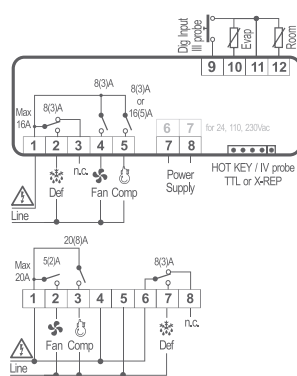|		
XR50CX	Digital controller for NT and LT static applications with electrical or hot gas defrost and auxiliary relay	
XR60CX	Digital controller for NT and LT ventilated applications with dual humidity function	
XR64CX	Digital controller for NT and LT ventilated applications with dual evaporators	

CX: 32x74mm

| FEATURES	XR50CX		XR60CX		XR64CX	
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	110, 230Vac	12, 24Vac/dc 24, 110, 230Vac	110, 230Vac	110, 230Vac	12Vac/dc
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, door switch, pressure switch, probe	config	config	config	config	config	config
Alarm, start defrost, AUX, door switch, pressure switch						
Relay outputs						
Compressor	8A, 16A	20A	8A, 16A	20A	8A, 16A	16A
Compressor 2						
Thermostat 2						
Defrost	8A	8A	8A	8A	8A	16A
Defrost 2					8A	16A
Fans			8A	5A	5A	16A
Light or alarm	8A	5A				
Anti-sweat						
Agitator						
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						

XR50CX

XR60CX

XR64CX

PRIME CX

CONTROLLERS for VENTILATED APPLICATIONS
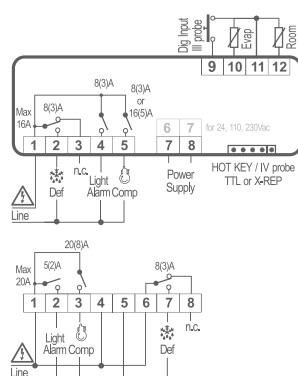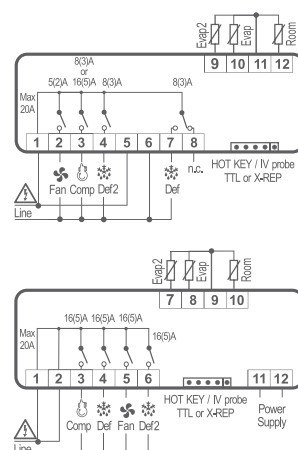
CX: 32x74mm

XR70CX	Digital controller for NT and LT with auxiliary relay and dual humidity function
XR71CX	Digital controller for NT and LT with anti sweat heater management
XR72CX	Digital controller for NT and LT with dual compressor management

FEATURES	XR70CX		XR71CX		XR72CX	
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.
Power supply	110, 230Vac	12Vac/dc	110, 230Vac	12Vac/dc	110, 230Vac	12Vac/dc
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						
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, door switch, pressure switch, probe	config	config	config	config	config	config
Alarm, start defrost, AUX, door switch, pressure switch						
Relay outputs						
Compressor	8A, 16A	16A	8A, 16A	16A	8A, 16A	16A
Compressor 2					8A	16A
Thermostat 2						
Defrost	8A	16A	8A	16A	8A	16A
Defrost 2						
Fans	5A	16A	5A	16A	5A	16A
Light or alarm	8A	16A				
Anti-sweat			8A	16A		
Agitator						
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				

XR70CX

XR71CX
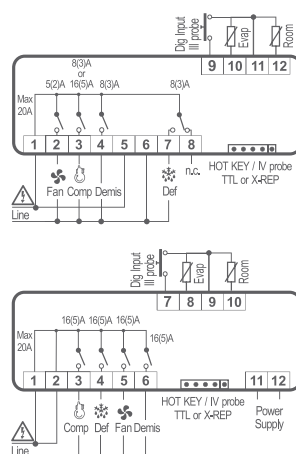
XR72CX
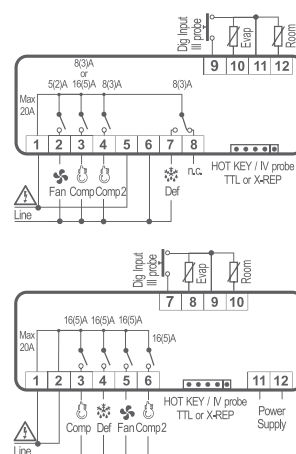
CONTROLLERS for VENTILATED APPLICATIONS or for MILK COOLING and AIR DRYERS

PRIME CX

XR75CX	Digital controller for NT and LT ventilated applications with auxiliary relay, dual humidity function and RS485
XR77CX	Digital controller for NT and LT ventilated applications with auxiliary relay, dual humidity function, RS485 and relay with separated common lines
XR80CX	Digital controller for storage, milk cooling, and for refrigerated air dryers

CX: 32x74mm

FEATURES	XR75CX	XR77CX	XR80CX
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.
Power supply	110, 230Vac	12, 24Vac/dc 110, 230Vac	12Vac/dc 110, 230Vac
Probe inputs			
Thermostat	NTC, Pt1000	NTC/Pt1000	NTC, PTC
Thermostat 2			
Defrost	NTC, Pt1000	NTC, Pt1000	
Defrost 2			
Condenser	NTC, Pt1000	NTC, Pt1000	
Digital inputs			
Alarm, start defrost, AUX, door switch, pressure switch, probe	config	config	
Alarm, start defrost, AUX, door switch, pressure switch	config	config	config
Relay outputs			
Compressor	8A, 16A	8A, 12A	8A, 20A
Compressor 2			
Thermostat 2			
Defrost	8A	12A	
Defrost 2			
Fans	5A	5A	
Light or alarm	8A	7A	
Anti-sweat			
Agitator			8A
Other			
Hot Key/Prog Tool Kit output	pres	pres	pres
Remote display output	X-REP	X-REP	
Serial output	RS485	RS485	TTL
Buzzer	opt	opt	opt
Real time clock	opt	opt	

XR75CX
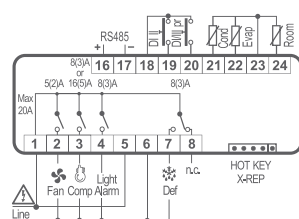
XR77CX
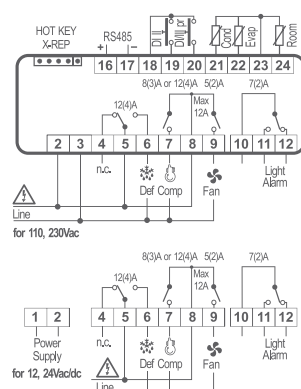
XR80CX
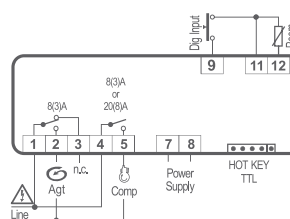
D: 4 DIN Rail
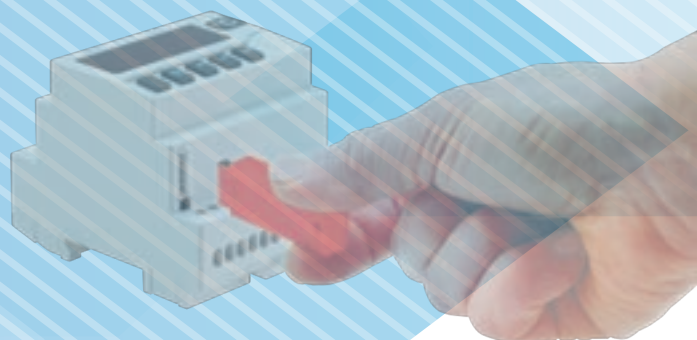
PRIME D SERIES: NT and LT APPLICATIONS

- 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 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	**Inputs**	**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	

THERMOSTAT and CONTROLLERS for STATIC or VENTILATED APPLICATIONS or for MILK COOLING

XR10D	Digital thermostat with heating or cooling action
XR20D	Digital controller for NT with "off cycle" defrost
XR30D	Digital controller for NT with "off cycle" defrost and additional configurable relay
XR60D	Digital controller for NT and LT ventilated applications with door switch capability
XR70D	Digital controller for NT and LT ventilated applications with door switch capability and auxiliary relay
XR80D	Digital controller for milk cooling with agitation cycle capability

D: 4 DIN Rail

FEATURES	XR10D	XR20D	XR30D	XR60D	XR70D	XR80D
Display: n° digits	± 3 d.p.	± 3 d.p.	± 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	24, 110, 230Vac	24, 110, 230Vac
Probe inputs						
Thermostat	NTC, PTC	NTC, PTC	NTC, PTC	NTC, PTC	NTC, PTC	NTC, PTC
Defrost				NTC, PTC	NTC, PTC	
Digital inputs						
Alarm, start defrost, AUX, door switch, pressure switch	config	config	config	config	config	
Relay outputs						
Compressor	no 8A/nc 5A, 20A	no 8A/nc 5A, 20A	no 8A/nc 5A, 20A	no 8A/nc 5A, 20A	no 8A/nc 5A, 20A	no 8A/nc 5A, 20A
Defrost				no 8A/nc 5A 8A	no 8A/nc 5A 8A	
Fans						
Alarm					no 8A/nc 5A	
Agitator						
Alarm or auxiliary			no 8A/nc 5A			no 8A/nc 5A
Other						
Functions	HACCP	HACCP	HACCP	HACCP	HACCP	min/max
Hot Key output	pres	pres	pres	pres	pres	pres
Buzzer	opt	opt	opt	opt	opt	opt

XR10D – XR20D
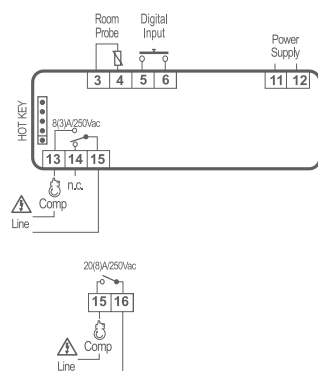
XR30D
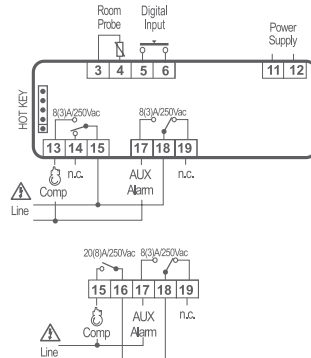
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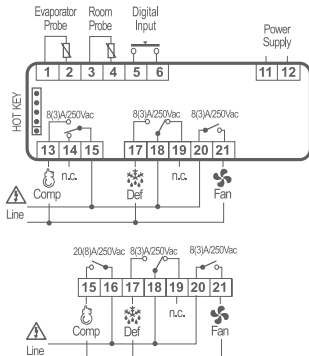
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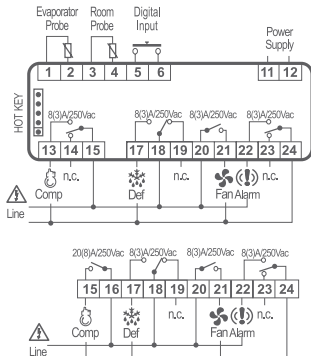
XR80D
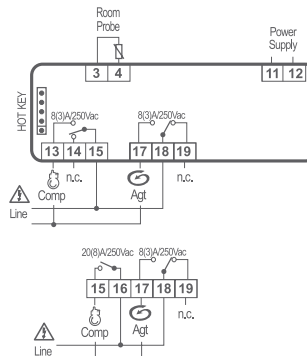
CX: 32x74mm
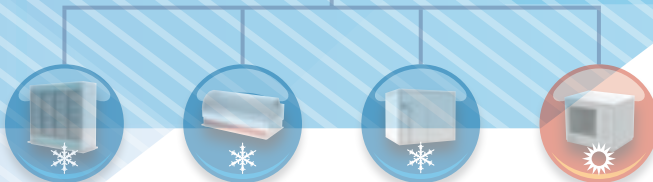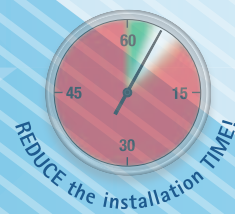
UNIVERSAL-R: HEATING APPLICATIONS, NT and LT
7 PRE-CONFIGURED MAPS

- Designed to replace over 150 models of refrigeration/heating controllers in 32x74mm format
- Easy and quick installation
- Rapid set-up in 3 simple steps
- Dual voltage power supply 12Vac/dc and 230Vac
- Specific functions to control twin evaporator defrost
- Automatic probe detection
- Complete condenser management
- Hot Key or Prog Tool Kit connector for quick and easy programming
- 3VA max power absorption
- Display with red LED (10,5 mm high) and icons
- 7 pre-configured applications selectable from parameter `tC`

    `tC1` = on/off thermostat – cooling

    `tC2` = thermostat with off cycle defrost

    `tC3` = thermostat with electric/hot gas defrost, time initiated and time terminated

    `tC4` = thermostat with electric/hot gas defrost, time initiated and temperature terminated

    `tC5` = thermostat with electric/hot gas defrost, time initiated and temperature terminated and evaporator fan

    `tC6` = twin evaporator defrost applications

    `tC7` = on/off thermostat - heating

HOW to ORDER

UNIVERSAL-R | U | N | I | V | – | R | 4 | – | 6 | B | 1 | D | 0 |

B	D
Inputs	**Measurement unit**
P = PTC	**C** = °C
N = NTC	**F** = °F

UNIVERSAL CONTROLLER for SERVICE REPLACEMENT

UNIVERSAL-R

UNIV–R4 | Controller for service replacement of refrigeration and heating controllers with 7 pre-configured maps

CX: 32x74mm

FEATURES	UNIV–R4 (tC=1)	UNIV–R4 (tC=2)	UNIV–R4 (tC=3)	UNIV–R4 (tC=4)	UNIV–R4 (tC=5)	UNIV–R4 (tC=6)	UNIV–R4 (tC=7)
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.
Power supply	12Vac/dc 230Vac	12Vac/dc 230Vac	12Vac/dc 230Vac	12Vac/dc 230Vac	12Vac/dc 230Vac	12Vac/dc 230Vac	12Vac/dc 230Vac
Probe inputs							
Thermostat	NTC, PTC	NTC, PTC	NTC, PTC	NTC, PTC	NTC, PTC	NTC, PTC	NTC, PTC
Defrost				NTC, PTC	NTC, PTC	NTC, PTC	
Defrost 2						NTC, PTC	
Digital inputs							
Alarm, defrost, AUX, door switch, pressure switch, ON/OFF, energy saving	2 x config	2 x config	2 x config	2 x config	2 x config	1 x config	2 x config
Relay outputs							
Compressor	8A	8A	8A	8A	8A	8A	
Defrost			8A	8A	8A	8A	
Defrost 2						8A	
Fans					8A	8A	
Light or alarm	8A	8A	8A	8A	8A		8A
Heating							8A
Other							
Hot Key/Prog Tool Kit output	pres	pres	pres	pres	pres	pres	pres
Buzzer	pres	pres	pres	pres	pres	pres	pres

UNIV–R4 (tC 1–2)
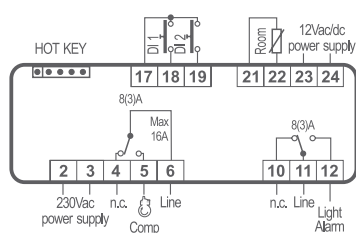
UNIV–R4 (tC 3)
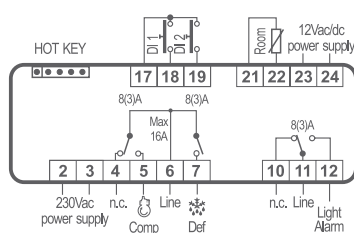
UNIV–R4 (tC 4)
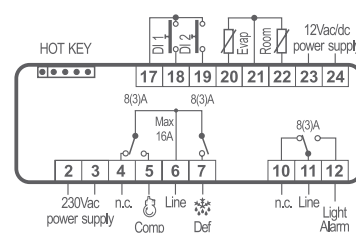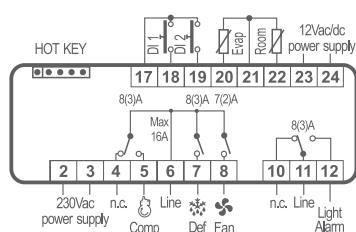
UNIV–R4 (tC 5)
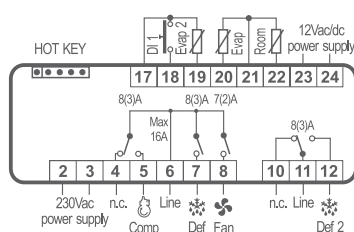
UNIV–R4 (tC 6)

UNIV–R4 (tC 7)
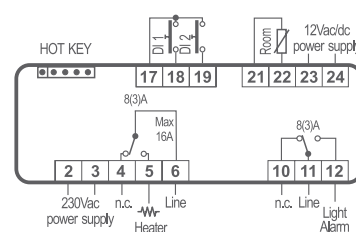
WING: INNOVATIVE AESTHETICAL SOLUTIONS

The WING family, characterized by a high aesthetical value, presents a series of solutions able to satisfy every need in refrigeration field especially when the design becomes a fundamental, such as for cream freezers or pastry refrigerators etc... This series is available in classic formats, Compact (L and V) and Split (K), with vertical or horizontal keyboard. In particular, horizontal format is divided in 2 macro families:
- **WING TOUCH**;
- **WING STANDARD** (available also INOX or BACK-PANEL with POLYCARBONATE).
Great versatility and customization are given to these models thanks to the reduced space (LR) and to the display with icons that, depending on the model, can be white, red or blue.

WING TOUCH

- Capacitive TOUCH technology
- Frontal backlit
- Standard or back-panel front mounting

IP65

Back-panel mounting with PM-WLT bracket (surface thickness 0.8÷1.0mm)

Standard front mounting

MOUNTING OPTIONS

Depending on the model, Dixell gives different mounting solutions. High protection, great aesthetic value, easy and quick fixing mode are guaranteed by the solutions below:

STANDARD mounting with screws
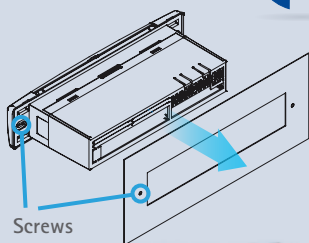
Screws

BACK-PANEL mounting with captive screws (PG-L bracket optional)

PG-L
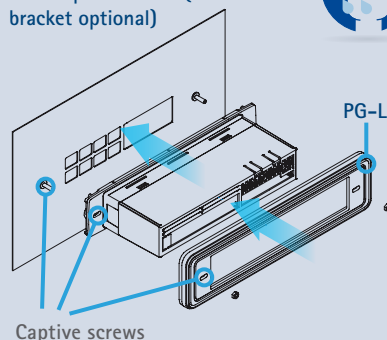
Captive screws

BACK-PANEL mounting with PM-WL(T) dedicated bracket
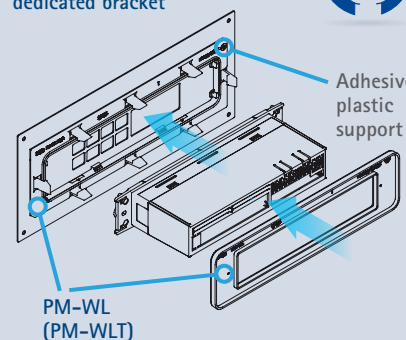
Adhesive plastic support

PM-WL (PM-WLT)

The PM-WL (PM-WLT for WING TOUCH) bracket, developed by Dixell, is the ideal solution for back-panel mounting without using captive screws. The fixing system is composed of 2 parts: one adhesive to be put on the panel, and one movable to hold the instrument.

WING STANDARD

- Frontal glass frame to protect the keys
- Standard front mounting

IP65

WING INOX option

IP65

- Bright or satinized steel front
- Standard or back-panel front mounting

Standard front mounting

Back-panel mounting with captive screws (+ PG-L protection) or using the PM-WL bracket (surface thickness 0.8÷1.0mm)

BACK-PANEL with POLYCARBONATE option

- Front polycarbonate that can be easily customized
- Back-panel mounting

IP65
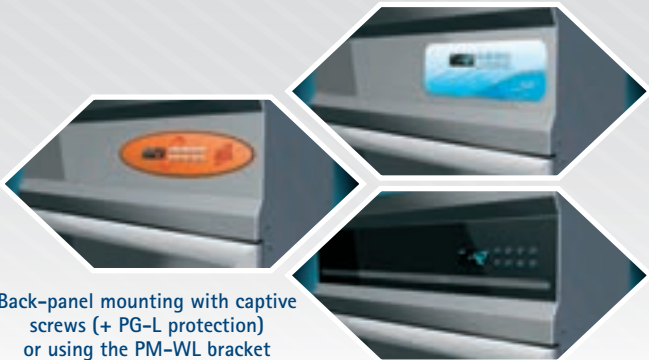
Back-panel mounting with captive screws (+ PG-L protection) or using the PM-WL bracket (surface thickness 0.8÷1.0mm)

	Formats	Front mounting	Back-panel mounting with captive screws	Back-panel mounting with bracket
WING TOUCH	LT, LRT, TOUCH keyboards	yes	no	yes with PM-WLT bracket
WING STANDARD	L, LR, T keyboards	yes	no	no
INOX option	L, LR, T keyboards	yes	yes with PG-L bracket optional	yes with PM-WL bracket
POLYCARBONATE option	L, LR, T keyboards	no	yes with PG-L bracket optional	yes with PM-WL bracket

K: 8 DIN Rail

32x74mm

V: 100x64mm

100x64mm

L: 38x185mm

38x185mm

L: 38x185mm

WING SERIES: NT and LT APPLICATIONS – COMPACT/SPLIT FORMAT

- Innovative controllers with different aesthetic solutions that enhance the final product
- Direct live and neutral load connections for reduction of wiring costs
- 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
- High and low humidity control simple or floating
- Smart defrost
- Integrated functions for energy saving
- Continuous cycle with a dedicated set point
- Virtual probe management
- Hot Key or Prog Tool Kit connector for quick and easy programming
- Connection for X-REP remote display
- Serial connection to monitoring systems
- 7VA max power absorption
- LED display (10,5mm high) and icons

LR and VS formats are the specific solution for all applications with a reduced space

40

LR

39

VS

Controllers are 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 |

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

WING LT

| X | W | | | L | T | – | A | B | C | D | E |

WING LT back-panel mounting

| X | W | | | L | T | – | A | B | C | D | E | – | R |

	A		B		C		D		E
Power supply		**Inputs**		**RTC**		**Measurement unit**	**Display**	**X-REP**
2 = 24Vac		**N** = NTC		**1** = No		**W** = °C	White	**0** = No
4 = 110Vac		**P** = PTC		**3** = Yes supercap		**Y** = °F	White	**1** = Yes
5 = 230Vac						**C** = °C	Red	
						F = °F	Red	
						D = °C	Blue	
						G = °F	Blue	

WING LR | X | W | | | L | R | – | A | B | C | D | 0 | – | N |

	A		B		C		D
Power supply		**Inputs**		**Buzzer**	**RTC**		**Measurement unit**
4 = 110Vac		**N** = NTC		**0** = No	No		**C** = °C
5 = 230Vac		**P** = PTC		**1** = Yes	No		**F** = °F
				2 = No	Yes supercap		
				3 = Yes	Yes supercap		

HOW to ORDER

WING LRT — `X W [ ] [ ] L R T - A B C D 0`

WING LRT back-panel mounting — `X W [ ] [ ] L R T - A B C D 0 - R`

A	B	C	D	
Power supply	**Inputs**	**RTC**	**Measurement unit**	**Display**
4 = 110Vac	**N** = NTC	**1** = No	**W** = °C	White
5 = 230Vac	**P** = PTC	**3** = Yes supercap	**Y** = °F	White
			C = °C	Red
			F = °F	Red
			D = °C	Blue
			G = °F	Blue

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	**Inputs**	**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 E`

A	B	C	D	E
Power supply	**Inputs/light relay**	**Housing**	**Measurement unit**	**RTC**
2 = 24Vac	**N** = NTC	**0** = Open board "OS"	**C** = °C	**0** = No
4 = 110Vac	**P** = PTC	**1** = Open board + 8 DIN Rail base	**F** = °F	**2** = Yes supercap
5 = 230Vac	**L** = NTC/16A neon	**2** = 8 DIN Rail		**4** = Battery
	M = PTC/16A neon	**3** = "GS" housing		

CX/TX/VX KEYBOARDS — `X [ ] 2 0 - A 0 0 N 0`

inox — For inox and back-panel with polycarbonate version on TX keyboards please contact Dixell

`-17.8` For blue display please contact Dixell

A
Buzzer
0 = No
1 = Yes

TOUCH KEYBOARDS — `T [ ] 2 0 T - 1 0 0 D 0`

TOUCH KEYBOARDS back-panel mounting — `T [ ] 2 0 T - 1 0 0 D 0 - R`

D
Display
N = Red
R = Blue
W = White

CONTROLLERS for STATIC APPLICATIONS

XW20L	Digital controller for NT with "off cycle" defrost
XW20LT	Digital controller for NT with "off cycle" defrost, TOUCH interface and red, white or blue display
XW20LR	Digital controller for NT with "off cycle" defrost and reduced depth
XW20LRT	Digital controller for NT with "off cycle" defrost, reduced depth, TOUCH interface and red, white or blue display

L, LR: 38x185mm   **LT, LRT**: 38x185mm

FEATURES	XW20L	XW20LT	XW20LR	XW20LRT
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.
Keyboard: push buttons	6	6	6	6
Power supply	24, 110, 230Vac	24, 110, 230Vac	110, 230Vac	110, 230Vac
Probe inputs				
Thermostat	NTC, PTC	NTC, PTC	NTC, PTC	NTC, PTC
Defrost	NTC, PTC	NTC, PTC	NTC, PTC	NTC, PTC
Condenser	NTC, PTC	NTC, PTC	NTC, PTC	NTC, PTC
Display	NTC, PTC	NTC, PTC		
Digital inputs				
Alarm, start defrost, door switch, pressure switch, probe	config	config	config	config
DI 2	config	config	config	config
Relay outputs				
Compressor	20A	20A	20A	20A
Defrost				
Fans				
Light	8A, 16A	8A	8A	8A
Alarm, AUX				
RL 6 configurable				
Other				
Hot Key/Prog Tool Kit output	pres	pres	pres	pres
Remote display output	X-REP opt	X-REP opt		
Serial output	TTL	TTL	TTL	TTL
Triac output				
Buzzer	opt	pres	opt	pres
Real time clock	opt	opt	opt	opt

XW20L

XW20LT

XW20LR – XW20LRT

WING

CONTROLLERS for STATIC APPLICATIONS
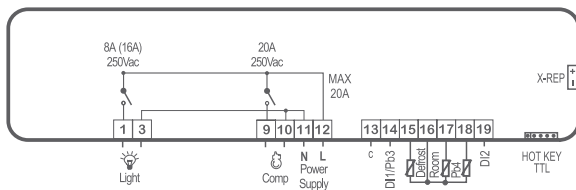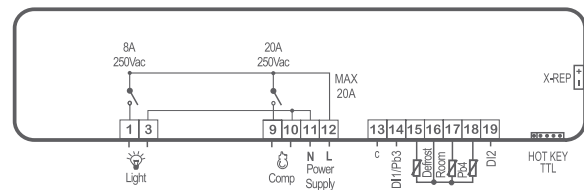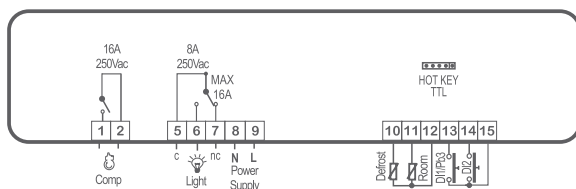
L: 38x185mm

V, VS: 100x64mm **K:** OS/GS/8 DIN Rail

|	
XW20V	Digital controller for NT with "off cycle" defrost
XW20VS	Digital controller for NT with "off cycle" defrost and reduced depth
XW20K	Digital controller in split format for NT with "off cycle" defrost
XW40L	Digital controller for NT and LT with electrical or hot gas defrost function
XW40K	Digital controller in split format for NT and LT with electrical or hot gas defrost function

FEATURES	XW20V	XW20VS	XW20K	XW40L	XW40K
Display: n° digits	± 3 d.p.	± 3 d.p.	on keyboard ± 3 d.p.	± 3 d.p.	on keyboard ± 3 d.p.
Keyboard: push buttons	6	6	6 (on CX620, TX620, T620T, VX620)		6 (on CX620, TX620, T620T, VX620)
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
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, probe	config	config	config	config	config
DI 2				config	
Relay outputs					
Compressor	8A, 20A	16A	20A	20A	20A
Defrost				8A	16A
Fans					
Light	16A	16A	16A	8A, 16A	16A
Alarm, AUX					
RL 6 configurable					
Other					
Hot Key/Prog Tool Kit output	pres	pres	pres	pres	pres
Remote display output				X-REP opt	
Serial output			TTL	TTL	TTL
Triac output					
Buzzer	opt	opt	on keyboard	opt	on keyboard
Real time clock			opt	opt	opt

XW20V
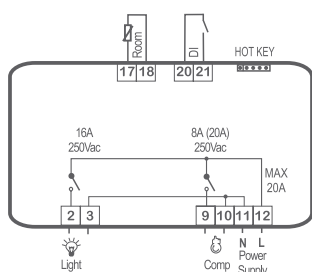
XW20VS
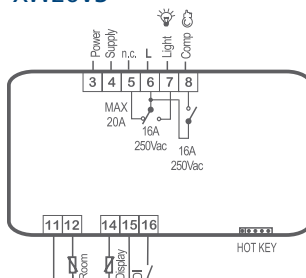
XW20K
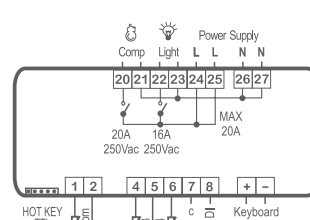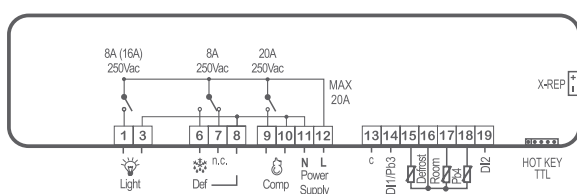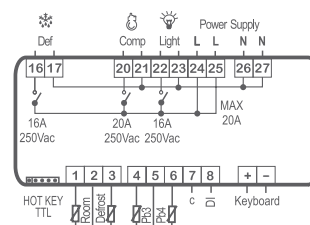
XW40L

XW40K

GENERAL PURPOSE REFRIGERATION CONTROLLERS

CONTROLLERS for VENTILATED APPLICATIONS

XW60L	Digital controller for NT and LT with electrical or hot gas defrost function and fans
XW60LT	Digital controller for NT and LT with electrical or hot gas defrost function and fans, TOUCH interface and red, white or blue display
XW60LR	Digital controller for NT and LT with electrical or hot gas defrost function and fans and reduced depth
XW60LRT	Digital controller for NT and LT with electrical or hot gas defrost function and fans, reduced depth, TOUCH interface and red, white or blue display
XW60V	Digital controller for NT and LT with electrical or hot gas defrost function and fans
XW60VS	Digital controller for NT and LT with electrical or hot gas defrost function and fans and reduced depth

L, LR: 38x185mm

LT, LRT: 38x185mm   **V, VS**: 100x64mm

FEATURES	XW60L	XW60LT	XW60LR	XW60LRT	XW60V	XW60VS
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.
Keyboard: push buttons	6	6	6	6	6	5
Power supply	24, 110, 230Vac	24, 110, 230Vac	110, 230Vac	110, 230Vac	24, 110, 230Vac	24, 110, 230Vac
Probe inputs						
Thermostat	NTC, PTC	NTC, PTC	NTC, PTC	NTC, PTC	NTC, PTC	NTC, PTC
Defrost	NTC, PTC	NTC, PTC	NTC, PTC	NTC, PTC	NTC, PTC	NTC, PTC
Condenser	NTC, PTC	NTC, PTC	NTC, PTC	NTC, PTC		
Display	NTC, PTC	NTC, PTC				NTC, PTC
Digital inputs						
Alarm, start defrost, door switch, pressure switch, probe	config	config	config	config	config	config
DI 2	config	config	config	config		
Relay outputs						
Compressor	20A	20A	20A	20A	8A, 20A	16A
Defrost	8A	16A	8A	8A	8A	16A
Fans	8A	8A	5A	5A	8A	8A
Light	8A, 16A	8A	5A	5A	16A	
Alarm, AUX						
RL 6 configurable						
Other						
Hot Key/Prog Tool Kit output	pres	pres	pres	pres	pres	pres
Remote display output	X-REP opt	X-REP opt				
Serial output	TTL	TTL	TTL	TTL		
Triac output						
Buzzer	opt	pres	opt	pres	opt	opt
Real time clock	opt	opt	opt	opt		

XW60L

XW60LT

XW60LR – XW60LRT

XW60V

XW60VS

WING
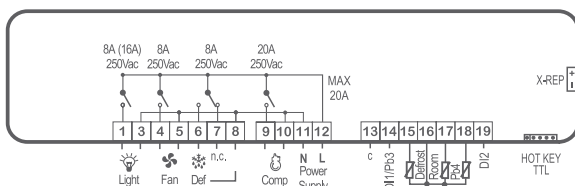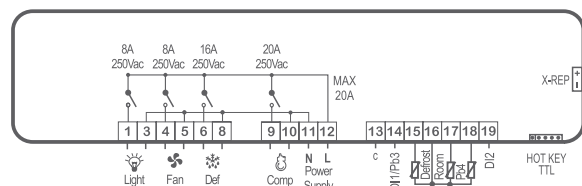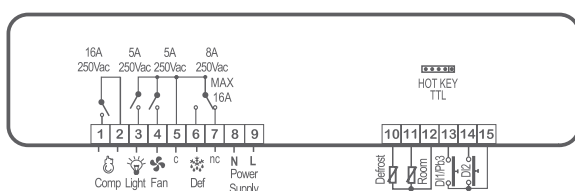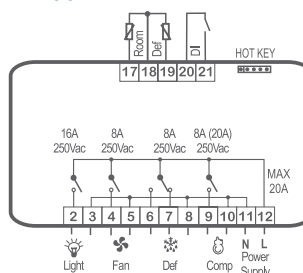
CONTROLLERS for VENTILATED APPLICATIONS
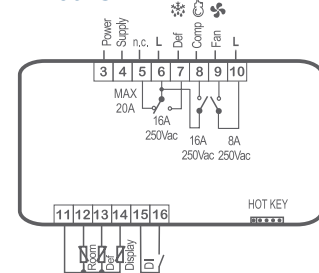
L: 38x185mm

LT: 38x185mm **K:** OS/GS/8 DIN Rail

XW60K	Digital controller in split format for NT and LT with electrical or hot gas defrost function and fans
XW70L	Digital controller in split format for NT and LT with electrical or hot gas defrost function, fans and auxiliary relay
XW70LT	Digital controller for NT and LT with electrical or hot gas defrost function, fans and auxiliary relay, TOUCH interface and red, white or blue display
XW70K	Digital controller in split format for NT and LT with electrical or hot gas defrost function, fans, auxiliary relay and triac (ON/OFF)

FEATURES	XW60K	XW70L	XW70LT	XW70K
Display: n° digits	on keyboard ± 3 d.p.	± 3 d.p.	± 3 d.p.	on keyboard ± 3 d.p.
Keyboard: push buttons	6 (on CX620, TX620, T620T, VX620)	8	8	8 (on TX820, T820T, VX820)
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	NTC, PTC	NTC, PTC	NTC, PTC
Condenser	NTC, PTC	NTC, PTC	NTC, PTC	NTC, PTC
Display	NTC, PTC	NTC, PTC	NTC, PTC	NTC, PTC
Digital inputs				
Alarm, start defrost, door switch, pressure switch, probe	config	config	config	config
DI 2		config	config	config
Relay outputs				
Compressor	20A	20A	20A	20A
Defrost	16A	8A	16A	16A
Fans	8A	8A	8A	8A
Light	16A	8A, 16A	8A	16A
Alarm, AUX		8A	8A	
RL 6 configurable				
Other				
Hot Key/Prog Tool Kit output	pres	pres	pres	pres
Remote display output		X-REP opt	X-REP opt	
Serial output	TTL	TTL	TTL	TTL
Triac output				2A
Buzzer	on keyboard	opt	pres	on keyboard
Real time clock	opt	opt	opt	opt

XW60K

XW70L

XW70LT

XW70K

GENERAL PURPOSE REFRIGERATION CONTROLLERS
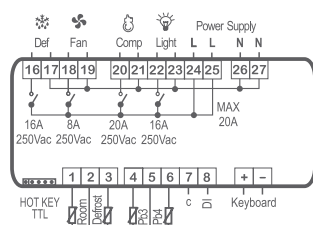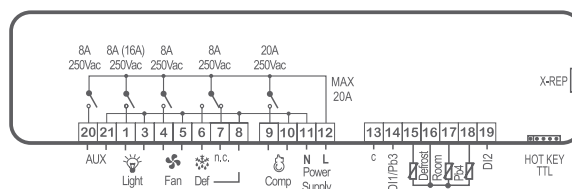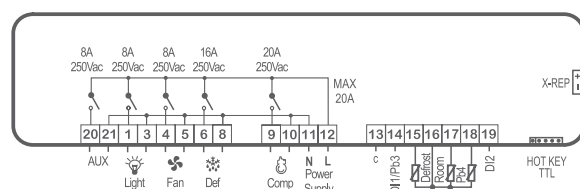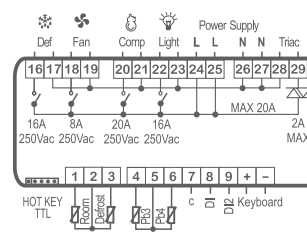
XW90L	Digital controller for NT and LT with electrical or hot gas defrost function, fans, auxiliary relay and sixth relay configurable
XW90LT	Digital controller for NT and LT with electrical or hot gas defrost function, fans, auxiliary relay and sixth relay configurable, TOUCH interface and red, white or blue display

L: 38x185mm   **LT**: 38x185mm

FEATURES	XW90L	XW90LT
Display: n° digits	± 3 d.p.	± 3 d.p.
Keyboard: push buttons	8	8
Power supply	24, 110, 230Vac	24, 110, 230Vac
Probe inputs		
Thermostat	NTC, PTC	NTC, PTC
Defrost	NTC, PTC	NTC, PTC
Condenser	NTC, PTC	NTC, PTC
Display	NTC, PTC	NTC, PTC
Digital inputs		
Alarm, start defrost, door switch, pressure switch, probe	config	config
DI 2	config	config
Relay outputs		
Compressor	20A	20A
Defrost	8A	16A
Fans	8A	8A
Light	8A, 16A	8A
Alarm, AUX	8A	8A
RL 6 configurable	8A	8A
Other		
Hot Key/Prog Tool Kit output	pres	pres
Remote display output	X-REP opt	X-REP opt
Serial output	TTL	TTL
Triac output		
Buzzer	opt	pres
Real time clock	opt	opt

XW90L

XW90LT

WING

KEYBOARDS for CONTROLLERS in K FORMAT
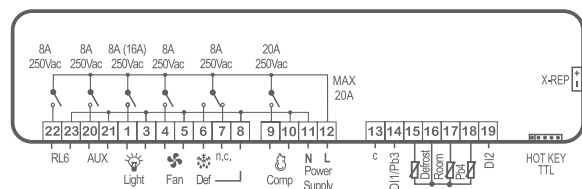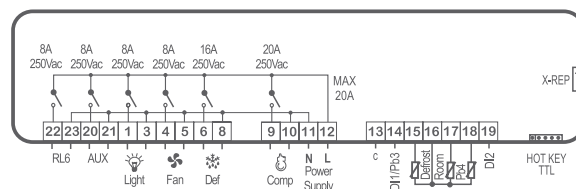
32x74mm

38x185mm

38x185mm

100x64mm

CX620	6 key keyboard (32x74mm) for controllers in K format
TX620	6 key keyboard (horizontal WING) for controllers in K format
T620T	6 key keyboard for controllers in K format with TOUCH interface and red, white and blue display
VX620	6 key keyboard (vertical WING) for controllers in K format
TX820	8 key keyboard (horizontal WING) for controllers in K format
T820T	8 key keyboard for controllers in K format with TOUCH interface and red, white and blue display
VX820	8 key keyboard (vertical WING) for controllers in K format

FEATURES	CX620	TX620	T620T	VX620	TX820	T820T	VX820
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.
Keyboard: push buttons	6	6	6	6	8	8	8
Power supply	from controller	from controller	from controller	from controller	from controller	from controller	from controller
Slave module	XW20K XW40K XW60K	XW20K XW40K XW60K	XW20K XW40K XW60K	XW20K XW40K XW60K	XW70K	XW70K	XW70K
Buzzer	opt	opt	pres	opt	opt	pres	opt

The keyboards CX, TX and VX are 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
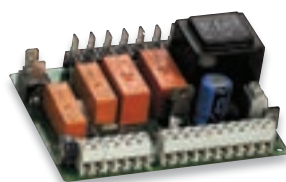
OS: open board

GS: with plastic housing 225x180x84mm

8 DIN Rail base: open board with 8 DIN bottom
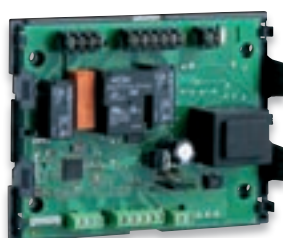
8 DIN Rail: with 8 DIN plastic housing

MULTIPLEXED CABINET REFRIGERATION CONTROLLERS

SECTION INDEX

D, K: 8 DIN Rail

100x64mm

32x74mm

K: OS/GS

38x185mm

L: 38x185mm

38x185mm

XM200/400/600 SERIES: NT and LT APPLICATIONS

- Multifunction controllers for multiplexed applications
- Multi-master devices (XM400/600)
- Up to 5 controllers linked for XM400 series and up to 8 for XM600 series
- Internal Real Time Clock
- Superheat adaptive control (XM600)
- Integrated ON/OFF or stepper electronic expansion valve drive (XM600)
- Anti-sweat heater management through a "DEW POINT" (XM600)
- Virtual probe management (XM600)
- Evaporating fans speed management via PWM or 4÷20mA/0÷10V (XM600)
- XM668D and XM678D models certified by Alco to be used combined with EX4, EX5, EX6 valves
- Keyboard with direct access to the main functions (also with TOUCH interface)
- Hot Key or Prog Tool Kit connector for quick and easy programming
- Serial connection to monitoring systems
- 10VA max power absorption
- Display with red LED (13,2 mm high), (10,5mm and icons for CX format and WING TOUCH)

