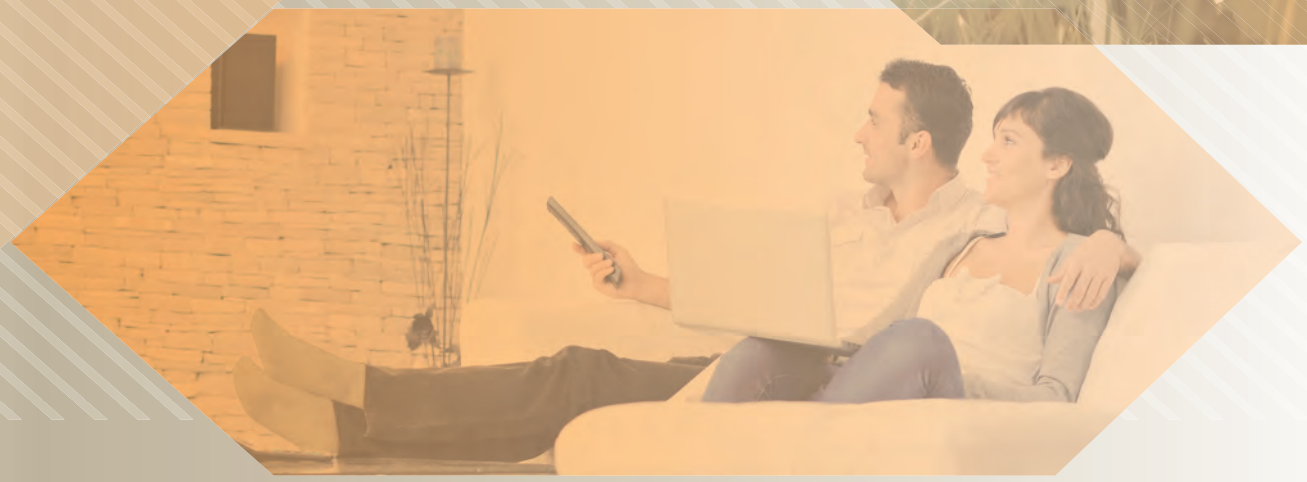
dixell

AIR CONDITIONING 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
Education & More...

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. 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

FIELDS of APPLICATION

Modern chillers for **domestic and commercial air conditioning** or for **industrial applications** require the control of many different conditions to guarantee that units work correctly. Temperature, pressure and humidity must be kept under strict control using reliable devices, that while sophisticated, are also simple to manage and easily programmable depending on their particular application. Given their flexibility, Dixell's wide range of controllers can be used for various applications that utilize chiller units, such as air conditioning of: **homes, hotels, museums, supermarkets, large shopping centers** and work environments like **ships** or **chemical industries** where operating conditions are very difficult.

GEOTHERMAL

Thanks to its many valuable qualities, geothermal energy source is increasing in demand. Dixell, always attentive to market needs, has developed specific software and hardware solutions to manage units that use this resource: **geothermal heat pumps**. This kind of machine ensures high heating and cooling performances, **respects the environment** by reducing the consumption of non-renewable sources, improves the seasonal energy efficiency of buildings and, at the same time, ensures **real savings** together with optimal plant functioning.

UNITS

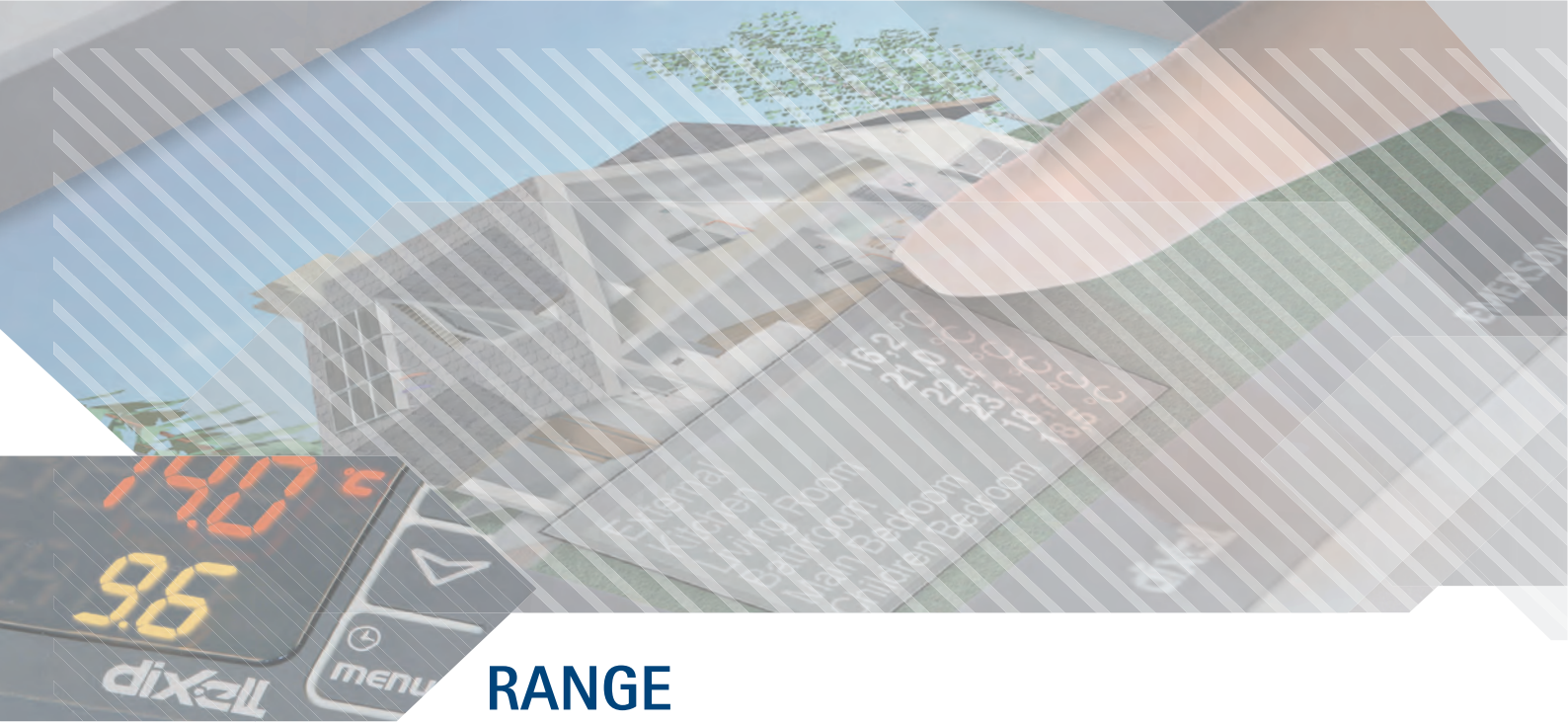
Thanks to its great depth of experience, Dixell offers an extensive range of controllers that were developed both for **compressed air** applications and air conditioning. Dixell offers specific controllers for **air dryers**, simple monocompressor/circuit chillers, and also units with several circuits with various compressors in each circuit. Several modes of operation include: **heat pumps, free cooling, total or partial heat recovery, sanitary hot water production**.

COMFORT

Managing **comfort** and **energy savings** of buildings to improve the quality of **living and working environments** is no more a simple requirement but a necessity. Dixell proposes a line of parametric and programmable controllers for the management of **residential heat pumps** that have an important rule on plants dedicated to heating or cooling of domestic dwellings, or commercial, industrial, cultural, agricultural or sport halls, and for the production of **sanitary hot water**.

INFO

For further information about all Dixell products please check out our Web Site **www.dixell.com**.



RANGE

PARAMETRIC CONTROLLERS

Different and complex climate control needs are met with Dixell's complete series of parametric controllers with innovative design and intuitive interfaces.
Intelligent algorithms that are oriented toward energy savings and innovative functions mark a sophisticated range of products that are adaptable and able to offer a wide range of solutions to manage heat pumps, geothermal heat pumps, and chiller units effectively.

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 Monitoring System family is based on Web technology used to satisfy remote controlling requirements in conditioning plants thanks to the integration with Dixell iCHILL and iPro families. The high connectivity and the accuracy of functions make these Web servers the perfect element that joins industrial, commercial or residential plants, with OEM, service or the end user. The XWEB series ensures 24-hour control of the unit functioning and offers an essential alarm service by FAX, SMS or e-mail, ensuring a prompt warning to a predetermined user lists.

PROBES and ACCESSORIES

A complete series of probes and 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

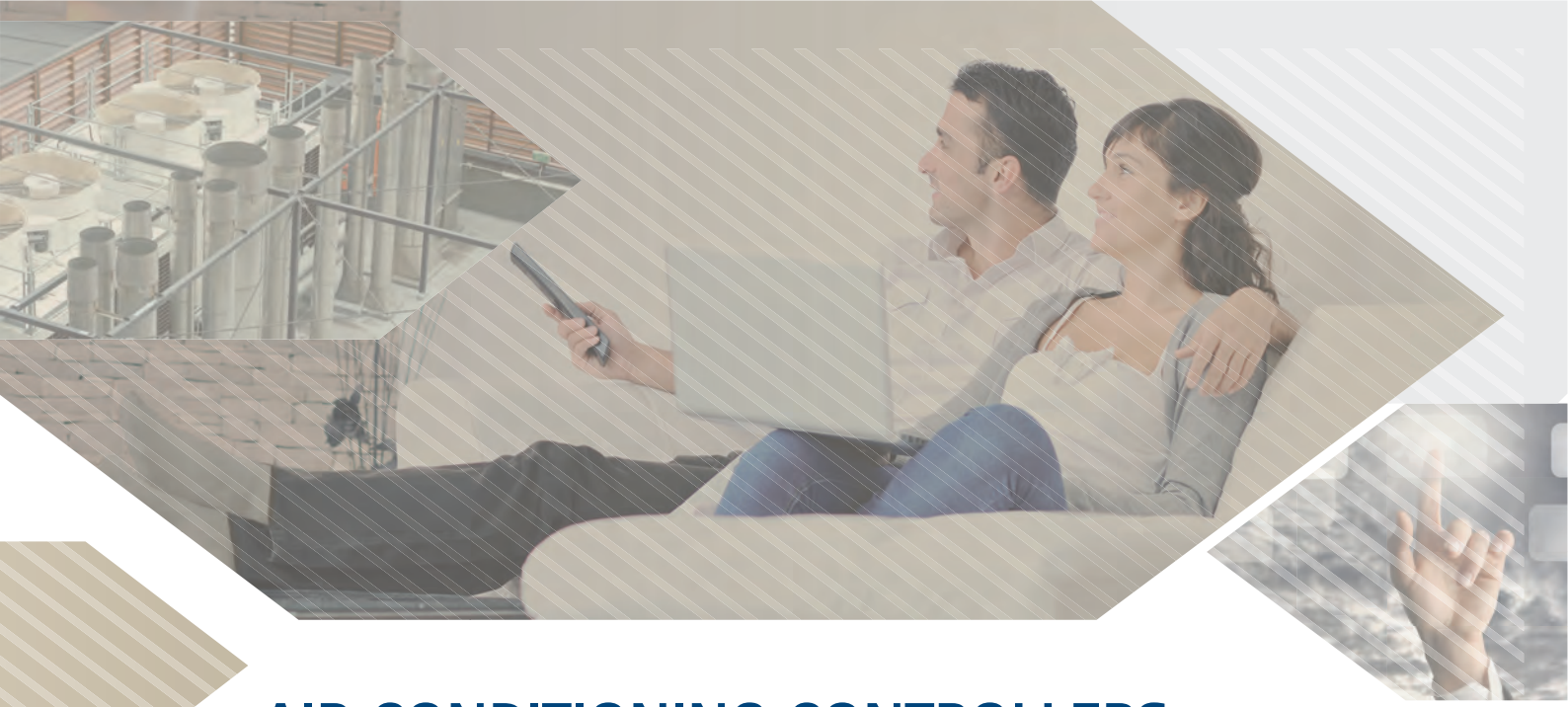
Voluntary quality mark recognised as equivalent to the single national marks of the Countries adherent to the accord. It certifies that a product conforms to the European norms EN, and that it has been manufactured by a company with quality systems conforming to ISO 9000 norms.