◀ MULTIPLEXED CABINET APPLICATIONS with CONTROLLERS in K FORMAT

SECTION 1   SECTION 2   SECTION 3

MULTIPLEXED CABINET

CONTROLLERS

LAN   2 wires   up to 8

RS485 network
to monitoring system

opt   opt   opt

KEYBOARD   KEYBOARD   KEYBOARD
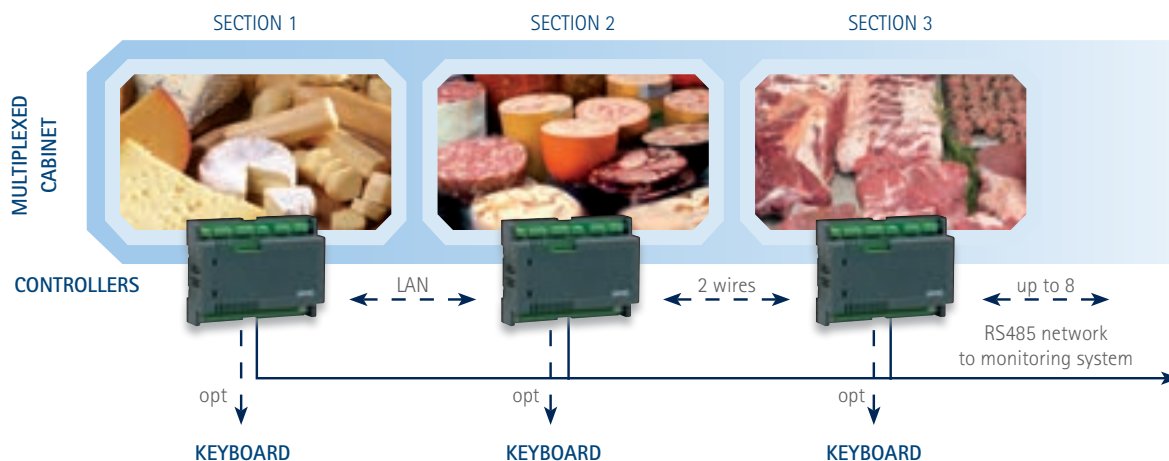
XM200L

| 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	**RTC**	**Buzzer**	**Measurement unit**
4 = 110Vac	**0** = No	**0** = No	**C** = °C
5 = 230Vac	**1** = Yes	**1** = Yes	**F** = °F

XM400K

| X | M | 4 | | | K | – | A | B | C | D | E |

A	B	C	D	E
Power supply	**RTC**	**Housing**	**Measurement unit**	**RS485 output**
4 = 110Vac	**0** = No	**0** = Open board "OS"	**C** = °C	**0** = No
5 = 230Vac	**1** = Yes	**1** = "GS" housing	**F** = °F	**1** = Yes

XM600D

| X | M | 6 | | 8 | D | – | 2 | B | C | D | E |

B	C		D	E	
Inputs	**RTC**	**RS485**	**Measurement unit**	**Modulating output**	**Connections**
N = NTC/4÷20mA	**0** = No	No	**C** = °C/Bar	**0** = No	Disconnectable + screw
O = NTC/0÷5V	**1** = No	Yes	**F** = °F/PSI	**1** = No	Screw
P = Pt1000/4÷20mA	**2** = Yes	No		**2** = 4÷20mA/0÷10V	Disconnectable + screw
Q = Pt1000/0÷5V	**3** = Yes	Yes		**3** = 4÷20mA/0÷10V	Screw
				4 = PWM	Disconnectable + screw
				5 = PWM	Screw

XM600K

| X | M | 6 | | | K | – | A | B | C | D | E |

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

T/V KEYBOARDS

| | | 4 | 0 | – | A | 0 | 0 | D | 0 |

inoX -17.8   For inox version and blue display on T keyboard please contact Dixell

CX KEYBOARDS

| C | X | 6 | | 0 | – | 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

TOUCH KEYBOARDS

| T | 6 | 6 | 0 | T | – | 1 | 0 | 0 | D | 0 |

TOUCH KEYBOARDS back–panel mounting

| T | 6 | 6 | 0 | T | – | 1 | 0 | 0 | D | 0 | – | R |

D
Display
N = Red
R = Blue
W = White

L: 38x185mm

XM244L | Digital controller in compact format for NT and LT ventilated applications with 4 defrost management

FEATURES	XM244L
Display: n° digits	± 3 d.p.
Keyboard: push buttons	5
Power supply	110, 230Vac
Probe inputs	
Thermostat	NTC
Defrost	NTC
Defrost 2	NTC
Defrost 3	NTC
Defrost 4	NTC
Relay outputs	
Compressor	8A
Defrost	8A
Defrost 2	8A
Defrost 3	8A
Defrost 4	8A
Fans	8A
Other	
Hot Key/Prog Tool Kit output	pres
Serial output	TTL
Buzzer	opt
Real time clock	opt

XM244L
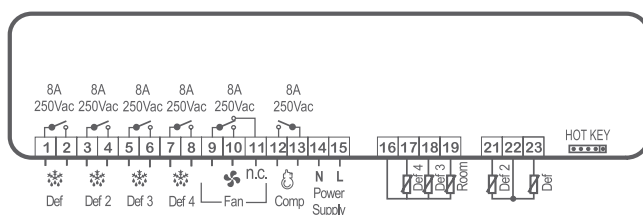
CONTROLLERS for STATIC or VENTILATED MULTIPLEXED APPLICATIONS

XM400

XM440K	Digital controller for NT and LT static applications
XM460K	Digital controller for NT and LT ventilated applications
XM470K	Digital controller for NT and LT ventilated applications with auxiliary output

K: OS/GS

FEATURES	XM440K	XM460K	XM470K
Display: n° digits	on keyboard ± 3 d.p.	on keyboard ± 3 d.p.	on keyboard ± 3 d.p.
Keyboard: push buttons	6 (on CX640, T640, V640)	6 (on CX640, T640, V640)	8 (on T840, V840)
Power supply	110, 230Vac	110, 230Vac	110, 230Vac
Probe inputs			
Thermostat	NTC	NTC	NTC
Defrost	NTC	NTC	NTC
Display	NTC	NTC	NTC
AUX			
Suction pressure			
Condensing pressure			
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	20A	20A
Fans		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			
PWM output			
Valve driver output			
Buzzer	on keyboard	on keyboard	on keyboard
Real time clock	opt	opt	opt
Connection kit			

XM440K

XM460K

XM470K

CONTROLLERS for VENTILATED MULTIPLEXED APPLICATIONS with EEV MANAGEMENT

XM660K	Digital controller for NT and LT ventilated applications with high performance defrost
XM668D	Digital controller for NT and LT ventilated applications with high performance defrost and stepper electronic valve management
XM669K	Digital controller for NT and LT ventilated applications with high performance defrost and ON/OFF electronic valve management

K: OS/8 DIN Rail   **D**: 8 DIN Rail

FEATURES	XM660K	XM668D	XM669K
Display: n° digits	on keyboard ± 3 d.p.	on keyboard ± 3 d.p.	on keyboard ± 3 d.p.
Keyboard: push buttons	6 (on CX660, T660T)	6 (on CX660, T660T)	6 (on CX660, T660T)
Power supply	110, 230Vac	24Vac	110, 230Vac
Probe inputs			
Thermostat	NTC, Pt1000	NTC, Pt1000	NTC, Pt1000
Defrost	NTC, Pt1000	NTC, Pt1000	NTC, Pt1000
Display	NTC, Pt1000	NTC, Pt1000	NTC, Pt1000
AUX	NTC, Pt1000	NTC, Pt1000	NTC, Pt1000
Suction pressure		NTC, Pt1000, 4÷20mA, 0÷5V	NTC, Pt1000, 4÷20mA, 0÷5V
Condensing pressure		NTC, Pt1000	NTC, Pt1000
Digital inputs			
Start defrost, pressure switch, AUX, generic alarm, serious alarm mode, light, ON/OFF, holiday	2 x config	3 x config	2 x config
Energy saving			
Relay outputs			
Compressor/Valve	8A	8A	8A
Defrost	16A	16A	16A
Fans	8A	8A	8A
Light	16A	16A	16A
Alarm			
AUX			
Other			
Hot Key/Prog Tool Kit output	pres	pres	pres
Remote display output	X-REP	X-REP	X-REP
Serial output	RS485 opt	RS485 opt	RS485 opt
4÷20mA/0÷10V output	opt	opt	opt
PWM output	opt	opt	opt
Valve driver output		stepper	ON/OFF up to 30W
Buzzer	on keyboard	on keyboard	on keyboard
Real time clock	pres	pres	pres
Connection kit	XM-FC16	XM-FC26	XM-FC21

XM660K

XM668D
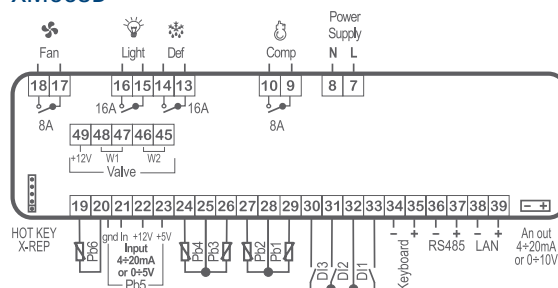
XM669K
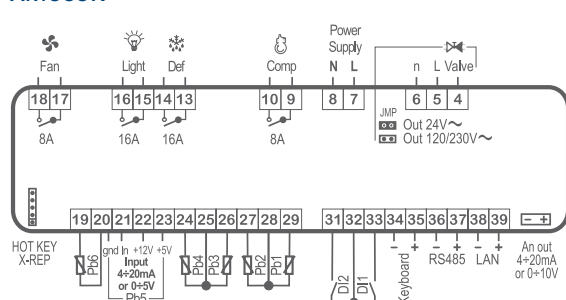
CONTROLLERS for VENTILATED MULTIPLEXED APPLICATIONS with EEV MANAGEMENT

XM600

XM670K	Digital controller for NT and LT ventilated applications with high performance defrost and auxiliary and alarm outputs
XM678D	Digital controller for NT and LT ventilated applications with high performance defrost, stepper electronic valve management and auxiliary and alarm outputs
XM679K	Digital controller for NT and LT ventilated applications with high performance defrost, ON/OFF electronic valve management and auxiliary and alarm outputs

K: OS/8 DIN Rail   **D**: 8 DIN Rail

FEATURES	XM670K	XM678D	XM679K
Display: n° digits **Keyboard: push buttons** **Power supply**	on keyboard ± 3 d.p. 6 (on CX660, T660T) 110, 230Vac	on keyboard ± 3 d.p. 6 (on CX660, T660T) 24Vac	on keyboard ± 3 d.p. 6 (on CX660, T660T) 110, 230Vac
Probe inputs			
Thermostat	NTC, Pt1000	NTC, Pt1000	NTC, Pt1000
Defrost	NTC, Pt1000	NTC, Pt1000	NTC, Pt1000
Display	NTC, Pt1000	NTC, Pt1000	NTC, Pt1000
AUX	NTC, Pt1000	NTC, Pt1000	NTC, Pt1000
Suction pressure		NTC, Pt1000, 4÷20mA, 0÷5V	NTC, Pt1000, 4÷20mA, 0÷5V
Condensing pressure		NTC, Pt1000	NTC, Pt1000
Digital inputs			
Start defrost, pressure switch, AUX, generic alarm, serious alarm mode, light, ON/OFF, holiday Energy saving	3 x config	3 x config	3 x config
Relay outputs			
Compressor/Valve	5A	5A	5A
Defrost	16A	16A	16A
Fans	8A	8A	8A
Light	16A	16A	16A
Alarm	8A	8A	8A
AUX	8A	8A	8A
Other			
Hot Key/Prog Tool Kit output	pres	pres	pres
Remote display output	X-REP	X-REP	X-REP
Serial output	RS485 opt	RS485 opt	RS485 opt
4÷20mA/0÷10V output	opt	opt	opt
PWM output	opt	opt	opt
Valve driver output		stepper	ON/OFF up to 30W
Buzzer	on keyboard	on keyboard	on keyboard
Real time clock	pres	pres	pres
Connection kit	XM-FC16	XM-FC26	XM-FC21

XM670K

XM678D

XM679K

KEYBOARDS for CONTROLLERS in K FORMAT

32x74mm 38x185mm

38x185mm 100x64mm
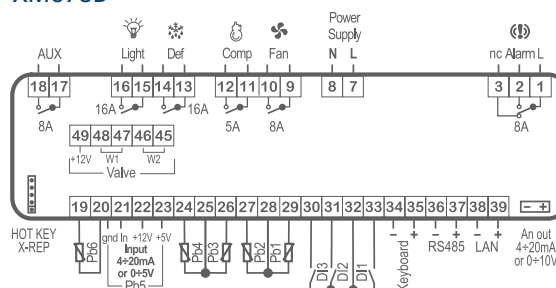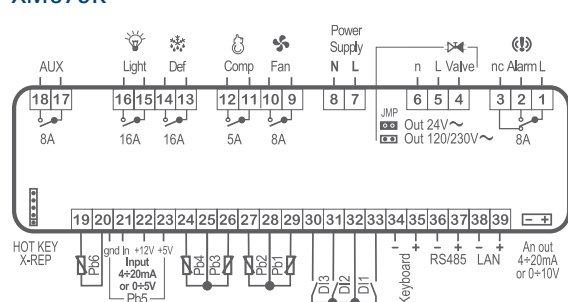
CX640	6 key keyboard (32x74mm) for XM400 controllers
T640	6 key keyboard (horizontal WING) for XM400 controllers
V640	6 key keyboard (vertical WING) for XM400 controllers
CX660	6 key keyboard (32x74mm) for XM600 controllers
T660T	6 key keyboard for XM600 controllers with TOUCH interface and red, white or blue display
T840	8 key keyboard (horizontal WING) for XM400 controllers
V840	8 key keyboard (vertical WING) for XM400 controllers

FEATURES	CX640	T640	V640	CX660	T660T	T840	V840
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.
Keyboard: push buttons	6	6	6	6	6	8	8
Power supply	from controller	from controller	from controller	from controller	from controller	from controller	from controller
Slave module	XM440K XM460K	XM440K XM460K	XM440K XM460K	XM660K XM668D XM669K XM670K XM678D XM679K	XM660K XM668D XM669K XM670K XM678D XM679K	XM470K	XM470K
Buzzer	opt	opt	opt	opt	pres	opt	opt

▶ CX and TOUCH keyboards are provided with a wide display with integrated icons 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
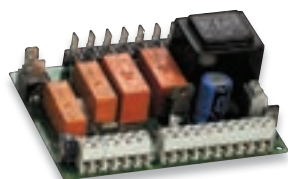
GS: standard plastic case for XM400

8 DIN Rail: with plastic housing for XM600

ACCESSORIES

XM–RTC
Real time clock standard board for XM400

XM–FC16
Female connector kit 16 pins for XM660K and XM670K
XM–FC21
Female connector kit 21 pins for XM669K and XM679K
XM–FC26
Female connector kit 26 pins for XM668D and XM678D
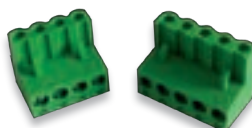
ELECTRONIC EXPANSION VALVE DRIVERS

SECTION INDEX

D: 4 DIN Rail

100x64mm

XEV SERIES: SUPERHEAT REGULATION

- 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
- Superheat adaptive control
- Sub-cooling management (XEV32D)
- Hot Key or Prog Tool Kit connector for quick and easy programming
- Serial connection to monitoring systems
- 20VA max power absorption
- Display with red LED (10,5mm high) and icons
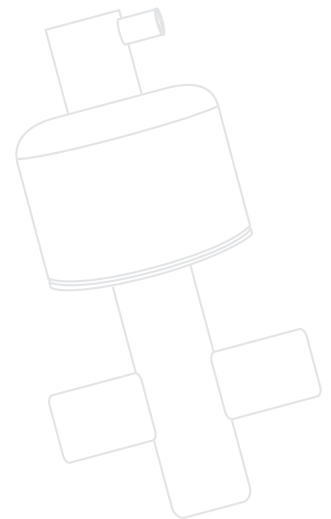
HOW to ORDER

| XEV11/12D | X | E | V | 1 | | D | – | A | B | C | D | E |
| XEV21/22/32D | X | E | V | | | D | – | 1 | B | C | D | 0 |

A	B	C	D	E
Power supply	**Temperature probe**	**Pressure probe**	**Measurement unit**	**Buzzer**
2 = 24Vac	**P** = Pt1000	**0** = 0÷5V	**C** = °C/Bar	**0** = No
4 = 110Vac	**N** = NTC	**1** = 4÷20mA	**F** = °F/PSI	**1** = Yes
5 = 230Vac		**2** = PP11		
		3 = PP30		
		4 = PPR15		
		5 = PPR30		

SUB-COOLING

During the refrigeration cycle shown in the following diagram, the temperature of the liquid refrigerant entering by the thermostatic valve is important. Decreasing this value results in many economic advantages because it increases the "refrigerating effect" (h2-h1). For this reason it's important to introduce the concept of sub-cooling of the refrigerating fluid as "saturated liquid". This process, if properly managed, can improve LT plant operation (also more than 25%), against a meagre power of the NT compressor rack (about 8%) and an appropriate exchanger. The XEV32D driver, thanks to special algorithms, ensures the sub-cooling optimization, which increases the plant COP (Coefficient Of Performance). Screens show as, with the same compressor, the sub-cooling management increase the refrigeration power (COP increasing). For this reason it's possible to consider the use of a smaller compressor (less absorbed power).

XEV32D
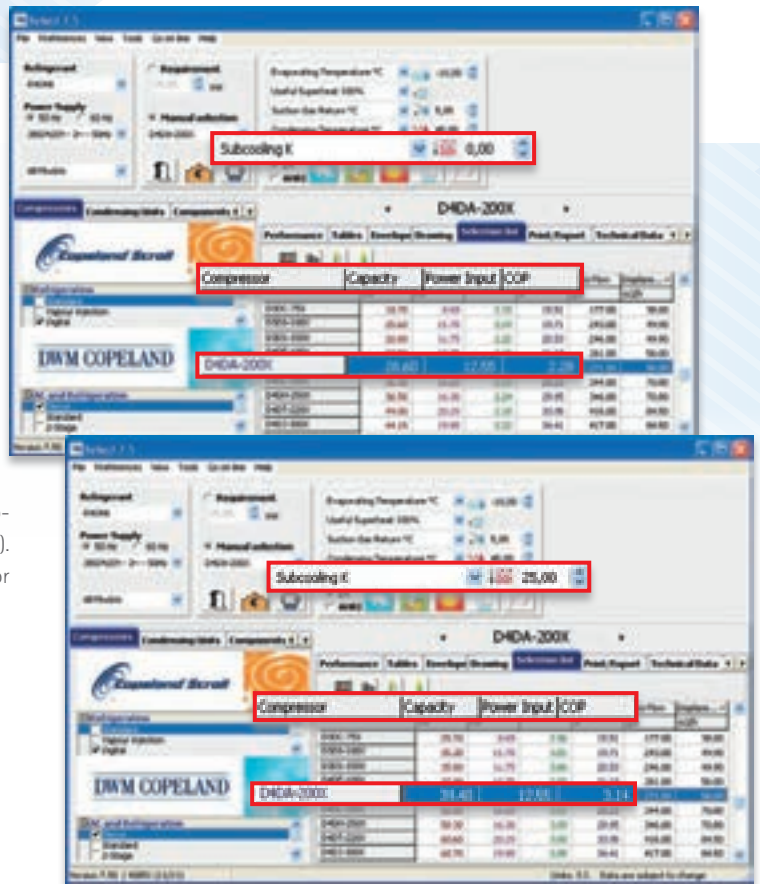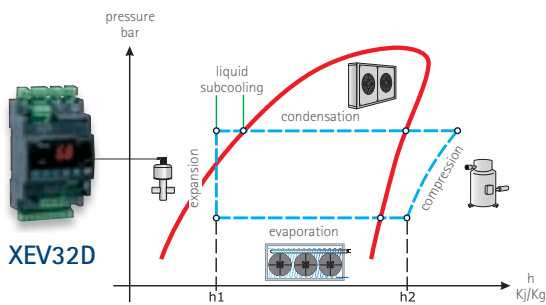
Pressure-enthalpy diagram shows the refrigeration cycle and the sub-cooling zone.

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.

ELECTRONIC EXPANSION VALVE DRIVERS

XEV

KEYBOARD and DRIVERS for ON/OFF and STEPPER ELECTRONIC EXPANSION VALVE MANAGEMENT
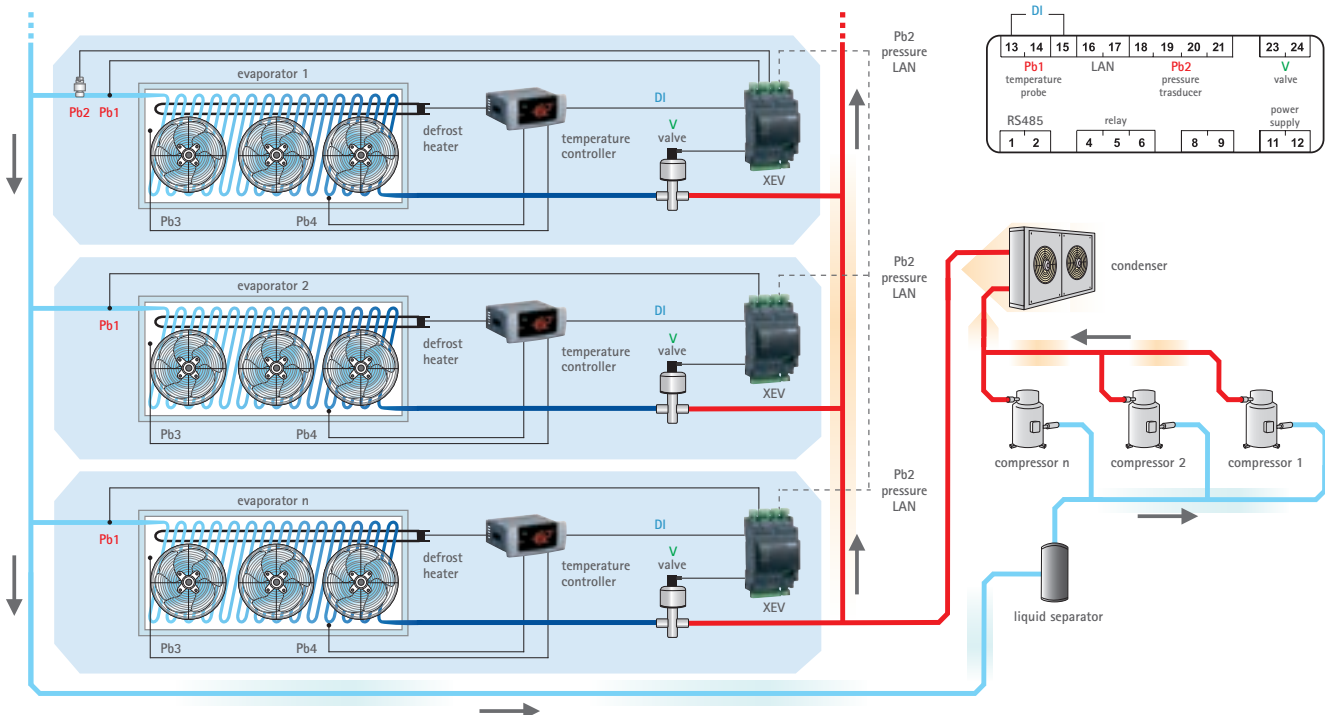
XEV11D	ON/OFF electronic expansion valve driver
XEV12D	ON/OFF electronic expansion valve driver with integrated display
XEV21D	Stepper electronic expansion valve driver
XEV22D	Stepper electronic expansion valve driver with integrated display
XEV32D	Stepper electronic expansion valve driver with integrated display and sub-cooling management
KB1 PRG	Programming keyboard for XEV11D and XEV21D modules

D: 4 DIN Rail   100x64mm

FEATURES	XEV11D	XEV12D	XEV21D	XEV22D	XEV32D	KB1 PRG
Display: n° digits		± 3 d.p.		± 3 d.p.	± 3 d.p.	± 3 d.p.
Keyboard: push buttons		3		3	3	6
Power supply	24, 110, 230Vac	24, 110, 230Vac	24Vac/dc	24Vac/dc	24Vac/dc	from controller
Probe inputs						
Suction pressure	4÷20mA, 0÷5V	4÷20mA, 0÷5V	4÷20mA, 0÷5V	4÷20mA, 0÷5V	4÷20mA, 0÷5V	
Suction temperature	NTC, Pt1000	NTC, Pt1000	NTC, Pt1000	NTC, Pt1000	NTC, Pt1000	
Output liquid temperature					NTC, Pt1000	
Digital inputs						
Free of voltage	pres	pres	pres	pres	pres	
High voltage	pres	pres	pres	pres	pres	
Relay outputs						
Alarm	8A config	8A config	8A config	8A config	8A config	
Other						
Valve driver output	ON/OFF up to 30W	ON/OFF up to 30W	stepper	stepper	stepper	
Hot Key/Prog Tool Kit output	pres	pres	pres	pres	pres	
Remote keyboard output	KB1 PRG		KB1 PRG			
Serial output	RS485	RS485	RS485	RS485	RS485	
Alarm recovery by LAN	pres	pres	pres	pres	pres	
Buzzer	opt	opt				
Battery backup input			pres	pres	pres	

XEV11D – XEV12D
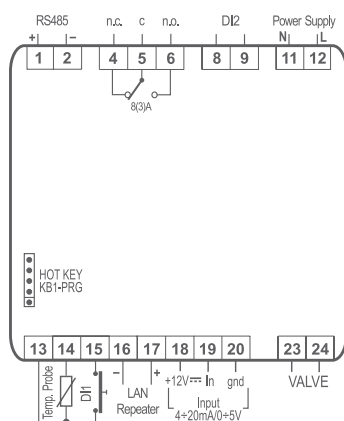
XEV21D – XEV22D
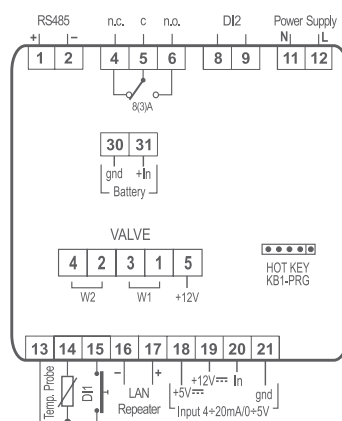
XEV32D
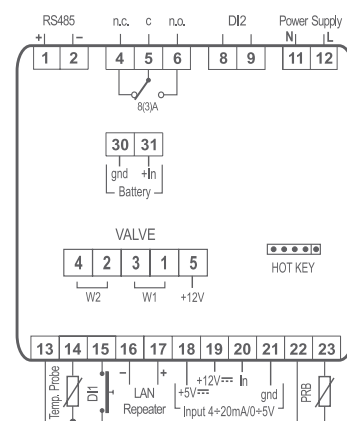
ACCESSORY

CAB/KB11
Cable for the connection between the keyboard and the XEV driver, 1m

ROOM CONTROLLERS

SECTION INDEX

230x210mm

WALL MOUNTING

PANEL MOUNTING

COOL MATE

XLR100 COOL MATE SERIES: NT and LT APPLICATIONS

- 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
- Hot Key or Prog Tool Kit connector for quick and easy programming
- Serial connection to monitoring systems
- 10VA max power absorption
- Display with red LED (30,5mm high) and 11 icons

HOW to ORDER

XLR100 | X | L | R | 1 | | 0 | – | A | B | C | D | E | `-17.8`   For blue display please contact Dixell

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

| XLR130 | "off cycle" defrost digital controller for NT |
| XLR170 | Digital controller for NT and LT ventilated applications |

230x210mm

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
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

XLR170

XLR130 direct loads
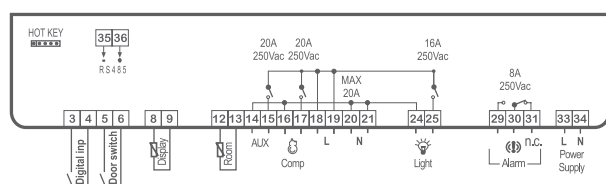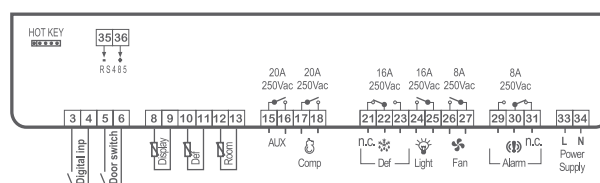
XLR170 direct loads
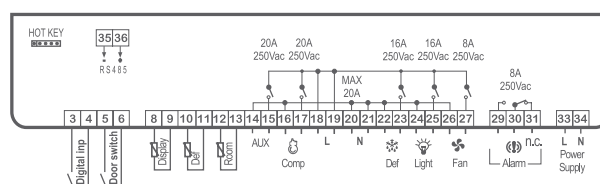
WALL
MOUNTING

PANEL
MOUNTING

COOL MATE

230x210mm

XLR400 COOL MATE SERIES: NT and LT APPLICATIONS with DUAL TEMPERATURE MANAGEMENT

- 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
- Fast and easy wiring
- Designed to be wall or panel mounted
- Hot Key or Prog Tool Kit connector for quick and easy programming
- Serial connection to monitoring systems
- 10VA max power absorption
- Dual display with red LED (25,3mm high) and yellow LED (20,3mm high) and 13 icons

TYPICAL APPLICATIONS
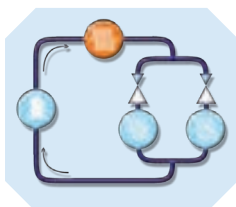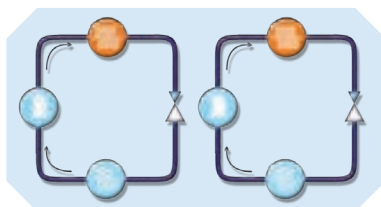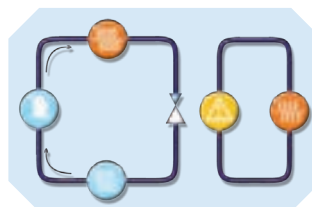
1 circuit – 2 evaporators **2 indipendent circuits**   **Heating and cooling application**   **2 heating applications**
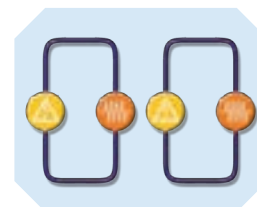
HOW to ORDER

XLR400 | X | L | R | 4 | 0 | – | A | 0 | C | D | E |

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

CONTROLLERS with DUAL TEMPERATURE MANAGEMENT for NT and LT COLD ROOMS

XLR460	Digital controller for NT and LT cold rooms with dual temperature management
XLR470	Digital controller for LT and LT cold rooms with dual temperature management

230x210mm

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
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

230x210mm

WALL MOUNTING

PANEL MOUNTING
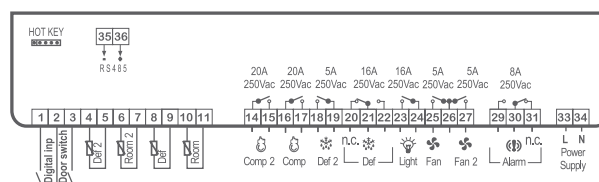
COOL MATE

XLH200/300 COOL MATE SERIES: NT and LT APPLICATIONS and MATURING ROOMS with TEMPERATURE/HUMIDITY MANAGEMENT

- 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
- Fast and easy wiring
- Designed to be wall or panel mounted
- Hot Key or Prog Tool Kit connector for quick and easy programming
- Serial connection to monitoring systems
- 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   6 0 – A 0 0 D E

A	D	E
Power supply	Measurement unit	RS485 output
2 = 24Vac	C = °C	0 = No
4 = 110Vac	F = °F	1 = Yes
5 = 230Vac		

CONTROLLERS with TEMPERATURE/HUMIDITY MANAGEMENT for NT and LT COLD ROOMS and MATURING ROOMS

| XLH260 | Digital controller for NT and LT cold rooms with temperature and humidity management |
| XLH360 | Digital controller for maturing rooms with temperature and humidity management and timed cycles |

230x210mm

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
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
Other		
Hot Key/Prog Tool Kit output	pres	pres
Serial output	RS485 opt	RS485 opt
Buzzer	pres	pres

XLH260

HOT KEY
35 36
RS485

3 4 5 6 7 8 9 10 11 12 13   15 16 17 18   21 22 23 24 25 26 27   29 30 31   33 34

20A 20A
250Vac 250Vac
16A 16A 8A
250Vac 250Vac 250Vac
8A
250Vac

Digital inp | Door switch | 12V In gnd Input 4÷20mA | Def | Room | Heater | Comp | n.c. Def | Light Dehumid | Humidifying | Fan n.c. | L N Power Supply

XLH360

HOT KEY
35 36
RS485

3 4 5 6 7 8 9 10 11 12 13   15 16 17 18   21 22 23 24 25 26 27   29 30 31   33 34

20A 20A
250Vac 250Vac
16A 16A 8A
250Vac 250Vac 250Vac
8A
250Vac

Digital inp | Door switch | 12V In gnd Input 4÷20mA | Def | Room | Heater | Comp | n.c. Def Ext fans | Light Dehumid | Humidifying | Fan n.c. | L N Power Supply

100x64mm

V-KIT: NT and LT APPLICATIONS – SPLIT FORMAT

V-KIT: a wall/panel mounting housing kit for WING vertical keyboards. For remote connection to WING K controllers.

- Designed for cold rooms applications
- IP55 against water sprinkles
- Easy and quick to install

The Dixell V-KIT allows the user to mount the keyboard near to the cold-room door. Connection between the power board (eg. XW60K) 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 elegant 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 white and black 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, please check the information regarding WING series.

CONTROLLERS for SPECIAL REFRIGERATED APPLICATIONS

SECTION INDEX

CX: 32x74mm

XRB SERIES: BOTTLE COOLER APPLICATIONS

- Electronic controllers for bottle cooler
- Easy and intuitive installation
- High energy saving thanks to load optimization
- Algorithms for energy saving work without the use of external sensors
- Energy saving based on pre-set time interval
- Automatic set point management after filling the cabinet
- Compressor working time control
- Counters of compressor/defrost/fans/light activation time
- Condenser monitor for maintenance management
- Anti-sweat heaters management (only for XRB07CX)
- Firmware update via special Prog Key
- Hot Key or Prog Tool Kit connector for quick and easy programming
- Serial connection to monitoring systems
- 3VA max power absorption
- Display with red LED (10,5mm high) and icons

For cabinets with or without door (also with night curtains)

HOW to ORDER

XRB | X R B 0 | C X | − | A N C D E

-17.8 For blue display please contact Dixell

For RTC version please contact Dixell

A	C	D	E
Power supply	**Buzzer**	**Measurement unit**	**Connections**
0 = 12Vac/dc	**0** = No	**C** = °C	**3** = Screw
4 = 110Vac	**1** = Yes	**F** = °F	**9** = Disconnectable
5 = 230Vac			

CONTROLLERS for STATIC or VENTILATED BOTTLE COOLER APPLICATIONS

XRB04CX	Digital controller for static applications
XRB06CX	Digital controller for ventilated applications
XRB07CX	Digital controller for ventilated applications with auxiliary output

CX: 32x74mm

FEATURES	XRB04CX	XRB06CX	XRB07CX
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.
Power supply	12Vac/dc 110, 230Vac	12Vac/dc 110, 230Vac	110, 230Vac
Probe inputs			
Thermostat	NTC	NTC	NTC
Defrost	NTC	NTC	NTC
Condenser	NTC	NTC	NTC
Condenser/AUX			NTC on HOT KEY
Digital inputs			
Start defrost, light, AUX, door switch, energy saving, probe	config	config	config
Alarm, start defrost, light, AUX, door switch, energy saving, fans, ON/OFF	config	config	config
Relay outputs			
Compressor	16A	16A	16A
Fans		8A	8A
Light	8A	8A	8A
AUX			5A
Other			
Hot Key/Prog Tool Kit output	pres	pres	pres
Serial output	TTL	TTL	TTL
Buzzer	opt	opt	opt

XRB04CX

XRB06CX
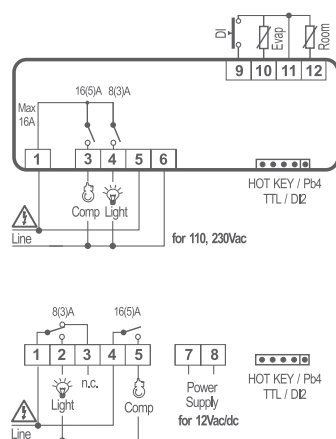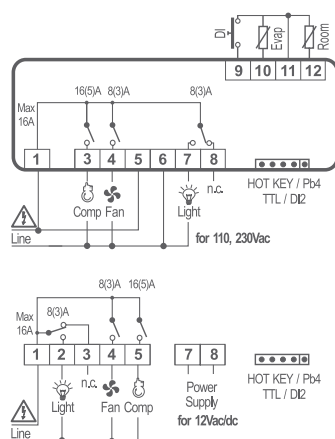
XRB07CX
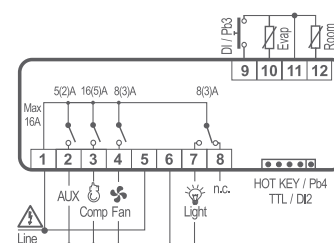
L: 38x185mm

XB500: BLAST CHILLER and TEMPERATURE MAINTENANCE APPLICATIONS

- Blast chiller controllers that comply with the rules concerning preparation and chilling of foodstuffs (HACCP)
- Four configurable cycles pre-set
- Output for remote display to monitor the core temperature of goods
- Printer output (XB07PR) for temperature and blast chiller cycles reports
- All different phases monitorated and shown on the display
- Real time clock
- Hot Key 128 or Prog Tool Kit connector for quick and easy programming
- Serial connection to monitoring systems
- 5VA max power absorption
- Dual display with red LED (8,0mm high) and yellow LED (5,6mm high) and 14 icons

```
* START CYCLE  3
DATE : 13/04/2012
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 : -26.6°C
```

HOW to ORDER

XB500 | 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	**Inputs**	**X–REP**	**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				

BLAST CHILLER CONTROLLER

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

L: 38x185mm

FEATURES	XB570L
First display: n° digits	± 3 d.p.
Second display: n° digits	± 4 d.p.
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

power adapter   **XB07PR**
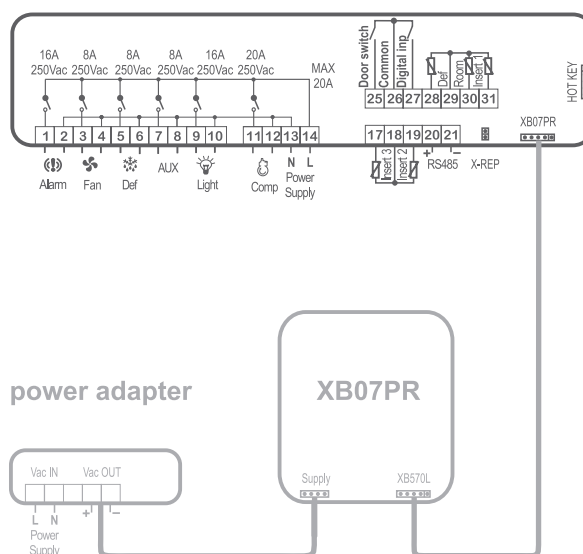
HARD CHILL, SOFT CHILL, FREEZING, HOLDING

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.
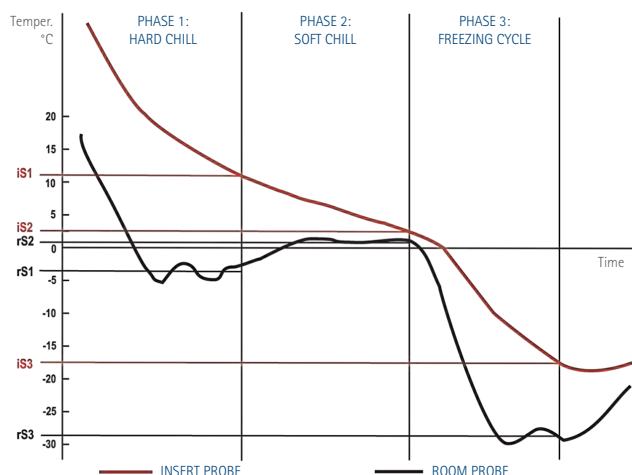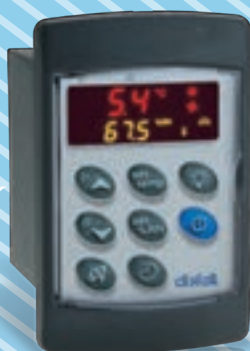
V: 100x64mm

100x64mm
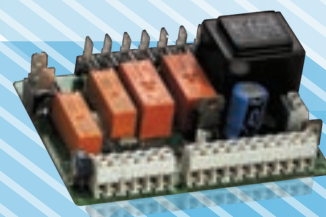
K: OS/GS

L: 38x185mm

38x185mm

XH200/300 SERIES: NT and LT REFRIGERATED and MATURING ROOM APPLICATIONS with TEMPERATURE/HUMIDITY MANAGEMENT

- Electronic 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)
- Up to 8 push buttons with direct action for user friendly interface
- Direct line power supply 230 (110)Vac. No external transformer required
- Hot Key or Prog Tool Kit connector for quick and easy programming
- Serial connection to monitoring systems
- 10VA max power absorption
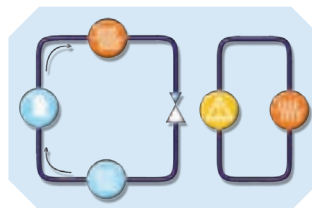- Dual display with red LED (8,0mm high) and yellow LED (5,6mm high) and 14 icons