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.



AIR CONDITIONING CONTROLLERS

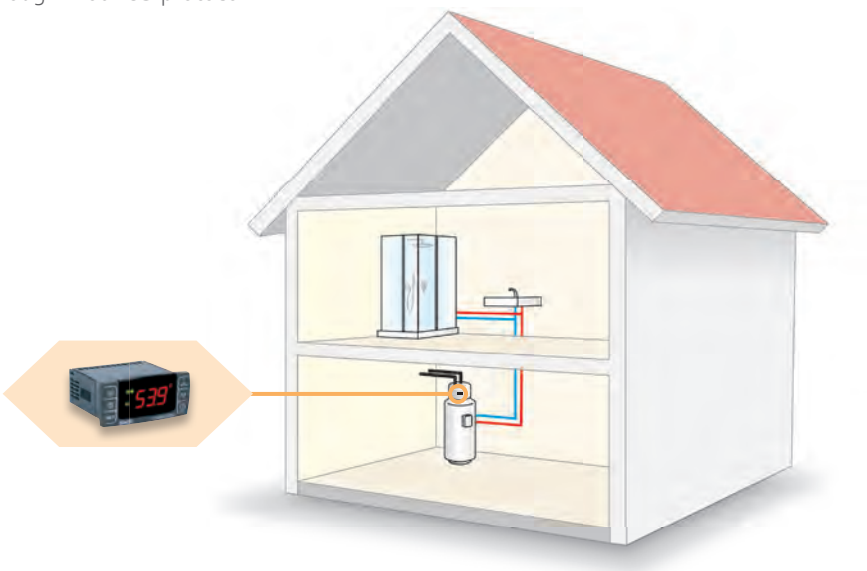
SECTION INDEX

CX: 32x74mm

IC70CX: CONTROLLER for BOILER with HEAT PUMP

IC70CX is the compact and flexible solution suitable for boiler unit with heat pump. The controller has dedicated functions that make it the ideal solution for applications for the residential environment. For this reason, defrosts have a great importance because they improve energy saving and the management of anti-legionella cycles that prevent the proliferation of bacteria into the water tank.

- Sanitary hot water production also in case of compressor failure
- Antilegionella cycles with daily programming or through a dedicated key
- Smart defrost cycles or forced cycles through a key
- Compressor security management
- Complete alarm management
- Alarm reset protected by password
- Real time clock
- Integrated heaters management
- Programming via HOT KEY or PC (WIZMATE PROG TOOL KIT)
- TTL serial output convertible in RS485 through ModBUS protocol



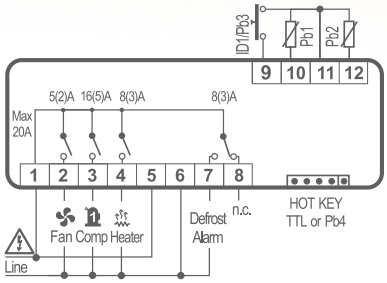
CONTROLLER for BOILER with HEAT PUMP

IC70CX

IC70CX | Multifunction controller for boiler with heat pump with functions for sanitary hot water

CX: 32x74mm

FEATURES	IC70CX
Display: n° digits	± 3 d.p.
Power supply	110, 230Vac
Probe inputs	
Pb1	NTC/PTC
Pb2	NTC/PTC
Pb4	NTC/PTC on Hot Key
Digital input	
ID1	config (also as Pb3)
Relay outputs	
Compressor	16A
Defrost or alarm	8A
Fans	5A
Heaters	8A
Other	
TTL/Hot Key/Prog Tool Kit output	pres
Buzzer	opt
Real time clock	pres



TECHNICAL DATA

Housing	self extinguishing ABS
Format	frontal 32x74mm; depth 59,5mm
Display	3 digits, red LED, 14,2 mm high + icons
Mounting	panel mounting in a 29x71mm cut-out
Front protection	IP65
Connections	screw terminal block ≤ 2,5 mm² wiring
Power supply	110Vac ±10%, 230Vac ±10% 50/60Hz
Power absorption	3VA max
Relay outputs	SPST 16(5)A, SPDT 8(3)A, SPST 5(2)A; 250Vac
Data storing	on the non-volatile memory (EEPROM)
Operating temperature	0÷60°C (32÷140°F)
Storage temperature	-25÷60°C (-13÷140°F)
Relative humidity	20÷85% (non condensing)
Measuring and regulation range	NTC probe: -50÷110°C (-58÷230°F) PTC probe: -50÷150°C (-58÷302°F)
Resolution	0,1 or 1°C or 1°F
Accuracy (at ambient temperature)	± 0.7°C ± 1 digit

HOW to ORDER

IC70CX

I	C	7	0	C	X	-	A	B	C	D	3

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

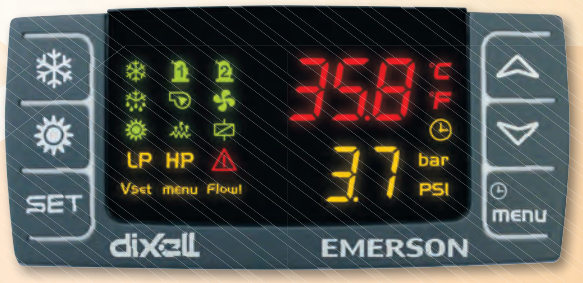
CX: 32x74mm

IC100 SERIES: 1 CIRCUIT up to 2 COMPRESSOR UNIT CONTROLLERS

IC100CX is Dixell's answer to real management and control requirements of **chiller units and heat pumps** single circuit (gas and water reversibility) with up to two compressors or a single compressor with capacity stages, by means of a compact instrument with the possibility of controlling units like: **air/air, air/water, water/water, motor-condensing**.

- Twin compressor functioning
- Function of compressor capacity stages for high and low condensing pressure
- ON/OFF or variable speed condensing fan control without the need to use external devices
- Forced and combined defrost
- Energy saving for time band or digital contact
- Internal data logger with up to 50 alarms
- Real time clock
- Voltage output for additional external relay management
- 4÷20mA/0÷10V output for condensing fan management
- Analog input configurable as NTC, 4÷20mA and 0÷5V ratiometric
- Configurable relays, probes and digital inputs
- Easy programming through HOT KEY or PC (WIZMATE PROG TOOL KIT)
- TTL (convertible in RS485) serial output with ModBUS protocol
- Quick tab connectors on all models

ICON	MEANING
°C	Celsius degrees
°F	Fahrenheit degrees
bar	Bar
PSI	PSI
	Compressor 1
	Compressor 2
	Unit ON – heat pump status (configurable as chiller)
	Unit ON – chiller status (configurable as heat pump)
	Defrost start delay/Defrost ON
	Clock
	Water pump – Supply fan
	Anti-freezing heater – Boiler
	Alarm
LP	Low pressure alarm
menu	Function menu
	Arrow keys

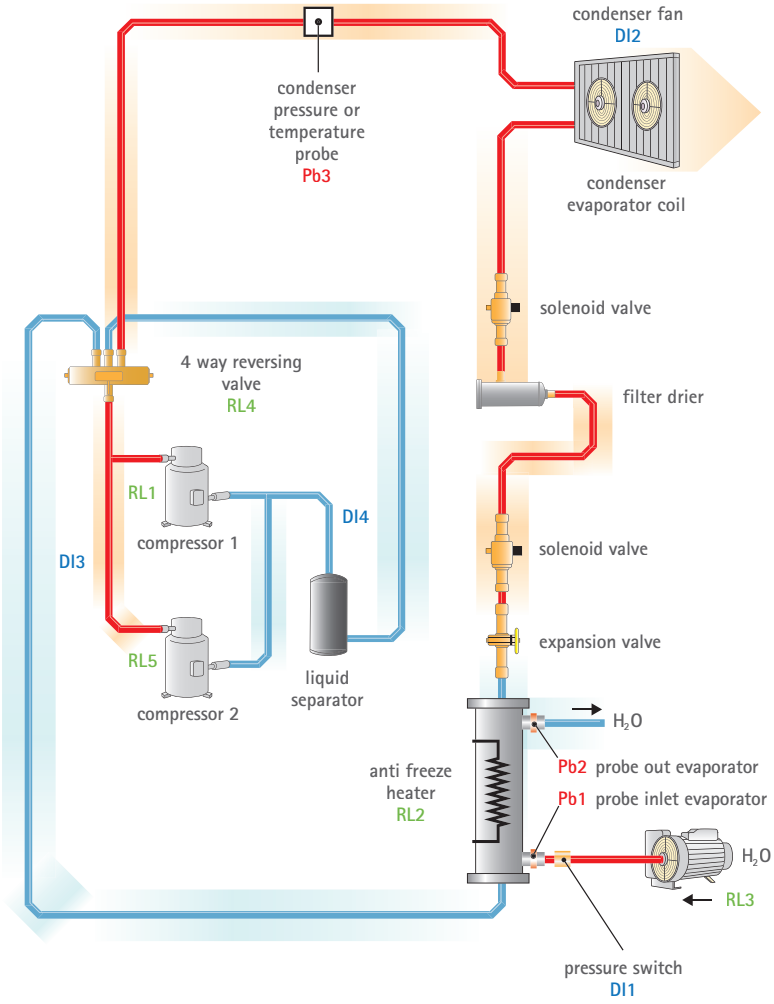


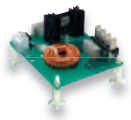
COMPLETE

The **dual display** and the **icons** display complete information about the machine status. With a single touch of one key, all main functions of the cooling system are displayed without the need to enter programming mode.

ICON	MEANING
	Condenser fan
	Voltage output ON for external relay
HP	High pressure alarm
Vset	Dynamic set/Energy saving ON
Flow!	Flow alarm

EXAMPLE of APPLICATION for 1 CIRCUIT up to 2 COMPRESSOR AIR/WATER CHILLER



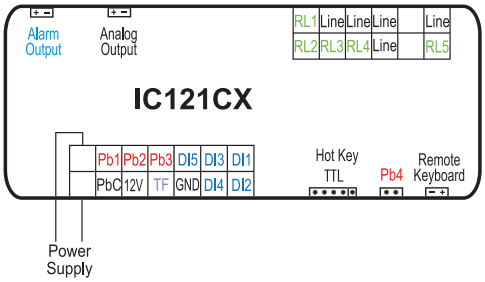


proportional fan
speed signal PWM
TF

external
air
Pb4

alarm
Alarm
Output

REMOTE ON/OFF
DI5



IC100

1 CIRCUIT up to 2 COMPRESSOR UNIT CONTROLLERS

CX: 32x74mm

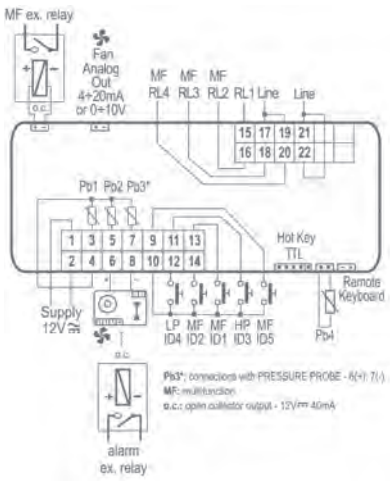
IC110CX	Advanced multifunction controller for chiller with 1 circuit and 1 compressor
IC111CX	Advanced multifunction controller for chiller/heat pump with 1 circuit and 1 compressor
IC120CX	Advanced multifunction controller for chiller with 1 circuit and 2 compressors
IC121CX	Advanced multifunction controller for chiller/heat pump with 1 circuit and 2 compressors

FEATURES	IC110CX - IC111CX	IC120CX - IC121CX
First display: n° digits	± 4 d.p.	± 4 d.p.
Second display: n° digits	± 4 d.p.	± 4 d.p.
Power supply	12, 24Vac/dc	12, 24Vac/dc
Probe inputs		
Pb1	NTC	NTC
Pb2	NTC	NTC
Pb3	NTC/4÷20mA/0÷5V config	NTC/4÷20mA/0÷5V config
Pb4	NTC/ID config	NTC/ID config
Digital inputs		
High pressure	pres	pres
Low pressure	pres	pres
N° 3 + 1(Pb4)	config	config
Relay outputs		
RL1 Compressor 1	°8A	8A
RL2	°8A config	8A config
RL3	8A config	8A config
RL4	°8A config	8A config
RL5	°8A config opt	8A config
Other outputs		
Analog output for fan control	4÷20mA/0÷10V opt	4÷20mA/0÷10V opt
Signal for fan speed control	*PWM	PWM
Voltage output for external relay	12Vdc-40mA max	12Vdc-40mA max
TTL/Hot Key/Prog Tool Kit	pres	pres
Other		
Triac inside	2A opt	
Remote keyboard	VICX610	VICX610
Buzzer	opt	opt
Real time clock	opt	opt
Connection kit	CF-KIT, CAB/CJ15, CAB/CJ30, CW15-KIT, CW25-KIT	CF-KIT, CAB/CJ15, CAB/CJ30, CW15-KIT, CW25-KIT

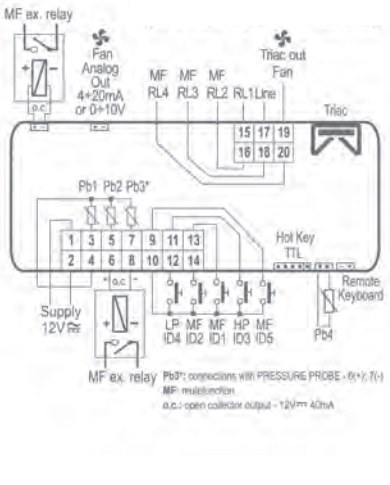
° With triac module: RL1 = 5A - RL2 = 5A - RL4 = 5A config - RL5 = not present - Connection kit: CWC15-KIT

* The PWM output is substituted for the output for the external relay driver when the triac is inside

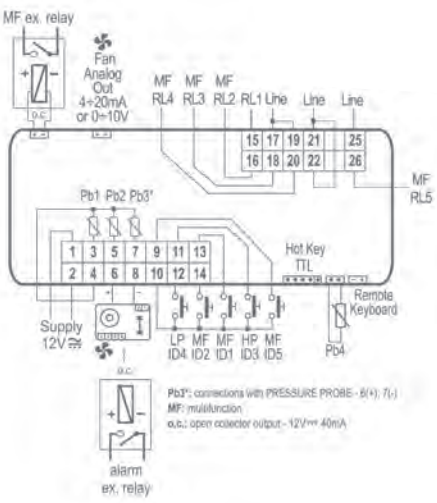
IC110CX - IC111CX



IC110CX - IC111CX (triac module inside)



IC120CX - IC121CX



TECHNICAL DATA

Housing	self extinguishing ABS
Format	frontal 32x74mm; depth 59,5mm
Display	4 digits red LED + 4 digits yellow LED + icons
Mounting	panel mounting in a 29x71mm cut-out
Front protection	IP65
Connections	disconnectable connectors 12-14 or 14-6 pins
Power supply	12Vac/dc -10% ÷ +15%, 24Vac/dc ±10% 50/60Hz
Power absorption	5VA max
Relay outputs	SPDT 8(3)A, 250Vac (SPDT 8(3)A + 3 SPST 5(2)A; 250Vac for model with triac)
External relay output	12Vdc - 40mA max
Analog outputs	PWM signal (single-fan module) 4÷20mA (fan module) 0÷10V (fan module)
Data storing	non-volatile memory (EEPROM)
Operating temperature	-10÷60°C (14÷140°F)
Storage temperature	-30÷85°C (-22÷185°F)
Relative humidity	20÷85% (non condensing)
Measuring and regulation range	pressure probe: 0÷50bar NTC probe: -40÷110°C (-40÷230°F)
Resolution	0,1°C or 1°F or 0,1bar or 1PSI
Accuracy (at ambient temperature)	± 0.7°C ± 1 digit

HOW to ORDER

IC100

I	C	1			C	X	-	A	B	C	D	0

A

Power supply
0 = 12Vac/dc
1 = 24Vac/dc

B

Regulation inputs
0 = 4xNTC
1 = 3xNTC + 4÷20mA
2 = 3xNTC + 0÷5V

C

IC110CX / IC111CX - Options			
4÷20mA	Aux	Triac 2A	0÷10V
0 = No	No	No	No
1 = No	Yes	No	No
2 = Yes	No	No	No
3 = Yes	Yes	No	No
4 = No	No	Yes	No
5 = No	No	No	Yes
6 = No	Yes	No	Yes
7 = No	No	Yes	Yes

IC120CX / IC121CX - Options	
4÷20mA	0÷10V
0 = No	No
1 = Yes	No
2 = No	Yes

D

Buzzer	RTC
0 = No	No
1 = Yes	No
2 = No	Yes
3 = Yes	Yes

IC200 evo SERIES: 2 CIRCUIT up to 6 COMPRESSOR UNIT CONTROLLERS with EEV MANAGEMENT

IC200 evo is the iCHILL evolution series of controllers, dedicated to the **chiller and heat pump units**. Compactness, extreme flexibility, driver control for the **electronic expansion valves**, and advanced functions such as free cooling and sanitary hot water production are only some of the main elements that make the series complete and suitable for the majority of plants. Controlled units can be **single or dual circuit up to 6 compressors** such as: **air/air, air/water, water/water, motor-condensing, geothermal heat pumps and dryers**.

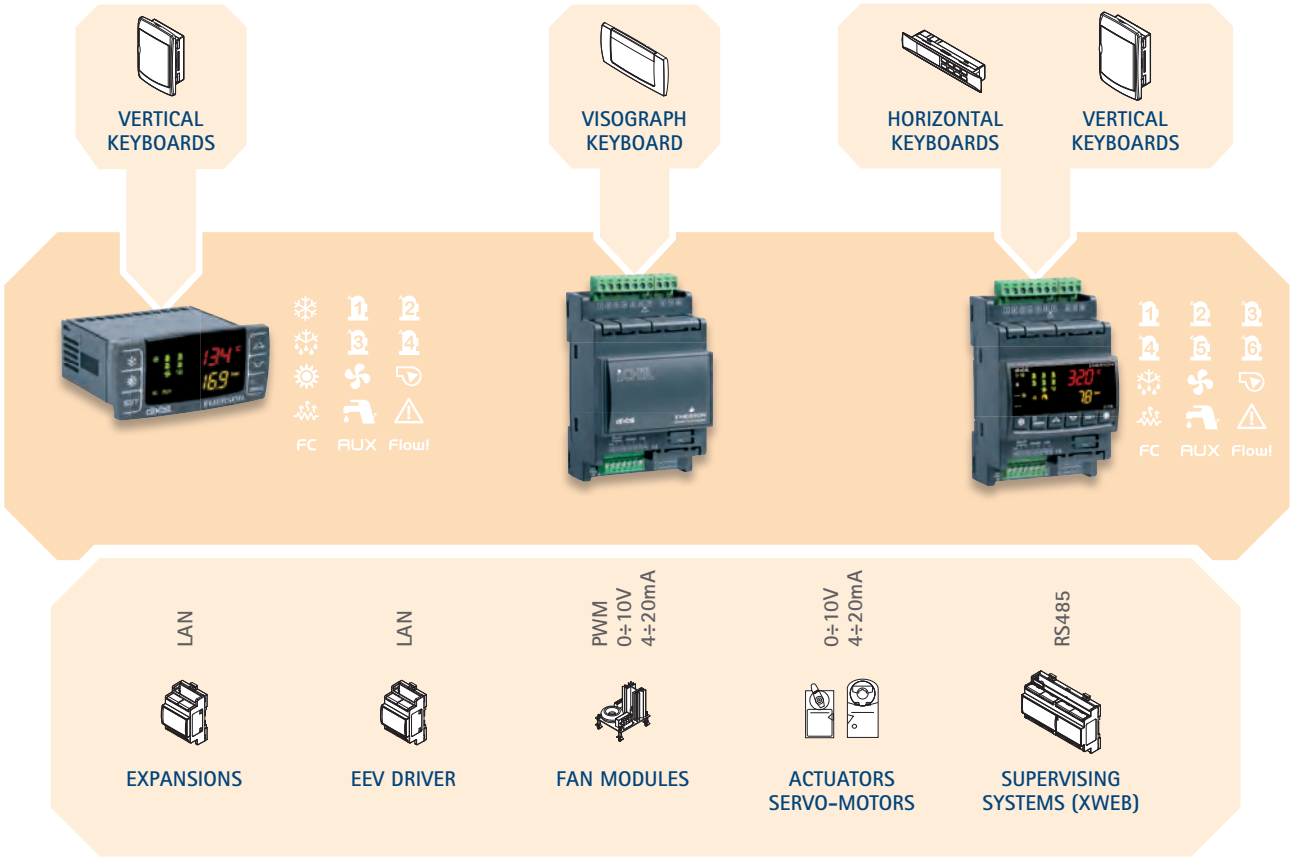
- Management of scroll, screw and inverter compressors
- Compressor rotation control (also from start/hour number)
- Data logger (alarm type, date, hours, machine status)
- Pump-down function (stop and start)
- Capacity function of machine power during critical functioning conditions such as high or low condensing pressure
- Forced defrost during critical conditions
- Combined defrost temperature/pressure
- Sanitary hot water production
- Solar panel management
- Dynamic set point
- Start and stop by time bands
- Second set point (by time bands or digital input)
- PWM/4÷20mA/0÷10V output for condensing control
- Easy programming through HOT KEY or PC (WIZMATE PROG TOOL KIT)
- RS485 and/or TTL (convertible in RS485) serial output with ModBUS protocol
- Quick tab connectors on all models
- LAN output for I/O expansion modules or EEV driver connection

COMPLETE INTERFACE and HIGH CONNECTIVITY

The **IC200 evo** family is available in the **CX version with display** and in **4 DIN Rail version with or without display** (LED).