HOW to ORDER

KEYBOARDS		H	6	2	0	–	0	0	C	0	0
XH240K	X	H	2	4	0	K	–	A	0	0	D	0
XH	X	H		6	0		–	A	0	C	D	0

inox -17.8   For inox version and blue display on T keyboards please contact Dixell

inox -17.8   For inox version and blue display on L format 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		

ICON	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)
⧗	Cycle duration setting (for XH300)
☼	Light
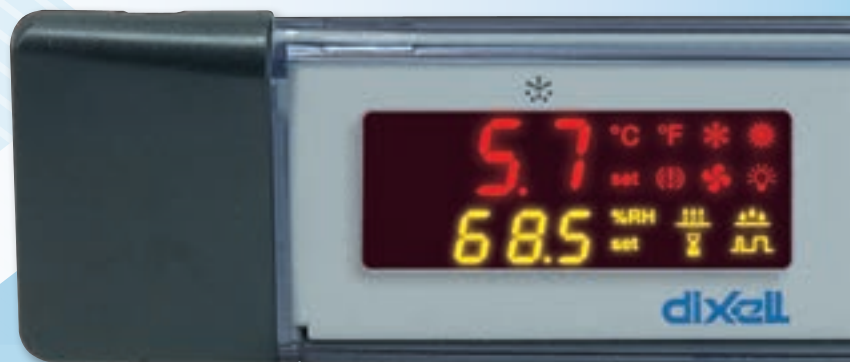
COMPLETE

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)
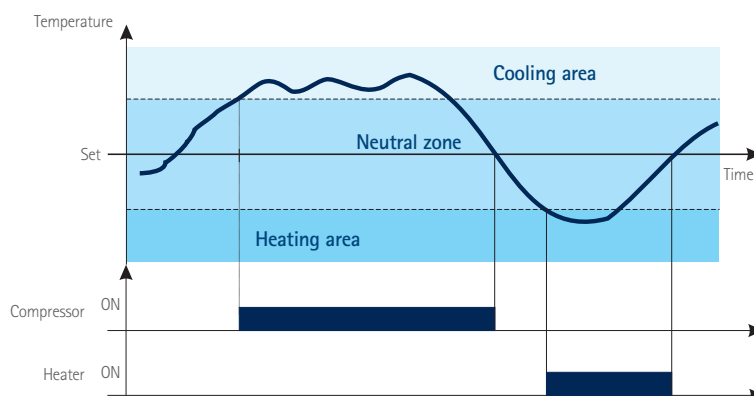
XH300: EXAMPLE of MATURING CYCLE with RUNNING and STOPPING PHASE

T1: pre-cycle only with temperature control

T2: cycle with temperature and humidity control

T3: stopping phase
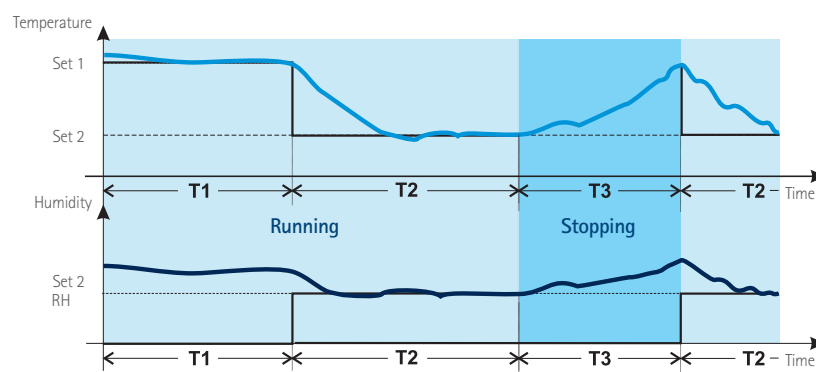
CONTROLLER and KEYBOARDS for NT and LT REFRIGERATED ROOMS with TEMPERATURE HUMIDITY MANAGEMENT

K: OS/GS   38x185mm   100x64mm

XH240K	Digital controller for NT and LT refrigerated rooms
TH620	Keyboard (horizontal WING) for XH240K controller
VH620	Keyboard (vertical WING) for XH240K controller

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

XH240K
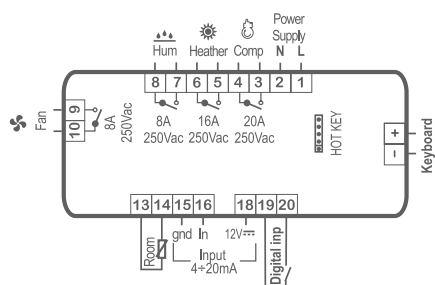
The POWER MODULE in K FORMAT is AVAILABLE in 2 DIFFERENT VERSIONS

OS: open board   **GS:** standard plastic housing 190x140x70mm
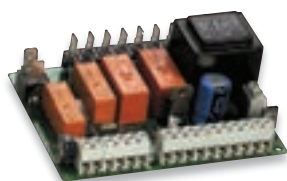
XH260L
XH260V
Digital controllers for NT and LT refrigerated rooms with defrost management

XH360L
XH360V
Digital controllers for maturing rooms with running and stopping cycles, timed cycles, cooling and heating action and defrost

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

FEATURES	XH260L	XH260V	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	6	6	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	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	8A	8A		
Defrost, extractor fans			8A	8A
Fans	8A	8A	8A	8A
Heater control	8A	8A	8A	8A
Humidifying	8A	8A	8A	8A
Dehumidifying, light	8A	8A	8A	8A
Other				
Hot Key/Prog Tool Kit output	pres	pres	pres	pres
Serial output	TTL	TTL	TTL	TTL
Buzzer	opt	opt	opt	opt

XH260V
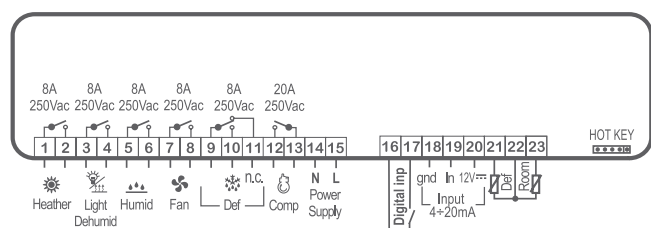
XH260L
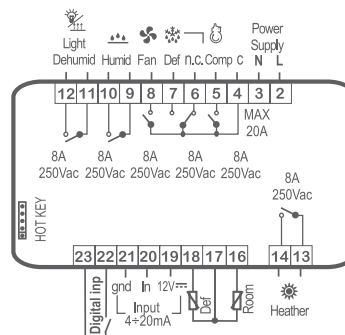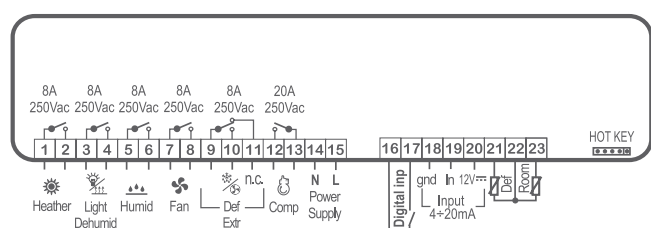
XH360V

XH360L

C: 32x74mm

XR400 SERIES: NT and LT APPLICATIONS with DUAL TEMPERATURE MANAGEMENT

- 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
- Hot Key or Prog Tool Kit connector for quick and easy programming
- Serial connection to monitoring systems
- 4VA max power absorption
- Dual display with red LED (8,0mm high) and yellow LED (5,6mm high) and 14 icons

TYPICAL APPLICATIONS
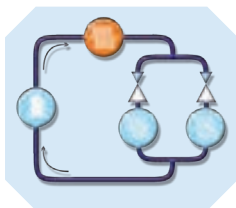
1 circuit – 2 evaporators	2 independent circuits	Heating and cooling application	2 heating applications
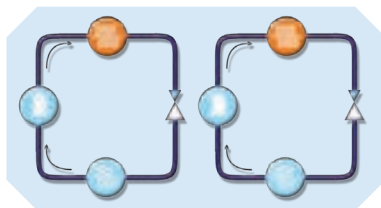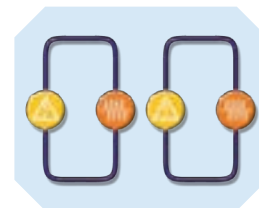
HOW to ORDER

XR400   X R 4   0 C – A B C D 0

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

| XR420C | Digital controller for NT static applications with "off cycle" defrost |
| XR460C | Digital controller for NT and LT for ventilated applications |

C: 32x74mm

FEATURES	XR420C	XR460C
First display: n° digits	± 3 d.p.	± 3 d.p.
Second display: n° digits	± 4 d.p.	± 4 d.p.
Power supply	24, 110, 230Vac	12, 24Vac/dc
Probe inputs		
Thermostat	NTC/PTC	NTC/PTC
Thermostat 2	NTC/PTC	NTC/PTC
Defrost		NTC/PTC
Digital inputs		
Safety, start defrost, door switch	config	2 x config
Relay outputs		
Compressor	8A	8A
Compressor 2	8A	8A
Defrost		8A
Fans		8A
Light	8A	
Other		
Hot Key/Prog Tool Kit output	pres	pres
Serial output	TTL	TTL
Buzzer	opt	opt
Real time clock	opt	opt

XR420C
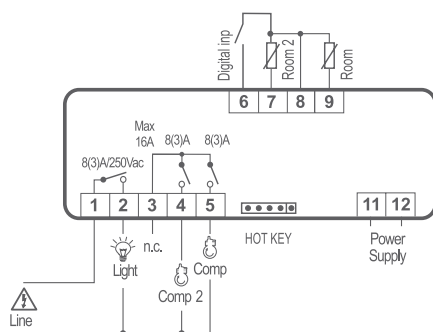
XR460C
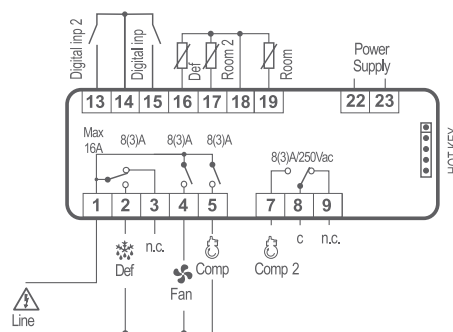
C: 32x74mm

XR700: NT and LT APPLICATIONS with HACCP FUNCTION

- Digital controller with HACCP function
- Monitoring, signalling and recording of the critical temperature
- Real time display of the peaks and their duration
- Correct storage of products
- Hot Key or Prog Tool Kit connector for quick and easy programming
- Serial connection to monitoring systems
- 4VA max power absorption
- Dual display with red LED (8,0mm high) and yellow LED (5,6mm high) and 13 icons

COMPLETE

The **dual display** with **13 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.

HOW to ORDER

XR700C	X	R	7	7	5	C	–	A	0	0	D	E

	A		D		E

Power supply	Measurement unit	RS485 output
0 = 12Vac/dc	**C** = °C	**0** = No
1 = 24Vac/dc	**F** = °F	**1** = Yes

CONTROLLER with HACCP FUNCTION for VENTILATED APPLICATIONS

XR775C | Digital controller for NT and LT ventilated applications

C: 32x74mm

FEATURES	XR775C
First display: n° digits	± 3 d.p.
Second display: n° digits	± 4 d.p.
Power supply	12, 24Vac/dc
Probe inputs	
Thermostat	NTC
Defrost	NTC
Display	NTC
Digital inputs	
Alarm, door switch, light, defrost	config
Door switch	pres
Relay outputs	
Compressor	8A
Defrost	8A
Fans	8A
Light, alarm	8A config
Other	
Hot Key/Prog Tool Kit output	pres
Serial output	TTL, RS485 opt
Buzzer	pres
Real time clock	pres
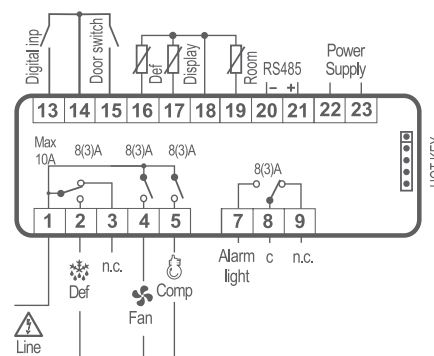
EXAMPLE of HIGH TEMPERATURE ALARM

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.
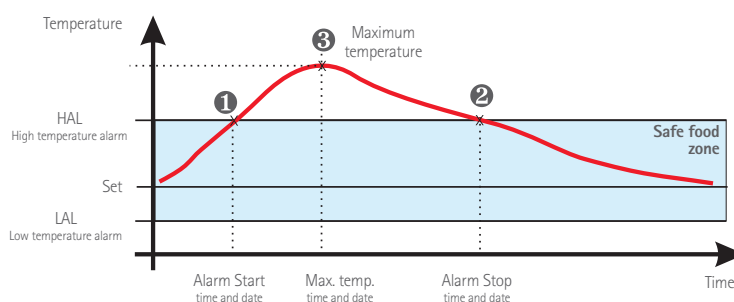
BLACKOUT ALARM

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.
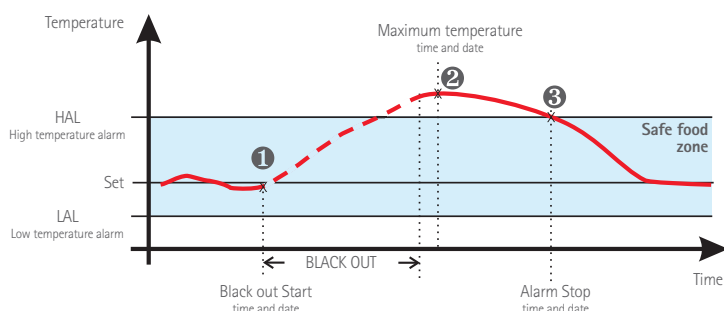
45x70mm

D: 4 DIN Rail

XDL: TEMPERATURE and STATUS RECORDING

- Temperature and status recording module for refrigerating applications that works in accordance to HACCP rules
- Connection to Dixell instruments equipped with the serial output or combined with the XJDL40D probe module
- Monitoring of temperature (up to 4), alarms and digital inputs is simple and intuitive
- Stand-alone operation in a 4 DIN module XJDL40D
- Fast and simple mounting
- Recorded data download on a USB driver: 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 power supply or XJDL40D)
- Temperature recording kit availables on request with minimum quantity 20 pieces
- 5VA max power absorption
- Dual display with red LED (8,0mm high) and yellow LED (5,6mm high) and 17 icons

HOW to ORDER

XDL01	X	D	L	0	1	-	0	0	0	D	0	
XJDL40D	X	J	D	L	4	0	D	-	A	B	0	D	0
PW-KIT	X	D	L	0	1	-	P	W	-	K	I	T	-	A	0	0	D	0
XJ-KIT	X	D	L	0	1	-	X	J	-	K	I	T	-	A	0	0	D	0
XJB-KIT	X	D	L	0	1	-	X	J	B	-	K	I	T	-	A	0	0	D	0

A	B	D
Power supply	**Battery output**	**Measurement unit**
2 = 24Vac	**0** = No	**0** = °C decimal
3 = 9÷40Vdc	**1** = Yes (not available with power supply 9÷40Vdc)	**1** = °C integer
5 = 230Vac		**2** = °F

TEMPERATURE and STATUS RECORDING MODULE

XDL01	Temperature and status recording module (with cable CAB/RS1, 1m included) that works with Dixell instruments equipped with the serial output (via PW-DL) or combined with the XJDL40D probe module
XJDL40D	Probe and status acquisition module for XDL01 with external battery input and female connector included
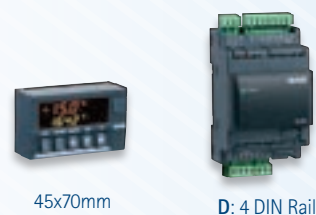
45x70mm   **D**: 4 DIN Rail

FEATURES	XDL01	XJDL40D
First display: n° digits	± 3 d.p.	
Second display: n° digits	± 4 d.p.	
Power supply	from PW-DL o XJDL40D	24, 230Vac, 9÷40Vdc
Probe inputs		
Temperature 1		NTC/Pt1000
Temperature 2		NTC/Pt1000
Temperature 3		NTC/Pt1000
Temperature 4		NTC/Pt1000/4÷20mA
Digital inputs		
External alarm, defrost		4 x config
Relay outputs		
Alarm		8A
Other		
Hot Key/Prog Tool Kit output		pres
USB output	pres	
Serial output	TTL	TTL
Battery backup	internal 48h	external (6 or 24h) opt
Real time clock	pres	

TEMPERATURE RECORDING KIT

XDL01–PW–KIT
Kit composed of XDL01, PW-DL and XDL-KEY

XDL01–XJ–KIT
Kit composed of: XDL01, XJDL40D, XDL-KEY and 2 NG6 probes, 3m

XDL01–XJB–KIT
Kit composed of: XDL01, XJDL40D, BA6H, XDL-KEY and 2 NG6 probes, 3m

XDL01 – PW–DL
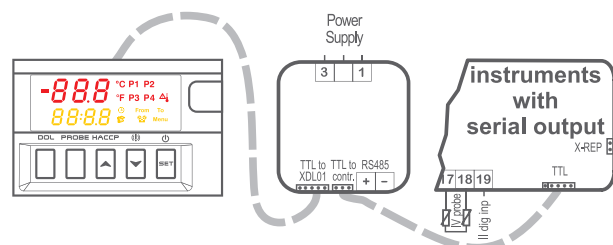
The XDL01 data recording module is connected to the PW-DL power supply and is also an interface with Dixell instruments with TTL or RS485 serial output

XDL01 – XJDL40D
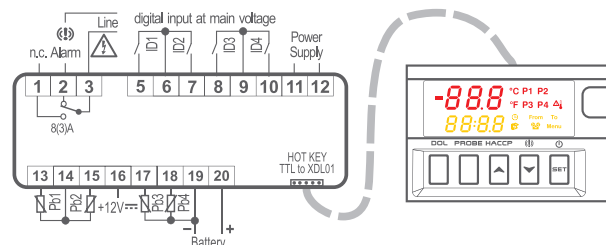
The XDL01 data recording module is directly connected to the XJDL40D probe module

ACCESSORIES

PW–DL
Power supplier (24, 230Vac) for XDL01 module (with CAB/DL2 cable, 2m included) works as a gateway between the XDL01 and Dixell instruments equipped with TTL or RS485 serial output
How to order: PW-DL-20000 (for 24Vac)
PW-DL-50000 (for 230Vac)
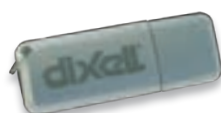
XDL–KEY
USB pendrive for XDL01

BA6H
Battery for XJDL40D of 1.2Ah, 6 hours of backup

BA24H
Battery for XJDL40D of 4.0Ah, 24 hours of backup

K: 8 DIN Rail

VG: 82x156mm

XW700 SERIES: PHARMACEUTICAL APPLICATIONS

- Digital controllers for pharmaceutical cabinets
- Also ideal for applications up to -100°C
- Temperature, alarms and load status recording
- LCD graphic interface (or Touch Screen on request) with panel or wall mounting
- Last 24 hours temperature graphic display
- Battery backup in case of power supply failure
- Data download on USB pendrive: txt format compatible with EXCEL®
- Data recording: up to 1 year with sampling every 15 minutes
- Programmable sampling time from 3 to 60 minutes
- Hot Key or Prog Tool Kit connector for quick and easy programming
- Serial connection to monitoring systems
- 10VA max power absorption

HOW to ORDER

XW700 | X | W | 7 | 7 | K | – | A | B | 0 | D | 0 |

A	B	D

Power supply	Inputs	Light relay	Measurement unit
4 = 110Vac	**N** = NTC	16A	**C** = °C
5 = 230Vac	**L** = NTC	16A neon	**F** = °F
	S = Pt1000	16A	
	T = Pt1000	16A neon	

VGW870 | V | G | W | 8 | 7 | 0 | – | 1 | B | 0 | 0 | 0 |

B

Kind of mounting
P = Panel
W = Wall

For TOUCH SCREEN interface please contact Dixell

CONTROLLERS and GRAPHIC DISPLAY for VENTILATED PHARMACEUTICAL APPLICATIONS

XW737K	Digital controller for ventilated pharmaceutical applications
XW777K	Digital controller for ventilated pharmaceutical applications with defrost and auxiliary relay management
VGW870	Remote keyboard with LCD graphic display and dedicated interface for medical applications for XW700 controllers (IP65 front protection)

K: 8 DIN Rail   **VG**: 82x156mm

FEATURES	XW737K	XW777K	VGW870
Display	LCD on VGW870	LCD on VGW870	LCD - 240x96pixels
Power supply	110, 230Vac	110, 230Vac	from controller
Probe inputs			
Thermostat	NTC, Pt1000	NTC, Pt1000	
Defrost	NTC, Pt1000	NTC, Pt1000	
Product 1	NTC, Pt1000	NTC, Pt1000	
Product 2	NTC, Pt1000	NTC, Pt1000	
Digital inputs			
Alarm, start defrost, door switch, pressure switch	2 x config	2 x config	
Relay outputs			
Compressor	20A	20A	
Defrost		8A	
Fans	8A	8A	
Light	16A	16A	
Alarm	8A	8A	
AUX		8A	
Other			
Hot Key/Prog Tool Kit output	pres	pres	
Visokey output			pres
USB output	pres	pres	
Serial output	TTL	TTL	
Buzzer	on keyboard	on keyboard	pres
Real time clock	with battery	with battery	
Backup battery input	pres	pres	

XW737K
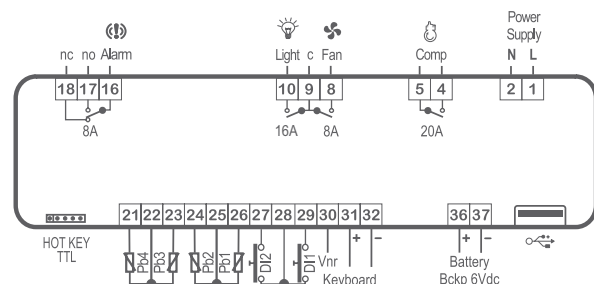
XW777K
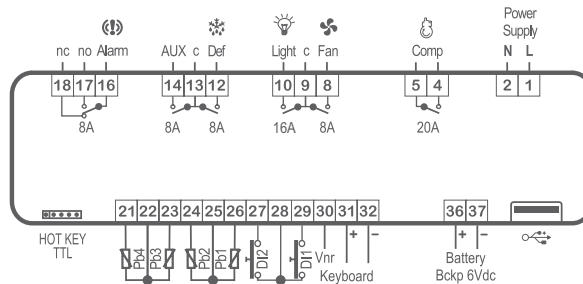
ACCESSORIES
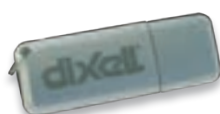
XDL-KEY
USB pendrive for XW700 controllers

CAB-USB10
USB extended cable, 1m with plastic cap

38x185mm

L: 38x185mm
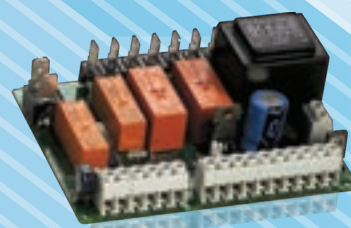
K: OS/GS

CX: 32x74mm

XR20/60 & XW20/60/300: NT and LT REFRIGERATED TRUCKS APPLICATIONS

- Digital controllers designed for refrigerated trucks (9÷40Vdc power supply)
- Maximum and minimum temperature recording/visualisation
- Possibility of controlling one LT and one NT compartment or one refrigerated and one heated compartment (XW300)
- "On demand" defrost for optimum defrost cycles management (XW300)
- Service hours count for system maintenance cycles (XW300)
- Thermostatic command for shutter opening (XW300)
- Hot Key or Prog Tool Kit connector for quick and easy programming
- Serial connection to monitoring systems
- 3VA max power absorption (10VA max for XW300)
- Display with red LED, 13,2mm high (red LED, 10,5mm high and icons for CX format)

HOW to ORDER

XR20/60 X R ☐ 0 C X – 3 B C D E   `-17.8` For blue display please contact Dixell

B	C		D	E
Inputs	**Buzzer**	**X-REP output** (excludes TTL output)	**Measurement unit**	**Connections**
N = NTC	**0** = No	No	**C** = °C	**0** = Screw
P = PTC	**1** = Yes	No	**F** = °F	**6** = Faston
	2 = No	Yes		
	3 = Yes	Yes		

XW20/60 X W ☐ ☐ L – 3 B C D 0   `-17.8` For blue display please contact Dixell

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

KEYBOARD T 6 3 0 – A 0 0 D 0   `-17.8` For blue display please contact Dixell

XW300 X W 3 ☐ 0 K – 3 N C D E

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

XR20/60 & XW20/60

XR20CX XW20L	Digital controllers for NT static applications with "off cycle" defrost
XR60CX XW60L	Digital controllers for NT and LT ventilated applications with defrost management

CX: 32x74mm   **L**: 38x185mm

FEATURES	XR20CX	XW20L	XR60CX	XW60L
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.
Power supply	9÷40Vdc	9÷40Vdc	9÷40Vdc	9÷40Vdc
Probe inputs				
Thermostat	NTC, PTC	NTC, PTC	NTC, PTC	NTC, PTC
Defrost			NTC, PTC	NTC, PTC
Condenser	NTC, PTC on HOT KEY		NTC, PTC on HOT KEY	
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
Other				
Hot Key/Prog Tool Kit output	pres	pres	pres	pres
Remote display output	X-REP opt		X-REP opt	
Serial output	TTL		TTL	
Buzzer	opt	opt	opt	opt

XR20CX

XW20L
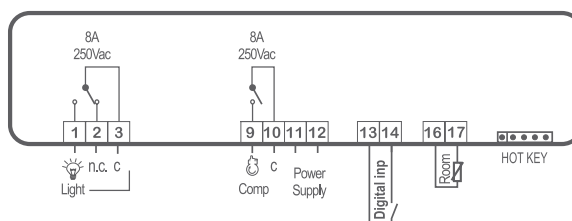
XR60CX
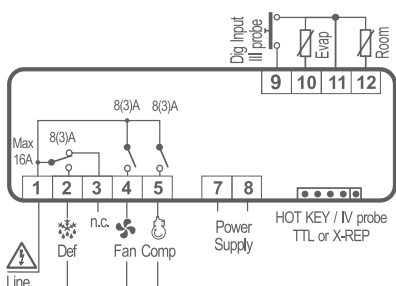
XW60L
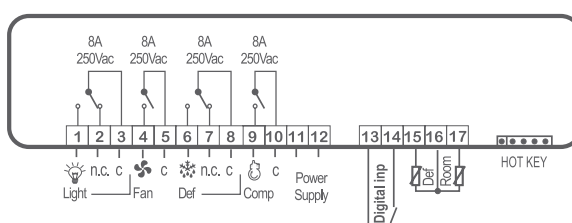
CONTROLLERS and KEYBOARD for VENTILATED APPLICATIONS with "on DEMAND" DEFROST on REFRIGERATED TRUCKS

XW360K	Digital controller with NT and LT ventilated applications with "on demand" defrost
XW370K	Digital controller with NT and LT ventilated applications with "on demand" defrost, heater and shutter management
T630	Keyboard for XW300 controllers

K: OS/GS   38x185mm

FEATURES	XW360K	XW370K	T630
Display: n° digits	on keyboard ± 3 d.p.	on keyboard ± 3 d.p.	± 3 d.p.
Power supply	9÷40Vdc	9÷40Vdc	from controller
Probe inputs			
Thermostat	NTC	NTC	
NT thermostat		NTC	
Defrost	NTC	NTC	
"on demand" defrost	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	on keyboard	opt

XW360K
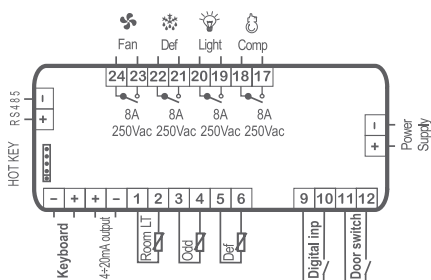
XW370K
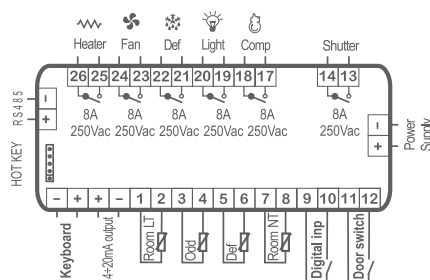
The POWER MODULES in K FORMAT are AVAILABLE in 2 DIFFERENT VERSIONS

OS: open board   **GS:** with plastic housing 182x142x76mm or 225x180x84mm
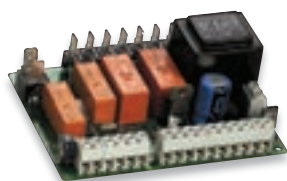
COMPRESSOR RACK REFRIGERATION CONTROLLERS

SECTION INDEX

D: 4 DIN Rail

XEV02: DIGITAL™ COMPRESSOR APPLICATIONS

- Driver slave for Digital™ compressor management
- Compatible with XC400/600, XC1000 and iProRACK controllers
- Optimal management of "Demand Cooling" applications
- Last 10 alarms recording (kind, duration)
- Temperature analog inputs (NTC86K, Pt1000)
- Pressure analog inputs (0÷5V, 4÷20mA)
- Alarm management (visual or through digital output)
- Digital inputs (1 insulated, 1 voltage)
- Hot Key or Prog Tool Kit connector for quick and easy programming
- Serial connection to monitoring systems
- 6VA max power absorption
- Display with red LED (10,5mm high) and icons

HOW to ORDER

| XEV02D | X | E | V | 0 | 2 | D | – | A | B | C | D | 0 |

A	B	C	D
Power supply	**Temperature probe**	**Pressure probe**	**Measurement unit**
2 = 24Vac	**N** = NTC86K	**0** = No	**B** = Bar/°C
4 = 110Vac	**P** = Pt1000	**1** = 0÷5V	**P** = PSI/°F
5 = 230Vac		**2** = 4÷20mA	**H** = KPA/°C
		3 = PP11	
		4 = PP30	
		5 = PPR15	
		6 = PPR30	

DRIVER SLAVE for DIGITAL™ COMPRESSOR MANAGEMENT

XEV02

XEV02D | Driver slave for Digital™ compressor management with triac and open collector outputs

D: 4 DIN Rail

FEATURES	XEV02D
Display: n° digits	± 3 d.p.
Keyboard: push buttons	4
Power supply	24, 110, 230Vac
Probe inputs	
Suction pressure	4÷20mA, 0÷5V
Discharge line temperature (DLT)	NTC86K, Pt1000
Digital inputs	
Free of voltage	pres
High voltage	pres
Relay outputs	
Alarm	8A config
Other	
Triac output	pres
Open collector output	config
Hot Key/Prog Tool Kit output	pres
Serial output	RS485
Buzzer	pres
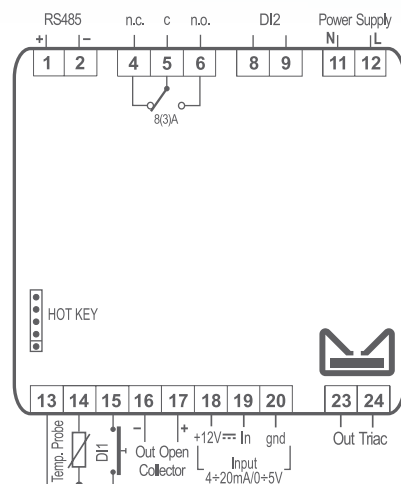
COMPATIBILITY with DIXELL CONTROLLERS

MASTER

XC400/600 & XC1000

iProRACK

4÷20mA, 0÷10V

4÷20mA, 0÷10V

ModBUS

SLAVE

XEV02D

DIGITAL™ COMPRESSORS
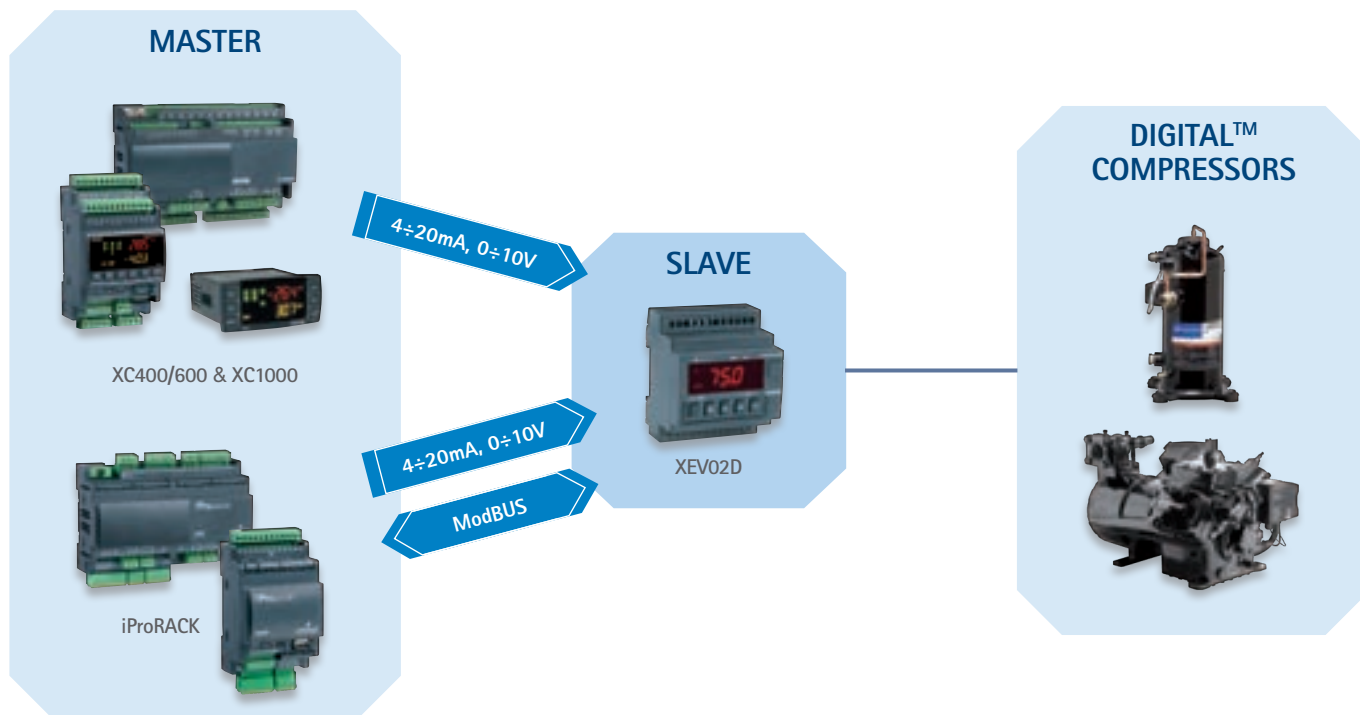
XC10/30 SERIES: CONDENSING UNIT APPLICATIONS

CX: 32x74mm

- Electronic controllers for condensing unit management with alarm log
- Smart error pressure probe management
- External trigger signal to enable regulation (**fig. 1**)
- Flooded start protection
- Suction and discharging lines temperature control
- Compressor working time and activation counters
- Safety control of high pressure and high condensing/suction temperature
- Fan cycling management to share the working load
- Direct access to alarm menu, working time and load activation
- Management of 1 compressor and up to 2 fans (XC30CX)
- Hot Key or Prog Tool Kit connector for quick and easy programming
- 3VA max power absorption
- Display with red LED (10,5mm high) and icons

fig. 1

Fans relay

Compressor relay

XC30CX

Digital input from thermostat
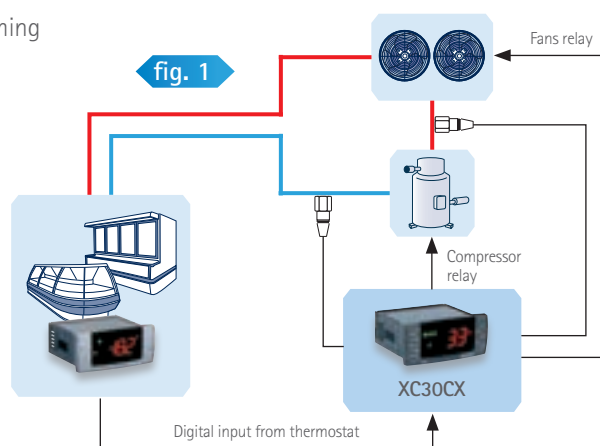
HOW to ORDER

XC10/30   X C 0 C X – A B C 0 E

A	B	C	E
Power supply	**Measurement unit**	**Buzzer**	**Input**
4 = 110Vac	**B** = Bar/°C	**0** = No	**G** = 0÷5V (suction)/NTC (condensing)
5 = 230Vac	**P** = PSI/°F	**1** = Yes	**H** = 0÷5V (suction)/0÷5V (condensing)
	H = KPA/°C		

CONDENSING UNIT CONTROLLERS

XC10CX | Condensing unit controller with 1 compressor

XC30CX | Condensing unit controller with 1 compressor and 2 fans

CX: 32x74mm

FEATURES	XC10CX	XC30CX
Display: n° digits	± 3 d.p.	± 3 d.p.
Power supply	110, 230Vac	110, 230Vac
Probe inputs		
Suction pressure	0÷5V	0÷5V
Condensing pressure	0÷5V, NTC	0÷5V, NTC
Discharge temperature	PTC	PTC
Digital inputs		
High pressure safety	pres	pres
Thermostat	pres	pres
Relay outputs		
Compressor	20A	20A
Fans		8A
Fans 2		5A
Other		
Hot Key/Prog Tool Kit output	pres	pres
Buzzer	opt	opt

XC10CX
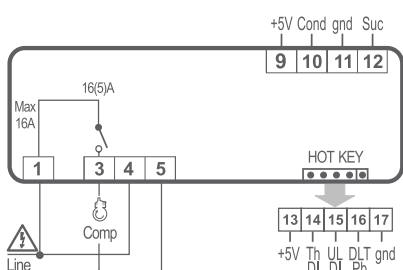
XC30CX
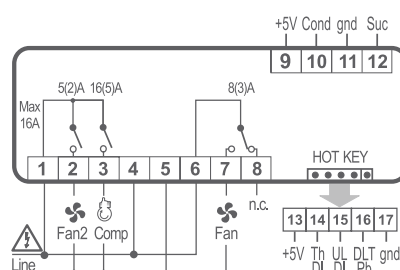
FAN MANAGEMENT

XC30CX has 2 outputs to drive 2 different condensing fans. A smart fan algorithm shares the fan working time between the outputs

Parameters: Sf1 (set point Fan1), Sf2 (set point Fan2)
hf1 (differential Fan1), hf2 (differential Fan2)
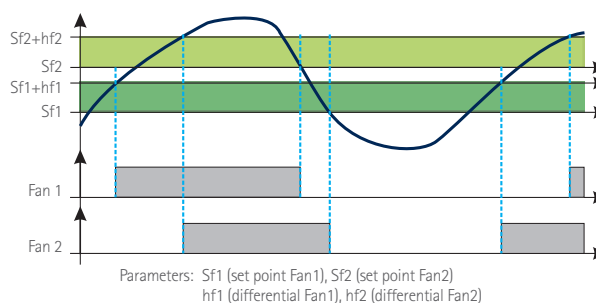
ACCESSORY

CAB/HK
Adapter cable, 5 pins for Hot Key input, 0,5m

D: 4 DIN Rail

CX: 32x74mm

100x64mm

XC400/600 SERIES: up to 6 COMPRESSOR/FAN OUTPUT APPLICATIONS also with INVERTER MANAGEMENT

- Electronic controllers for compact compressor racks management also with inverter
- Compressor types: Digital™, multi-stages, differing power, semi-hermetic, scroll and screw
- Proportional band or neutral zone control
- Floating condensing pressure control depending on the external temperature
- High configurability and flexibility
- Automatic switch-off of the compressors in case of high condensing pressure/temperature
- Silent mode function for fans during the night
- Correct lubrication automatic restore cycle
- Safer control with low pressure electronic pressure switch
- Type of gas setting: to control temperature or pressure
- Hot Key or Prog Tool Kit connector for quick and easy programming
- Serial connection to monitoring systems
- 5VA max power absorption
- Dual display with red LED (8,5mm high) and yellow LED (7,5mm high) and 17 icons

HOW to ORDER

XC400/600CX	X	C			C	X	–	A	B	C	D	E
XC600D	X	6		D		–	A	B	1	D	E
VC660	V	C	6	6	0	–	0	0	C	0	0

A	B	C	D		E
Power supply*	**Measurement unit**	**Buzzer**	**TRIAC voltage****	**Analog outputs**	**Input**
0 = 12Vac/dc	**C** = °C	**0** = No	**0** = 110÷230Vac	No	**A** = PP11 (only for XC450CX)
1 = 24Vac/dc	**F** = °F	**1** = Yes	**1** = 110÷230Vac	Yes	**B** = PP30 (only for XC450CX)
4 = 110Vac	**B** = Bar		**2** = 24Vac	No	**C** = NTC
5 = 230Vac	**P** = PSI		**3** = 24Vac	Yes	**E** = 4÷20mA
	H = KPA		**4** = No TRIAC	No	**F** = PP11 (suction)/PP30 (discharge)
			5 = No TRIAC	Yes	**H** = 0÷5V (ratiometric)

* 0, **1** (only for XC400CX and XC600CX)   **4**, **5** (only for XC600D)

** 0, **1**, **2**, **3** (only for XC645)   **4**, **5** (not for XC645)

TYPE of COMPRESSOR RACKS

The XC400/600 series, thanks to a powerful and complete range, ensures optimal management of compact compressor racks:

- with compressors and fans also with suction or discharge inverter;
- with 2 discharge and 1 suction also with inverter;
- with Digital™ compressors.