The **dual display and the icons** for the machine status visualization, present on models with LED interface, ensure chiller/heat pump (compressor status, water heat pumps, fans, machine working mode) functioning. The **LCD graphic display** (Visograph) suitable for models without built-in display, give a more complete interface, adding functioning status in-full, menù, used probes, alarms descriptions, and more.

The **high connectivity** that marks these controllers, simplify communication with the most important devices of the HVAC world such as drivers for the electronic expansion valve management, modules for fans speed control, monitoring systems, and more.



TYPE of MACHINE

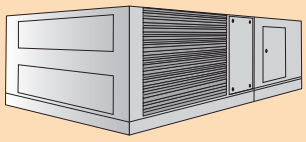
IC200CX

- 1 circuit – 4 compressors
- 2 circuits – 2 compressors per circuit
- 2 circuits – 1 screw compressor per circuit
- 2 circuits – 1 inverter compressor per circuit

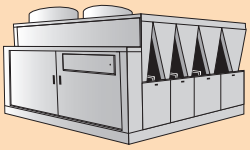
IC200D

- 1 circuit – 6 compressors
- 2 circuits – 3 compressors per circuit
- 2 circuits – 1 screw compressor per circuit
- 2 circuits – 1 inverter compressor per circuit

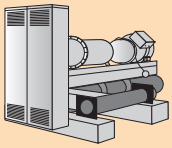
The **IC200 evo** family of controllers is able to easily manage units proper of the HVAC world using a simple and powerful hardware/software platform.



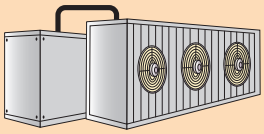
ROOF-TOP AIR/AIR



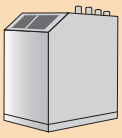
AIR/WATER



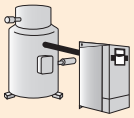
WATER/WATER



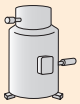
MOTOR-CONDENSING



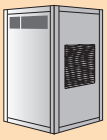
GEOTHERMAL HEAT PUMPS



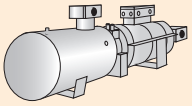
INVERTER COMPRESSORS (up to 2)



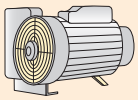
SCROLL COMPRESSORS (up to 6)



DRYERS



SCREW COMPRESSORS (up to 2)



INVERTER WATER PUMP

RTC

Alarm Logger (up to 100)

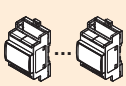
LAN

EEV DRIVER

ModBUS Slave

SUPERVISING SYSTEMS (XWEB)

LAN



CONTROLLERS (up to 5)

LOCAL PC (parameter configuration)

0÷10V 4÷20mA

ACTUATORS SERVO-MOTORS

PWM 0÷10V 4÷20mA

FAN MODULES

ModBUS Master

ROOM PROBE (temperature/humidity)

2 CIRCUIT up to 6 COMPRESSOR UNIT CONTROLLERS

IC200 evo

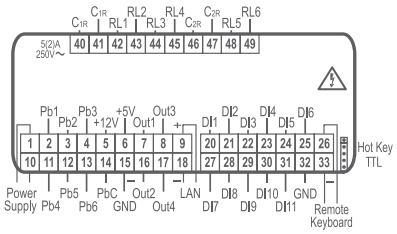
IC205D	Controllers for chillers and heat pumps with 5 relay outputs (available also without display)
IC206CX	Controllers for chillers and heat pumps (up to 4 compressors) with 6 relay outputs
IC207D	Controllers for chillers and heat pumps with 7 relay outputs (available also without display)
IC208CX	Controllers for chillers and heat pumps (up to 4 compressors) with 8 relay outputs
ICX207D	Expansion module with 7 relay outputs

CX: 32x74mm

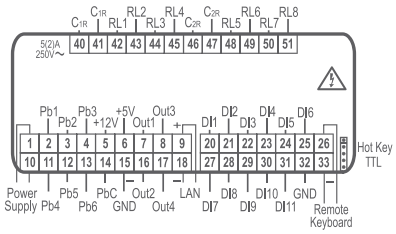
D: 4 DIN Rail

FEATURES	IC205D		IC206CX	IC207D		IC208CX	ICX207D
First display: n° digits	± 4 d.p.	no display	± 4 d.p.	± 4 d.p.	no display	± 4 d.p.	no display
Second display: n° digits	± 4 d.p.		± 4 d.p.	± 4 d.p.		± 4 d.p.	
Power supply	12, 24Vac/dc	12, 24Vac/dc	12, 24Vac/dc	12, 24Vac/dc	12, 24Vac/dc	12, 24Vac/dc	12, 24Vac/dc
Probe inputs							
NTC/PTC	5 config	5 config	4 config	5 config	5 config	4 config	5 config
NTC/PTC/4÷20mA/0÷5V	3 config	3 config	2 config	3 config	3 config	2 config	3 config
Digital inputs							
Free voltage	9 config	9 config	11 config	9 config	9 config	11 config	9 config
Relay outputs							
5A	5 config	5 config	6 config	7 config	7 config	8 config	7 config
Other outputs							
Analogs	2xPWM 0÷10V 4÷20mA 1x0÷10V 4÷20mA	2xPWM 0÷10V 4÷20mA 1x0÷10V 4÷20mA	2xPWM 0÷10V 2x0÷10V	2xPWM 0÷10V 4÷20mA 1x0÷10V 4÷20mA	2xPWM 0÷10V 4÷20mA 1x0÷10V 4÷20mA	2xPWM 0÷10V 2x0÷10V	2xPWM 0÷10V 4÷20mA 1x0÷10V 4÷20mA
LAN	pres	pres	pres	pres	pres	pres	pres
RS485	pres	pres		pres	pres		
TTL/Hot Key 64/Prog Tool Kit	pres	pres	pres	pres	pres	pres	pres
Other							
Remote keyboard	1xTI620 2xVI622	VGI820	2xVICX620	1xTI620 2xVI622	VGI820	2xVICX620	
Buzzer	pres	pres	pres	pres	pres	pres	
Real time clock	opt	opt	opt	opt	opt	opt	
Connection kit	DWDE30-KIT	DWDE30-KIT	CWCXA15-KIT, CWCXA30-KIT	DWDE30-KIT	DWDE30-KIT	CWCXB15-KIT, CWCXB30-KIT	DWDE30-KIT
Expansion module	ICX207D	ICX207D	ICX207D	ICX207D	ICX207D	ICX207D	

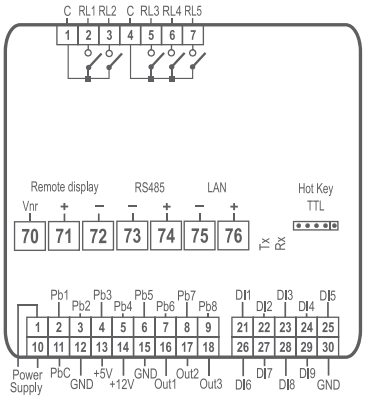
IC206CX



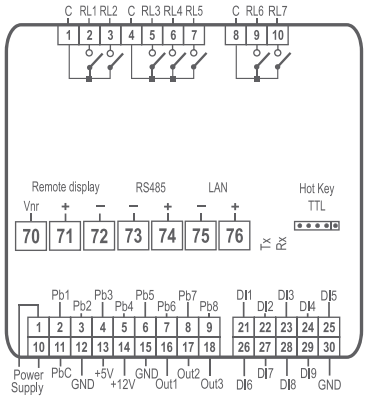
IC208CX



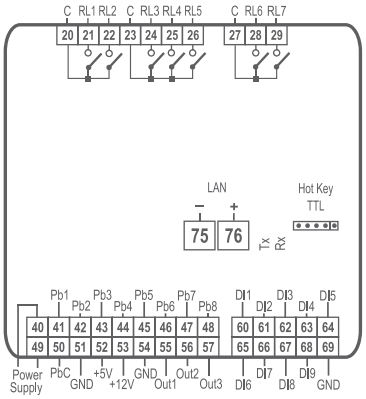
IC205D



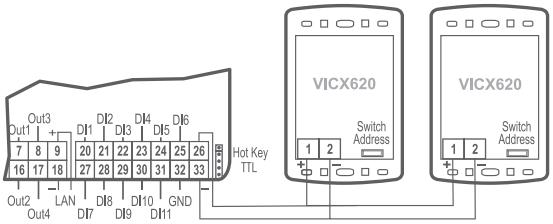
IC207D



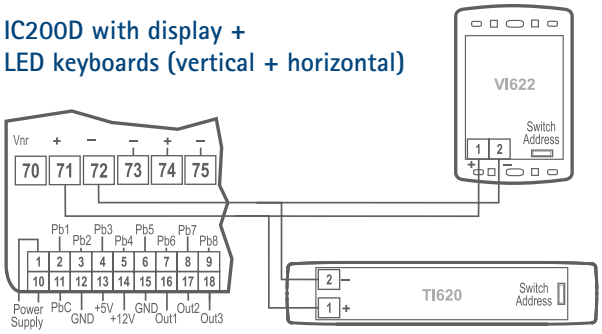
ICX207D



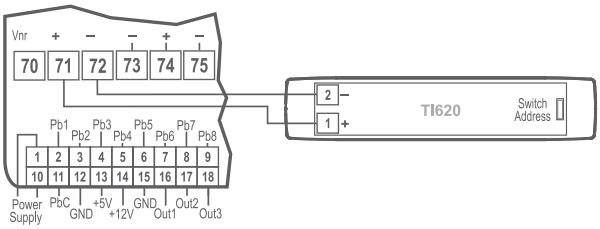
IC200CX + LED keyboards (vertical)



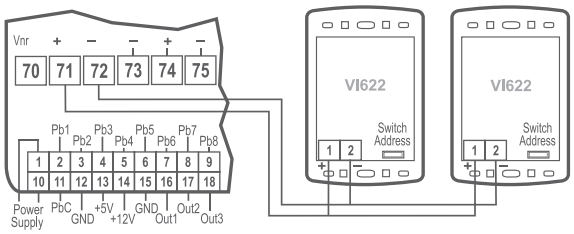
IC200D with display + LED keyboards (vertical + horizontal)



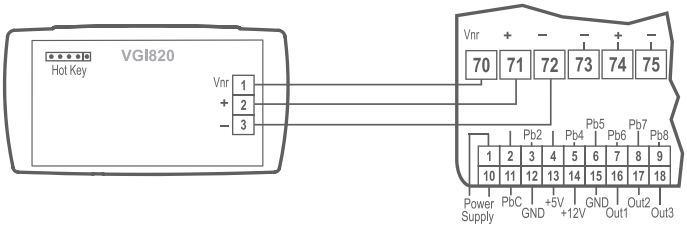
IC200D with display + LED keyboard (horizontal)



IC200D with display + LED keyboards (vertical + vertical)



IC200D without display + LCD keyboard (visograph)



TECHNICAL DATA

Housing	self extinguishing ABS
Format	CX: frontal 32x74mm; depth 59,5mm D: frontal 110x70mm; depth 59,5mm
Display	models with display: 4 digits red LED + 4 digits yellow LED + icons
Mounting	CX: panel mounting in a 29x71mm cut-out D: DIN Rail or wall mounting through integrated brackets
Front protection	CX: IP65
Connections	disconnectable connectors
Power supply	12Vac/dc -10% ÷ +15%, 24Vac/dc ±10% 50/60Hz
Power absorption	10VA max
Relay outputs	SPDT 5(2)A, 250Vac
Analog output	CX: 2xPWM/0÷10V 2x0÷10V D: 2xPWM/0÷10V/4÷20mA 1x0÷10V/4÷20mA
Data storing	non-volatile memory (EEPROM)
Operating temperature	-10÷55°C (14÷131°F)
Storage temperature	-30÷85°C (-22÷185°F)
Relative humidity	20÷85% (non condensing)
Measuring and regulation range	pressure probe: 0÷50bar (0÷725PSI) NTC probe: -50÷110°C (-58÷230°F) PTC probe: -50÷150°C (-58÷302°F)
Resolution	0,1°C or 1°F or 0,1bar or 1PSI
Accuracy (at ambient temperature)	± 0.7°C ± 1 digit

HOW to ORDER

IC200CX

I	C	2	0		C	X	-	A	1	C	0	0

A	C
Power supply	**RTC**
0 = 12Vac/dc	**0** = No
1 = 24Vac/dc	**1** = Yes

IC200D

I	C	2	0		D	-	A	B	C	0	0

A	B	C
Power supply	**Display**	**RTC**
0 = 12Vac/dc	**0** = No	**0** = No
1 = 24Vac/dc	**1** = Yes	**1** = Yes

ICX207D

I	C	X	2	0	7	D	-	A	0	0	0	0

A
Power supply
0 = 12Vac/dc
1 = 24Vac/dc

IC200 SERIES: 2 CIRCUITS up to 6 COMPRESSOR UNIT CONTROLLERS

IC200 is Dixell's answer to the necessities of **chiller units and heat pumps**. Compactness, extreme flexibility and advanced functions such as free cooling and sanitary hot water production are only some of the main elements that make the series complete and suitable for the majority of plants. Controlled units can be **single or dual circuit up to 6 compressors** such as: **air/air, air/water, water/water, motor-condensing**.

- Compressor rotating control (also from start/hour number)
- Direct, part-winding, star-delta compressor start
- Screw compressor management
- Pump-down function (stop and start)
- Sanitary hot water production
- Temperature/pressure unloading function
- Forced defrost
- Combined defrost
- Dynamic set point
- Start and stop by time bands
- Second set point (by time bands or digital input)
- PWM/4÷20mA/0÷10V output for condensing control
- Easy programming through HOT KEY or PC (WIZMATE PROG TOOL KIT)
- RS485 and/or TTL (convertible in RS485) serial output with ModBUS protocol
- Alarm control, even in stand-by or remote off

CONTROLLED DEVICES

- 1 circuit - 1 compressor up to 3 capacity stages management
- 2 circuits - 1 compressor up to 3 capacity stages management
- 2 circuits - 6 compressor management
- Management of 2 evaporator section and 2 condenser section water pumps (switched)
- Management of up to 4 0÷10V analog outputs
- 2 configurable AUX relay outputs
- Remote keyboard management: 2 LED display and 1 LCD display

COMPLETE

The **dual display** with **icons** on L format and VI620 vertical terminal, and the Visograph **LCD graphic display**, give complete information about the machine status. All main functions of the cooling system are displayed with a single touch of one key, without the need to enter programming mode. Also the **alarm management** is easy and immediate thanks to this user interface that quickly provides any alarm event signals.

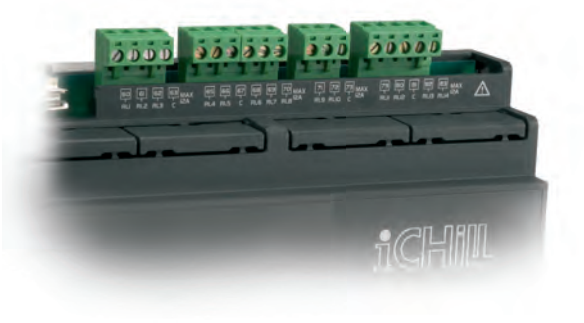
Each alarm has a dedicated label
(eg. C1tr: thermal compressor 1 alarm)

Alarm reset protects by password

Internal data logger (up to 100 events)

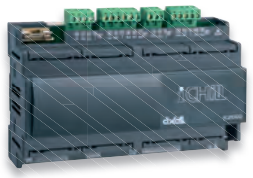
CONNECTIONS

All controllers have quick tab connectors that make the mounting easier and quicker.



IC200

2 CIRCUIT – up to 6 COMPRESSOR UNIT CONTROLLERS



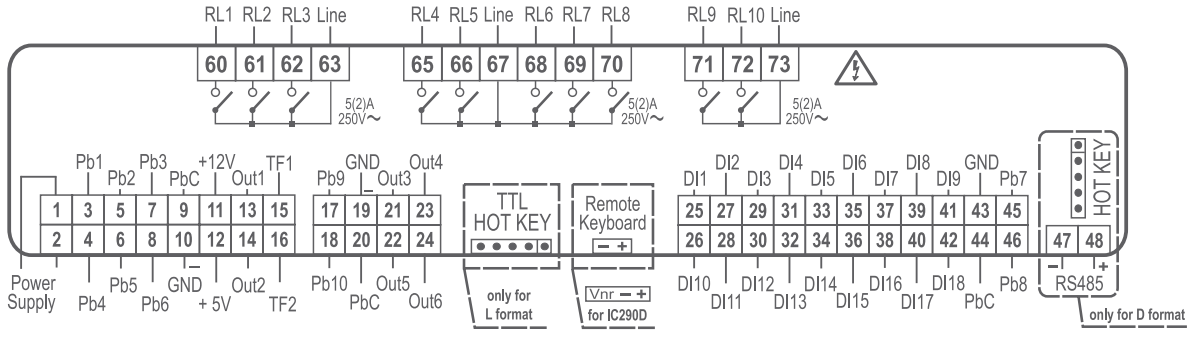
D: 10 DIN Rail

L: 38x185mm

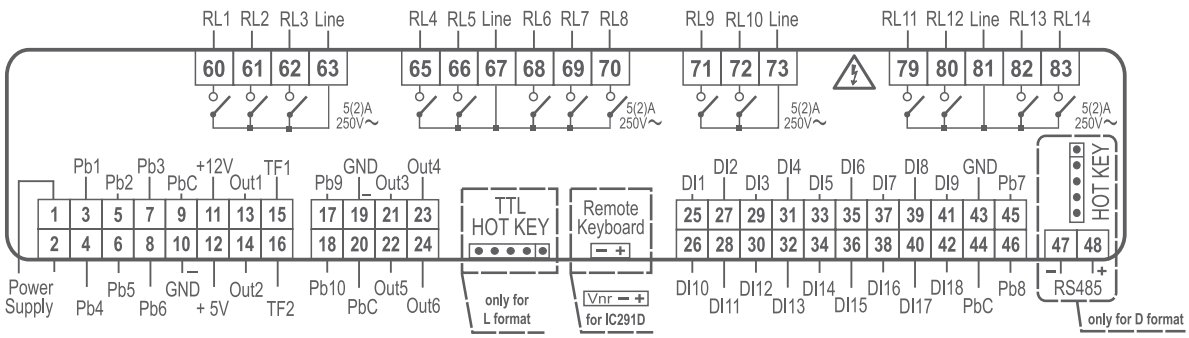
IC260L **IC261L**	Advanced multifunction controllers for chillers with heat pump (integrated keyboard/LED display)
IC260D **IC261D**	Advanced multifunction controllers for chillers with heat pump (remote keyboard/LED display)
IC290D **IC291D**	Advanced multifunction controllers for chillers with heat pump (remote keyboard/LCD display)

FEATURES	IC260L	IC260D	IC261L	IC261D	IC290D	IC291D
First display: n° digits	± 3 d.p.		± 3 d.p.			
Second display: n° digits	± 4 d.p.		± 4 d.p.			
Power supply	12, 24Vac/dc	12, 24Vac/dc	12, 24Vac/dc	12, 24Vac/dc	12, 24Vac/dc	12, 24Vac/dc
Probe inputs						
NTC/PTC/4÷20mA/0÷5V	4 config	4 config	4 config	4 config	4 config	4 config
NTC/PTC	6 config	6 config	6 config	6 config	6 config	6 config
Digital inputs						
Free voltage	18 config	18 config	18 config	18 config	18 config	18 config
Relay outputs						
5A	10 config	10 config	14 config	14 config	10 config	14 config
Other outputs						
PWM for fan speed module	2	2	2	2	2	2
4÷20mA/0÷10V for fan speed module	2 config	2 config	2 config	2 config	2 config	2 config
0÷10V for free cooling, external relay	4 config	4 config	4 config	4 config	4 config	4 config
RS485		pres		pres	pres	pres
TTL/Hot Key 64/Prog Tool Kit	pres	pres	pres	pres	pres	pres
Other						
Remote keyboard	2xVI620	2xVI620	2xVI620	2xVI620	VGI890	VGI890
Buzzer	opt	opt	opt	opt	opt	opt
Real time clock	opt	opt	opt	opt	opt	opt
Connection kit	LW30-KIT	LW30-KIT	LW30-KIT	LW30-KIT	LW30-KIT	LW30-KIT