Example of circuits managed by the XC400/600 series

1 SUCTION CIRCUIT
1 CONDENSATION CIRCUIT

2 SUCTION CIRCUITS
1 CONDENSATION CIRCUIT
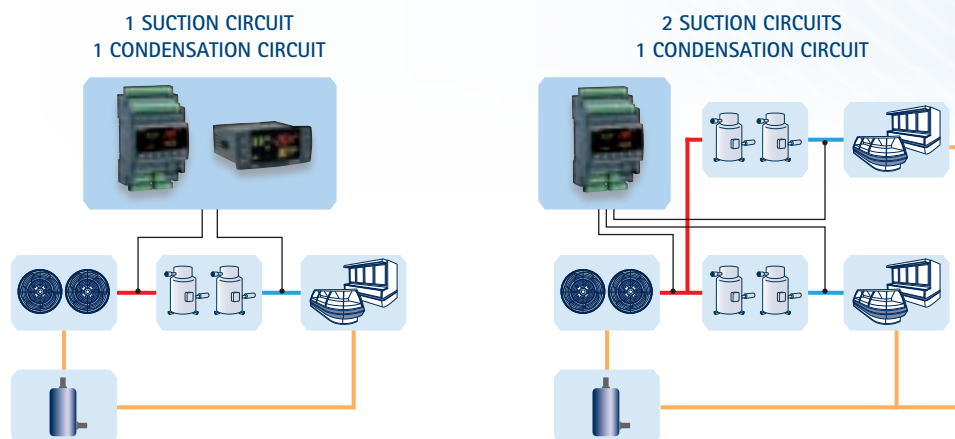
CONNECTIONS

2 different version of terminal block are available depending on the model of the controllers:

Screws for XC400CX

Disconnectable for XC600CX

Screw disconnectable for XC600D

FLOATING CONDENSING

The dynamic set point guarantees excellent plant efficiency, taking real operational conditions into consideration. The condensing set point is automatically adjusted according to the external temperature, keeping the safety values, to optimize the condensing temperature. The reduction of this temperature entails a reduction of the pressure gap between suction and condensing decreasing the consumption of compressors and saving energy.

Temperature

SET MAX condenser

SET MIN condenser

—— Condenser SET
—— External temperature

Time
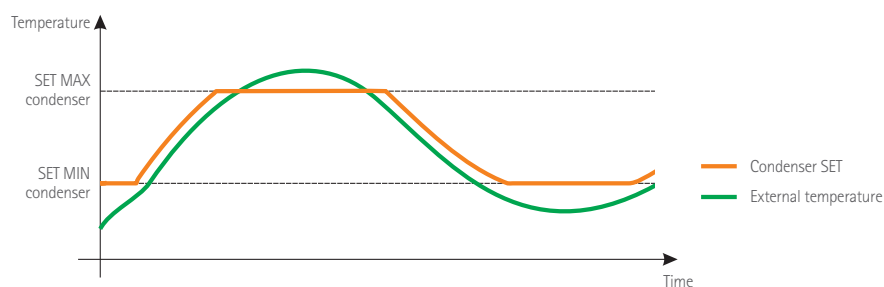
FAN FUNCTIONING DURING NIGHT MODE

This special function allows the maximum fan speed to be decreased, which reduces plant noise. Thanks to the **MES** (**M**aximum output during **E**nergy **S**aving) the maximum fan speed is reduced during the night.

V
10
MES

$\frac{AOM}{100}$ x10

0

P2

inF

On

P2

SETF-Pb/2   SETF+ESF-Pb/2   SETF+Pb/2   P2
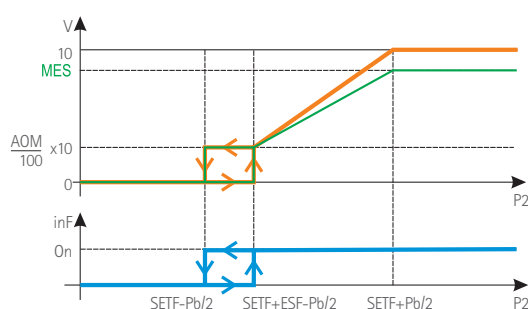
SETF: supply pressure setting to be maintained
Pb/2: regulation band centred around the setting
AOM: minimum allowed speed for the fans
inF: relay set as fan inverter
P2: condensing pressure (temperature) probe
V: analogical output value set as 0÷10V
ESF: energy saving differential for fan regulation

COMPRESSOR RACK REFRIGERATION CONTROLLERS

XC400/600

Up to 5 COMPRESSOR/FAN COMPRESSOR RACK CONTROLLERS also with INVERTER MANAGEMENT

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

XC450CX	Digital controller for managing up to 5 compressors or fans
XC640D	Digital controller for simultaneous management of up to 4 compressors and fans
XC645CX **XC645D**	Digital controllers for Digital™ compressor management

FEATURES	XC450CX	XC640D	XC645CX	XC645D
First display: n° digits	± 4 d.p.	± 4 d.p.	± 4 d.p.	± 4 d.p.
Second display: n° digits	± 4 d.p.	± 4 d.p.	± 4 d.p.	± 4 d.p.
Power supply	12, 24Vac/dc	110, 230Vac	12, 24Vac/dc	110, 230Vac
Probe inputs				
Suction	0÷5V, 4÷20mA, NTC	0÷5V, 4÷20mA, NTC	0÷5V, 4÷20mA, NTC	0÷5V, 4÷20mA, NTC
Suction 2				
Condensing	0÷5V, 4÷20mA, NTC	0÷5V, 4÷20mA, NTC	0÷5V, 4÷20mA, NTC	0÷5V, 4÷20mA, NTC
Configurable		NTC	NTC	NTC
Digital inputs				
Low pressure switch		1	1	1
High pressure switch		1	1	1
Alarm	5	4	4	5
Configurables	1	2	1	2
Relay outputs				
Loads	5 x 5A	4 x 5A	4 x 5A	4 x 5A
Other outputs				
Digital™ compressor			TRIAC	TRIAC
Inverter-compressor		4÷20mA/0÷10V opt		4÷20mA/0÷10V opt
Inverter-fans		4÷20mA/0÷10V opt	4÷20mA/0÷10V opt	4÷20mA/0÷10V opt
Load			12V/40mA	
Hot Key/Prog Tool Kit	pres	pres	pres	pres
Serial	TTL	RS485	TTL	RS485
Other				
Remote keyboard		VC660		VC660
Alarms	last 10	last 10	last 10	last 10
Buzzer	opt	pres	opt	pres
Connection kit			CWC15-KIT, CWC30-KIT, CAB/CJ15, CAB/CJ30	

XC450CX
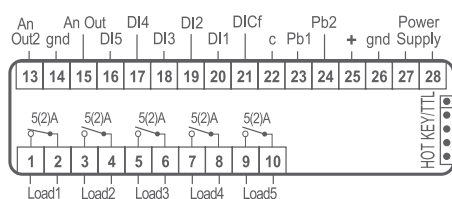
XC645CX
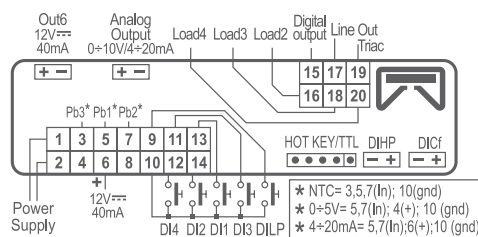
XC640D
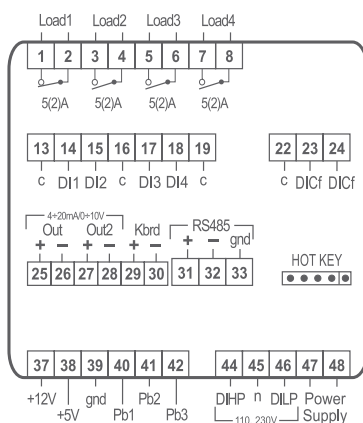
XC645D
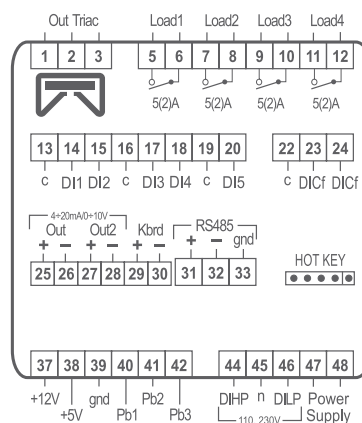
Up to 6 COMPRESSOR/FAN COMPRESSOR RACK CONTROLLERS and KEYBOARD also with INVERTER MANAGEMENT

XC600

XC650CX	Digital controller for simultaneous management of up to 5 compressors and fans
XC652CX	Compressor rack digital controller with 2 suctions
XC660D	Digital controller for simultaneous management of up to 6 compressors and fans
VC660	Keyboard for XC600D controllers

CX: 32x74mm   **D**: 4 DIN Rail   100x64mm

FEATURES	XC650CX	XC652CX	XC660D	VC660
First display: n° digits	± 4 d.p.	± 4 d.p.	± 4 d.p.	± 4 d.p.
Second display: n° digits	± 4 d.p.	± 4 d.p.	± 4 d.p.	± 4 d.p.
Power supply	12, 24Vac/dc	12, 24Vac/dc	110, 230Vac	from controller
Probe inputs				
Suction	0÷5V, 4÷20mA, NTC	0÷5V, 4÷20mA, NTC	0÷5V, 4÷20mA, NTC	
Suction 2		0÷5V, 4÷20mA, NTC		
Condensing	0÷5V, 4÷20mA, NTC	NTC	0÷5V, 4÷20mA, NTC	
Configurable	NTC		0÷5V, 4÷20mA, NTC	
Digital inputs				
Low pressure switch	1	1	1	
High pressure switch	1	1	1	
Alarm	4	4	6	
Configurables	1	1	2	
Relay outputs				
Loads	5 x 5A	5 x 5A	6 x 5A	
Other outputs				
Digital^{TM} compressor				
Inverter-compressor	4÷20mA/0÷10V opt	4÷20mA/0÷10V opt	4÷20mA/0÷10V opt	
Inverter-fans	4÷20mA/0÷10V opt	4÷20mA/0÷10V opt	4÷20mA/0÷10V opt	
Load	12V/40mA	12V/40mA		
Hot Key/Prog Tool Kit	pres	pres	pres	
Serial	TTL	TTL	RS485	
Other				
Remote keyboard			VC660	
Alarms	last 10	last 10	last 10	
Buzzer	opt	opt	pres	opt
Connection kit	CW15-KIT, CW25-KIT, CAB/CJ15, CAB/CJ30	CW15-KIT, CW25-KIT, CAB/CJ15, CAB/CJ30		

XC650CX – XC652CX

Out6 12V⎓ 40mA   An Out 0÷10V 4÷20mA   Load4 Load3 Load2 Load1   Line   Line Load5

| + – | | + – | | | 15 | 17 | 19 | 21 | | 25 | |
| 16 | 18 | 20 | 22 | | 26 | |

Pb3* Pb1* Pb2*   HOT KEY/TTL   DIHP   DICf

| 1 | 3 | 5 | 7 | 9 | 11 | 13 | — + | | – + |
| 2 | 4 | 6 | 8 | 10 | 12 | 14 |

Power Supply   12V⎓ 40mA   An Out2 0÷10V 4÷20mA   DI1 DI2 DI3 DI4 DILP

* NTC= 3,5,7(In); 10(gnd)
* 0÷5V= 5,7(In); 4(+); 10 (gnd)
* 4÷20mA= 5,7(In);6(+);10 (gnd)

XC660D

Load1 Load2 Load3 Load4 Load5 Load6

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |

5(2)A 5(2)A 5(2)A 5(2)A 5(2)A 5(2)A

| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |

c DI1 DI2 c DI3 DI4 c DI5 DI6 c DICf DICf

4÷20mA/0÷10V

Out Out2 Kbrd   RS485   HOT KEY

+ – + – + –   + – gnd

| 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |

| 37 | 38 | 39 | 40 | 41 | 42 | | 44 | 45 | 46 | 47 | 48 |

+12V gnd Pb2   DIHP n DILP Power
+5V Pb1 Pb3   110, 230V Supply

D: 10 DIN Rail

VG: 82x156mm

XC1000 SERIES: up to 15 COMPRESSOR/FAN OUTPUT APPLICATIONS

- Electronic controllers for compressors and condensing fans management of medium-large compressor racks
- Scroll, semi-hermetic, multi stages, with different power and screw compressor management
- Concise information about the variables of the compressor rack through the VISOGRAPH display
- 2 analogue outputs for frequency compressors
- 2 analogue outputs for inverter for fans
- Hourly run time signals for maintenance
- Sub-cooling management
- Subcritical CO_2 regulation
- Compressor unloading in case of high condensing pressure alarm
- Suction superheat calculation with alarm management and possible stop of compressors
- Liquid injection valve activation to increase superheat
- Alarm management with absolute and relative pressure
- Hot Key or Prog Tool Kit connector for quick and easy programming
- Serial connection to monitoring systems
- 12VA max power absorption

HOW to ORDER

XC1000D   `X C 1 0`   `D – 1 B 0 D E`

B	D	E
Measurement unit	**4÷20mA/0÷10V**	**Inputs**
C = °C	**0** = No	**C** = NTC
F = °F	**1** = Yes	**D** = PTC
B = Bar		**E** = 4÷20mA
P = PSI		**F** = Suction PP11; Condensing PP30
K = KPA		**G** = Ratiometric

VGC810   `V G C 8 1 0 – A B 0 0 0`

A	B
Buzzer	**Kind of mounting**
0 = No	**P** = Panel
1 = Yes	**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 |
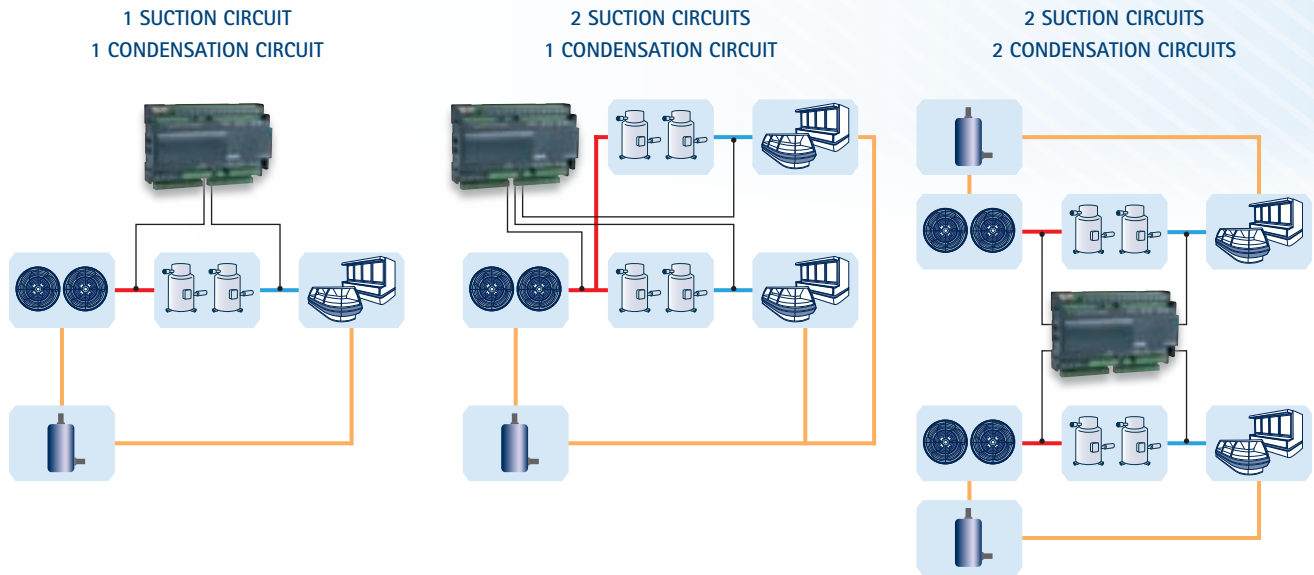
CO$_2$ REGULATION

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, the XC1000D series can manage and monitor CO$_2$ plants that work in cascade connection with sub-critical cycle.

COMPATIBILITY with DIGITAL™ COMPRESSORS

Thanks to its powerful hardware platform and to the advanced algorithms, the XC1000D family is able to drive the majority of compressor racks present in the market. An interesting match is the one with Dixell XEV02D driver that allows management of compressor racks equipped with Digital™ compressors. In these applications, by using the modulating capacity, the plant receives the optimum refrigeration power thereby reducing consumption.

MASTER

SLAVE

DIGITAL™ COMPRESSORS

4÷20mA, 0÷10V

XC1000D

XEV02D
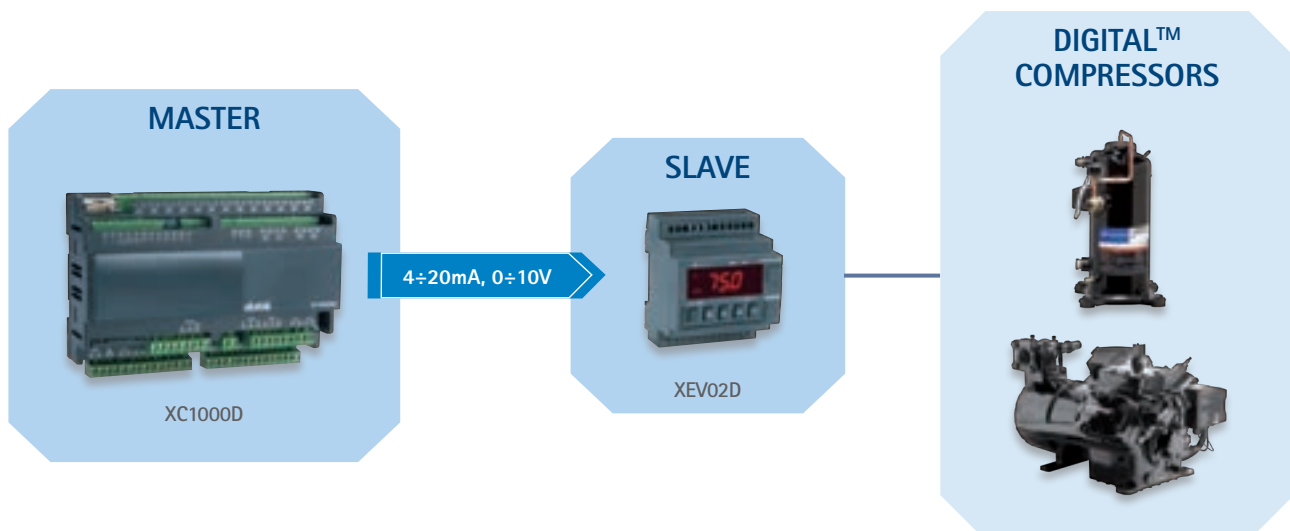
ENERGY SAVING MANAGEMENT

The XC1000D series gives to the user several solutions that let you to manage energy savings. The controllers have a special algorithm that lets you to optimize the efficiency 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 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.
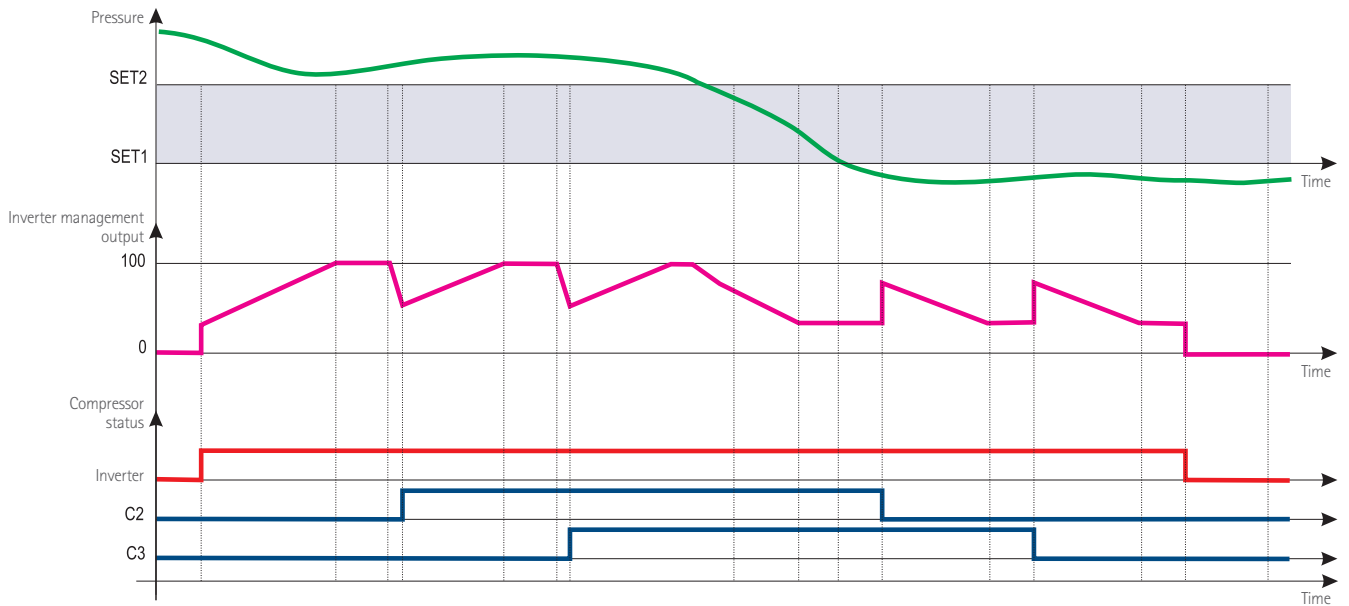
EC FANS – INVERTER

In this case all condensing fans are driven by one inverter or are EC fans.

The inverter power is proportional to the condensing pressure value and the analog output is modulated proportionally to the condensing pressure/temperature over the set (SET1÷SET2). Under SET1 the output will be switched off, over the SET2 the output is at 100%.

The relay set as inverter will be activated if the condensing pressure/temperature is higher than the SET1 and switched off when the condensing pressure is lower than the SET1. It can be used to allow the inverter regulation.
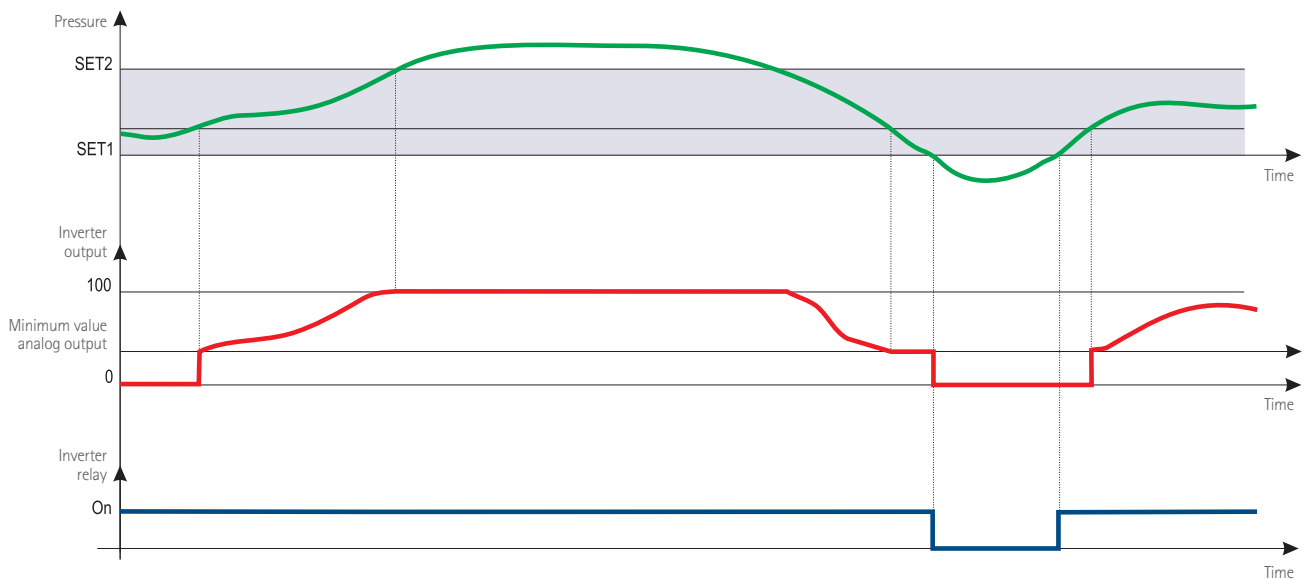
SUCTION DYNAMIC SET POINT

Suction temperature/pressure optimization can depending on retail space temperature.

The dynamic set point guarantees excellent plant efficiency, considering the real operational conditions. The plant modifies the suction temperature/pressure according to the retail space temperature so the refrigeration power changes depending on the real thermodynamic exchange.
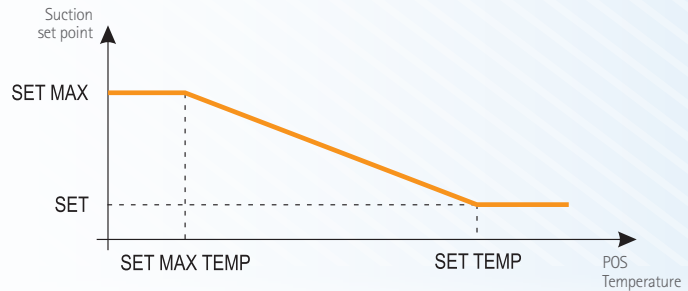
CONDENSER DYNAMIC SET POINT

Condenser temperature/pressure optimization can depend on the external temperature.

The condenser temperature/pressure is modified according to the external temperature. The condensing set point is automatically adjusted according to the external temperature, to get an optimum condensing temperature.
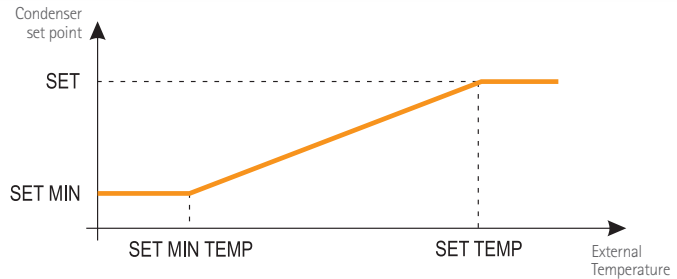
REDUCED SET POINT

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.
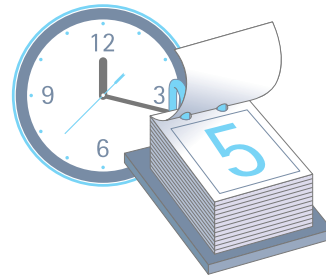
SUPERVISION SET

The connection to the modern supervising systems (of Dixell) allows, thanks to the **CRO** (**C**ompressor **R**ack **O**ptimization), 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

BAR

Set point

Time

KWATT

Consumption

Time

CRO ON
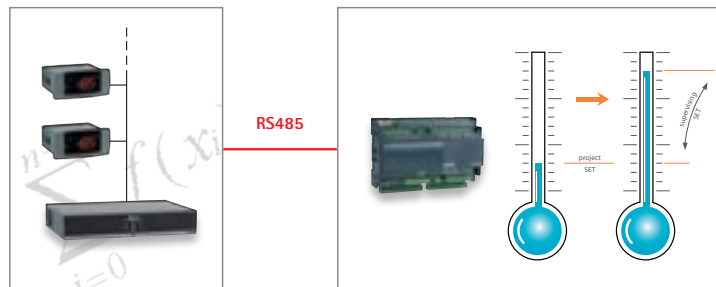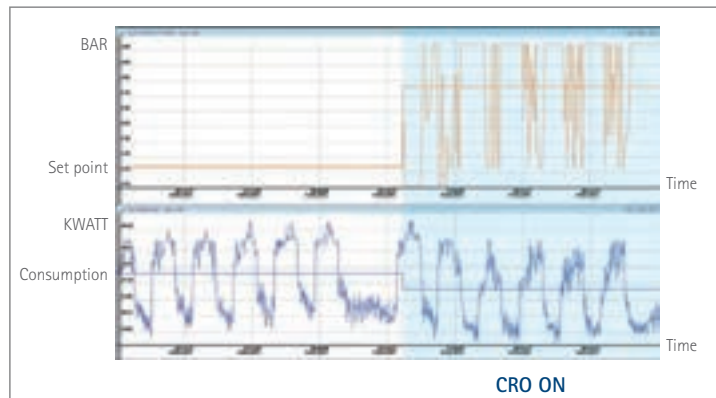
XC1000

Up to 11 COMPRESSOR and FAN COMPRESSOR RACK CONTROLLERS

| XC1008D | Digital controller for simultaneous management of up to 8 compressors and fans |
| XC1011D | Digital controller for simultaneous management of up to 11 compressors and fans |

D: 10 DIN Rail

FEATURES	XC1008D	XC1011D
Display	LCD on VGC810	LCD on VGC810
Power supply	24Vac/dc (from TF10D)	24Vac/dc (from TF20D)
Probe inputs		
Suction	NTC, PTC, 4÷20mA, 0÷5V	NTC, PTC, 4÷20mA, 0÷5V
Suction 2		NTC, PTC, 4÷20mA, 0÷5V
Condensing	NTC, PTC, 4÷20mA, 0÷5V	NTC, PTC, 4÷20mA, 0÷5V
Condensing 2		NTC, PTC, 4÷20mA, 0÷5V
Auxiliary	NTC, PTC	NTC, PTC
Auxiliary 2	NTC, PTC	NTC, PTC
Auxiliary 3		NTC, PTC
Auxiliary 4		NTC, PTC
Digital inputs		
Low pressure switch	1	1
Low pressure switch 2		1
High pressure switch	1	1
High pressure switch 2		1
Safety loads	8	11
Configurable	4	4
Relay outputs		
Loads	8 x 7A config	11 x 7A config
Alarms	2 x 8A	2 x 8A
Other outputs		
Inverter compressors	4÷20mA/0÷10V opt	2 x 4÷20mA/0÷10V opt
Inverter fans	4÷20mA/0÷10V opt	2 x 4÷20mA/0÷10V opt
Hot Key/Prog Tool Kit	pres	pres
Visokey		
Serial	RS485	RS485
Other		
Remote display	VGC810	VGC810
Alarms	last 100	last 100
Buzzer	on keyboard	on keyboard

XC1008D – XC1011D
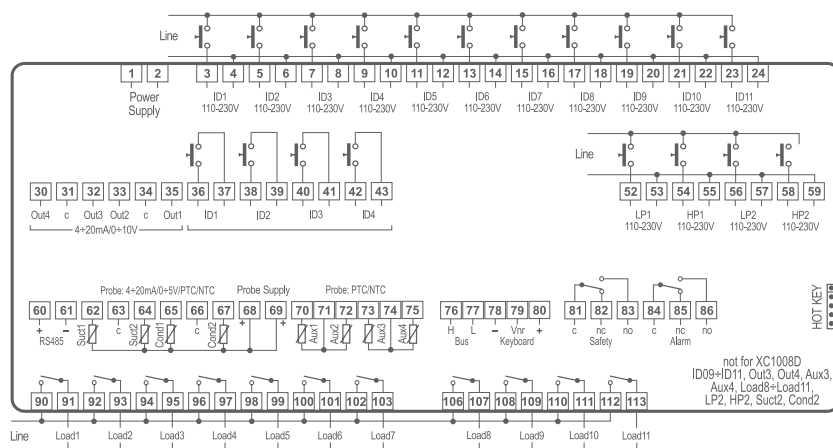
CONTROLLER and GRAPHIC DISPLAY for COMPRESSOR RACKS with up to 15 COMPRESSORS and FANS

XC1015D	Digital controller for simultaneous management of up to 15 compressors and fans
VGC810	Remote keyboard with LCD graphic display and interface dedicated to the management of compressor racks by means of XC1000D controllers (IP65 front protection)
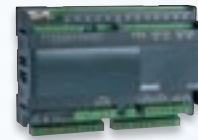
D: 10 DIN Rail   **VG**: 82x156mm

FEATURES	XC1015D	VGC810
Display	LCD on VGC810	LCD – 240x96pixels
Power supply	24Vac/dc (from TF20D)	from controller
Probe inputs		
Suction	NTC, PTC, 4÷20mA, 0÷5V	
Suction 2	NTC, PTC, 4÷20mA, 0÷5V	
Condensing	NTC, PTC, 4÷20mA, 0÷5V	
Condensing 2	NTC, PTC, 4÷20mA, 0÷5V	
Auxiliary	NTC, PTC	
Auxiliary 2	NTC, PTC	
Auxiliary 3	NTC, PTC	
Auxiliary 4	NTC, PTC	
Digital inputs		
Low pressure switch	1	
Low pressure switch 2	1	
High pressure switch	1	
High pressure switch 2	1	
Safety loads	15	
Configurable	4	
Relay outputs		
Loads	15 x 7A config	
Alarms	2 x 8A	
Other outputs		
Inverter compressors	2 x 4÷20mA/0÷10V opt	
Inverter fans	2 x 4÷20mA/0÷10V opt	
Hot Key/Prog Tool Kit	pres	
Visokey		pres
Serial	RS485	
Other		
Remote display	VGC810	
Alarms	last 100	
Buzzer	on keyboard	opt

XC1015D

max 30mt

D: 10 DIN Rail

D: 4 DIN Rail

VG: 82x156mm
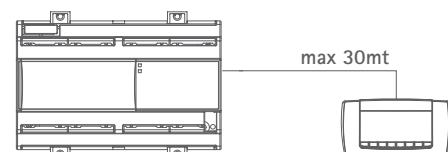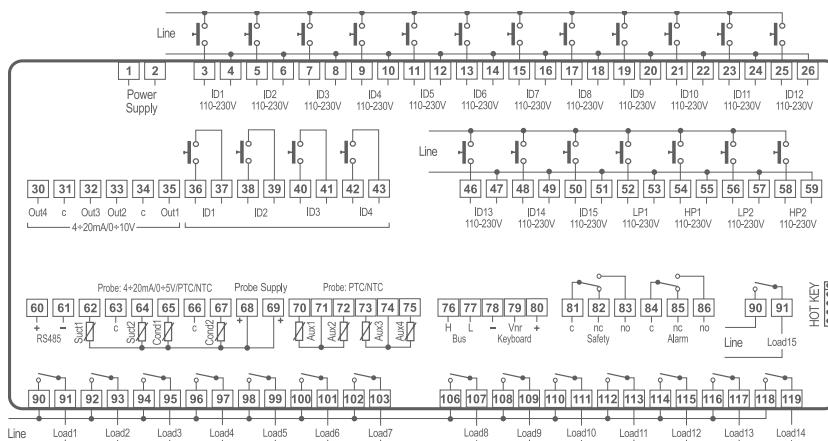
iProRACK SERIES: up to 2 CIRCUIT and 6 COMPRESSOR per CIRCUIT APPLICATIONS

- Electronic controllers for compressor racks studied to manage even the most complex installations
- Management of scroll, semi-hermetic, multi-stages, different capacity and screw compressors
- Management of 2 circuits with 2 inverters
- Transcritical CO_2 regulation
- Special algorithms for energy saving
- Suction and condensing dynamic set point optimization
- Sub-cooling management
- Copeland Stream CoreSense™ diagnostics control module integration
- Concise information about the variables of the compressor rack through the VISOGRAPH
- Powerful platform with LINUX operating system on CPU ARM9 (200MHz/32bit)
- Ethernet for the connection to an intranet-internet network
- USB output for configuration update
- RS485 slave serial outputs for the connection to XWEB supervising and controlling systems
- Type of refrigerants: R22, R134A, R404A, R507, R717, R407, R407C, R407F

HOW to ORDER

IPR208D	I	P	R	2	0	8	D	–	1	0	C	2	0
IPR215D	I	P	R	2	1	5	D	–	1	0	C	0	0

C

Ethernet, protocols

0 = No
1 = Yes

VGIPG	V	G	I	P	G	–	A	B	0	D	0

A   **B**   **D**

Buzzer	Kind of mounting	Coding
0 = No	**P** = Panel	**0** = Ascii
1 = Yes	**W** = Wall	**1** = Unicode

INTERNAL WEB SERVER

The iProRACK controllers have an integrated web site that can be easily reached through a standard browser. This instrument is very useful to configure the controller and to display and change the machine variables.
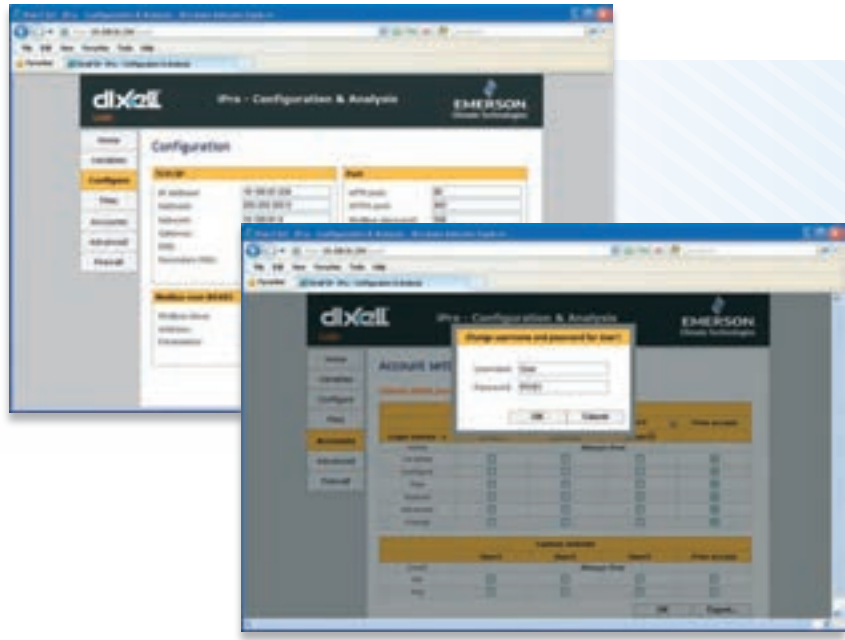
MAIN FEATURES

- CPU: 200MHz
- Processor: 32bit
- RAM memory: 32MB (4 DIN Rail), 64MB (10 DIN Rail)
- Data storage on Flash memory: 32MB (4 DIN Rail), 128MB (10 DIN Rail)
- Power absorption: 40VA max (4 DIN Rail), 20VA max (10 DIN Rail)

CONNECTIVITY

The powerful platform that marks the iProRACK controllers and allows the compressor rack to be easily and quickly reached both locally and remotely. In addition to the connection via Ethernet, there is also one via RS485 that allows the connection to XWEB systems, ensuring complete plant monitoring and controlling.

iProRACK

CONTROLLER and GRAPHIC DISPLAY for COMPRESSOR RACKS with up to 2 CIRCUITS and 6 COMPRESSORS per CIRCUIT
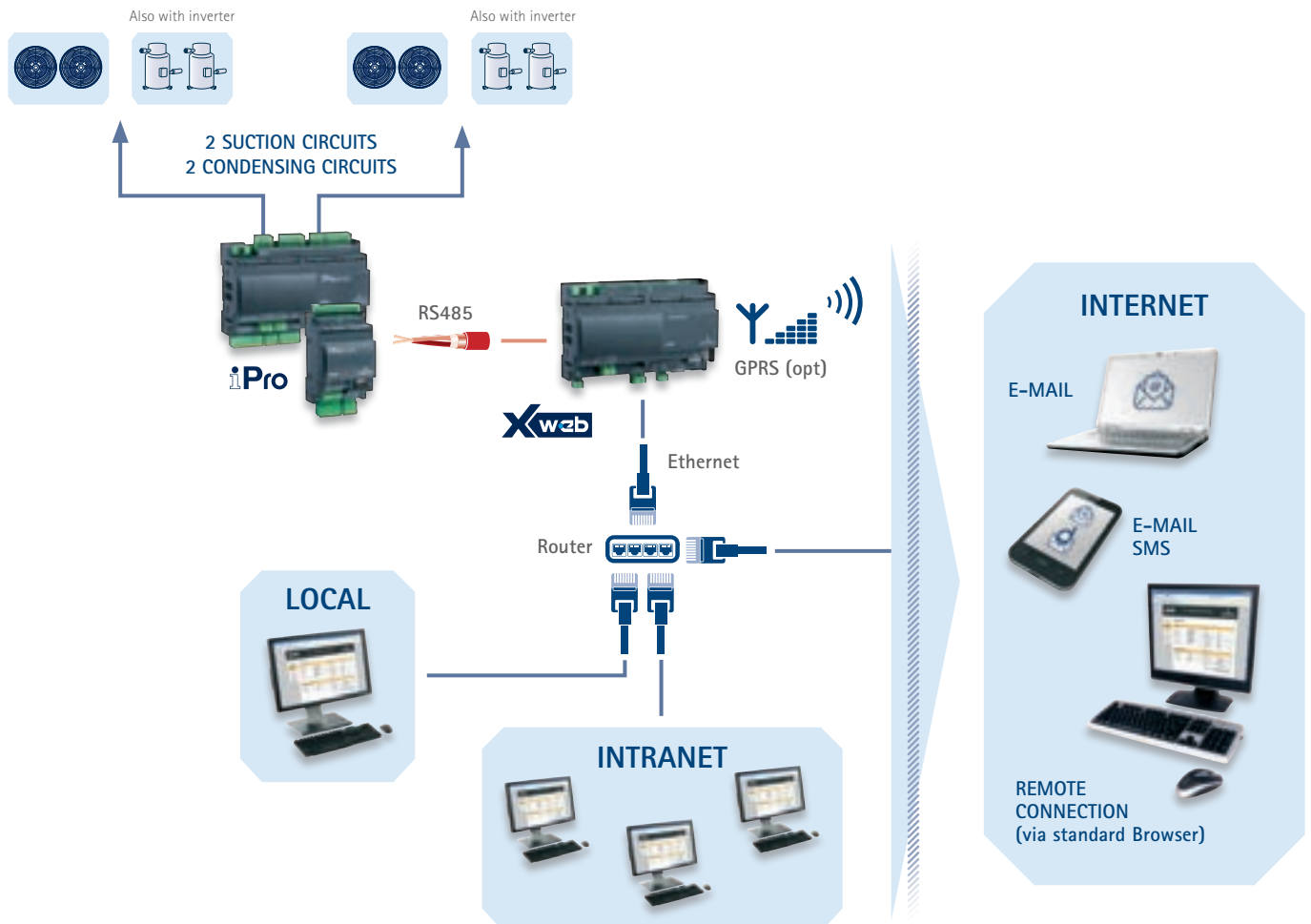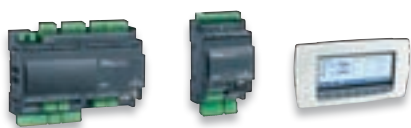
IPR208D	Digital controller in 4 DIN Rail format with bayonet + screw connectors for compressor rack management
IPR215D	Digital controller in 10 DIN Rail format with bayonet + screw connectors for compressor rack management
VGIPG	Remote keyboard with LCD graphic display and interface dedicated to the management of compressor racks by means of iProRACK controllers (IP65 front protection)