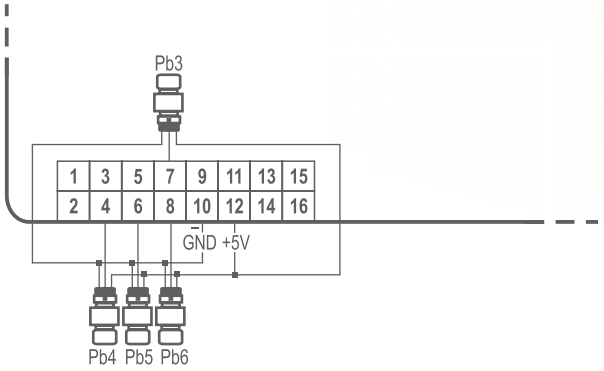
IC260L – IC260D – IC290D



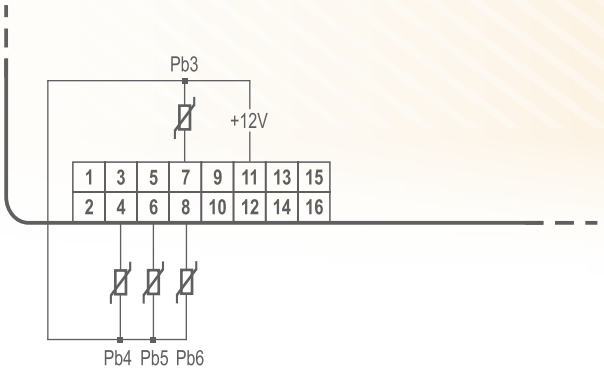
IC261L – IC261D – IC291D



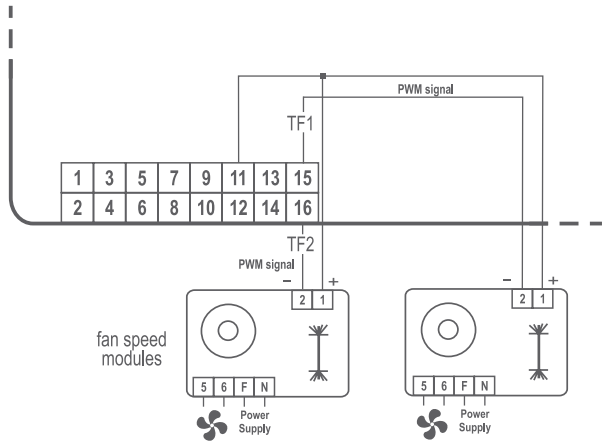
Analog inputs
for ratiometric pressure transducer PPR30 (0÷5V signal)



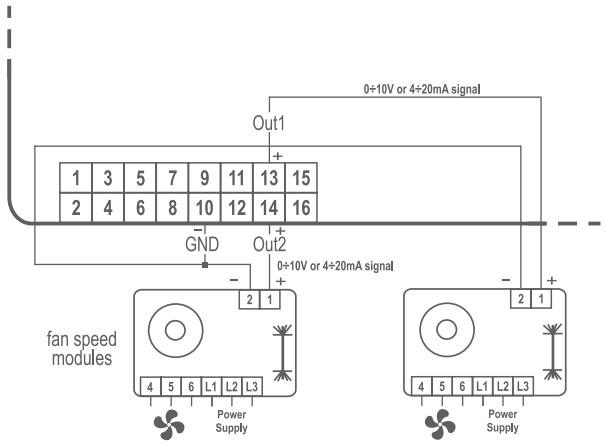
Analog inputs
for pressure transducer PP30 (4÷20mA signal)



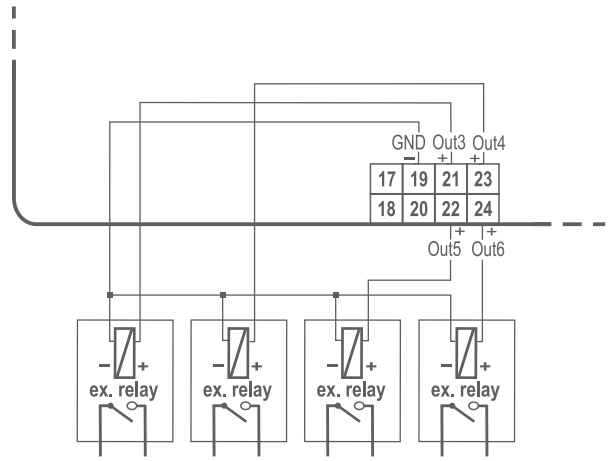
PWM output
for condensing single-phase fans



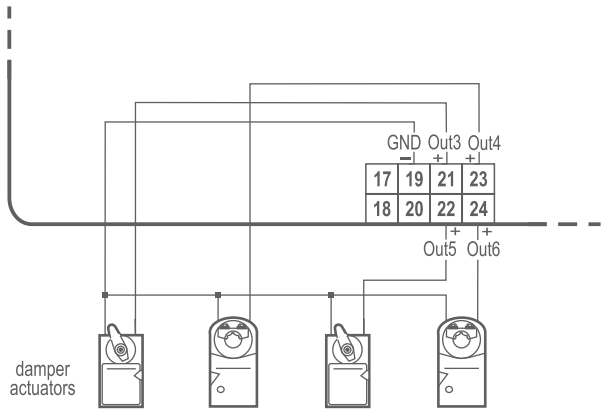
0÷10V or 4÷20mA output
for condensing three-phase fans



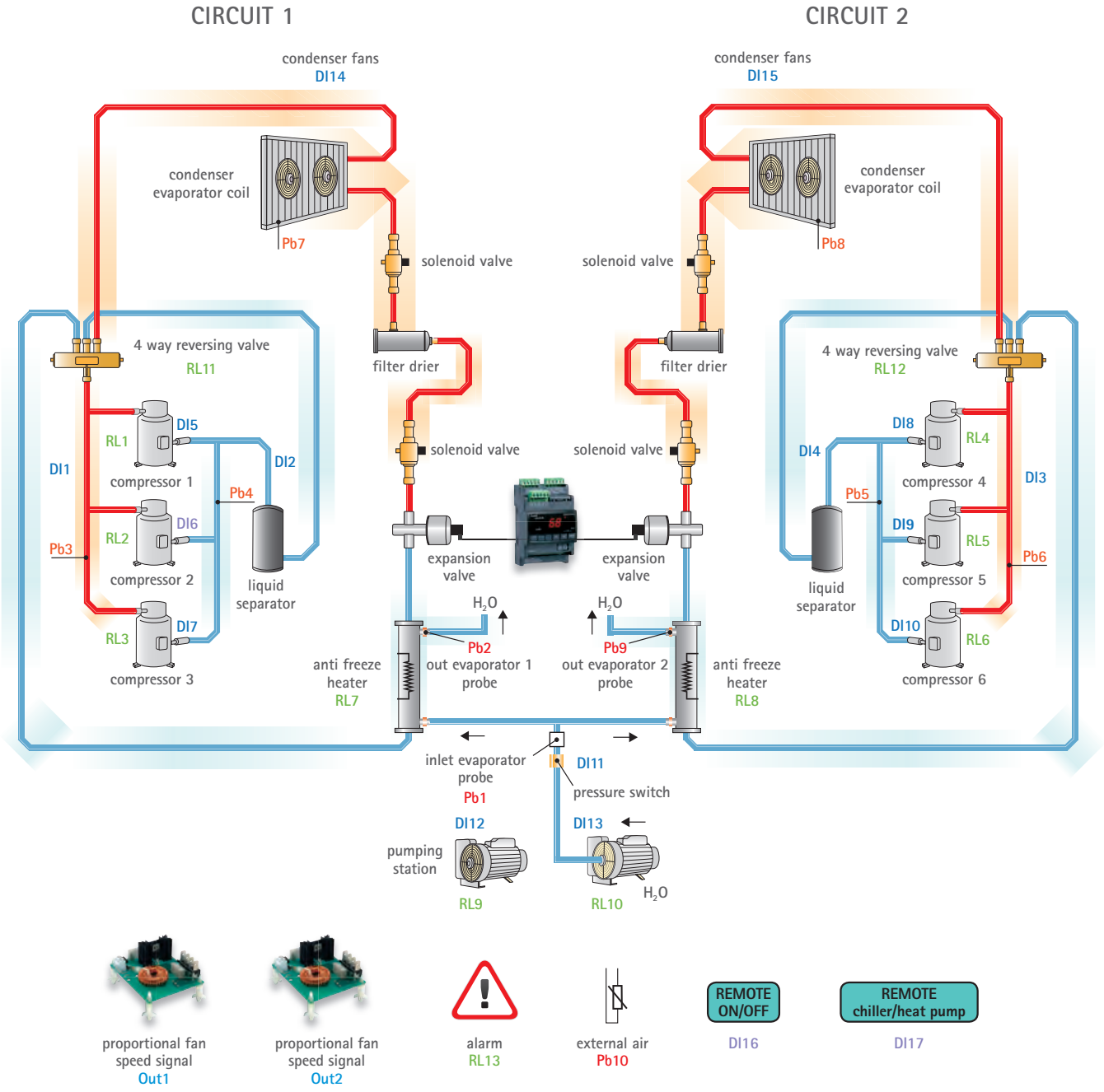
Proportional outputs configured
for external relay control

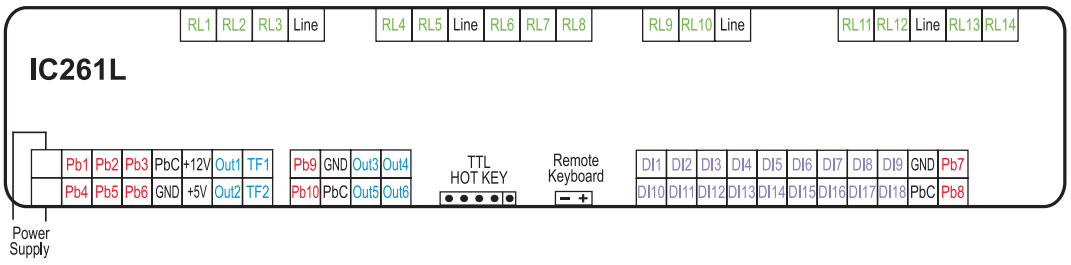


Proportional outputs configured
for damper control (0÷10V)



EXAMPLE of APPLICATION for 2 CIRCUIT up to 6 COMPRESSOR AIR/WATER CHILLER





TECHNICAL DATA

Housing	self extinguishing ABS
Format	L: frontal 38x185mm; depth 65,5mm D: frontal 110x175mm; depth 59,5mm
Display	L: 3 digits red LED + 4 digits yellow LED + icons
Mounting	L: panel mounting in 31x150mm cut-out D: DIN Rail or wall mounting through integrated brackets
Front protection	L: IP65 with gasket
Connections	disconnectable connectors
Power supply	12Vac/dc -10% ÷ +15%, 24Vac/dc ±10% 50/60Hz
Power absorption	10VA max
Relay outputs	10 or 14 SPDT 5(2)A, 250Vac
Analog outputs	2xPWM 2x4÷20mA/0÷10V/PWM 4x0÷10V
Data storing	non-volatile memory (EEPROM)
Operating temperature	-10÷55°C (14÷131°F)
Storage temperature	-30÷85°C (-22÷185°F)
Relative humidity	20÷85% (non condensing)
Measuring and regulation range	pressure probe: 0÷50bar (0÷725PSI) NTC probe: -50÷110°C (-58÷230°F) PTC probe: -50÷150°C (-58÷302°F)
Resolution	0,1°C or 1°F or 0,1bar or 1PSI
Accuracy (at ambient temperature)	± 0.7°C ± 1 digit