D: 10 DIN Rail   **D**: 4 DIN Rail   **VG**: 82x156mm

FEATURES	IPR208D	IPR215D	VGIPG
Display	LCD on VGIPG	LCD on VGIPG	LCD - 240x96pixels
Power supply	24Vac/dc from TF40D	24Vac/dc from TF20D	from controller
Probe inputs			
0÷1V, 0÷5V, 0÷10V, 0÷20mA, 4÷20mA, NTC, PTC, DI	6 x config	10 x config	
Digital inputs			
Opto-insulated	11 x config	20 x config	
Relay outputs			
Configurable	8 x 5A	15 x 5A	
Other outputs			
0÷10V/4÷20mA	4 x config	2 x config	
0÷10V		4	
RS485	master + slave	master + slave	
USB	pres	pres	
CANBus		pres	
Ethernet	via USB-ETH-CONV	opt	
Visokey			pres
Other			
Remote display	1 x VGIPG	2 x VGIPG	
Real time clock	pres	pres	
Flash memory	32MB	128MB	
Connections	bayonet + screw	bayonet + screw	
Connection kit	IP-FC208	IP-FC215CP	
BACnet protocol	opt	opt	
Buzzer			opt

IPR208D
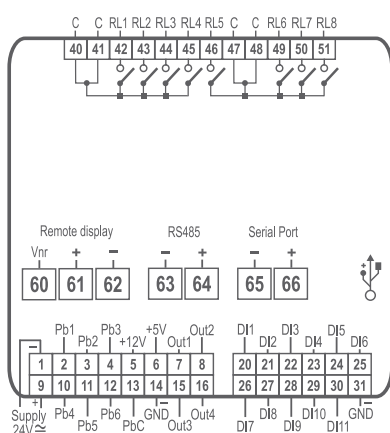
IPR215D
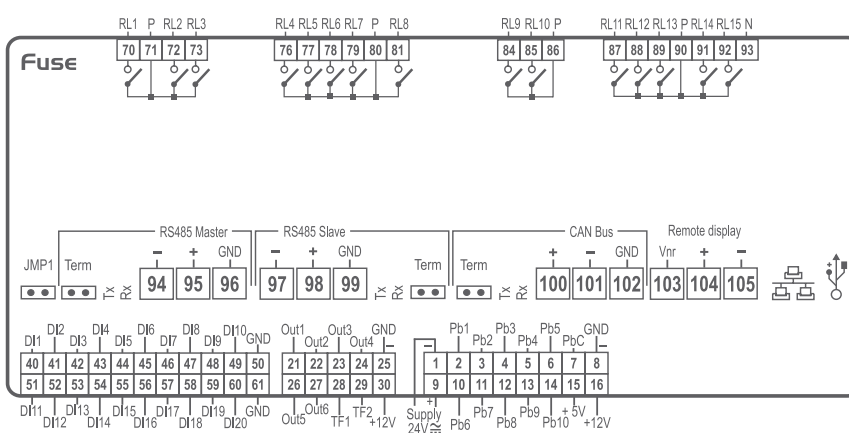
FAN SPEED CONTROLLERS

SECTION INDEX

K: 270x340mm

K: 230x265mm

K: 165x230mm

XV300 SERIES: THREE-PHASE FAN SPEED CONTROL

- Chopped phase regulators designed for 3-phase fans with adjustable voltage motors
- Designed for adjustable voltage motors from 8 to 40A
- Oversized heat sinks for better heat disposal
- Integrated heat protection
- Oversized power stages
- Optimized radiofrequency filters
- Available with ABS self-extinguishing cover (IP55) or in aluminum (IP20)
- Less time spent for wiring operations thanks to the screwless connectors with useful cable protectors
- On board 0÷10V output to be used for testing operation
- Compatible with Dixell controllers equipped with PWM, 4÷20mA, 0÷10V outputs like the iPro, XC600, XM600, ... series
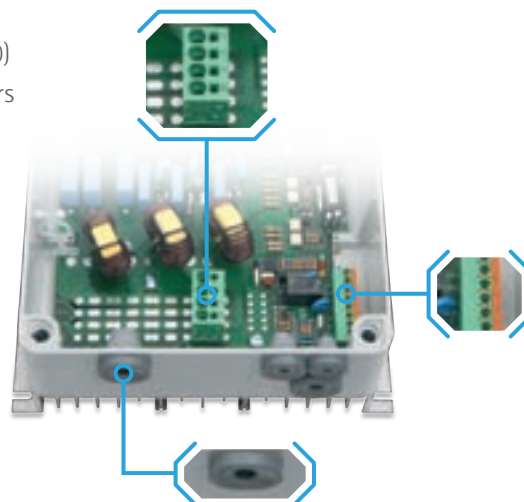
HOW to ORDER

XV308/312/328/340K	X	V	3			K	-	7	0	1	0	0
XV310K	X	V	3	1	0	K	-	7	0	0	0	0
XV320K	X	V	3	2	0	K	-	7	0	C	0	0

C

Protection grade

0 = IP20
1 = IP55

THREE–PHASE SPEED CONTROLLERS

XV308K	Speed controller designed for three-phase A.C. motors up to 5,5kVA, 8A, with input for PWM, 4÷20mA or 0÷10V, dimension 165x230mm, weight 2,5Kg, power dissipation 30W
XV310K	Speed controller designed for three-phase A.C. motors up to 6,5VA, 10A, with input for PWM, 4÷20mA or 0÷10V, dimension 165x230mm, weight 3Kg, power dissipation 40W
XV312K	Speed controller designed for three-phase A.C. motors up to 8kVA, 12A, with input for PWM, 4÷20mA or 0÷10V, dimension 230x265mm, weight 4Kg, power dissipation 60W
XV320K	Speed controller designed for three-phase A.C. motors up to 13kVA, 20A, with input for PWM, 4÷20mA or 0÷10V, dimension 230x265mm, weight 4,8Kg, power dissipation 80W
XV328K	Speed controller designed for three-phase A.C. motors up to 19kVA, 28A, with input for PWM, 4÷20mA or 0÷10V, dimension 270x340mm, weight 7Kg, power dissipation 120W
XV340K	Speed controller designed for three-phase A.C. motors up to 26kVA, 40A, with input PWM, 4÷20mA or 0÷10V, dimension 270x340mm, weight 9Kg, power dissipation 155W

K: 165x230mm   **K**: 230x265mm

K: 270x340mm

FEATURES	XV308K	XV310K	XV312K	XV320K	XV328K	XV340K
Power supply	400Vac	400Vac	400Vac	400Vac	400Vac	400Vac
Protection grade	IP55	IP20	IP55	IP55, IP20	IP55	IP55
Maximum load	8A	10A	12A	20A	28A	40A
Control input	PWM 4÷20mA 0÷10V	PWM 4÷20mA 0÷10V	PWM 4÷20mA 0÷10V	PWM 4÷20mA 0÷10V	PWM 4÷20mA 0÷10V	PWM 4÷20mA 0÷10V
Alarm relay			1A, 250Vac 3A, 30Vdc	1A, 250Vac 3A, 30Vdc	1A, 250Vac 3A, 30Vdc	1A, 250Vac 3A, 30Vdc
Auxiliary output	10Vdc	10Vdc	10Vdc	10Vdc	10Vdc	10Vdc
Supply LED	pres	pres	pres	pres	pres	pres
Alarm LED	pres	pres	pres	pres	pres	pres
Relay ON LED			pres	pres	pres	pres

XV308K – XV310K

+10V * ⏚
4 | 5 | 6 | 7 | 8

* PWM= 5(+); 6(−)
* 4÷20mA= 6(gnd); 7(In)
* 0÷10V= 5(In); 6(gnd)

PE | L1 | L2 | L3   T1 | T2 | T3 | G
Power Supply   Load

XV312K – XV320K – XV328K – XV340K

NC C Alarm +10V * ⏚
1 | 2 | 3 | 4 | 5 | 6 | 7 | 8

1A, 250Vac 3A, 30Vdc

* PWM= 5(+); 6(−)
* 4÷20mA= 6(gnd); 7(In)
* 0÷10V= 5(In); 6(gnd)

PE | L1 | L2 | L3   T1 | T2 | T3 | G
Power Supply   Load
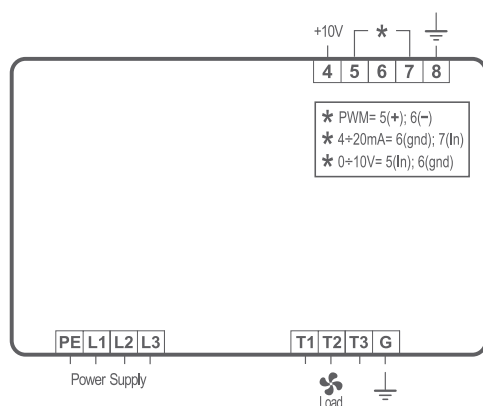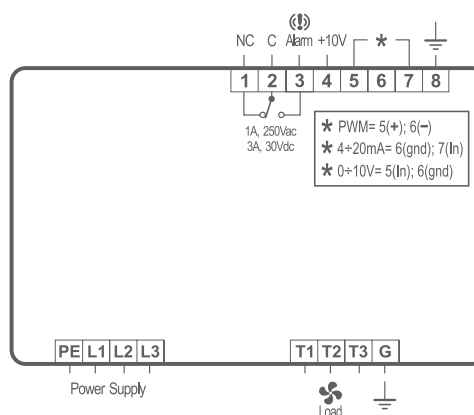
K: 175x200mm

K: 139x158mm
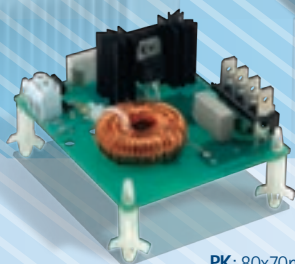
D: 4 DIN Rail

PK: 80x70mm

XV05/10/22/100 SERIES: SINGLE-PHASE FAN SPEED CONTROL

- Chopped phase speed controllers to control pressure and temperature in refrigerating systems including cooling fans
- Inputs for regulation by temperature and pressure
- 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
- Slave models managed by the input signal (for XV100)
- Compatible with Dixell controllers equipped with PWM, 4÷20mA, 0÷1V/0÷10V outputs like the iPro, XC600, XM600, ... series
- 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	**D** = Direct + Cut Off	**N** = NTC probe
5 = Enclosure IP55	**R** = Inverse + Cut Off	**A** = Current (4÷20mA)
	N = Slave (not for regulation input = N)	**V** = 0÷1V/0÷10V

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
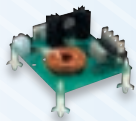
PD: 4 DIN Rail   **PK**: 80x70mm

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

XV05PD
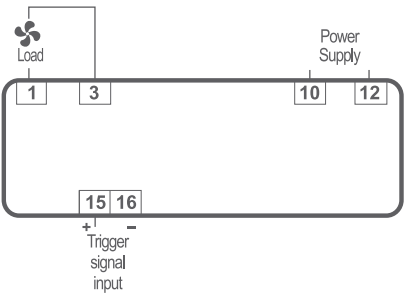
XV05PK – XV10PK – XV22PK
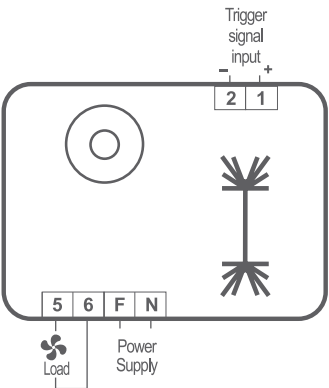
XV100

SINGLE-PHASE SPEED ADVANCED CONTROLLERS

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

K: 175x200mm

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

FEATURES	XV105D	XV110K	XV150K
Power supply	230Vac	230Vac	230Vac
Control input	NTC 4÷20mA 0÷1V/0÷10V	NTC 4÷20mA 0÷1V/0÷10V	NTC 4÷20mA 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

XV105D

* NTC= 24(In); 23(gnd)
* 4÷20mA= 23(In); 24(gnd); 22(+)
* PP07/PP30= 23(In); 24(gnd); 22(+)
* 0÷1V= 20(In); 21(gnd); 22(+)
* 0÷10V= 19(In); 21(gnd); 22(+)

XV110K – XV150K

* NTC= 11(In); 10(gnd)
* 4÷20mA= 10(In); 11(gnd); 9(+)
* PP07/PP30= 10(In); 11(gnd); 9(+)
* 0÷1V= 13(In); 14(gnd); 9(+)
* 0÷10V= 12(In); 14(gnd); 9(+)
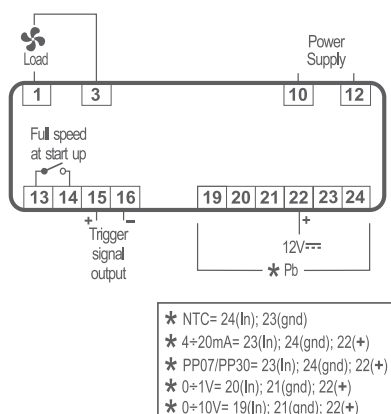
ACCESSORY

XV-ACK
Anti-condensing kit for XV110K and XV150K models

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

TEMPERATURE/HUMIDITY/PRESSURE CONTROLLERS

SECTION INDEX

C: 32x74mm

D: 4 DIN Rail

XT100 SERIES: NTC, PTC, Pt100, TcJ, TcK, TcS, 4÷20mA, 0÷1V, 0÷10V MULTI-PROBE INPUT

- 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 230 (110)Vac. No external transformer required
- Display with integrated measurement unit (°C/°F/%RH/Bar/PSI)
- Hot Key or Prog Tool Kit connector for quick and easy programming
- Serial connection to monitoring systems
- 3VA max power absorption
- Display with red LED (10,5 mm high) and 5 icons

HOW to ORDER

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**	**Analog output**	**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	4÷20mA	**A** = 4÷20mA, 0÷1V, 0÷10V
4 = 110Vac	**P** = PSI	**3*** = Yes	4÷20mA	**B** = PP07 (-0.5÷7bar)
5 = 230Vac	**H** = %RH	**4*** = No	0÷10V	**C** = PP30 (0÷30bar)
	N = No measurement unit	**5*** = Yes	0÷10V	**D** = PP11 (-0.5÷11bar)
		***** Only for D format		**H** = XH10/20P

1 STAGE CONTROLLERS

XT110C XT110D	ON/OFF configurable digital 1 stage controllers
XT111C XT111D	ON/OFF configurable digital 1 stage controllers with alarm relay

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

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

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

XT110C

* 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(-)

8A/250Vac
9 | 10 | 11 | 12
1 | 2 | 3   7 | 8
Load1 n.c.   110/230Vac power supply   HOT KEY
Line

* 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(-)

8A/250Vac
7 | 8 | 9 | 10
1 | 2 | 3   11 | 12
Load1 n.c.   HOT KEY TTL   12/24Vac/dc power supply
Line

XT111C

* 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(-)

8A/250Vac   8A/250Vac
9 | 10 | 11 | 12
1 | 2 | 3   4 | 5 | 6   7 | 8
Load1 n.c.   Alarm n.c.   110/230Vac power supply   HOT KEY
Line

* 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(-)

8A/250Vac   8A/250Vac
7 | 8 | 9 | 10
1 | 2 | 3   4 | 5 | 6   11 | 12
Load1 n.c.   Alarm n.c.   HOT KEY TTL   12/24Vac/dc power supply
Line

XT110D

* 4÷20mA, 0÷1V, 0÷10V= 11(In); 10(gnd); 12(+)
* Pt100= 11 - 10(12)   * NTC, PTC= 11(In); 12(gnd)
* TcK, TcJ, TcS= 11(+) - 10(-)

Power Supply   Analog Output   ID
1 | 2   4 | 5   8 | 9 | 10 | 11 | 12
HOT KEY/TTL
8A/250Vac
16 | 17 | 18
Load1
Line

XT111D

* 4÷20mA, 0÷1V, 0÷10V= 11(In); 10(gnd); 12(+)
* Pt100= 11 - 10(12)   * NTC, PTC= 11(In); 12(gnd)
* TcK, TcJ, TcS= 11(+) - 10(-)

Power Supply   Analog Output   ID
1 | 2   4 | 5   8 | 9 | 10 | 11 | 12
HOT KEY/TTL
8A/250Vac   8A/250Vac
16 | 17 | 18 | 19 | 20 | 21
Load1   Alarm
Line
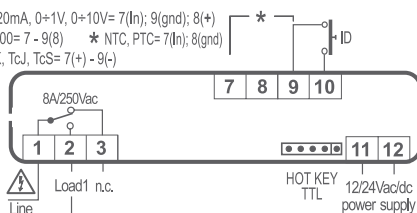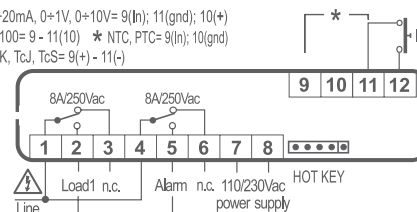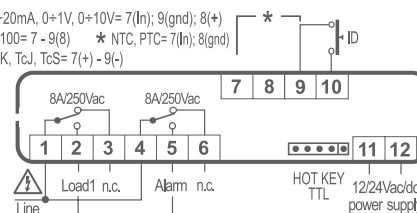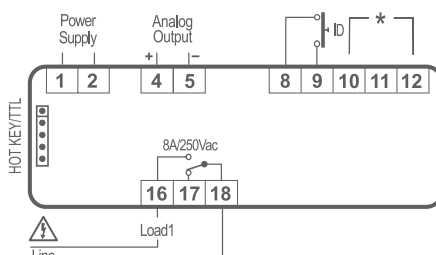
XT100

2 STAGE CONTROLLERS

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

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

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

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

XT120C

* 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(-)
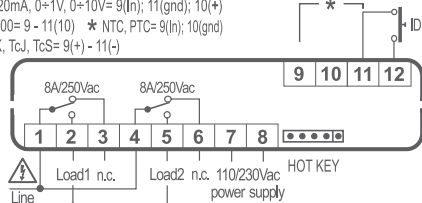
* 4÷20mA, 0÷1V, 0÷10V= 7(In); 9(gnd); 8(+)
* Pt100= 7 - 9(8)   * NTC, PTC= 7(In); 8(gnd)
* TcK, TcJ, TcS= 7(+) - 9(-)
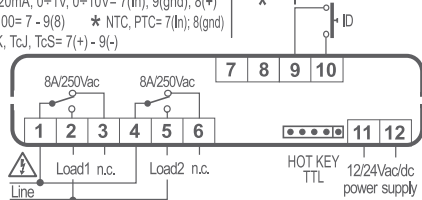
XT121C

* 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(-)
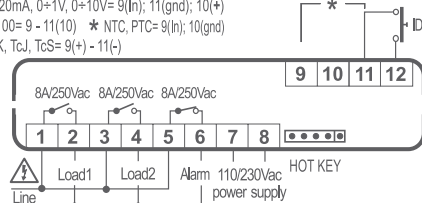
* 4÷20mA, 0÷1V, 0÷10V= 7(In); 9(gnd); 8(+)
* Pt100= 7 - 9(8)   * NTC, PTC= 7(In); 8(gnd)
* TcK, TcJ, TcS= 7(+) - 9(-)
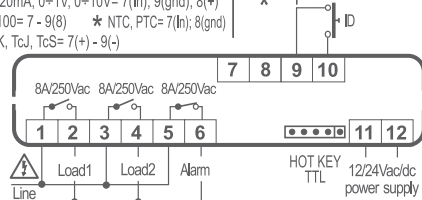
XT120D

* 4÷20mA, 0÷1V, 0÷10V= 11(In); 10(gnd); 12(+)
* Pt100= 11 - 10(12)   * NTC, PTC= 11(In); 12(gnd)
* TcK, TcJ, TcS= 11(+) - 10(-)
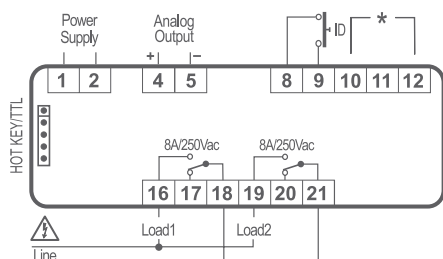
XT121D

* 4÷20mA, 0÷1V, 0÷10V= 11(In); 10(gnd); 12(+)
* Pt100= 11 - 10(12)   * NTC, PTC= 11(In); 12(gnd)
* TcK, TcJ, TcS= 11(+) - 10(-)

NEUTRAL ZONE CONTROLLERS
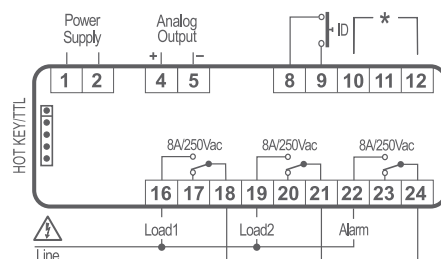
XT130C XT130D	ON/OFF configurable digital neutral zone controllers
XT131C XT131D	ON/OFF configurable digital neutral zone controllers with alarm relay

C: 32x74mm   D: 4 DIN Rail

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

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

XT130C

XT131C
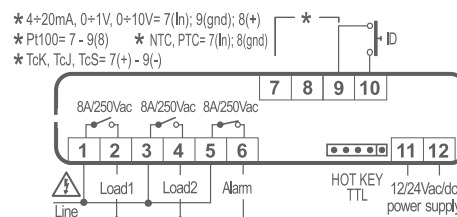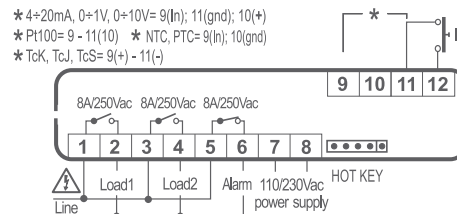
XT130D

XT131D

XT100
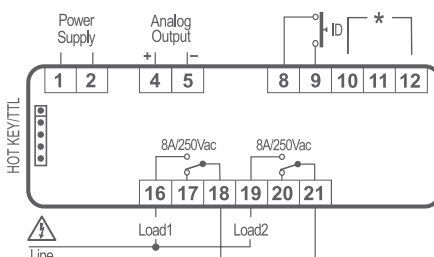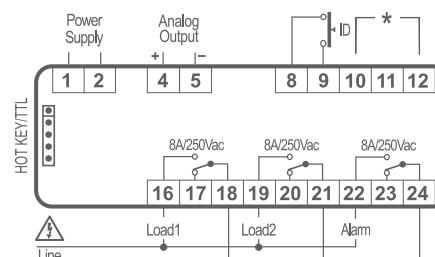
2 (1 PID), 3 and 4 STAGE CONTROLLERS

XT141C **XT141D**	Configurable digital 2 stage controllers (1 PID) with alarm relay
XT151D	ON/OFF configurable digital 3 stage controllers with alarm relay
XT160D	ON/OFF configurable digital 4 stage controllers

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

FEATURES	XT141C	XT141D	XT151D	XT160D
Display: n° digits	± 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
Probe inputs				
NTC, PTC, Pt100, TcJ, TcK, TcS, 4÷20mA, 0÷1V, 0÷10V	config	config	config	config
Relay outputs				
Stage 1	8A	no 8A/nc 5A	no 8A/nc 5A	no 8A/nc 5A
Stage 2	8A	no 8A/nc 5A	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	
Other				
Digital input	pres	pres	pres	pres
Hot Key/Prog Tool Kit output	pres*	pres	pres	pres
Serial output	TTL*	TTL	TTL	TTL
Analog output		4÷20mA, 0÷10V	4÷20mA, 0÷10V	4÷20mA, 0÷10V
Buzzer	opt	opt	opt	opt

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

XT141C

* 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(-)
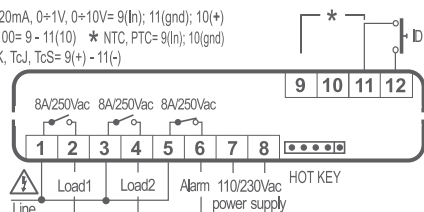
* 4÷20mA, 0÷1V, 0÷10V= 7(In); 9(gnd); 8(+)
* Pt100= 7 - 9(8)   * NTC, PTC= 7(In); 8(gnd)
* TcK, TcJ, TcS= 7(+) - 9(-)
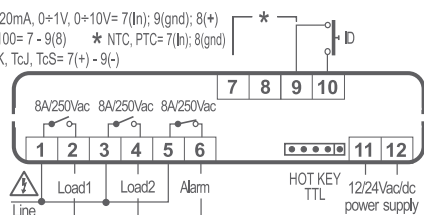
XT141D

* 4÷20mA, 0÷1V, 0÷10V= 11(In); 10(gnd); 12(+)
* Pt100= 11 - 10(12)   * NTC, PTC= 11(In); 12(gnd)
* TcK, TcJ, TcS= 11(+) - 10(-)
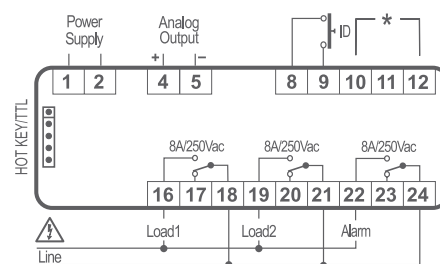
XT151D

* 4÷20mA, 0÷1V, 0÷10V= 11(In); 10(gnd); 12(+)
* Pt100= 11 - 10(12)   * NTC, PTC= 11(In); 12(gnd)
* TcK, TcJ, TcS= 11(+) - 10(-)
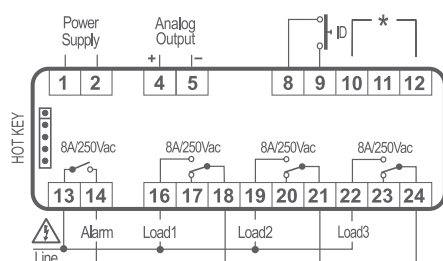
XT160D

* 4÷20mA, 0÷1V, 0÷10V= 11(In); 10(gnd); 12(+)
* Pt100= 11 - 10(12)   * NTC, PTC= 11(In); 12(gnd)
* TcK, TcJ, TcS= 11(+) - 10(-)
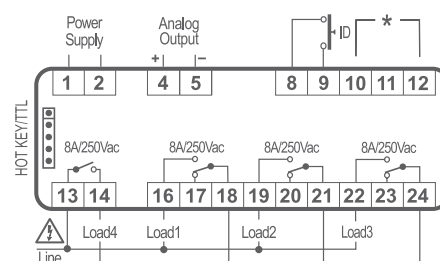
GENERAL PURPOSE PROGRAMMABLE CONTROLLERS

SECTION INDEX

XEV20: STEPPER ELECTRONIC EXPANSION VALVE MANAGEMENT

- Driver for iPro controllers for the stepper electronic expansion valve management
- Optimization of superheat regulation inside the unit
- Increased energy savings
- Single or dual circuit
- Support for motorized valves unipolar/bipolar
- Temperature analog inputs (NTC, PTC, Pt1000)
- Pressure analog inputs (0÷5V, 4÷20mA)
- 4-position DIP Switch to set the address
- LAN output for the connection to iPro series controllers in 4 DIN format
- CANBus output for the connection to iPro series controllers in 10 DIN format
- Type of refrigerant gas: R22, R134A, R404A, R407, R410, R507
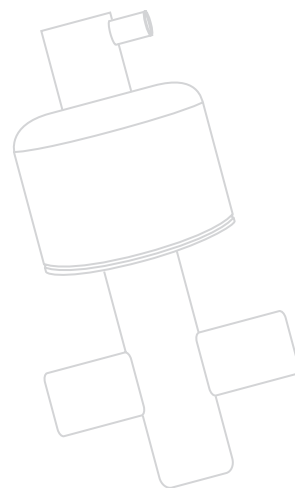
HOW to ORDER

XEV	X	E	V	2	0	D	–	1	1	C	0	0

C

N° of valves

0 = 1 valve
1 = 2 valves

DRIVER for EEV MANAGEMENT COMPATIBLE with iPro CONTROLLERS

XEV20

XEV20D | Driver for 1 or 2 unipolar and bipolar stepper electronic expansion valves to use with iPro programmable controllers

D: 4 DIN Rail

FEATURES	XEV20D
Power supply	24Vac/dc (from TF20D for 1 valve or from TF40D for 2 valves)
Probe inputs	
N°4 (Pb1, Pb2, Pb3, Pb4)	0÷5V/4÷20mA/NTC/PTC/Pt1000 config
Other	
LAN output	pres
CANBus output	pres
DIP switch for address selection	pres
Connection kit	DWXEV30

XEV20D – 1 circuit

XEV20D – 2 circuits

D, F: 10 DIN Rail

D, E: 4 DIN Rail

VG: 82x156mm
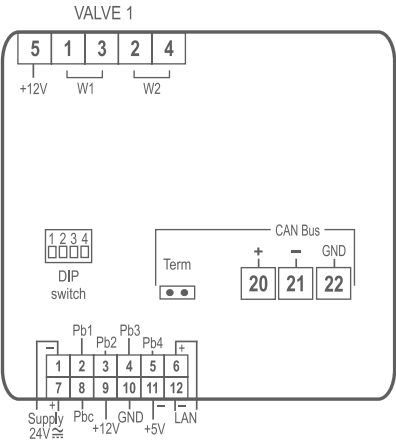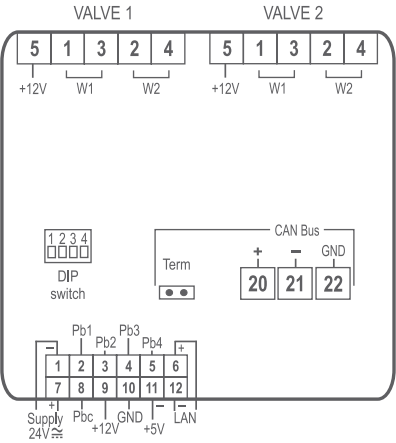
iProGENIUS SERIES: GENERAL APPLICATIONS HIGH CONNECTIVITY

iProGENIUS is the Dixell family of programmable controllers that offers optimal solutions for all HVAC/R needs. They are suited for all applications in the PLC world including shopping centers, hospitals, airports, boatyards, energy management plants, and more. These controllers provide a high level of technology for ease of external connectivity and programmability providing simple answers for the user's needs, while offering local or remote monitoring control (accomplished with the powerful **iProLINK** connectivity module). An intuitive and useful HMI is also offered through the **VISOGRAPH** graphic display and the touch screen **TGIPG** display, while the expandability provided by the **IPX** modules allows use of these controllers with the most complex machinery.

- Powerful platform based on LINUX operative system on ARM9 (200MHz/32bit) microprocessor
- Internal Web Server with standard and customized Web Site
- Ethernet for connection to an intranet-internet network and to other controllers for a distributed application management
- USB output that allows the download of parameters, data/alarm log and the applications and parameters upload
- RS485 serial outputs for the connection 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 complete interoperability
- Connection to the expansion modules to increase system capacity
- Connection to the driver for the management and control of electronic expansion valves
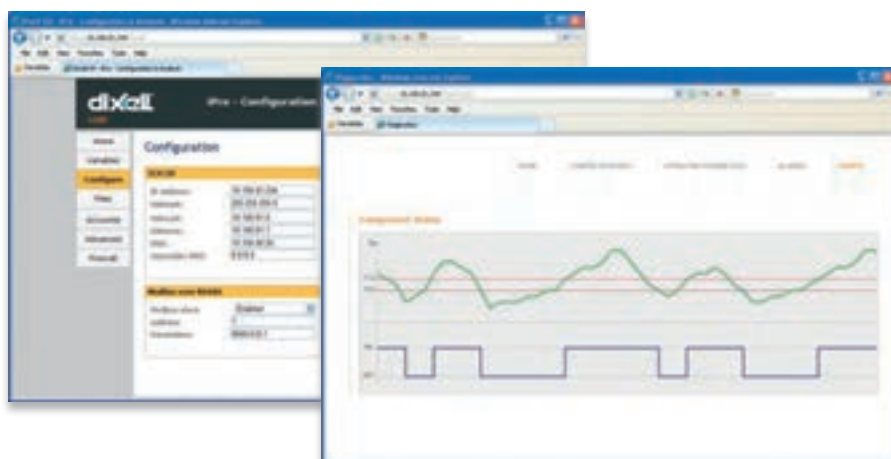
MAIN FEATURES

- CPU: 200MHz
- Processor 32bit
- RAM memory: 32MB (4 DIN Rail)
  64MB (10 DIN Rail)
- Data storing on Flash memory: 32MB (4 DIN Rail)
  128MB (10 DIN Rail, IPL500D)
- Power absorption: 40VA max (IPG on 4 DIN Rail)
  20VA max (IPG and IPX on 10 DIN Rail, IPL500D)
  10VA max (IPX on 4 DIN Rail)

HOW to ORDER

IPRO–TOOL | I | P | R | O | – | T | O | O | L | – | 0 | 0 | 0 | 0 | E |

E

Visoprog

0 = No
1 = 2 licences

IPG108D/E – IPG208D/E | I | P | G | | 0 | 8 | | – | 1 | 0 | C | D | 0 |

IPG115D – IPG215D/F | I | P | G | | 1 | 5 | | – | A | B | C | 0 | 0 |

A	B	C	D
Power supply	**Modem**	**Ethernet, protocols**	**Serial port**
1 = 24Vac/dc	**0** = No	**0** = No	**1** = LAN
UL versions	**1** = Internal modem (not for UL)	**1** = Yes (for IPG115D, IPG215D and IPG215F)	**2** = RS485 master
2 = 24Vac	**2** = External modem	**2** = BACnet	
3 = 24Vdc (for IPG215)	**3** = External + internal modem (not for UL)		

IPX106D | I | P | X | 1 | 0 | 6 | D | – | 1 | 0 | 0 | 0 | 0 |

IPX206D – IPX306D | I | P | X | | 0 | 6 | D | – | 1 | 0 | 0 | 0 | E |

IPX115D – IPX215D | I | P | X | | 1 | 5 | D | – | 1 | 0 | 0 | 0 | 0 |

IPX125D – IPX225D | I | P | X | | 2 | 5 | D | – | 1 | 0 | 0 | 0 | 2 |

E

N° of SSR relay

0 = 0
2 = 1

IPL500D | I | P | L | 5 | 0 | 0 | D | – | 1 | B | C | D | 0 |

B	C	D
Modem	**Ethernet, protocols**	**Serial port**
0 = No	**1** = Yes	**1** = LAN
1 = Internal modem GPRS	**2** = BACnet	**2** = RS485 master

VGIPG | V | G | I | P | G | – | A | B | 0 | D | 0 |

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

CONNECTIVITY

The high degree of connectivity that marks iProGENIUS controllers, ensures a complete local and remote unit/plant management.

iPro

Switch

Ethernet   Ethernet

USB/Ethernet
converter

Local PC

GPRS (opt)

Ethernet

iPro.LINK

RS485

iPro

GPRS (opt)

Ethernet

Xweb

E-MAIL

SMS

REMOTE CONNECTION
(via standard Browser)

XWEB SUPERVISING
SYSTEMS

ACTUATORS
SERVO-MOTORS

INTERNET/INTRANET

LOCAL/REMOTE PC

EXPANSIONS

0÷10V/4÷20mA

ModBUS Slave

Ethernet

Ethernet

EXTERNAL MODEM
gsm/xweb modem

EEV DRIVER

CANBus/LAN

RS232

ROOM PROBE
temperature, humidity,
dew-point

CANBus/LAN

ModBUS Master

FAN MODULES

PWM/0÷10V/4÷20mA

ModBUS Master

CONTROLLERS

RS485/Ethernet

ModBUS Master

TGIPG

TIME-THERMOSTAT

RS485

Ethernet

INTERNAL MODEM

VISOGRAPH

USB

IPRO
CONTROLLERS

IPRO
CONTROLLERS

1 ISaGRAF® + WIZMATE

2 ISaGRAF® + WIZMATE + VISOPROG

iPro-TOOL is a complete and easy to use tool that allows the user to work independently to create programs for iPro controllers, taking advantage of all the programmable series potential. The package includes manuals and the **ISaGRAF®**, **WIZMATE** and **VISOPROG** (optional) software.

The user can choose among 2 options listed above.

Note: Wizmate can be used with iProRACK applications.

ISaGRAF®

ISaGRAF® is the standard, international and complete development environment selected by Dixell to create programs that will be uploaded into the iPro series. Also ideal for small applications, it can manage several I/O points, allows users to create control systems, and is supported all over the world. ISaGRAF® offers a combination of a highly portable, robust management engines (Virtual Machine) and an intuitive application development environment (Workbench). ISaGRAF® integrates the best system for simulation and remote debugging, supports the Flow Chart (FC: Flow Chart) and 5 different programming languages coded according to IEC61131 (SFC: Sequential Function Chart; ST: Structured Text; FBD: Function Block Diagram; IL: Instruction List; LD: Ladder Diagram).
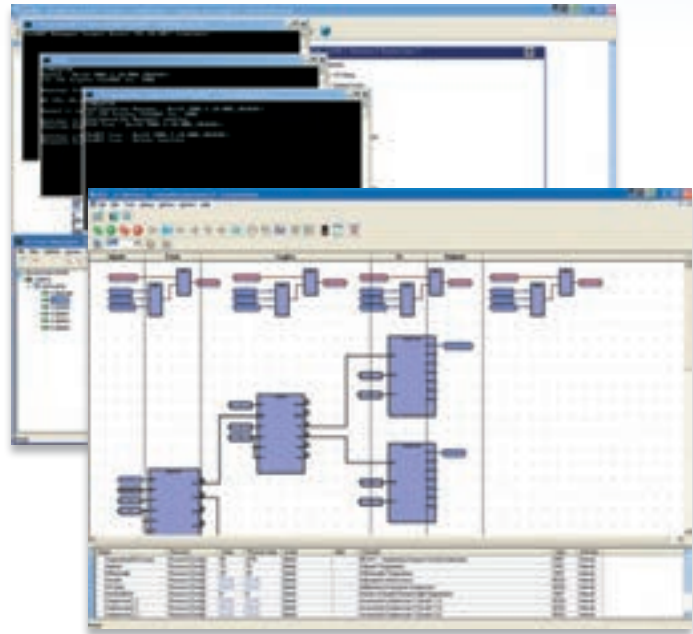
WIZMATE

WIZMATE is versatile software that has a fast and easy programming mode for iPro controllers (ideal for versions with the application included like the iProRACK).
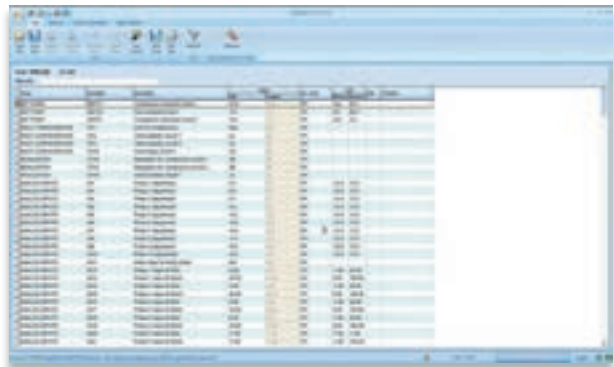
VISOPROG

The VISOPROG is a tool that allows users to create the VISOGRAPH keyboard graphic interfaces. The program, installed on a PC, is connected to ISaGRAF® project and has a basic interface that users can easily customize depending on the requirements.
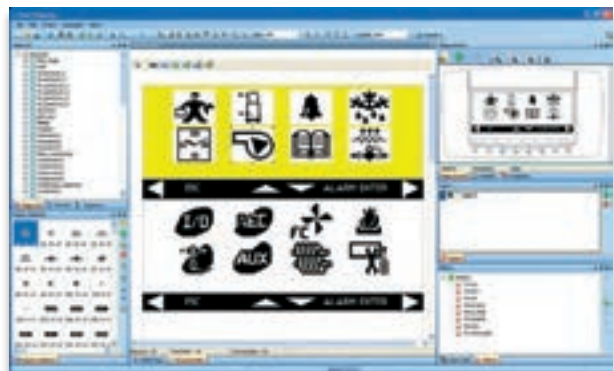
D, E: 4 DIN Rail   **D**: 10 DIN Rail

IPG108D	Programmable controller in 4 DIN Rail format with disconnectable + screw connectors
IPG108E	Programmable controller in 4 DIN Rail format with LED display and disconnectable + screw connectors
IPG115D	Programmable controller in 10 DIN Rail format with disconnectable connectors

FEATURES	IPG108D	IPG108E	IPG115D
Display		dual with icons	
Front led			
Power supply	24Vac/dc from TF40D	24Vac/dc from TF40D	24Vac/dc from TF20D
Probe inputs			
0÷1V, 0÷5V, 0÷10V, 0÷20mA, 4÷20mA, NTC, PTC, DI	6 x config	6 x config	10 x config
Digital inputs			
Optoinsulated	11 x config	11 x config	20 x config
Relay outputs			
Configurable	8 x 5A	8 x 5A	12 x 5A + 3 x 8A
Other outputs			
PWM			2 x config
0÷10V/4÷20mA	4 x config	4 x config	
0÷10V			4
RS485	slave	slave	master + slave
USB	pres	pres	pres
External modem			GSM, analogue
LAN/RS485 master	pres	pres	
CANBus			pres
Ethernet	via USB-ETH-CONV	via USB-ETH-CONV	opt
Other			
Remote keyboard	1 x VGIPG	1 x GIPG	2 x VGIPG
Internal modem			analogue opt
Real time clock	pres	pres	pres
Flash memory	32MB	32MB	128MB
Connections	disconnectable + screw	disconnectable + screw	disconnectable
Connection kit	DWS30-KIT, IP-FC108	DWS30-KIT, IP-FC108	DWB30-KIT
Expansion modules	IPX115D, IPX125D, IPX306D	IPX115D, IPX125D, IPX306D	IPX106D, IPX115D, IPX125D
BACnet protocol	opt	opt	opt

IPG108D – IPG108E
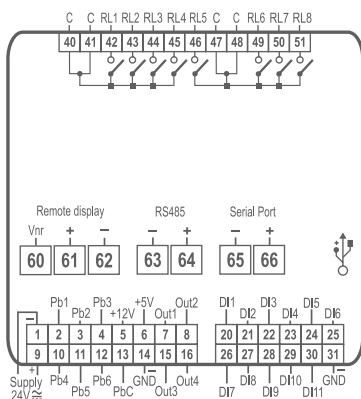
IPG115D
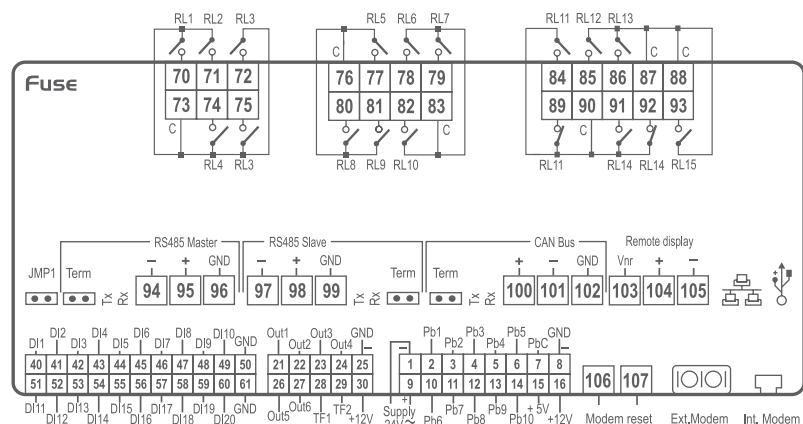
PROGRAMMABLE CONTROLLERS with BAYONET CONNECTORS

IPG208D	Programmable controller in 4 DIN Rail format with bayonet + screw connectors, ideal for the civil field
IPG208E	Programmable controller in 4 DIN Rail format with LED display and bayonet + screw connectors, ideal for the civil field
IPG215D	Programmable controller in 10 DIN Rail format with bayonet + screw connectors, ideal for the civil field
IPG215F	Programmable controller in 10 DIN Rail format with front LED and bayonet + screw connectors, ideal for the civil field
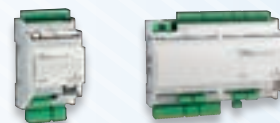
D, **E**: 4 DIN Rail   **D**, **F**: 10 DIN Rail

FEATURES	IPG208D	IPG208E	IPG215D	IPG215F
Display		dual with icons		
Front led				n° 5
Power supply	24Vac/dc from TF40D	24Vac/dc from TF40D	24Vac/dc from TF20D	24Vac/dc from TF20D
Probe inputs				
0÷1V, 0÷5V, 0÷10V, 0÷20mA, 4÷20mA, NTC, PTC, DI	6 x config	6 x config	10 x config	10 x config
Digital inputs				
Optoinsulated	11 x config	11 x config	20 x config	20 x config
Relay outputs				
Configurable	8 x 5A	8 x 5A	15 x 5A	15 x 5A
Other outputs				
PWM				
0÷10V/4÷20mA	4 x config	4 x config	2 x config	2 x config
0÷10V			4	4
RS485	slave	slave	master + slave	master + slave
USB	pres	pres	pres	pres
External modem			GSM, analogue	GSM, analogue
LAN/RS485 master	pres	pres		
CANBus			pres	pres
Ethernet	via USB-ETH-CONV	via USB-ETH-CONV	opt	opt
Other				
Remote keyboard	1 x VGIPG	1 x VGIPG	2 x VGIPG	2 x VGIPG
Internal modem			analogue opt	analogue opt
Real time clock	pres	pres	pres	pres
Flash memory	32MB	32MB	128MB	128MB
Connections	bayonet + screw	bayonet + screw	bayonet + screw	bayonet + screw
Connection kit	IP-FC208	IP-FC208	IP-FC215CP	IP-FC215CP
Expansion modules	IPX206D, IPX215D, IPX225D	IPX206D, IPX215D, IPX225D	IPX206D, IPX215D, IPX225D	IPX206D, IPX215D, IPX225D
BACnet protocol	opt	opt	opt	opt

IPG208D – IPG208E

IPG215D – IPG215F

EXPANSION MODULES with DISCONNECTABLE and BAYONET CONNECTORS
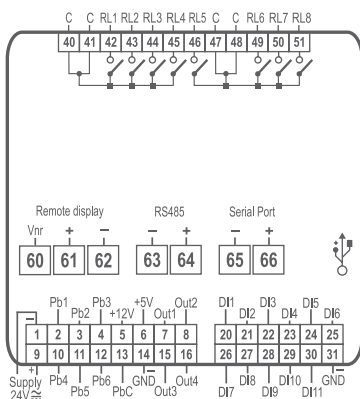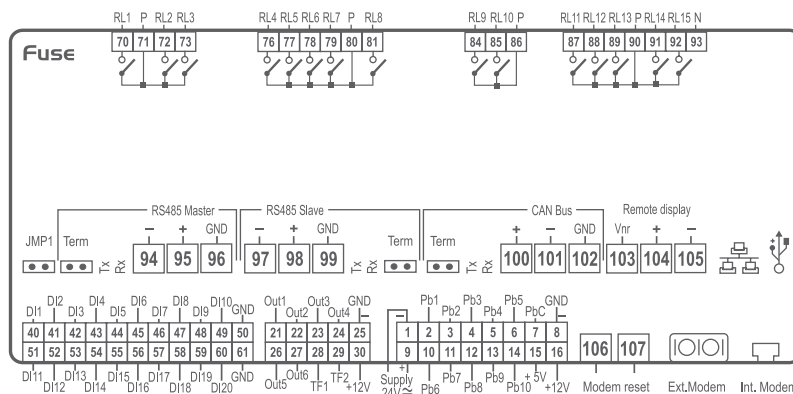
D: 4 DIN Rail   **D**: 4 DIN Rail   **D**: 4 DIN Rail

D: 10 DIN Rail   **D**: 10 DIN Rail

IPX106D	Expansion module in 4 DIN Rail format with disconnectable connectors and 6 relay outputs
IPX115D	Expansion module in 10 DIN Rail format with disconnectable connectors and 15 relay outputs
IPX125D	Expansion module in 10 DIN Rail format with disconnectable connectors and 25 relay outputs
IPX206D	Expansion module in 4 DIN Rail format with bayonet + screw connectors and 6 relay outputs
IPX215D	Expansion module in 10 DIN Rail format with bayonet + screw connectors and 15 relay outputs
IPX225D	Expansion module in 10 DIN Rail format with bayonet + screw connectors and 25 relay outputs
IPX306D	Expansion module in 4 DIN Rail format with disconnectable + screw connectors and 6 relay outputs

FEATURES	IPX106D	IPX115D	IPX125D	IPX206D	IPX215D	IPX225D	IPX306D
Power supply	24Vac/dc from TF10D	24Vac/dc from TF20D	24Vac/dc from TF20D	24Vac/dc from TF10D	24Vac/dc from TF20D	24Vac/dc from TF20D	24Vac/dc from TF10D
Probe inputs							
0÷1V, 0÷5V, 0÷10V, 0÷20mA, 4÷20mA, NTC, PTC, DI	7 x config	10 x config	10 x config	7 x config	10 x config	10 x config	7 x config
Digital inputs							
Optoinsulated	3 x config	20 x config	20 x config	3 x config	20 x config	20 x config	3 x config
Relay outputs							
Configurable	6 x 5A	12 x 5A + 3 x 8A	18 x 5A + 3 x 8A + 4 x SSR	5 x 5A + 1 x 8A or 4 x 5A + 1 x 8A + 1 x SSR	15 x 5A	21 x 5A + 4 x SSR	5 x 5A + 1 x 8A or 4 x 5A + 1 x 8A + 1 x SSR
Other outputs							
0÷10V/4÷20mA		2 x config	2 x config		2 x config	2 x config	
0÷10V	3	4	4	3	4	4	3
LAN							
CANBus	pres	pres	pres	pres	pres	pres	pres
Other							
Dip switch for address set	pres	pres	pres	pres	pres	pres	pres
Connections	disconnectable	disconnectable	disconnectable	bayonet + screw	bayonet + screw	bayonet + screw	disconnectable + screw
Connection kit	DWEX60-30KIT	DWX115-30KIT	DWEX70-30KIT	IP-FCEX60	IP-FCX215	IP-FCEX70	DWEX306-30KIT

IPX106D – IPX206D – IPX306D
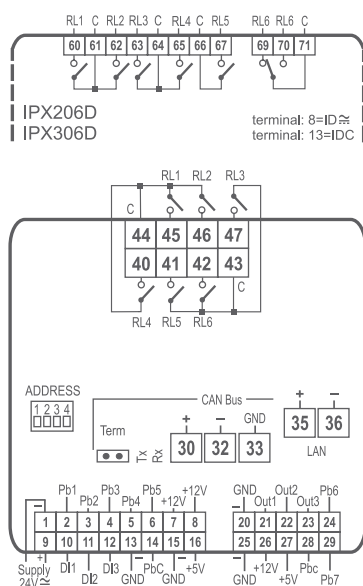
IPX115D – IPX125D – IPX215D – IPX225D

CONNECTIVITY MODULE
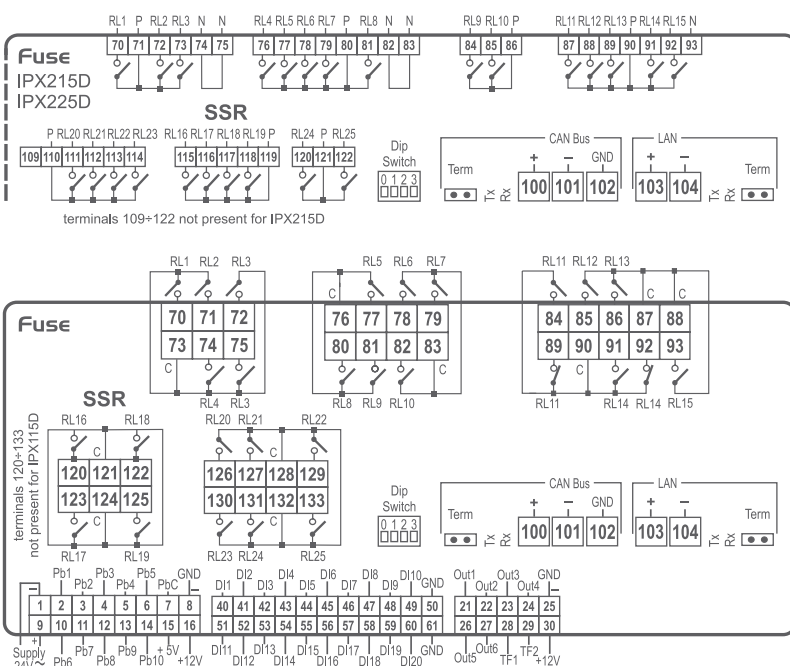
IPL500D | Programmable connectivity module designed to collect, store, process, and manage data. It is compatible with the iPro controllers and allows downloading of applications for data processing or management of other integrated devices

D: 4 DIN Rail

FEATURES	IPL500D
Power supply	24Vac/dc from TF20D
Outputs	
RS485	slave
USB	pres
LAN/RS485 master	pres
CANBus	pres
Ethernet	pres
Other	
Remote keyboard	VGIPG
Internal modem	GPRS opt
Real time clock	pres
Flash memory	128MB
Connections	screw
Connection kit	IP-FC500
BACnet protocol	opt

Modem Ant.

Supply 24V≅ Vnr | Remote display | RS485 | Serial port | CAN
Rx — RS485
TX — RS485
Rx — Serial port
Tx — Serial port
Tx — CAN
Rx — CAN

1 2 | 3 4 5 | 6 7 | 8 9 | 10 11

XWEB SUPERVISING SYSTEMS

INTERNET/INTRANET

EXPANSIONS

LOCAL/REMOTE PC

EEV DRIVER

ROOM PROBE
temperature, humidity, dew-point

ModBUS Slave

Ethernet

Ethernet

CANBus/LAN

ModBUS Master

CANBus/LAN

ModBUS

RS485/Ethernet

ModBUS Master

TGIPG

Internal **Web server**
GPRS connectivity
SMS and **e-mail** sending

CONTROLLERS

ModBUS Master

BACnet

VISOGRAPH

TIME-THERMOSTAT

CANBus

Ethernet

INTERNAL GPRS MODEM

USB

IPRO CONTROLLERS

IPRO CONTROLLERS

VISOGRAPH

LCD GRAPHIC DISPLAY

VG: 82x156mm

VGIPG | Graphic display fully programmable (via VISOPROG or through USB from the iPro) for iProGENIUS controllers with LCD graphic display with 240x96pixels

FEATURES	VGIPG
Power supply	from controller
Visokey output	pres
Buzzer	opt

- Great versatility and extensive customization opportunities
- Complete integration with ISaGRAF® projects
- UNICODE character compatible
- Quick panel or wall mounting
- Up to 2 keyboards connectable with iPro controllers
- Maximum distance from the controller: 150m

PANEL

WALL
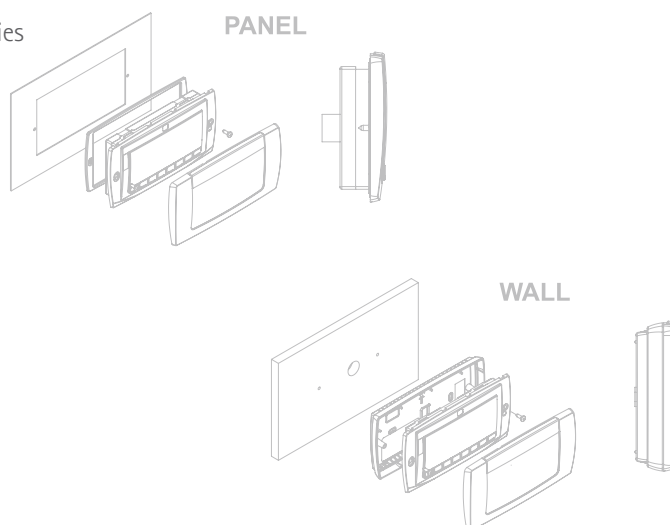
VISOPROG

VISOPROG allows the creation of graphic interfaces for VISOGRAPH keyboards, VGIPG model. The program installed on a PC is connected to the ISaGRAF® project with a basic interface that can be easily customized based on the user's needs. VISOPROG allows a direct transfer of the user interface from PC to a keyboard. The image on the right shows an operative VISOPROG screen with the relative VISOGRAPH final interface

ACCESSORY

VISOKEY
Programming kit for Visograph keyboards

GENERAL PURPOSE TOUCH SCREEN DISPLAYS

SECTION INDEX

TGIPG: 228x280mm 10,4"

TGIPG: 143x204mm 7"

TGIPG: 104x145mm 4,3"

TGIPG SERIES: HIGH PROGRAMMABILITY

To make easier, more intuitive and complete communication with their controllers, Dixell introduces the innovative family (**TGIPG**) of TFT touch screen displays, characterized by its aesthetic value and fast Ethernet/Internet connectivity.

The versatile and compact line, exceptional hardware performances, advanced functionalities, and a large number of symbols and templates makes the TGIPG family the perfect solution for HVAC/R needs. The easy programming mode and the use of a graphic editor make the creation of a user interface quick and easy.

- Powerful platform based on ARM9 (400MHz) microprocessor, RAM memory 64MB (DDR2), data storing on FLASH memory 128MB SSD and on external card SD
- Connection with Dixell controllers via RS485 or Ethernet
- Remote connection (via Internet)
- USB for mouse, printer and application update
- TFT-LCD display – 16.7 million colors (true color), LED backlight
- Solid and elegant silver housing
- IP65 front protection
- Advanced graphic (vector) features
- Ability to create a fast, custom synoptic overview of the unit
- Complete alarm management
- Built in data logger
- Runtime graphics
- Multilanguage management with automatic translation via Internet
- Simulation mode to check applications on PC
- 1A max power absorption

HOW to ORDER

TGIPG | T | G | I | P | G | – | A | 0 | 0 | 0 | 0 |

| A |

Version
0 = 4,3"
2 = 7"
3 = 10,4"

CONNECTIVITY

Touch screen displays of the TGIPG line with multiple ports, are characterized by high connectivity both local and remote to satisfy every application need.

Power supply   Ethernet output   SD card

Serial output COM1/COM2   Serial output COM3/COM4   USB

LOCAL

RS485/ETHERNET

RS485

TGIPG

REMOTE

INTERNET
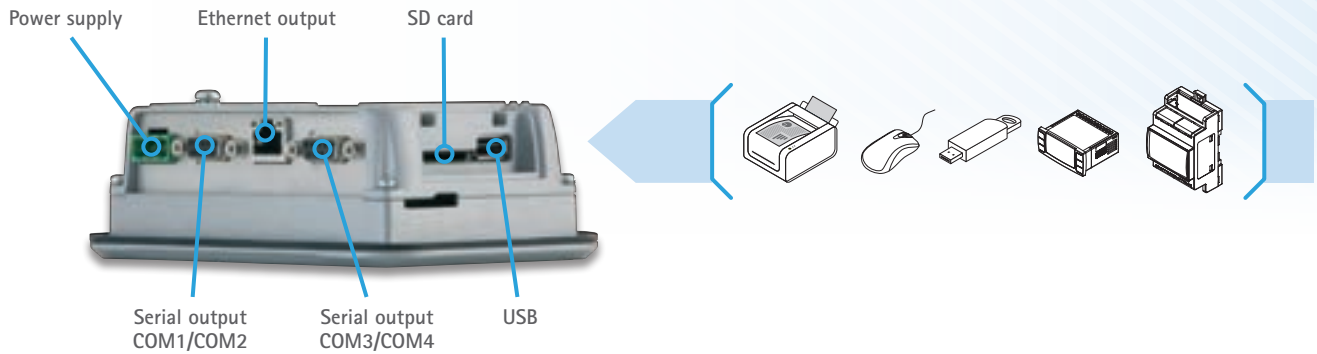
SOFTWARE

The TGIPG family is characterized by quick and easy graphic editor that allows for faster creation of applications. The integrated guideline functions, with its large number of symbols and templates, combined with the ability to manage high resolution images allows complex interfaces to be easily created while at the same time being complete, intuitive, and appealing. Effective language management through a dedicated menu and automatic translation via the Internet are among the many strengths of the touch screen line. Below is an example of a "final screen" and an example of a "variables configuration window".

TGIPG PROGRAMMABLE TOUCH SCREEN DISPLAYS
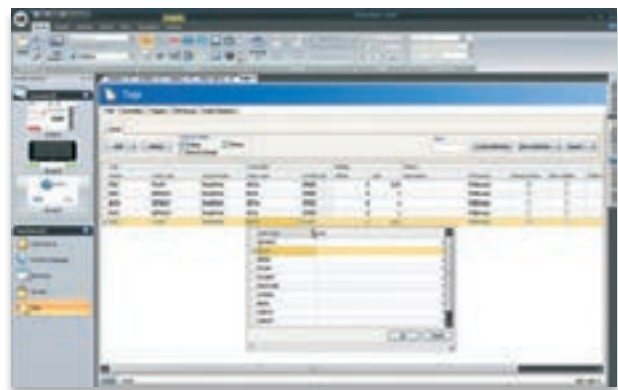
TGIPG: 228x280mm   **TGIPG**: 143x204mm   **TGIPG**: 104x145mm

TGIPG | Programmable TFT touch screen displays

FEATURES	TGIPG v. 4,3"	TGIPG v. 7"	TGIPG v. 10,4"
Power supply	24Vdc	24Vdc	24Vdc
Format	16:9	16:9	4:3
Display	480x272pixels	800x480pixels	640x480pixels
Ethernet output	pres	pres	pres
Serial output	2 x RS485/232/422	2 x RS485/232/422	2 x RS485/232/422
USB output	pres	pres	pres
Buzzer (beeps when pressed)	pres	pres	pres
Real time clock	pres	pres	pres

ACCESSORIES

TF–TGIPG
Power supply 24Vdc/1A for TGIPG

CAB/485–TGIPG
Cable for RS485 connection
with connector for TGIPG

CAB/WEB/PC
Ethernet patch cross over cable, 1m

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 refrigeration applications, cooking and air conditioning 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's 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.

APPLICATIONS

PETROL STATIONS STORAGE CENTRES
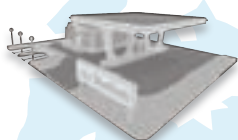
SUPERMARKETS HYPERMARKETS

PRODUCTION PLANTS INDUSTRIES
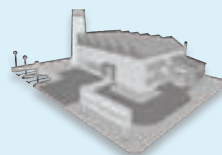
ENERGY SAVING

AIR CONDITIONING   LIGHTING

SuperMarket

REFRIGERATION

ModBUS

iCOOLL XJ200
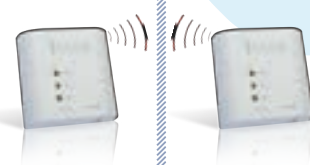
Some of Dixell's instruments that allow this are:

- 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

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.

SYSTEMS

Xweb

XWEB5000

XWEB3000

XWEB500 – XWEB500D

XWEB300D

CALL CENTER

XCENTER

D: 10 DIN Rail

XWEB300D: ALARM MANAGEMENT and CONTROLLING

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 XWEB300 the ideal solution for the remote 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
- XWEB is a 10DIN Rail module for easy DIN Rail mounting (DIN) directly inside the machine board or wall mounting with brackets
- Quick and easy connection to Web pages with dedicated interface for PDA/Smartphone
- Possibility to see and modify the parameters of the connected devices remotely
- Complete and simplified analysis of the unit functioning thanks to a powerful tool that allows viewing data in graphical format (Excel®)
- One year of stored data inside the XWEB memory (one year of stored data with 15min sampling time for 6 or 18 controllers)
- XWEB is always accessible even with isolated installations using the built-in GPRS connectivity (optional)
- Access to customized functions
- Data export on USB pendrive
- Alarm sending via FAX, SMS or e-mail
- 15VA max power absorption

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	
				2 = GSM/GPRS	

XWEB300D checks the unit and, in case of malfunction alarm, it notifies the assistance center 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 record 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.

FEATURES	XWEB300D
Power supply	24, 110÷230Vac
LAN output	pres
USB output	pres
RS485 output	pres
Relay output	1 config
Sampling time	from 1 to 60 minutes
External modem	analogue or GSM
Internal modem	analogue or GSM/GPRS opt

HARDWARE

More information about functions and connections at pages 132÷136

D: 10 DIN Rail

210x230mm
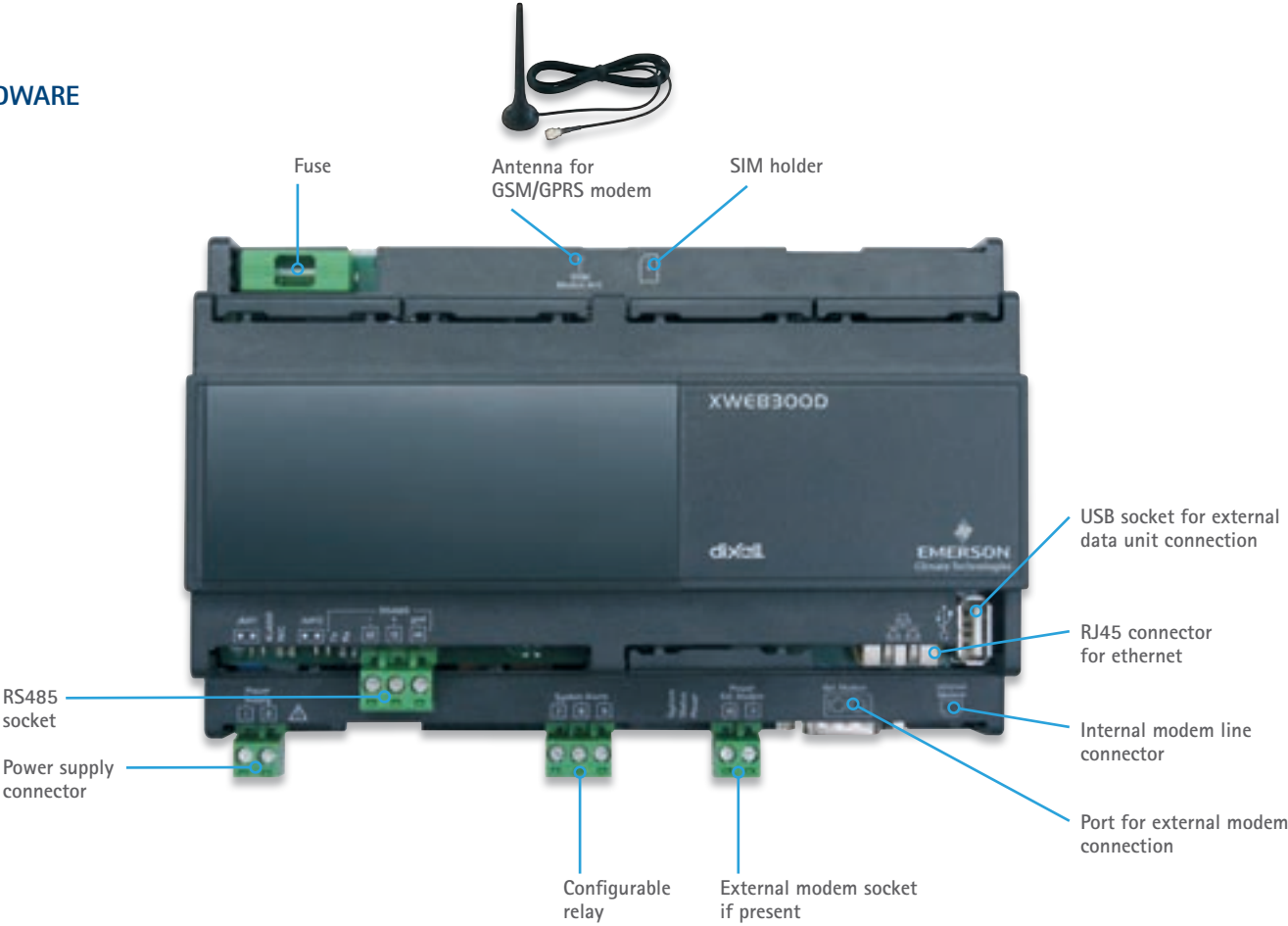
XWEB500–XWEB500D: MONITORING and CONTROLLING

It is extremely well suited for medium installations up to 36 or 100 devices, such as petrol stations, supermarkets or storage centers. Its innovative and useful features make the instrument suitable for medium-large applications such as production and storage goods centers. Thanks to its two 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 a PC is made without the need of special software, only a standard web browser (Microsoft Internet Explorer® or Firefox ®) software is needed; the information is displayed as Web pages.

- Data capture and alarm monitoring WEB server connectable to Dixell's controllers with serial output or to others ModBUS-RTU compatible devices
- Ability to operate in stand alone mode thanks to the local display and keyboard (XWEB500)
- Easy DIN Rail mounting (DIN) directly inside the machine board or wall mounting with brackets (XWEB500D)
- Quick and easy connection to Web pages with dedicated interface for PDA/Smartphone
- Possibility to see and modify the parameters of the connected devices remotely
- Complete and simplified analysis of the unit functioning thanks to a powerful tool that allows to view data in graphical format (Excel®)
- One year of stored data inside the XWEB memory (one year of stored data with 15min sampling time for 36 or 100 controllers)
- XWEB500D is always accessible even with isolated installations using the built-in GPRS connectivity (optional)
- Layout for netsurfing of web site in graphic format
- Data export on USB pendrive
- Performance Meter for cooling demand control
- Alarm sending via FAX, SMS or e-mail
- 15VA max power absorption for XWEB500D and 20VA max for XWEB500

HOW to ORDER

| XWEB500 | X W E B 5 0 0 – A B 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/CRO**	**Internal modem**
2 = 24Vac (for XWEB500D)	**H** = 36/no	**0** = No
4 = 110Vac (for XWEB500)	**N** = 50/CRO (1 engine)	**1** = Analogue
5 = 230Vac (for XWEB500)	**T** = 100/no	**2** = GSM/GPRS (for XWEB500D)
8 = 110÷230Vac (for XWEB500D)		

FEATURES	XWEB500	XWEB500D
Power supply	110, 230Vac	24, 110÷230Vac
LAN output	pres	pres
USB output	2	1
RS485 output	pres	pres
Relay output	3	3
Digital input	pres	pres
Sampling time	from 1 to 60 minutes	from 1 to 60 minutes
External modem	analogue or GSM	analogue or GSM
Internal modem	analogue opt	analogue or GSM/GPRS opt

HARDWARE

Alarm 1 output relay
Alarm 2 output relay
System alarm relay
USB socket for external data unit connection
RJ45 ethernet connector

Power supply connector

Modem reset relay
Digital input
RS485 socket
USB socket for PC connection
External modem socket
Internal modem line connector

Fuse
Digital input
Antenna for GSM/GPRS modem
SIM holder

XWEB500D
dixel
EMERSON

USB socket for external data unit connection
RJ45 connector for ethernet
Internal modem line connector
Port for external modem connection

RS485 socket
Power supply connector
Alarm 1 output relay
Alarm 2 output relay
System alarm relay
External modem socket if present

More information about functions and connections at pages 132÷136

370x238mm

XWEB3000: INDUSTRIAL MONITORING and CONTROLLING

It is extremely well suited for larger installations with up to 247 devices such as supermarkets, hypermarkets or large storage and distribution centers 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, keyboard and mouse. Local or remote connection from a PC is made without the need of special software; only a standard web browser (Microsoft Internet Explorer® and Firefox ®) software is needed.

- Data capture and alarm monitoring WEB server connectable to Dixell's controllers with serial output or to others ModBUS-RTU compatible devices
- 19" RACK or desk mounting
- Quick and easy connection to Web pages with dedicated interface for PDA/Smartphone
- All controller values can be shown 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
- Complete and simplified analysis of the unit functioning thanks to a powerful tool that allows to view data in graphical format (Excel®)
- One year of stored data inside the XWEB memory (one year of stored data with 15min sampling time)
- 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
- Ability to select particular data on which to perform the monitoring with reduced sampling time
- Alarm sending via FAX, SMS or e-mail
- Commands sending activation through digital input
- Standard communication protocol ModBUS-RTU
- 50VA max power absorption

HOW to ORDER

XWEB3000	X	W	E	B	3	0	0	0	–	6	0	0	0	E

E

Internal modem
0 = No
1 = Yes

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.

The alarm signalling for service is very flexible and can be done through FAX, e-mail, SMS and also via relay outputs.

FEATURES	XWEB3000
Power supply	110÷230Vac
LAN output	pres
USB output	2
RS485 output	pres
Relay output	3
Digital input	pres
Printer output	25 pin
Keyboard/mouse output	pres
Video output	pres
Sampling time	from 1 to 255 minutes
External modem	analogue
Internal modem	analogue opt

HARDWARE

Power supply connector
Alarm 1 output relay
Alarm 2 output relay
RS485 socket
Printer connection
USB socket for external data unit connection

System alarm relay
Digital input
Internal modem line connector
RJ45 ethernet connector
External modem socket
Keyboard/mouse socket
Monitor connection
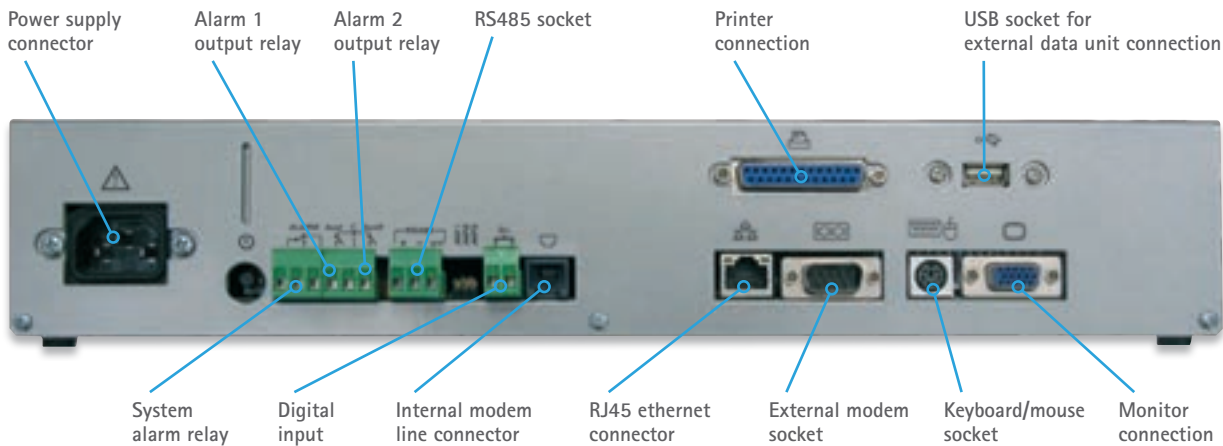
XWEB5000: MONITORING, CONTROLLING and SUPERVISING

It is 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 is 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 center (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 connection to Dixell's controllers with serial output and to other ModBUS-RTU compatible devices
- 19" RACK or desk mounting
- Built-in editor with local and field simulator
- Quick and easy connection to Web pages with dedicated interface for PDA/Smartphone
- All controller values can be displayed using a special "Single View" window or a "Run Time" window with many controllers viewed at the same time. The ability to use a "Layout" view of the plant with pictures and schematic drawings is also an option
- Complete and simplified analysis of the unit functioning thanks to a powerful tool that allows to view data in graphical format (Excel®)
- One year of stored data inside the XWEB memory (one year of stored data with 15min sampling time)
- 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
- Ability to select particular data on which to perform the monitoring with reduced sampling time
- Alarm sending via FAX, SMS or e-mail
- Commands sending activation through digital input
- Standard communication protocol ModBUS-RTU
- 50VA max power absorption
- DPC (Dew Point Control) for anti-sweat heater management

HOW to ORDER

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

E

Internal modem

0 = No
1 = Yes

SUPERVISING

With XWEB5000 it is possible to intercept 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 more importantly, without the need to learn a complex programming language. 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 projects can be run simultaneously.
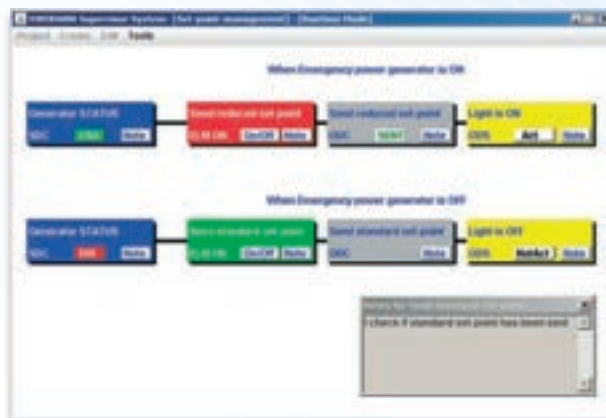
AUTOMATION

The high versatility and programmability allow the XWEB5000 to perform automation programs. In fact it's possible, for example, to manage the use of plant lights, internal or external signs, the battery charge/discharge as fork lifts, increasing the energy saving process. In case of compressor fault or when the absorption threshold exceeds the set, etc., the monitoring unit can automatically interact with the rest of system.

FEATURES	XWEB5000
Power supply	110÷230Vac
LAN output	pres
USB output	2
RS485 output	pres
Relay output	3
Digital input	pres
Print output	25 pin
Keyboard/mouse output	pres
Video output	pres
Sampling time	from 1 to 255 minutes
External modem	analogue
Internal modem	analogue opt

HARDWARE

Power supply connector · Alarm 1 output relay · Alarm 2 output relay · RS485 socket · Printer connection · USB socket for external data unit connection

System alarm relay · Digital input · Internal modem line connector · RJ45 ethernet connector · External modem socket · Keyboard/mouse socket · Monitor connection

More information about functions and connections at pages 132÷136
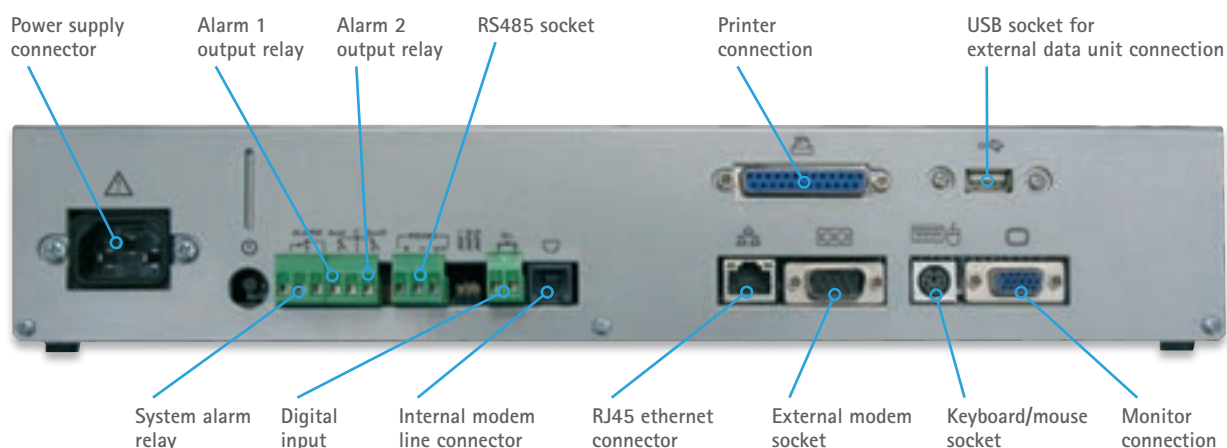
XWEB FUNCTIONS

An overview of some most important XWEB family functions.

RS485 LINE-CHECK

A powerful new tool is able to check performance and statistical data for each controller by carrying 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 analyze a network problem; with statistics that allow you to easily identify which instrument has a connection problem.
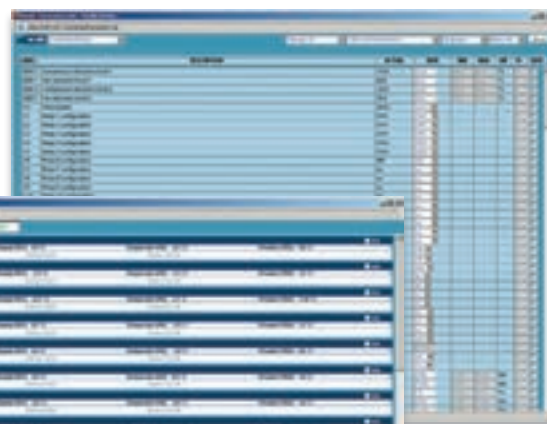
PARAMETER PROGRAMMING and RUN TIME

Thanks to the XWEB the user has an intuitive, powerful and versatile device all in one that allows modification of 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 is 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 is possible to modify the various functioning parameters of the instruments.
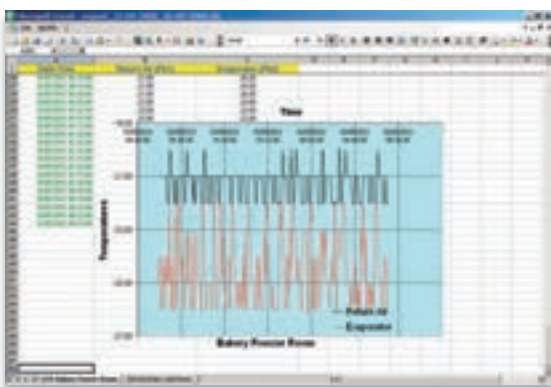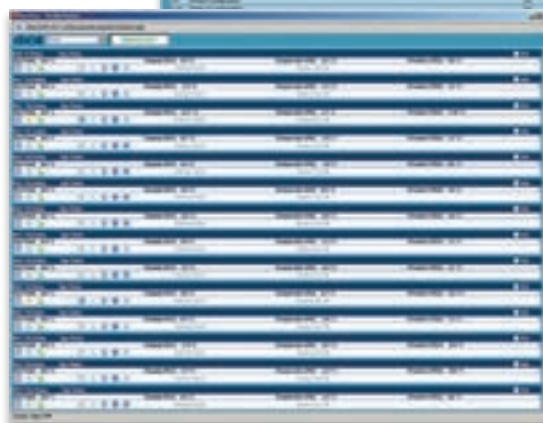
DATA EXPORT

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 & GLOBAL COMMANDS
(for XWEB500D, XWEB500, XWEB3000, XWEB5000)

A powerful graphic editor that doesn't require the installation of any additional software on your PC 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.
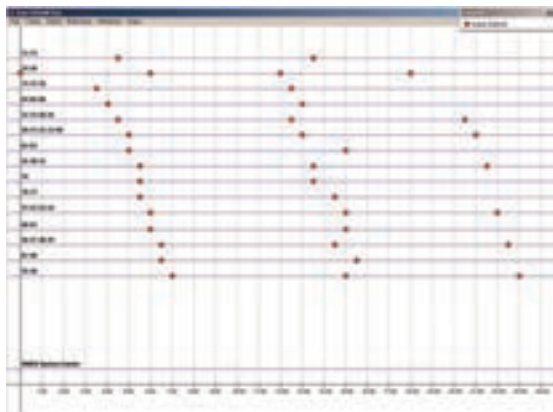
SCHEDULER
(for XWEB500D, XWEB500, XWEB3000, XWEB5000)

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 users to verify the right temperature for single devices (wall cabinets, benches, rooms, and more). The graphical layout offers a complete view of the plant operating mode.
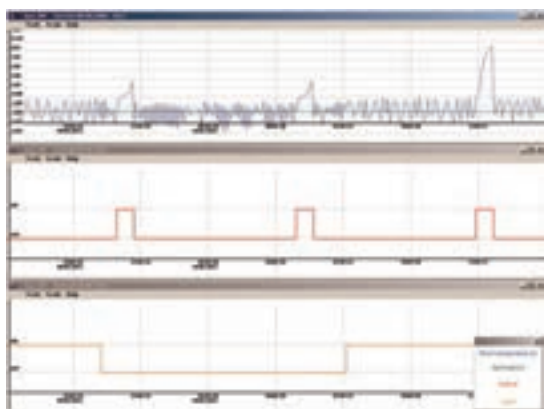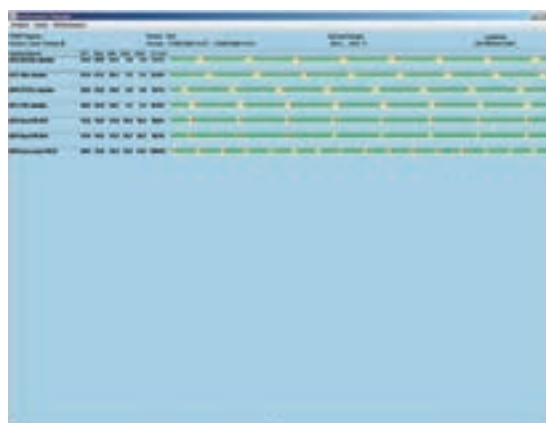
GRAPHICS
(for XWEB300D, XWEB500D, XWEB500, XWEB3000, XWEB5000)
CIRCULAR GRAPHICS
(for XWEB3000, XWEB5000)

The XWEB can supply powerful graphs that areable to represent multiple analoge 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 personnel for diagnostics.