HOW to ORDER

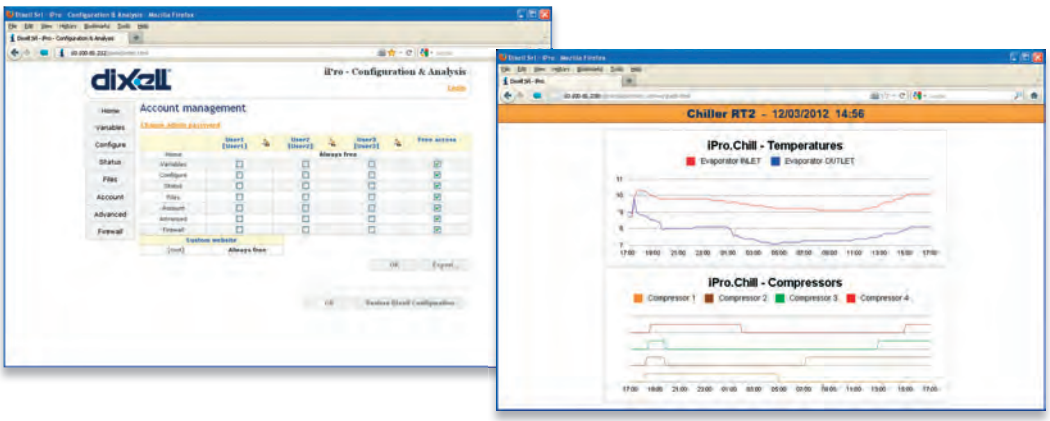
IC200L	I	C	2			L	-	A	B	C	D	0
IC200D	I	C	2			D	-	A	B	C	D	0

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

iProCHILL SERIES: up to 4 CIRCUIT and 16 COMPRESSOR UNIT CONTROLLERS

The controllers of iProCHILL family are the Dixell's answer to the requirements of the HVAC world; they are suitable for all **chillers, heat pump units up to 4 circuits and 16 compressors**. These instruments are complete and easy to use; they are the correct solution for the majority of the chiller-machines, including the most complex units, and can manage systems such as: **air/air, air/water, water/water, motor-condensing**.
Thanks to a **high degree of connectivity**, they are indispensable for remote management of a plant's "service" centers.

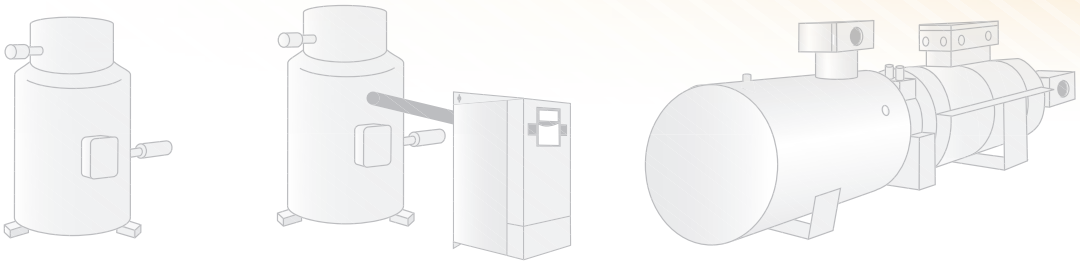
- Geothermal heat pump management with sanitary hot water production
- Instant and complete visualization of the unit values thanks to the VISOGRAPH graphic display and of the plant by means of the TGIPG touch display
- Powerful platform based on LINUX operative system on ARM9 microprocessor (200MHz/32bit)
- Ethernet for connection to an intranet-internet network
- USB output for configuration update
- Slave RS485 serial output for 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 in order to increase system capacity
- Connection to the drivers for electronic expansion valve management and control



KIND of COMPRESSORS

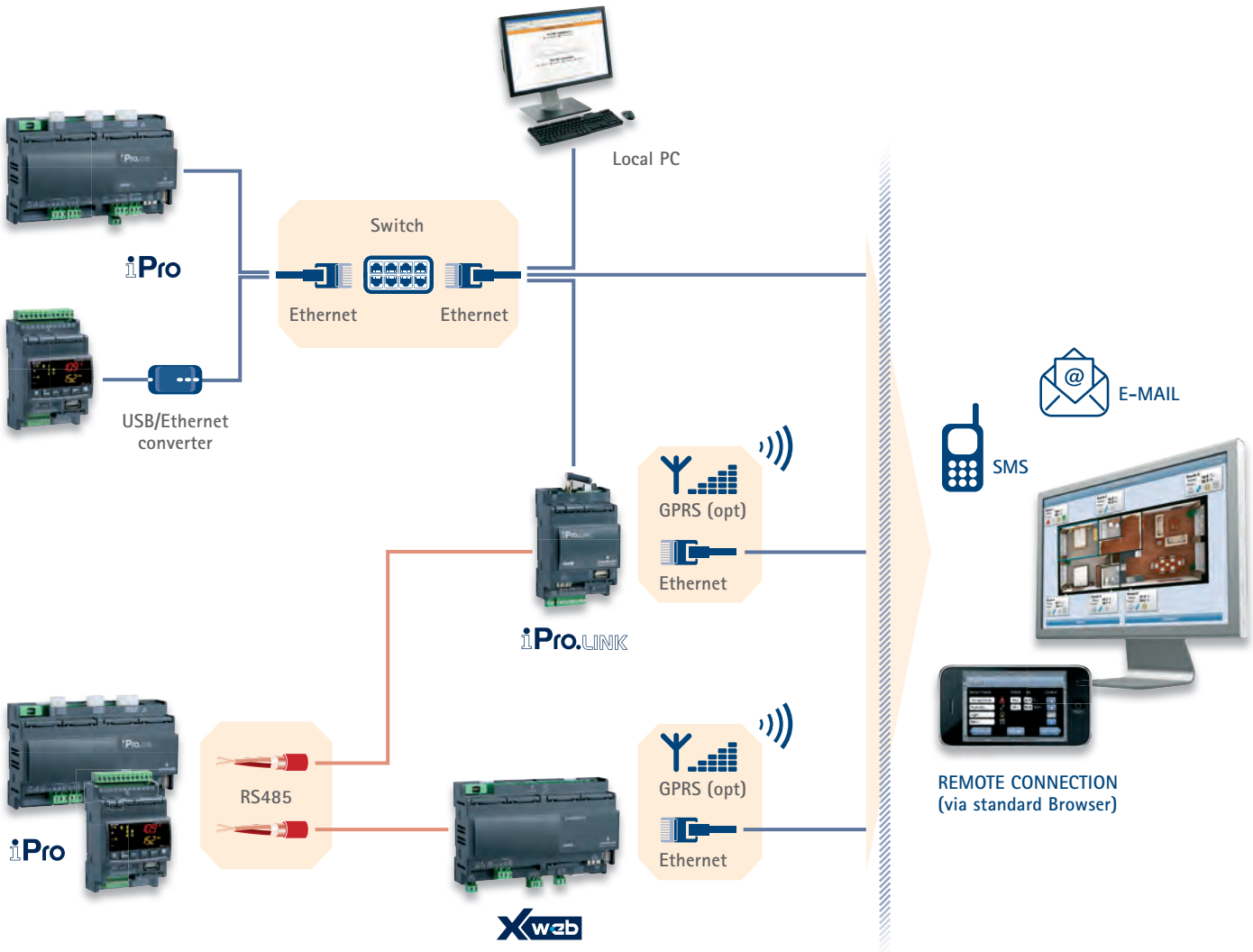
The extensive iProCHILL range allows optimal management of air conditioning units, equipped with different types of compressors of the largest manufacturers, via ModBUS, TCP/IP or through a dedicated analog signal.

- Multiscroll up to 16 compressors per circuit
- Scroll with Brushless permanent magnet motor
- Screw with regulation up to 4 capacity steps
- Stepless (only for 10 DIN format)
- Screw with inverter (also integrated)
- Reciprocating



CONNECTIVITY

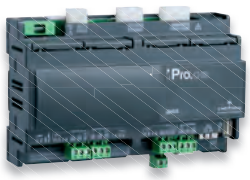
The high degree of connectivity (Ethernet or RS485) of iProCHILL Dixell controllers enables local and remote management of units/plants. Some available functions are: machine status, alarms display, and commands that send modifications such as plant comfort settings and start/stop of unit/lights.



iProCHILL

4 CIRCUIT – up to 4 CIRCUIT and 16 COMPRESSOR UNIT CONTROLLERS

D, E: 4 DIN Rail



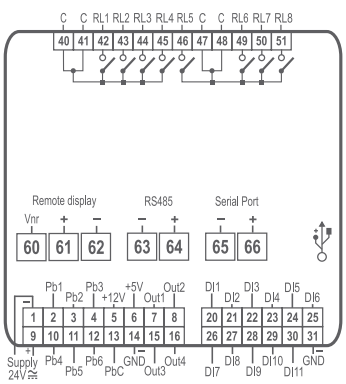
D: 10 DIN Rail

IPC108D	Controller in 4 DIN Rail format for up to 2 circuit and 6 compressor chiller and heat pumps
IPC108E	Controller in 4 DIN Rail format with LED display for up to 2 circuit and 6 compressor chiller and heat pumps
IPC115D	Controller in 10 DIN Rail format for up to 4 circuit and 16 compressors chiller and heat pumps

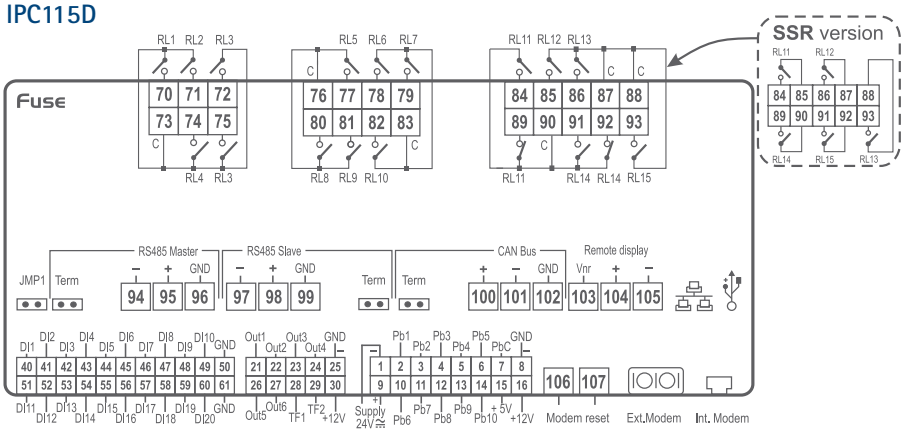
FEATURES	IPC108D	IPC108E	IPC115D
First display: n° digits		± 4 d.p.	
Second display: n° digits		± 4 d.p.	
Power supply	24Vac/dc from TF40D	24Vac/dc from TF40D	24Vac/dc from TF20D
Probe inputs			
0÷1V, 0÷5V, 0÷10V, 0÷20mA, 4÷20mA, NTC, PTC, DI	6 config	6 config	10 config
Digital inputs			
Optoinsulated	11 config	11 config	20 config
Relay outputs			
Configurable	8x5A	8x5A	12x5A + 3x8A 10x5A + 5xSSR opt
Other outputs			
PWM for fan speed module			2 config
0÷10V, 4÷20mA for fan speed module	4 config	4 config	
0÷10V for external relay			4
RS485	slave	slave	master + slave
USB	pres	pres	pres
External modem			GSM, analogue opt
LAN/RS485 master	pres	pres	
CANBus			pres
Ethernet	via USB-ETH-CONV	via USB-ETH-CONV	opt
Other			
Remote keyboard	1xVGIPC	1xVGIPC	2xVGIPC
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	IPX106D, IPX115D, IPX125D*	IPX106D, IPX115D, IPX125D*	IPX106D, IPX115D, IPX125D*
BACnet protocol	opt	opt	opt