CRO
(for XWEB500D, XWEB500, XWEB5000)

Thanks to the special CRO algorithm (Compressor Rack Optimization), the connection to the modern supervising systems (of Dixell) allows the management of the compressor rack set point in the best possible way, depending on the devices connected, which can result in plant optimization and energy savings. 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 two 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.

Fixed set point   Dynamic set point

BAR

Set point   Time

KWATT

Consumption   Time

CRO ON
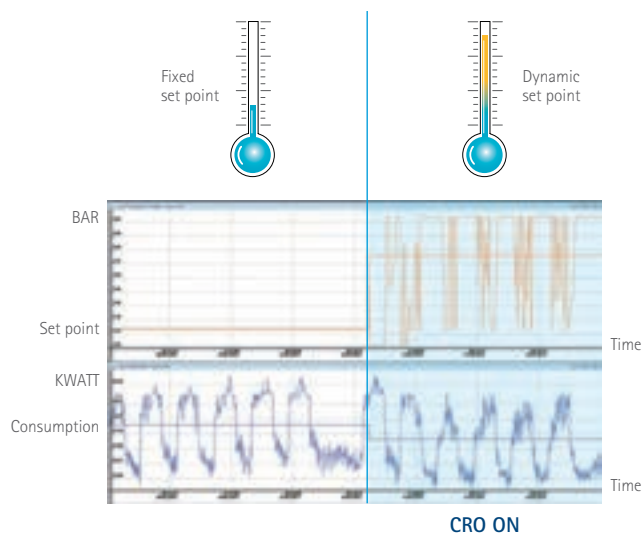
XWEB CONNECTIONS

The high connectivity is one of the main XWEB family's strengths; see below for an overview of several methods to connect with the systems.

CONNECTION via SMARTPHONE/PDA

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

LOCAL CONNECTIONS

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

RS485 network

XWEB300D
XWEB500D
XWEB500
XWEB3000
XWEB5000

The complete and powerful hardware platform typical of XWEB3000 and XWEB5000 systems allows them to be used as the local machine by way of monitor, keyboard and mouse connection.

RS485 network

XWEB3000
XWEB5000

MONITOR

KEYBOARD

MOUSE

REMOTE CONNECTIONS

XWEB Servers 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 public and static IP address.
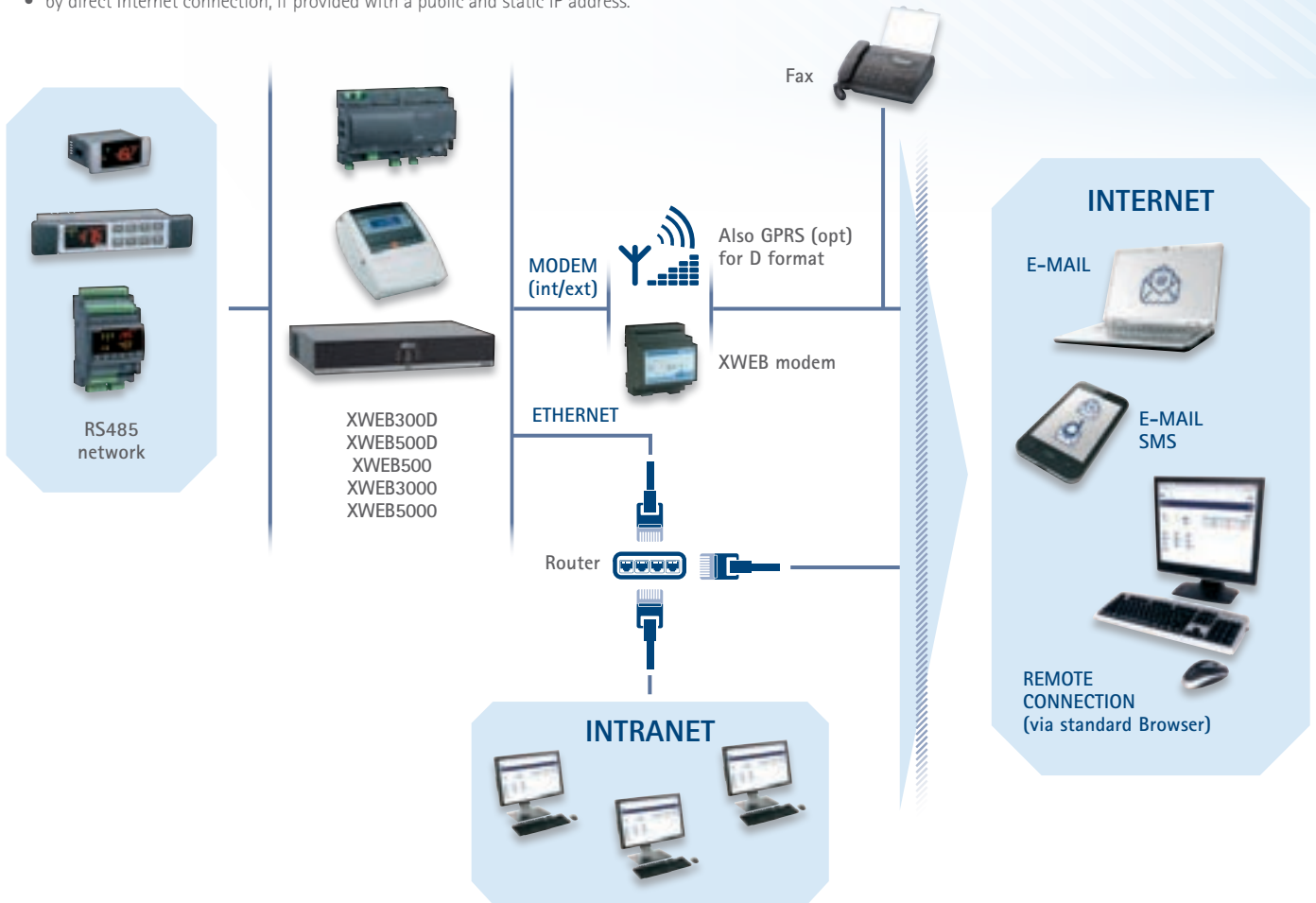
The GPRS connectivities are a popular favorite, which distinguishes it as a best-solution in case of alarm management with medium-small applications, and the ETHERNET in case of tele-assistance and contron with medium-large applications.
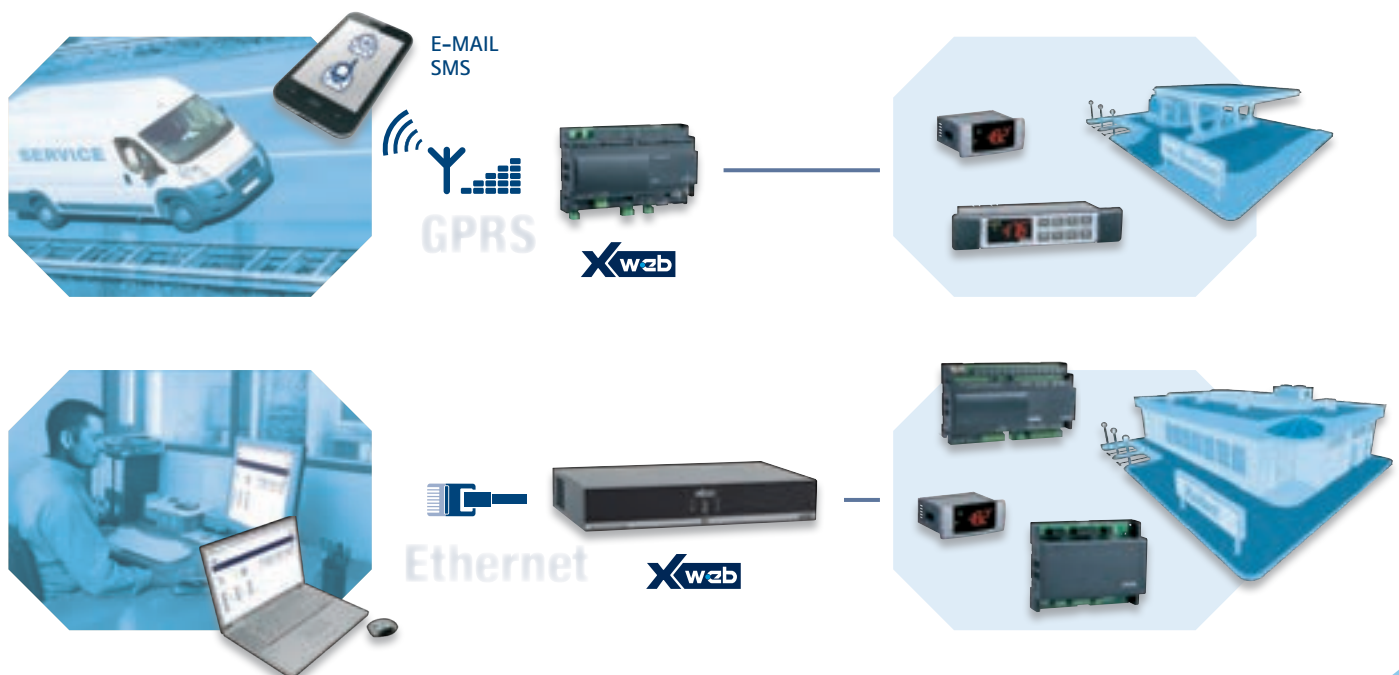
XWEB SYSTEM GUIDE

	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
Display			●		
N° of instruments	6 - 18	36 - 100	100	247	247
USB port for PC connection			●		
USB output for device connection	●	●	●	●	●
Relay output	1	3	3	3	3
Digital input		●	●	●	●
LAN output	●	●	●	●	●
RS485 output	●	●	●	●	●
External modem	analogue or GSM	analogue or GSM	analogue or GSM	analogue	analogue
Internal modem	analogue or GSM/GPRS opt	analogue or GSM/GPRS 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		●	●		●

80x80mm

i COOLL ®

iCOOLL SERIES: WIRELESS SOLUTION

- TX/RX modules (**XJ200**) for wireless network dedicated to data monitoring (the master module has to be connected to the XWEB, the slave modules are connected to the instruments through the ModBUS protocol)
- Self-configuring MESH system for the optimization of communication (the network is able to create and to use all possible "connections" between the master and the slave node)
- User-friendly and less installation time and costs
- Operating frequency: 868Mhz (922Mhz for US market – FCC approved)
- High range (450m no obstacles)
- Ability to connect up to 240 instruments to the same XJ200
- Ability to manage up to 20 HOP
- Ability to connect up to 40 XJ200 to the same net
- 1,5m wire (power supply/RS485) with functional bracket included (**fig. 1**)
- Standard communication protocol ModBUS-RTU
- 0,25VA max power absorption

fig. 1
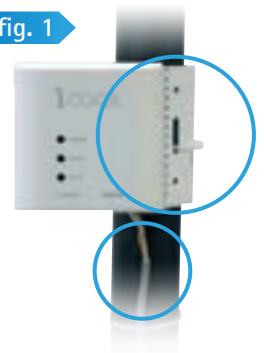
HOW to ORDER

XJ200	X	J	2	0	0	–	A	0	0	0	0

A

Frequency
0 = 868Mhz
1 = 922Mhz

ACCESSORY

PW200J
Power supplier for XJ200 modules with TTL-RS485 converter

100x64mm

D: 4 DIN Rail

XJM: I/O MANAGEMENT

- Acquisition and command module for refrigeration, air conditioning and BMS applications
- Great flexibility: all the necessary I/O types in one device
- Configurable analog inputs
- Data acquisition by means of sensors with alarm limits
- Up to 12 digital inputs for alarms, status and sensors interlock
- Pressure/temperature conversion
- Available with or without display
- Hot Key or Prog Tool Kit connector for quick and easy programming
- Serial connection to monitoring systems or BMS
- 20VA max power absorption
- Dual display with red LED (8,5mm high) and yellow LED (7,5mm high) and 17 icons

TYPICAL APPLICATIONS

Retrofit and data acquisition for:
- Cabinets
- Cold rooms with 2 evaporators
- Compressor racks up to 4 compressors
- Pulses counters

HOW to ORDER

XJM60D	X	J	M	6	0	D	–	A	B	C	0	0
VJM60	V	J	M	6	0	–	0	0	0	0	0	

A	B	C
Power supply	Display	N° of relay
2 = 24Vac	**0** = No	**1** = 1
4 = 110Vac	**1** = Yes	**4** = 4
5 = 230Vac		

MULTIFUNCTION MODULE and KEYBOARD for INPUT and OUTPUT MANAGEMENT

XJM60D	Multifunction module for inputs and outputs with management of up to 4 relays
VJM60	Keyboard for XJM60D module

D: 4 DIN Rail   100x64mm

FEATURES	XJM60D				VJM60
First display: n° digits	4 d.p.	no display	4 d.p.	no display	4 d.p.
Second display: n° digits	4 d.p.		4 d.p.		4 d.p.
Power supply	24Vac	24Vac	110, 230Vac	110, 230Vac	from controller
Inputs					
Probe	6 x config*	6 x config*	6 x config*	6 x config*	
Digital (free of voltage)					
Digital (power supply voltage)	6	6	2	2	
Relay outputs					
Configurable	1 x 5A, 4 x 5A	1 x 5A, 4 x 5A	1 x 5A	1 x 5A	
Other					
Hot Key/Prog Tool Kit	pres	pres	pres	pres	
Remote keyboard		VJM60		VJM60	
Analog output	4÷20mA/0÷10V	4÷20mA/0÷10V	4÷20mA/0÷10V	4÷20mA/0÷10V	
Serial output	RS485	RS485	RS485	RS485	

* Up to 6 digital inputs or 6 x NTC/PTC/Pt1000 probe inputs or 3 x NTC/PTC/Pt1000 probe inputs + 3 x 4÷20mA/0÷5V/0÷10V/pulse probe inputs

XJM60D
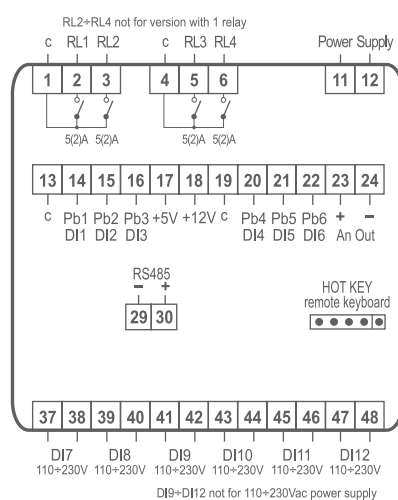
D: 4 DIN Rail

100x64mm

XJA–XJP–XJR SERIES: RELAY and ACQUISITION MANAGEMENT

- 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
- Hot Key or Prog Tool Kit connector for quick and easy programming
- Serial connection to monitoring systems
- 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	**0** = No
4 = 110Vac	**1** = Yes
5 = 230Vac	

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	**C** = °C	**0** = No	**P** = PTC	**3** = 3 (only for XJP30/60D)
4 = 110Vac	**F** = °F	**1** = Yes (only for XJA50D)	**N** = NTC	**5** = 5 (only for XJA50D)
5 = 230Vac	**N** = No temperature		**A** = 4÷20mA	**6** = 6 (only for XJP30D)
			W = 0÷10V	
			0 = No	

KEYBOARD and RELAY MODULES and PROBE and ALARM ACQUISITION MODULES

XJA50D **XJA50SL**	Alarms/status acquisition modules able to read up to 5 + 5 independent inputs (master + slave)
XJP30D **XJP40D** **XJP60D**	Probes and alarms data acquisition modules able to read up to 9 different inputs
XJR40D	Relay module able to manage up to 4 independent outputs
KB1 PRG	Programming keyboard for XJA50D - XJP30D - XJP40D - XJP60D - XJR40D modules

D: 4 DIN Rail   100x64mm

FEATURES	XJA50D	XJA50SL	XJP30D	XJP40D	XJP60D	XJR40D	KB1 PRG
Display: n° digits Keyboard: push buttons Power supply	24, 110, 230Vac	from controller	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac	4 24, 110, 230Vac	± 3 d.p. 6 from controller
Inputs							
Analogue			3 x NTC, PTC, 4÷20mA, 0÷10V	4 x Pt100	6* x NTC, PTC, 4÷20mA, 0÷10V		
Digital (power supply voltage) Digital (free of voltage)	5	5	3 3 opt	4	3 3*	4	
Relay outputs							
Alarm Load	5A opt					4 x no 8A/nc 5A	
Other							
Hot Key/Prog Tool Kit output Remote display/keyboard output Serial output Serial addresses Buzzer	pres X-REP/KB1 PRG RS485 5	5	pres X-REP/KB1 PRG RS485 3	pres X-REP/KB1 PRG RS485 4	pres X-REP/KB1 PRG RS485 6	pres KB1 PRG RS485 1 opt	

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

XJA50D
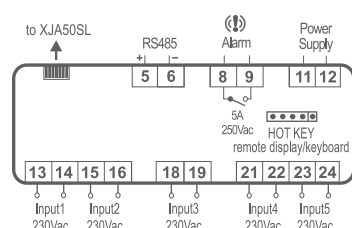
XJA50SL
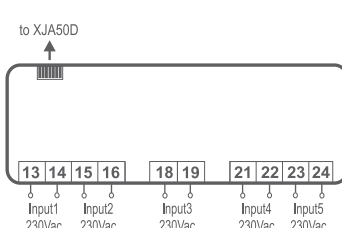
XJP30D
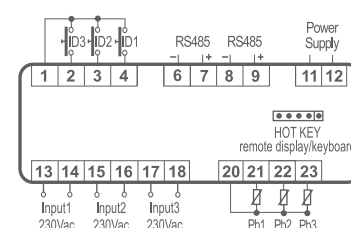
XJP40D
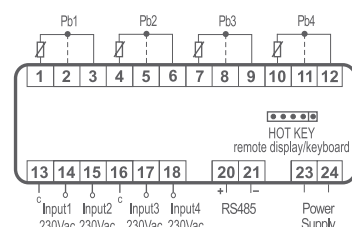
XJP60D
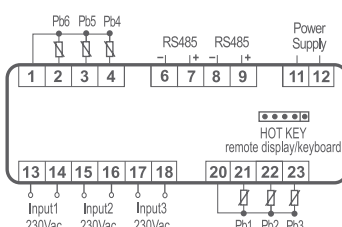
XJR40D
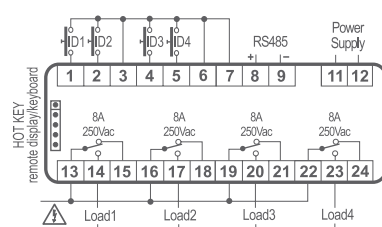
ACCESSORY

CAB/KB11
1m cable to connect the keyboard to the XJA-XJP-XJR modules

XCENTER: CENTRALIZED MANAGEMENT

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 large supermarkets, industrial plants, and more. XCENTER gives this type of support with alarm management, continuous device checks, and recipient management with functional reports. 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)
- 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 via XWEB interface
- Possibility to quickly modify controllers parameters via XWEB interface
- Alarm setup and management
- Alarm report via e-mail – SMS
- Recipient list management
- Statistical data management in graphical format
- Connection between XCENTER and the monitoring units are by means of internet or telephone line (via dial-up or an internet provider)
- Open project that allows add-on software (warehouse and accountant management,...); development on request

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

The XCENTER SOLUTION

The XCENTER software is composed of two parts.

- **XCENTER Server** is a server application that manages the Oracle© database and the communication to all connected XWEB controllers. It contains all receiving and sending notifications of alarms, user management, and control signals.

- **XCENTER Client** is the operator interface that is connected to the XCENTER Server and gives a list of alarms, statistics, and configuration tools of all plants monitored by the XWEB family and their web pages by means of the integrated browser. XWEB gives quick access to the monitored controllers with their parameters, commands, and historical data giving a prompt reply about actual conditions or environment with the ability to intervene remotely to solve possible critical situations.

XCENTER INSTALLATION LAYOUT
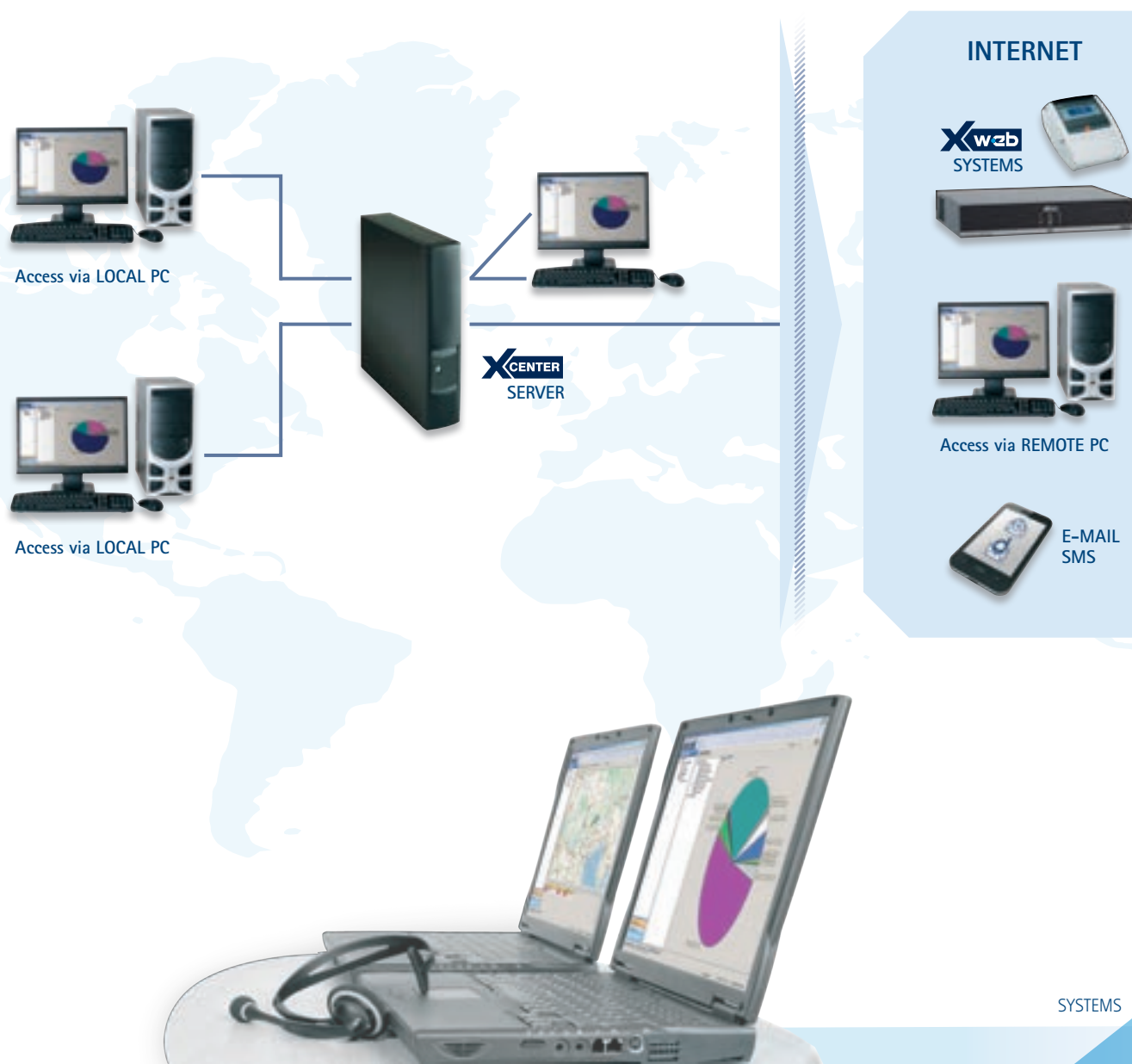
CONTACTS

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.
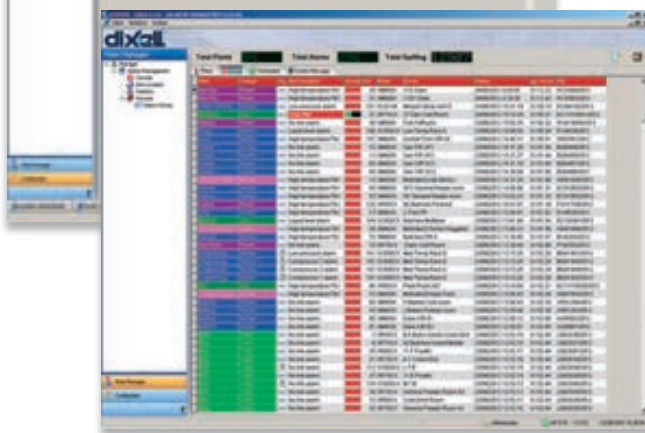
ALARM MANAGEMENT

With XCENTER 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.

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.
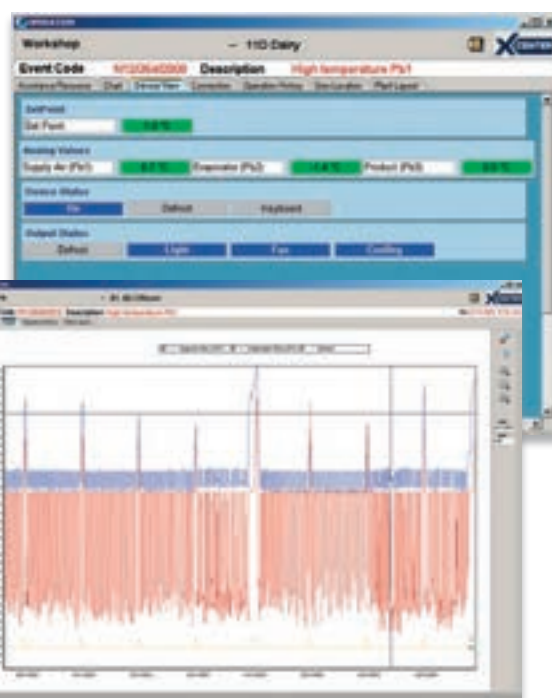
KEEP ALIVE

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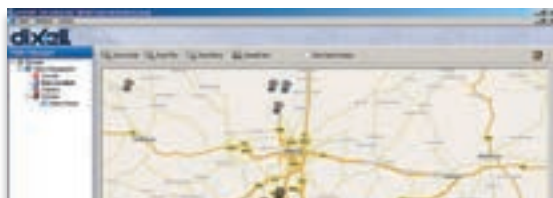
GEO-LOCATION

Thanks to the mapping technology, it is possible to place your installations on a real geographic map. This feature allows the user to find information quickly regarding any installation that sends an alarm.
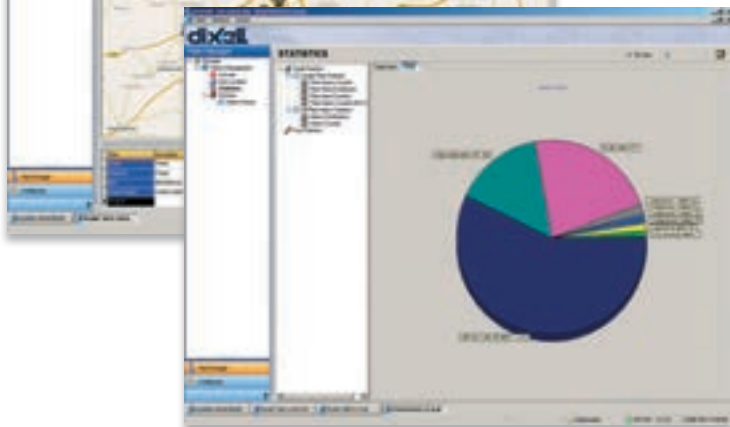
STATISTICS

XCENTER is provided with several models that generate powerful statistical tools that are used to analyze frequent alarms, critical device installations, or sites. The statistics are useful in preventing critical product or plant situations. There is also the possibility to group alarms together by typology, time interval, installation, and more.

PROBES

SECTION INDEX

PROBES

TEMPERATURE PROBES

NTC PROBES

The probes with NTC thermistor are designed for applications where high accuracy and the short responce time are important. The probes pass several tests, this is why we guarantee a very high reliability.
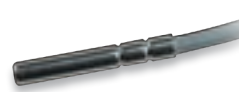
PROBE	DESCRIPTION	CABLE	TEMP. RANGE	
NS6	General purpose, resinated, IP67, inox steel cap "dimension Ø6x30mm"	PVC 1,5m – 3,0m	-30÷80°C -22÷176°F	
NS6W	General purpose, resinated, IP67, with 6,3mm faston, inox steel cap "dimension Ø6x30mm", for WING K	PVC 1,5m – 3,0m	-30÷80°C -22÷176°F	
NS6S	General purpose, resinated, IP67, inox steel cap "dimension Ø6x30mm"	Silicone 1,5m – 3,0m	-40÷110°C -40÷230°F	
NS6SJ	General purpose, resinated, IP67, 2 pole connector, inox steel cap "dimension Ø6x30mm"	Silicone 1,5m – 3,0m	-40÷110°C -40÷230°F	
NS6SW	General purpose, resinated, IP67, with 6,3mm faston, inox steel cap "dimension Ø6x30mm", for WING K	Silicone 1,5m – 3,0m	-40÷110°C -40÷230°F	
NG6	General purpose, over-molded, IP67, thermoplastic cap "dimension Ø6x15mm"	Thermoplastic 1,5m – 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 and 24Vac/dc	Thermoplastic 1,5m – 3,0m	-40÷110°C -40÷230°F	
NG6W	General purpose, over-molded, IP67, with 6,3mm faston, thermoplastic cap "dimension Ø6x15mm", for WING K	Thermoplastic 1,5m – 3,0m	-40÷110°C -40÷230°F	
NG6K	General purpose, over-molded, IP68, Hot Key connector, thermoplastic cap "dimension Ø6x15mm"	Thermoplastic 1,5m – 3,0m	-40÷110°C -40÷230°F	

NG6P	General purpose, over-molded, IP68, cap "dimension Ø5x20mm"	Thermoplastic 1,5m – 3,0m	-40÷110°C -40÷230°F	
NG6PJ	General purpose, over-molded, 2 pole connector, cap "dimension Ø5x20mm"			
NX6P	Thermoplastic, IP68, inox steel cap "dimension Ø6x20mm"	Thermoplastic 1,5m – 3,0m	-40÷110°C -40÷230°F	
NX6PJ	Thermoplastic, IP68, 2 pole connector, inox steel cap "dimension Ø6x20mm"			
NY6P	Thermoplastic, IP68, inox steel cap "dimension Ø6x50mm"	Thermoplastic 1,5m – 3,0m	-40÷110°C -40÷230°F	
NY6PJ	Thermoplastic, IP68, 2 pole connector, inox steel cap "dimension Ø6x50mm"			
NP4–67	Pipemount fitting "Ø4÷Ø30mm in diameter", IP67, over-molded, copper sensor	Thermoplastic 1,5m – 3,0m	-40÷110°C -40÷230°F	
NT6–67	Pipemount fitting "Ø4÷Ø30mm in diameter", IP67, over-molded, thermoplastic sensor			
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	

PTC PROBES

The probes with PTC thermistor are designed for both cooling and heating applications.

The temperature range is –50÷150°C (-58÷302°F).

PROBE	DESCRIPTION	CABLE	TEMP. RANGE	
S6	General purpose, resinated, IP67, inox steel cap "dimension Ø6x30mm"	PVC 1,5m – 3,0m	-30÷80°C -22÷176°F	
S6.R	Water proof, resinated, IP67, inox steel cap "dimension Ø6x40mm"	PVC 1,5m – 3,0m	-30÷80°C -22÷176°F	
S6.S	Water proof, resinated, inox steel cap "dimension Ø6x40mm"	Silicone 1,5m – 3,0m	-50÷120°C -58÷248°F	
S6.SH	Heating applications, inox steel cap "dimension Ø6x40mm"	Silicone 1,5m – 3,0m	-50÷150°C -58÷302°F	
SA6	Perforated for air, inox steel cap "dimension Ø6x30mm"	PVC 1,5m – 3,0m	0÷80°C 32÷176°F	
ST6	Pipemount fitting	PVC 1,5m – 3,0m	0÷80°C 32÷176°F	
SC5.5	Probe fixed with threaded male, inox steel cap "dimension Ø6x80mm"	PVC 1,5m – 3,0m	-30÷80°C -22÷176°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, resinated, IP68, cap "dimension Ø5x20mm"	Thermoplastic 1,5m - 3,0m	-50÷110°C -58÷230°F	
PMP4-67	Pipemount fitting "Ø4÷Ø30mm in diameter", IP67, over-molded, copper sensor	Thermoplastic 1,5m - 3,0m	-50÷110°C -58÷230°F	
PMT6-67	Pipemount fitting "Ø4÷Ø30mm in diameter", IP67, over-molded, thermoplastic sensor	Thermoplastic 1,5m	-50÷120°C -58÷248°F	

PRODUCT PROBE NTC/Pt1000

The product probes with NTC or Pt1000 sensors allow the simulation and display of product temperature 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	
NGP0P	NTC sensor, thermoplastic, IP68, 100x100mm	Thermoplastic 5m	-40÷110°C -40÷230°F	
PMGP0P	Pt1000 sensor, thermoplastic, IP68, 100x100mm	Thermoplastic 5m	-50÷120°C -58÷248°F	

PTC/NTC INSERT PROBES

The insert probes with PTC or NTC sensor are suitable for applications where it is important to know the core temperature of goods. They are generally used together 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 a high precision and 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 Ø6x100mm"	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	0÷350°C 32÷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	

TEMPERATURE/HUMIDITY PROBES

Temperature/humidity probes for HVAC/R with DEW POINT calculation and RS485 output with ModBUS protocol. XH50P and XH55P are the ideal solution for anti-sweat heater control; these special probes, ideal for already existent plants, allow anti-sweat heater operation according to dew point conditions of the retail space. Through the correct calibration of Dixell algorithms, it is possible to obtain a proportional change of the operating voltage range of anti-sweat heaters, optimizing its consumption and increasing the energy saving on the average used power of the anti-sweat heaters.

- Available in 2 versions: **XH50P** (without knob), **XH55P** (with knob)
- LED to display the device status
- Wall mounting (503 box dim. compatible)
- Self extinguishing ABS housing

The XH50P and XH55P probes, depending on the actual needs, can be used stand-alone or in centralized applications combined with XM600 controllers for multiplexed cabinets and XWEB5000 supervising system.

STAND–ALONE APPLICATION

- Based on the Dew Point estimate through the temperature and humidity measurement
- Thermostat control of anti-sweat heaters on a programmable value higher than the Dew Point
- Anti-sweat heaters control directly from XH
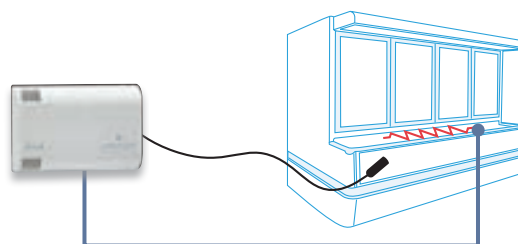
CENTRALIZED MANAGEMENT

- Use of Dew Point sensors
- Management of anti-sweat heaters set point through Supervising
- Direct control of anti-sweat heaters from the counter controller
- Possibility to manage regulation parameters in groups
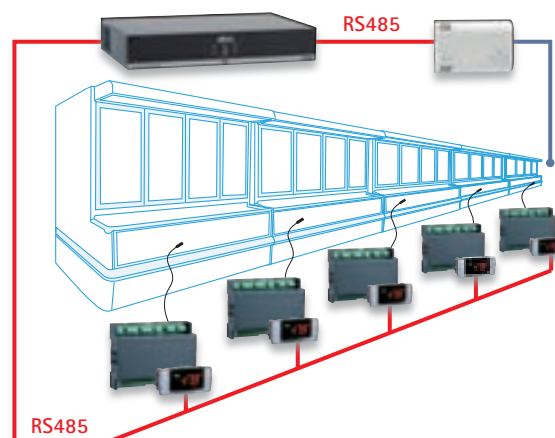
HOW to ORDER

XH50/55P | X | H | 5 | | P | – | 0 | N | C | D | E |

Analog output	Measurement unit	Relay output
0 = No	**C** = °C	**1** = 8A
1 = Yes	**F** = °F	**2** = 16A

FEATURES	XH50P	XH55P
Knob		pres
Power supply	12÷24Vac/dc - 12÷40Vdc	12÷24Vac/dc - 12÷40Vdc
Remote probe input	NTC	NTC
Digital input	free of voltage	free of voltage
Configurable relay output	8A, 16A	8A, 16A
Hot Key output	pres	pres
Serial output	RS485	RS485
Analog output	0÷10V opt	0÷10V opt
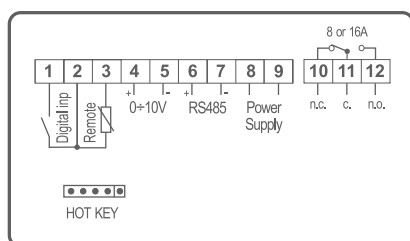
HUMIDITY PROBES

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 and more. Depending on the model, they supply a standard output current (4÷20mA) or voltage (0÷10V) signal. The high accuracy, the appropriate lead time and the sensor reliability also in cases with condensation, make these probes extremely effective.

- Wall mounting
- Power consumption: 22mA max
- Protection: IP65
- Operating range: humidity 30÷90% for XH10P and 0÷99% for XH20P
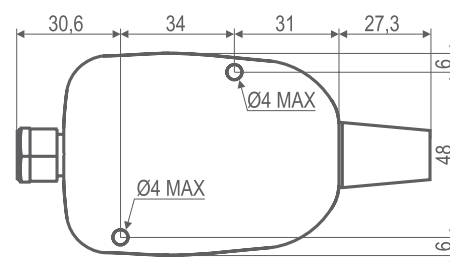
HOW to ORDER

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

B

Output
0 = 4÷20mA
1 = 4÷10Vdc

FEATURES	XH10P		XH20P	
Power supply	9÷18Vdc	15÷35Vdc - 12÷24Vac	9÷18Vdc	15÷35Vdc - 12÷24Vac
Output	4÷20mA	0÷10Vdc	4÷20mA	0÷10Vdc
Accuracy	±5%	±5%	±3%	±3%
Operating temperature	0÷60°C (32÷140°F)	0÷60°C (32÷140°F)	0÷70°C (32÷158°F)	0÷70°C (32÷158°F)
Storage temperature	-30÷85°C (22÷185°F)	-30÷85°C (22÷185°F)	-30÷85°C (22÷185°F)	-30÷85°C (22÷185°F)
Measurement range	30÷90%RH	30÷90%RH	0÷99%RH	0÷99%RH

PRESSURE PROBES

PRESSURE TRANSDUCERS

Pressure transducers supply a standard output current signal (4÷20mA). The silicon sensor is assembled in a waterproof steel housing filled with oil that optimizes stable and constant measurement with additional protection against vibrations and a duration equivalent to millions of pressure cycles. The tip of the probe allows placement in contact with ammonia and various other kinds of corrosive gases.

MALE FITTING

PP07	2 wires transducer with 4÷20mA output and measurement range –0,5÷7bar (male or female fitting)
PP11	2 wires transducer with 4÷20mA output and measurement range –0,5÷11bar (male or female fitting)
PP30	2 wires transducer with 4÷20mA output and measurement range 0÷30bar (male or female fitting)
PP50	2 wires transducer with 4÷20mA output and measurement range 0÷50bar (male or female fitting)

FEMALE FITTING

FEATURES

Power supply	8÷28Vdc
Output	4÷20mA
Protection	IP65
Operating temperature	-40÷135°C (-40÷275°F)
Storage temperature	-40÷135°C (-40÷275°F)
Accuracy	1% F.S.

RATIOMETRIC PRESSURE TRANSDUCERS

Pressure transducers 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 range of temperatures.

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
PPR45	3 wires ratiometric transducer with 0÷5V output and measurement range 0÷45bar

FEMALE FITTING

FEATURES

Power supply	4,5÷5,5Vdc
Output	0,5÷4,5Vdc
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

MODEM

MODEM and ANTENNA

XWEB MODEM	For XWEB, IPG115 and IPG215	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, XWEB500, IPG115 and IPG215	GSM modem kit containing the modem, the power supply unit, the transmitting antenna with the relevant cable and the connection to controlling system	
XW-ANT	For XWEB300D/500D and IPL500D	GSM/GPRS antenna with magnetic base and 2,5m cable	

ENERGY ANALYSERS

ENERGY ANALYSERS

EM21D	Single/three-phase energy meter, CT-connected (5A), RS485 output. Self power supply. Dimensions: 71,7x71,7x64,6mm. DIN Rail or panel mounting. Housing: ABS self-extinguishing. Operating temperature: -25÷55°C (-13÷131°F). Relative humidity < 90%	
EM23D-1P	Single-phase energy meter, direct connected with integrated current transformers, with RS485 output. Current inputs 10(65)A, voltage 230VLN. Self power supply. Dimensions: 71,6x90x66,3mm. DIN Rail mounting. Housing: ABS self-extinguishing. Operating temperature: -25÷55°C (-13÷131°F). Relative humidity < 90%	
EM23D-3P	Three-phase energy meter, direct connected with integrated current transformers, with RS485 output. Current inputs 10(65)A, voltage 230VLN. Self power supply. Dimensions: 71,6x90x66,3mm. DIN Rail mounting. Housing: ABS self-extinguishing. Operating temperature: -25÷55°C (-13÷131°F). Relative humidity < 90%	

WM14D	Three-phase power analyser, with RS485 output. 90÷260Vac power supply. Dimensions: 107,5x90x63mm. DIN Rail and wall mounting. Housing: ABS self-extinguishing. Operating temperature: 0÷55°C (32÷131°F). Relative humidity < 90%	
WM22D	Single/three-phase power analyser 400Vac, with RS485 output. 230Vac power supply. Dimensions: 162,5x90x63mm. DIN Rail and wall mounting. Housing: ABS self-extinguishing. Operating temperature: 0÷55°C (32÷131°F). Relative humidity < 90%	

TRANSFORMERS for ANALYSERS

TA100-5	Current transformer to use with EMD21D and WM14D controllers. DIN Rail, bus-bar and wall mounting. Primary winding current 100A. Secondary winding current 5A	
TA200-5	Current transformer to use with EMD21D and WM14D controllers. DIN Rail, bus-bar and wall mounting. Primary winding current 200A. Secondary winding current 5A	

WIRING

ETHERNET PATCH CABLES

CAB/WEB/NET	For iPro and XWEB	Ethernet patch cable, 3m	
CAB/WEB/PC	For iPro and XWEB	Ethernet patch cross over cable, 1m	

WIRING for XC600CX

CAB/CJ15	For XC645CX, XC650CX and XC652CX	Connector with 1,5m wires for HP, DI inputs and analog outputs	
CAB/CJ30	For XC645CX, XC650CX and XC652CX	Connector with 3m wires for HP, DI inputs and analog outputs	
CW15-KIT	For XC650CX and XC652CX	2 disconnectable female connectors, 12-14 pins with wires 1,5m	
CW25-KIT	For XC650CX and XC652CX	2 disconnectable female connectors, 12-14 pins with wires 2,5m	
CWC15-KIT	For XC645CX	2 disconnectable female connectors, 6-14 pins with wires 1,5m, for models with internal triac	
CWC30-KIT	For XC645CX	2 disconnectable female connectors, 6-14 pins with wires 3m, for models with internal triac	

WIRING for XEV and iPro

DWXEV30	For XEV20D	1 disconnectable female connector, 12 pins with wires 3m	
DWS30-KIT	For IPG108D and IPG108E	2 disconnectable female connectors, 12-16 pins with wires 3m	
DWEX306-30KIT	For IPX306D	2 disconnectable female connectors, 10-16 pins with wires 3m	
DWB30-KIT	For IPG115D	3+3 disconnectable female connectors, 6-8-10 pins and 10-16-22 pins with wires 3m	
DWEX60-30KIT	For IPX106D	1+2 disconnectable female connectors, 8 and 10-16 pins with wires 3m	

DWX115–30KIT	For IPX115D	3+3 disconnectable female connectors, 6-8-10 pins and 10-16-22 pins with wires 3m	
DWEX70–30KIT	For IPX125D	5+3 disconnectable female connectors, 6-6-8-8-10 pins and 10-16-22 pins with wires 3m	
IP–FC108	For IPG108D and IPG108E	1+1 screw female connectors, 7 and 12 pins	
IP–FC208	For IPG208D, IPG208E and IPR208D	1+1 screw female connectors, 7 and 12 pins and 2 bayonet female connectors 12-16 pins	
IP–FC215CP	For IPG215D, IPG215F and IPR215D	6 screw female connectors, 2-3(x2)-6-7-8 pins and 3 bayonet female connectors 10-16-22 pins	
IP–FCEX60	For IPX206D	1 screw female connector, 12 pins and 2 bayonet female connectors 10-16 pins	
IP–FCX215	For IPX215D	6 screw female connectors, 2-3(x2)-6-7-8 pins and 3 bayonet female connectors 10-16-22 pins	
IP–FCEX70	For IPX225D	9 screw female connectors, 2-3(x3)-5-6(x2)-7-8 pins and 3 bayonet female connectors 10-16-22 pins	
IP–FC500	For IPL500D	2 screw female connectors 2-9 pins	

PROGRAMMING

◗ **PROGRAMMING TOOL**
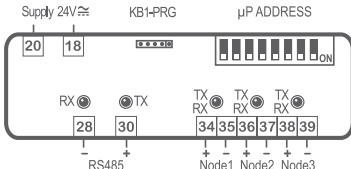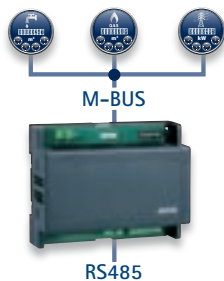
WIZMATE PROG–TOOL KIT	Programming kit made up of CD and DIN RAIL module (PROG-TOOL) with connections for Hot Key and RS485 for Dixell instruments; it allows the user to connect controllers to a PC running Windows 2000/XP OS. The CD-rom includes: WIZMATE (to program an instrument or a Hot Key).The Kit includes: the CAB/PTK2 wire for DIN module instrument connection, the CAB/PTK485 wire for DIN module RS485 (built-in) instrument connection, the RS232-USB-CONV converter for PC connections
	
	HOW to ORDER:
	    WIZMATE PROG-TOOL KIT 110V (with 110Vac power supply)
	    WIZMATE PROG-TOOL KIT 230V (with 230Vac power supply)	

XJ485USB–KIT	The USB to RS485 serial converter (2 wires) is the perfect choice to interface any computer, equipped with WIZMATE® software and a USB port, to a network of instruments. XJ485USB is only 78x40x22mm and supports different communication speeds in the range from 300 to 19200bps. The kit includes the USB cable type A-B, 1,5m and a USB with the drivers for the main operative systems (Microsoft Windows, Linux, MAC OS) and a WIZMATE® software version	

PROGRAMMING KEYS

HOT KEY	Key for a quick and easy Dixell's controllers programming. Dimensions 0,8x16x46mm	
HOT KEY 128	Key for a quick and easy XB570L controller programming. Dimensions 0,8x16x46mm	
VISOKEY	Programming key for Visograph keyboard. Dimensions 0,8x16x46mm	
PROG KEY	Programming key for firmware update. Dimensions 0,8x16x46mm	

GATEWAY

GATEWAY for M-BUS METERS

i-METER	M-Bus - ModBUS-RTU Slave protocol converter, used to centralize and read the consumption data of the energy meters (electricity, gas or water). i-METER is ideal for monitoring energy consumption and control of system leaks. Housing: 8 DIN Protection: IP50 Connections: screw terminals Power supply: 24 Vac/dc ± 10% N° of nodes that can be connected: max 3 Certified models: ISTA (Istameter, Domaqua, Sensonic II)	M-BUS RS485

REMOTE DISPLAY

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)	

CABLES for REMOTE DISPLAY

CAB/REP1	Multipolar connector for X-REP, 1m; to use with WING, XM, XB series	
CAB/REP3	Multipolar connector for X-REP, 3m; to use with WING, XM, XB series	
CAB/REP5	Multipolar connector for X-REP, 5m; to use with WING, 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	

VARIOUS

PRINTER

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	

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	
FA64	Frame adapter for smaller 31x64mm models to fit larger 32x74mm 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	
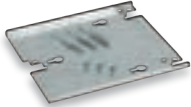
FILTERS

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

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–L	Front panel rubber gasket for L format (STANDARD), IP65 mounting	
RG–LX	Front panel rubber gasket for L format (INOX), IP65 mounting	
RG–V	Front panel rubber gasket for V format, IP65 mounting	
PG–L	Plastic multipurpose protection for L format, IP65	

FIXING SYSTEMS

PM–WL	Patented fixing system (Design Patent: UAMI n. 001851916-0001) for a simple and easy to mount solution suitable for any metallic flat surface for WING-L INOX and BACK-PANEL controllers with polycarbonate. The kit is composed of one adhesive bracket and counter plastic bracket	
PM–WLT	Patented fixing system (Design Patent: UAMI n. 001851916-0001) for a simple and easy to mount solution suitable for any metallic flat surface for WING-L TOUCH controllers. The kit is composed of one adhesive bracket and counter plastic bracket	
XW–WA	Wall mounting bracket for XWEB500	

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. 3 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	

LIGHT SWITCHES

LS-R	Red light switch 16A/250Vac	
LS-G	Green light switch 16A/250Vac	
LS-Y	Yellow light switch 16A/250Vac	
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	
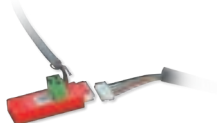
CABLES

CAB/KB11	1m cable to connect the keyboard and the XEV driver or the XJA-XJP-XJR modules	
CAB/USB10	USB extended cable, 1m with plastic cap for XW737K and XW777K	
CAB/HK	Adapter cable, 5 pins for Hot Key input, 0,5m for XC10CX and XC30CX	
CAB/485-TGIPG	Cable for RS485 connection with connector for TGIPG	

CONNECTORS

XM-FC16	Female connector kit, 16 pins for XM660K and XM670K	
XM-FC21	Female connector kit, 21 pins for XM669K and XM679K	
XM-FC26	Female connector kit, 26 pins for XM668K and XM678K	

SERIAL INTERFACE

XJ485CX	The serial interface converts the TTL output into an RS485 signal that can be used to connect the unit to the controlling and supervising system. Dimensions: 1,6x16x46mm. Multipolar connector included, 0,2m	

USB CONVERTER

USB-ETH-CONV	USB-Ethernet adapter for iPro programmable controllers in 4 DIN Rail format	

CLOCK BOARD

XM-RTC	Standard clock board for XM series	

BATTERIES

BA6H	Battery for XJDL40D of 1.2Ah 6 hours of backup	
BA24H	Battery for XJDL40D of 4.0Ah 24 hours of back-up	

ANTI-CONDENSING KIT

XV-ACK	Anti-condensing kit for XV110K and XV150K models	
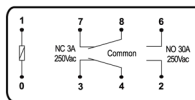
POWER SUPPLIERS

PW-DL	Power supplier (24, 230Vac) for XDL01 module (with CAB/DL2 cable, 2m included) that works as a gateway between the XDL01 and Dixell instruments equipped with TTL or RS485 serial output HOW to ORDER: PW-DL-20000 (for 24Vac) PW-DL-50000 (for 230Vac)	
TF-TGIPG	Power supplier 24Vdc/1A for TGIPG	
PW200J	Power supplier for XJ200 modules with TTL-RS485 converter	

USB KEY

XDL-KEY	USB key for XDL01, XW737K and XW777K	

RELAY

T92	Relay with a 30A current (3 HP/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)	

SIMULATORS

KIT SIMULATORE IPG108	Simulator of inputs and outputs is suitable to test the applications developed for the IPG108 programmable controllers. Thanks to a resistant aluminum frame, its compact dimensions 560x340x85mm, a complete series of wirings and versatile enclosure, it can be utilized in every situation. The simulator has a 230Vac power supply	
KIT SIMULATORE IPG115D	Simulator of inputs and outputs is suitable to test the applications developed for the IPG115 programmable controllers. Thanks to a resistant aluminum frame, its compact dimensions 560x340x85mm, a complete series of wirings and versatile enclosure, it can be utilized in every situation. The simulator has a 230Vac power supply	

DIMENSIONS & CUT OUT

CX, KEYBOARDS (32x74) – panel mounting

① X = 70 Y = 59,5
② X = 73,5 Y = 18

① X = 70 Y = 59,5
② X = 73,5 Y = 18
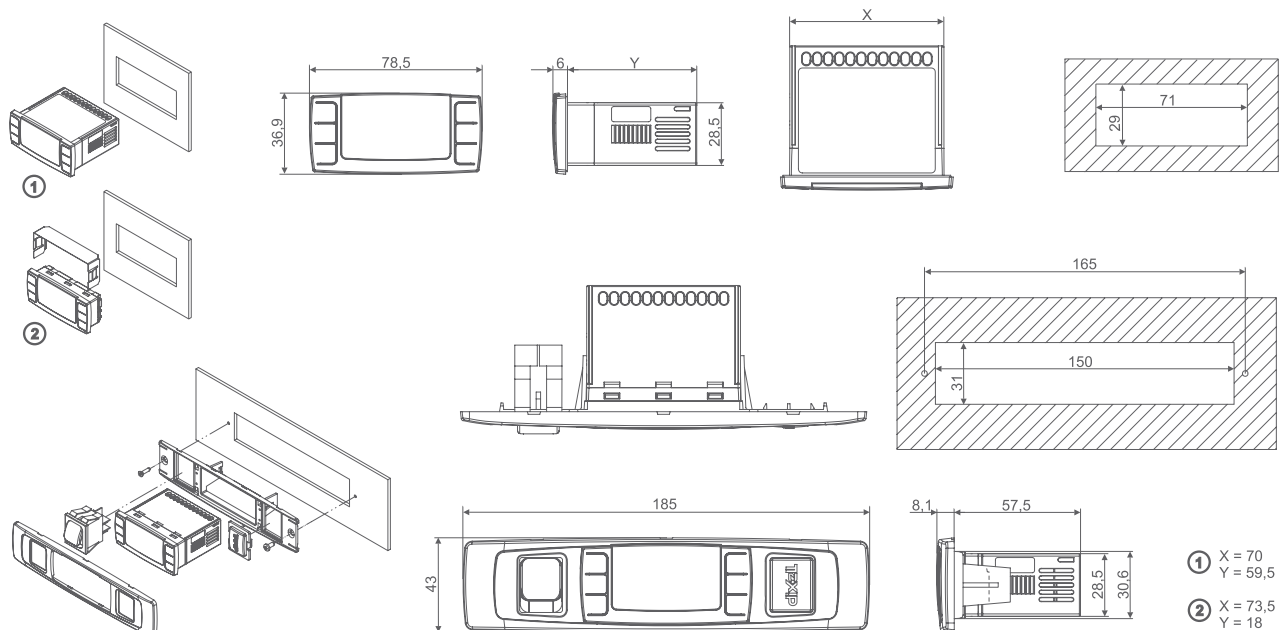
C (32x74) – panel mounting
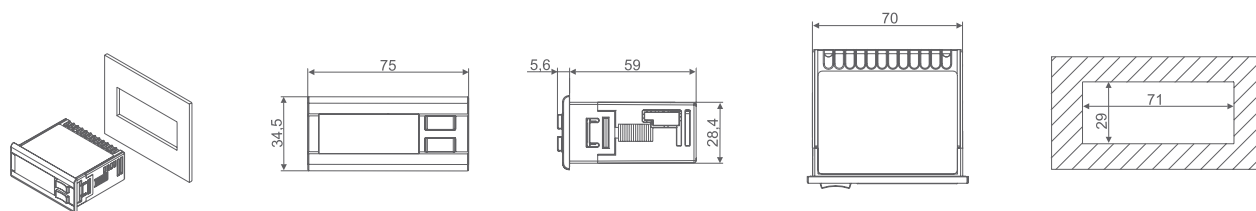
XT11S, X-REP (31x64) – panel mounting
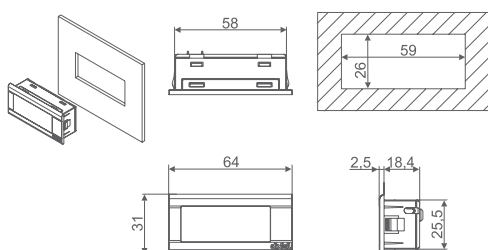
8 DIN (DIN RAIL) – wall or DIN Rail mounting

4, 10 DIN (DIN RAIL) – wall or DIN Rail mounting

① 4 DIN
X = 84,5
Y = 70
Z = 64

② 4 DIN
X = 110
Y = 70
Z = 59,5

③ 10 DIN
X = 110
Y = 175
Z = 59,5

Size in mm
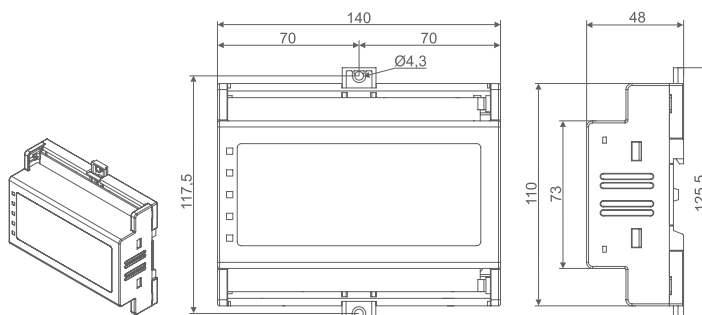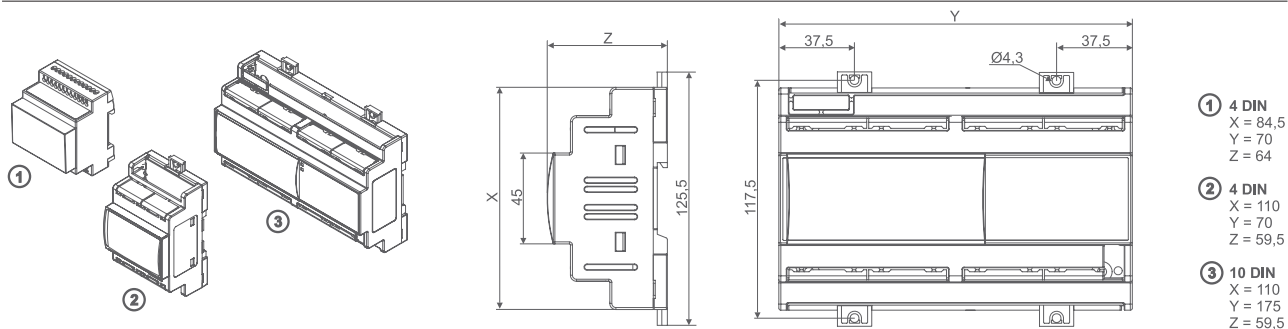
L(T), LR(T), KEYBOARDS (38x185) – panel mounting

WING STANDARD, INOX, TOUCH
front mounting with screws
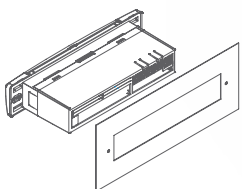
WING INOX, POLYCARBONATE
back-panel mounting with captive screws and PG-L optional
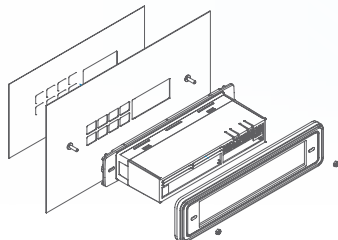
WING INOX, TOUCH, POLYCARBONATE
back-panel mounting with PM-WL(T)
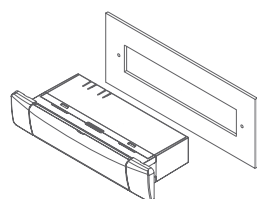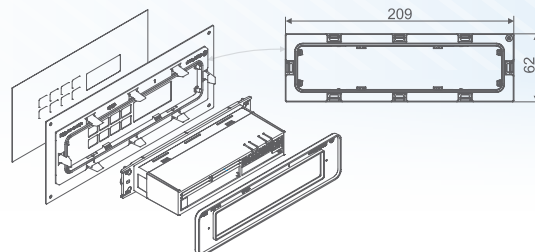
WING STANDARD
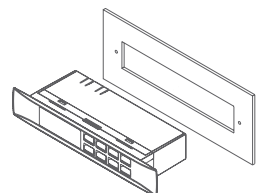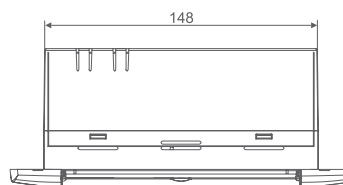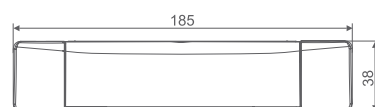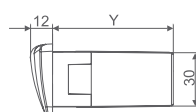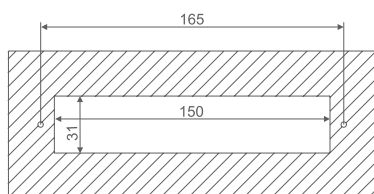
WING INOX
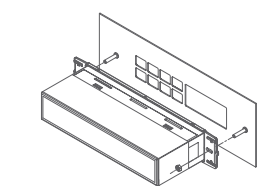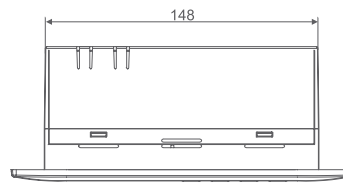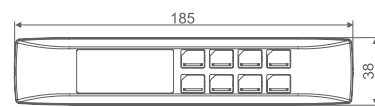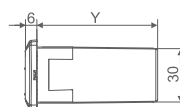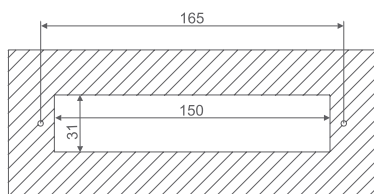
WING INOX/POLYCARBONATE

WING TOUCH

Fixing bracket
is included
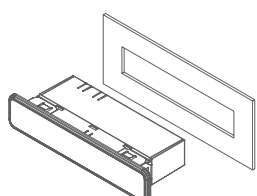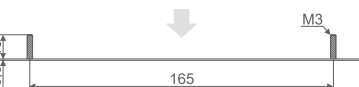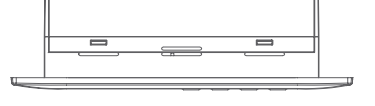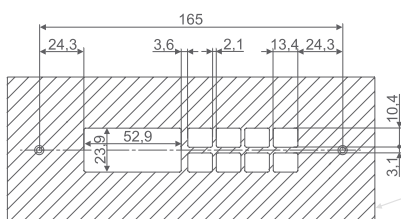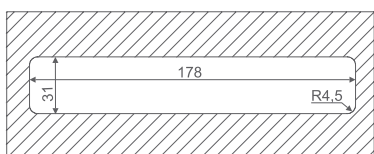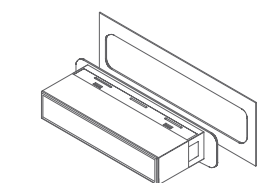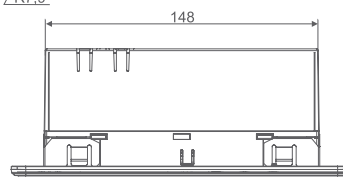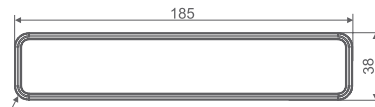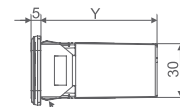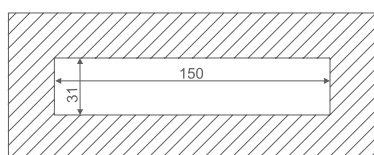
L(T) Y = 65   **LR(T)** Y = 40   **KEYBOARD** Y = 23

Size in mm

V, VS, KEYBOARDS (100x64) – panel mounting

KEYBOARD Y = 24

VS Y = 40

V Y = 59
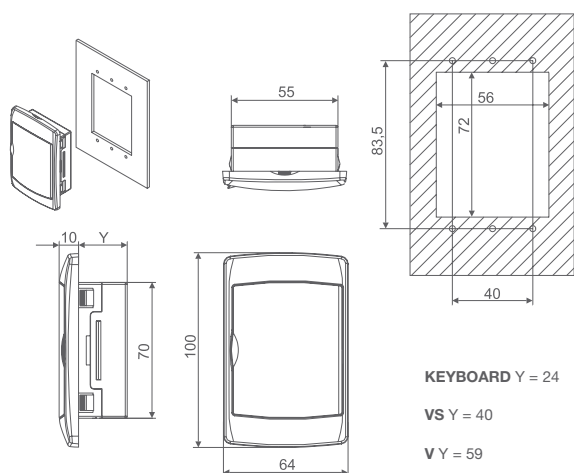
V–KIT (100x64) – wall mounting
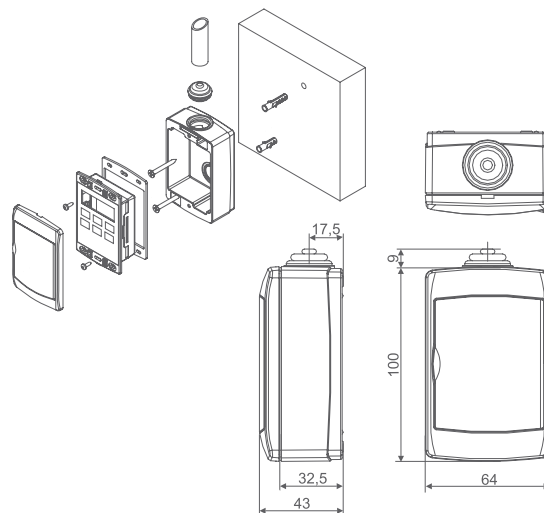
C–BOX (108x108) – wall mounting
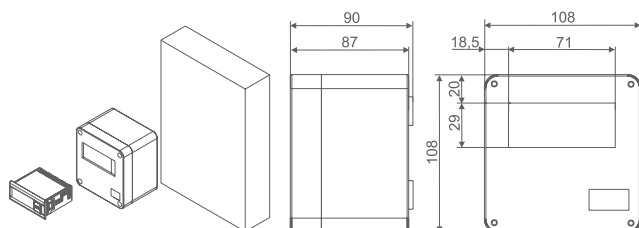
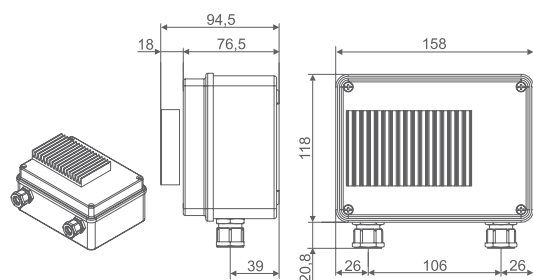## VS–BOX (135x74) – wall mounting
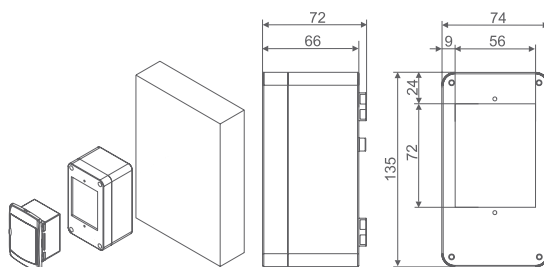
C–BOX2 (170x105) – wall mounting
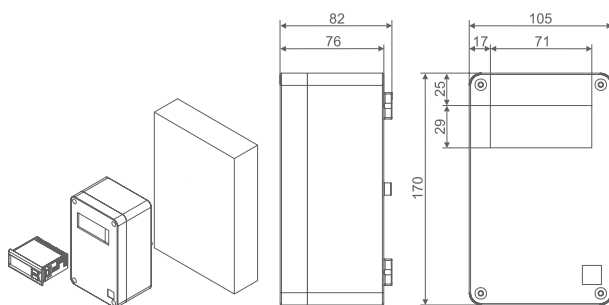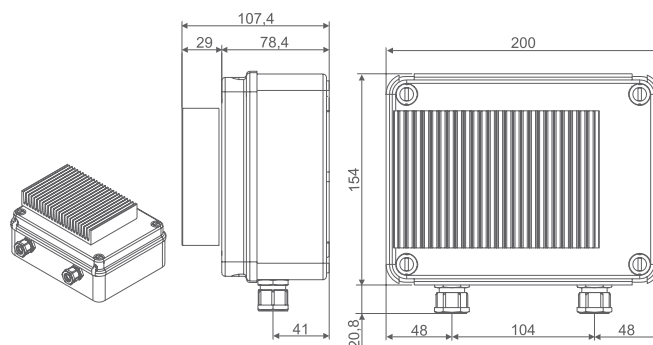

VS–BOX2 (170x105) – wall mounting
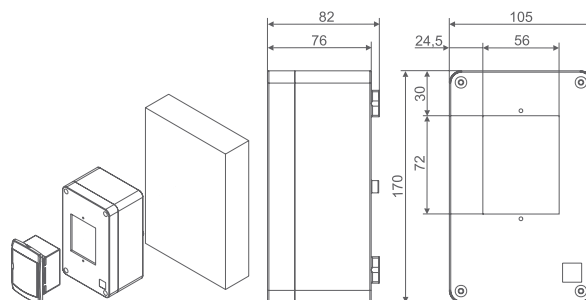
XV110K (139x158)

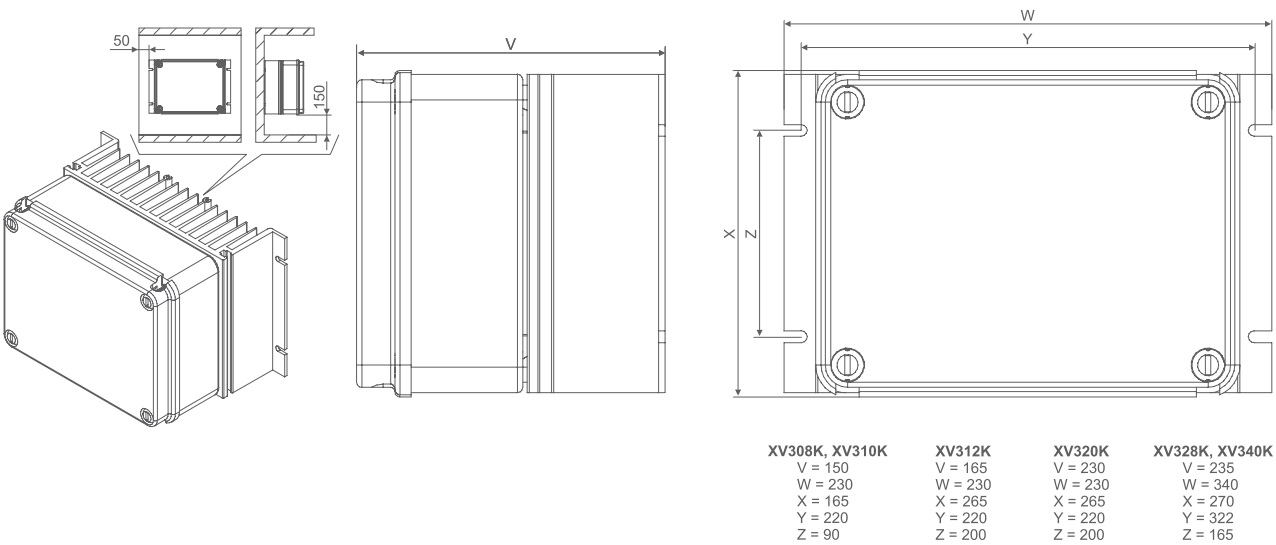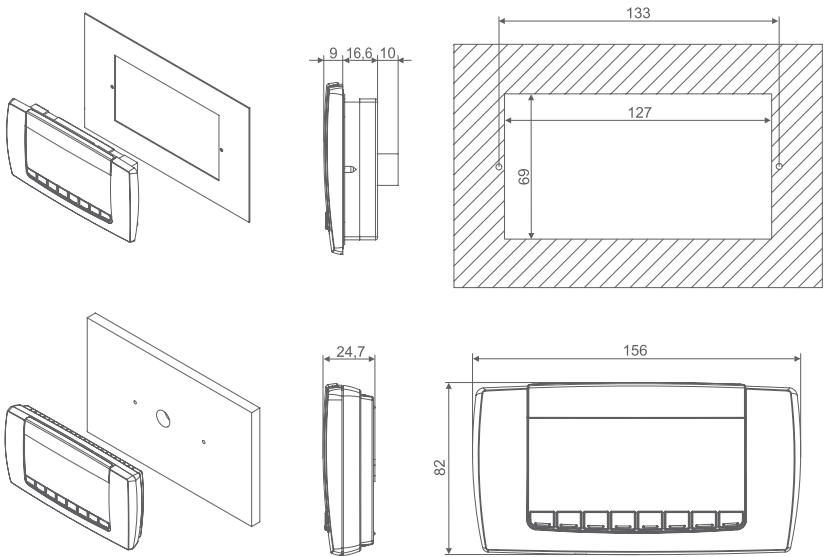## XV150K (175x200)

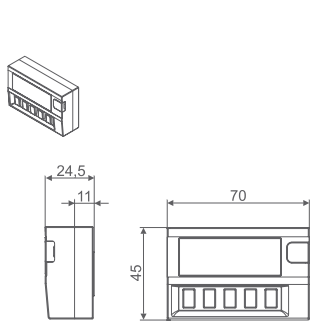Size in mm

PK (80x70) – panel mounting

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

80,2
73,2
70,5
59
16
Z

XV300K – wall mounting

50
150
V
W
Y
X
Z

XV308K, XV310K	XV312K	XV320K	XV328K, XV340K
V = 150	V = 165	V = 230	V = 235
W = 230	W = 230	W = 230	W = 340
X = 165	X = 265	X = 265	X = 270
Y = 220	Y = 220	Y = 220	Y = 322
Z = 90	Z = 200	Z = 200	Z = 165
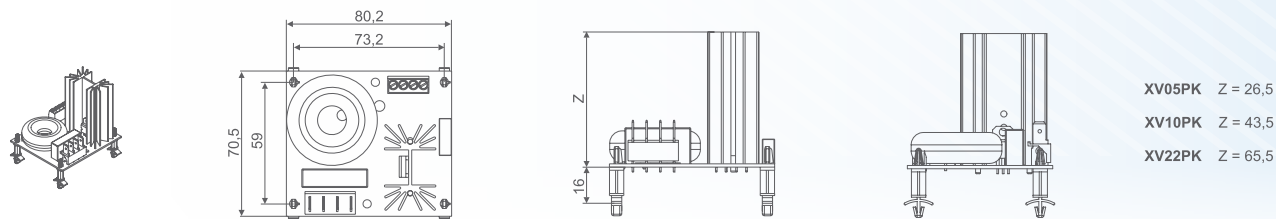
VISOGRAPH (82x156) – wall or panel mounting

9 16,6 10
133
127
69
24,7
156
82

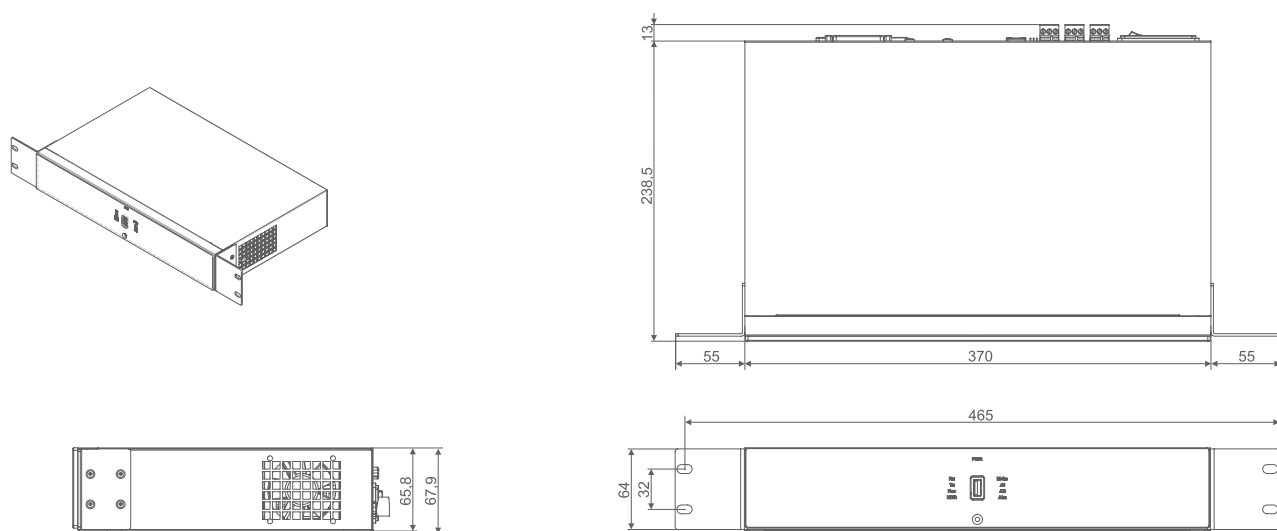## XDL (45x70) – wall mounting
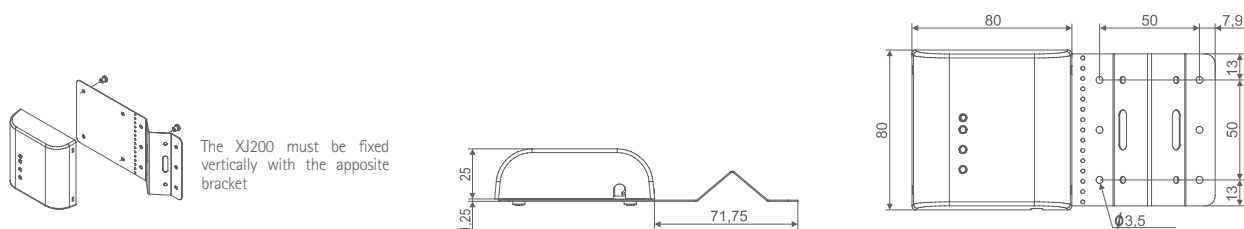
24,5
11
70
45

Size in mm

XLR, XLH, XWEB500 (230x210) – wall or panel mounting
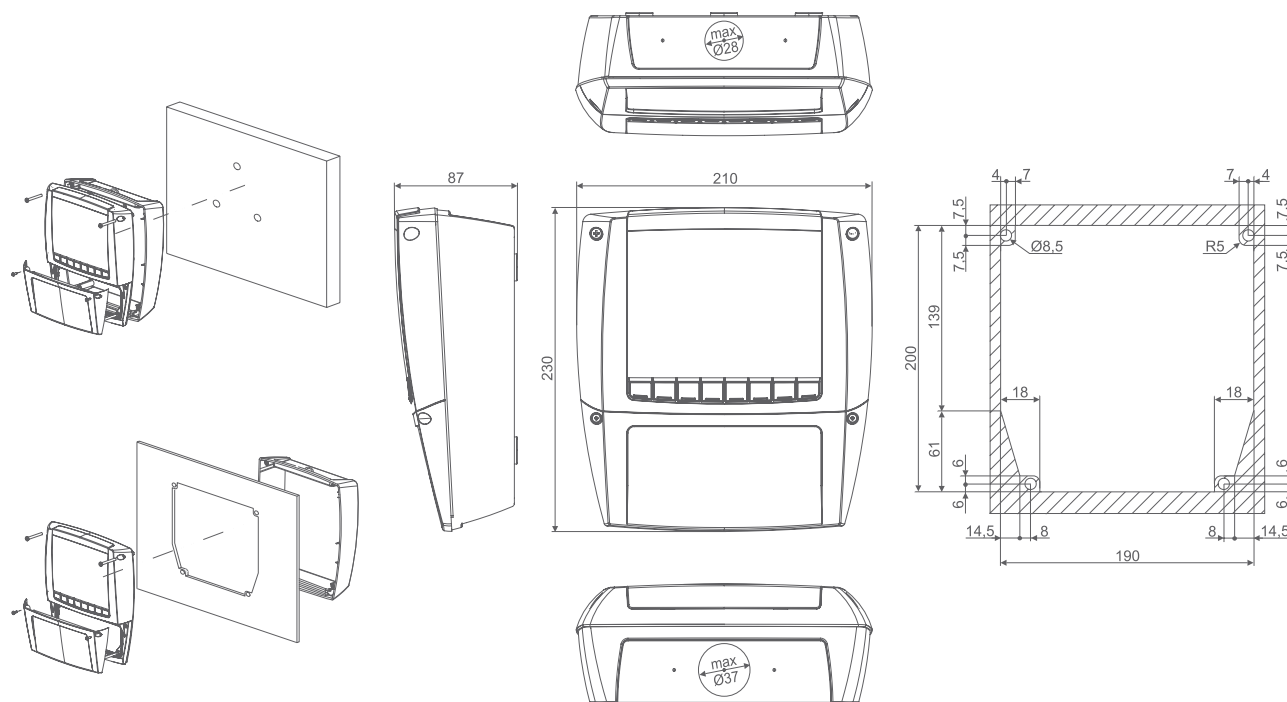
XWEB3000, XWEB5000 (370x238) – 19'' RACK mounting

XJ200 (80x80) – wall or pipemount or shelves mounting

The XJ200 must be fixed vertically with the apposite bracket

Size in mm

TGIPG – panel mounting

vers. 4,3"	**vers. 7"**	**vers. 10,4"**
U = 87	U = 126	U = 209
V = 104	V = 143	V = 228
W = 145	W = 204	W = 280
X = 128	X = 187	X = 262
Y = 89	Y = 128	Y = 211
Z = 130	Z = 189	Z = 264

Size in mm
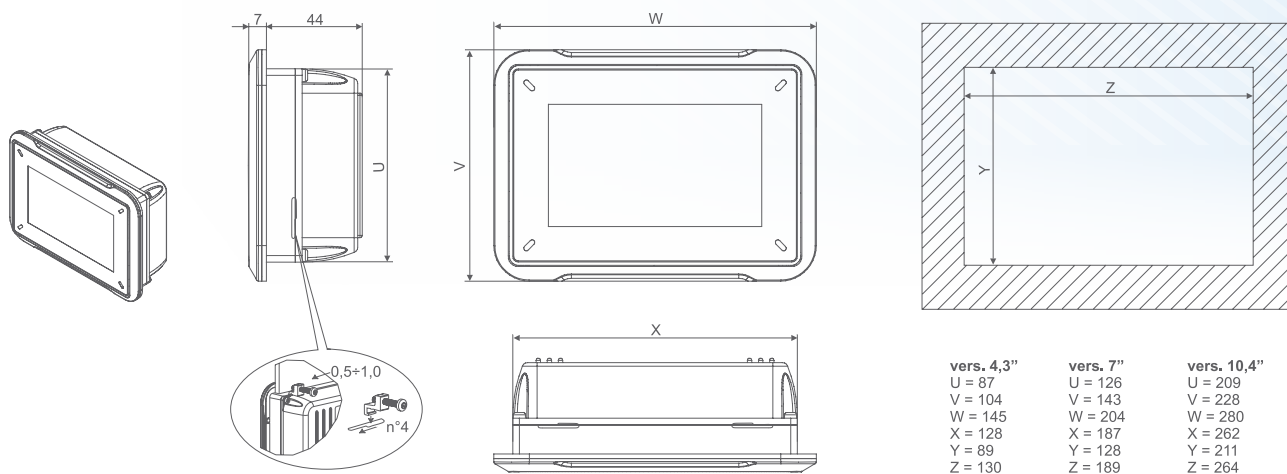
GENERAL TECHNICAL FEATURES

The following technical features are ordinary for the products present in this catalogue, other main features can be found on the preliminary section of the series.

Housing	self extinguishing ABS
Front protection (with gasket, if available)	S format ➡ IP65 C, CX formats and CX keyboards ➡ IP65 L(T), LR(T) formats and WING horizontal keyboards ➡ IP65 V, VS formats and WING vertical keyboards ➡ IP65 XLR, XLH formats ➡ IP65 4, 8, 10 DIN formats ➡ IP20 VG format ➡ IP65 XDL ➡ IP30 TGIPG ➡ IP65 XJ200 ➡ IP30
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%
Resolution	0,1°C or 1°F

EMERSON
Climate Technologies