* References on page 40

IPC108D – IPC108E



IPC115D



TECHNICAL DATA

Housing	self extinguishing ABS
Format	4 DIN Rail: frontal 110x70mm; depth 59,5mm 10 DIN Rail: frontal 110x175mm; depth 59,5mm
Display	IPC108E: 4 digits red LED + 4 digits yellow LED + icons
Mounting	DIN Rail or wall mounting through integrated brackets
Connections	disconnectable connectors RS485 USB LAN (4 DIN Rail model) CANBus (10 DIN Rail model) Ethernet (10 DIN Rail model) Visograph
Power supply	24Vac/dc ±10% 50/60Hz
Power absorption	4 DIN Rail: 40VA max 10 DIN Rail: 20VA max
Relay outputs	4 DIN Rail: 8 SPDT 5(2)A, 250Vac 10 DIN Rail: 12 SPDT 5(2)A and 3 SPDT 8(3)A, 250Vac or 10 SPDT 5(2)A and 5 SSR, 250Vac
Analog outputs	PWM (fan module) 4÷20mA (fan module) 0÷10V (fan module or external relay)
Data storing	4 DIN Rail: on 16MB Flash memory 10 DIN Rail: on 128MB Flash memory
RAM memory	4 DIN Rail: 32MB 10 DIN Rail: 64MB
Processor	32bit
CPU	200MHz
Operating temperature	-10÷60°C (14÷140°F)
Storage temperature	-30÷85°C (-22÷185°F)
Relative humidity	20÷85% (non condensing)
Measuring and regulation range	NTC probe: -50÷110°C (-58÷230°F) PTC probe: -50÷150°C (-58÷302°F)
Resolution	0,1°C or 1°F

HOW to ORDER

IPC108D/E

I	P	C	1	0	8		-	1	0	C	D	0

C	D
Ethernet, protocols	**Serial port**
0 = No	**1** = LAN
2 = BACnet	**2** = RS485 master

IPC115D

I	P	C	1	1	5	D	-	A	B	C	0	E

A	B	C	E
Power supply	**Modem**	**Ethernet, protocols**	**N° relè SSR**
1 = 24Vac/dc **UL versions** **2** = 24Vac	**0** = No **1** = Internal modem (not for UL) **2** = External modem **3** = External + internal modem (not for UL)	**0** = No **1** = Yes **2** = BACnet	**0** = None **2** = 5 SSR relays

SPECIAL APPLICATIONS: QUICK GUIDE for PRODUCT CHOICE

Dixell's parametric and programmable controllers, besides a complete management of "traditional" chiller and heat pump units, are also the ideal solution for heat pumps with boiler or residential applications. The iProGENIUS family can be easily programmed to manage special applications such as Close control, Shelter, Roof-top, Air handling units (AHU) and Central air handling units.

HEAT PUMPS with BOILER

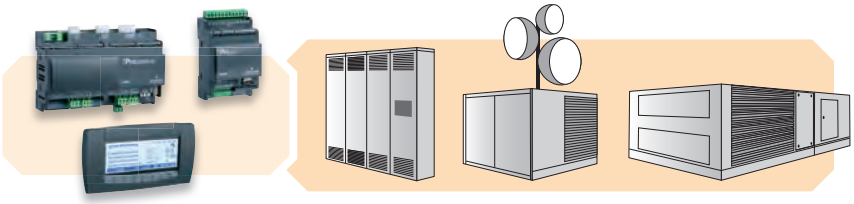
For heat pumps with boiler, Dixell presents the **IC70CX**, a parametric, compact and flexible solution with special functions for hot water.

RESIDENTIAL HEAT PUMPS

Parametric controller series (**IC200** and **IC200 evo** with related **TI**, **VI** and **VGI** keyboards) and programmable controllers (**iProCHILL**) promote comprehensive heat pump management and residential plant integration dedicated to geothermal, solar functions, and sanitary management.

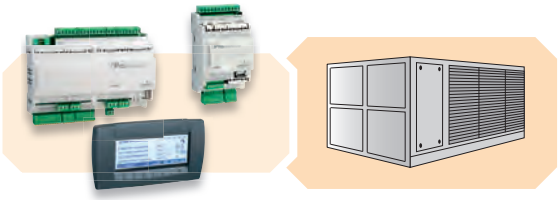
CLOSE CONTROL SHELTER – ROOF-TOP

Close control, Shelter and Roof-top units must be operated by versatile and powerful controllers. The **iProGENIUS** programmable controller line is the ideal solution for these needs because the user has a high-performance tool that allows you to easily create applications for every need.



AHU (air handling unit) – (central air handling unit)

Air Handling Units typically have several sections that have specific functions in the treatment of the air. The **iProGENIUS** controller is well suited to this modularity so because users can easily manage functions such as: mixing, air cooling and heating, dehumidification, and more.



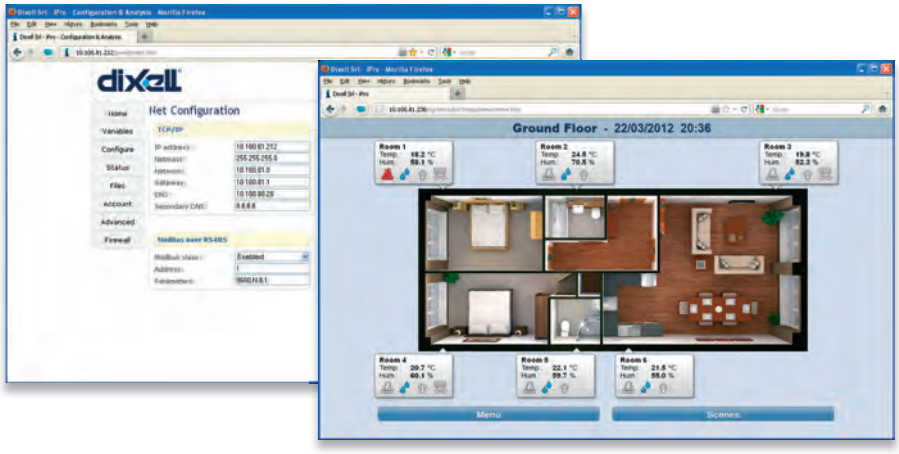
GENERAL PURPOSE PROGRAMMABLE CONTROLLERS

SECTION INDEX

iProGENIUS SERIES: GENERAL PURPOSE PROGRAMMABLE CONTROLLERS with HIGH CONNECTIVITY

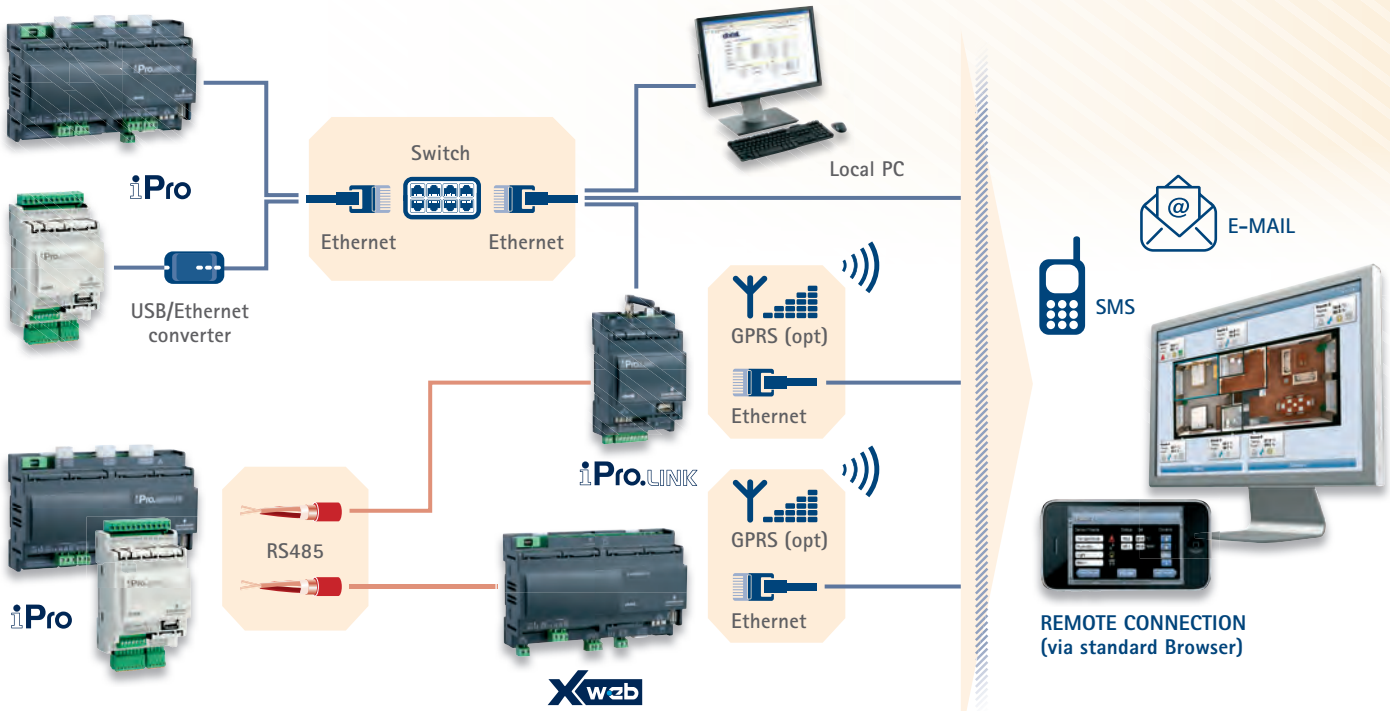
iProGenius is the Dixell family of programmable controllers that offers optimal solutions for all HVAC/R needs. They are suited for all applications in the PLC world including shopping centers, hospitals, airports, boatyards, energy management plants, and more. These controllers provide a high level 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 any machine, including the most complex.

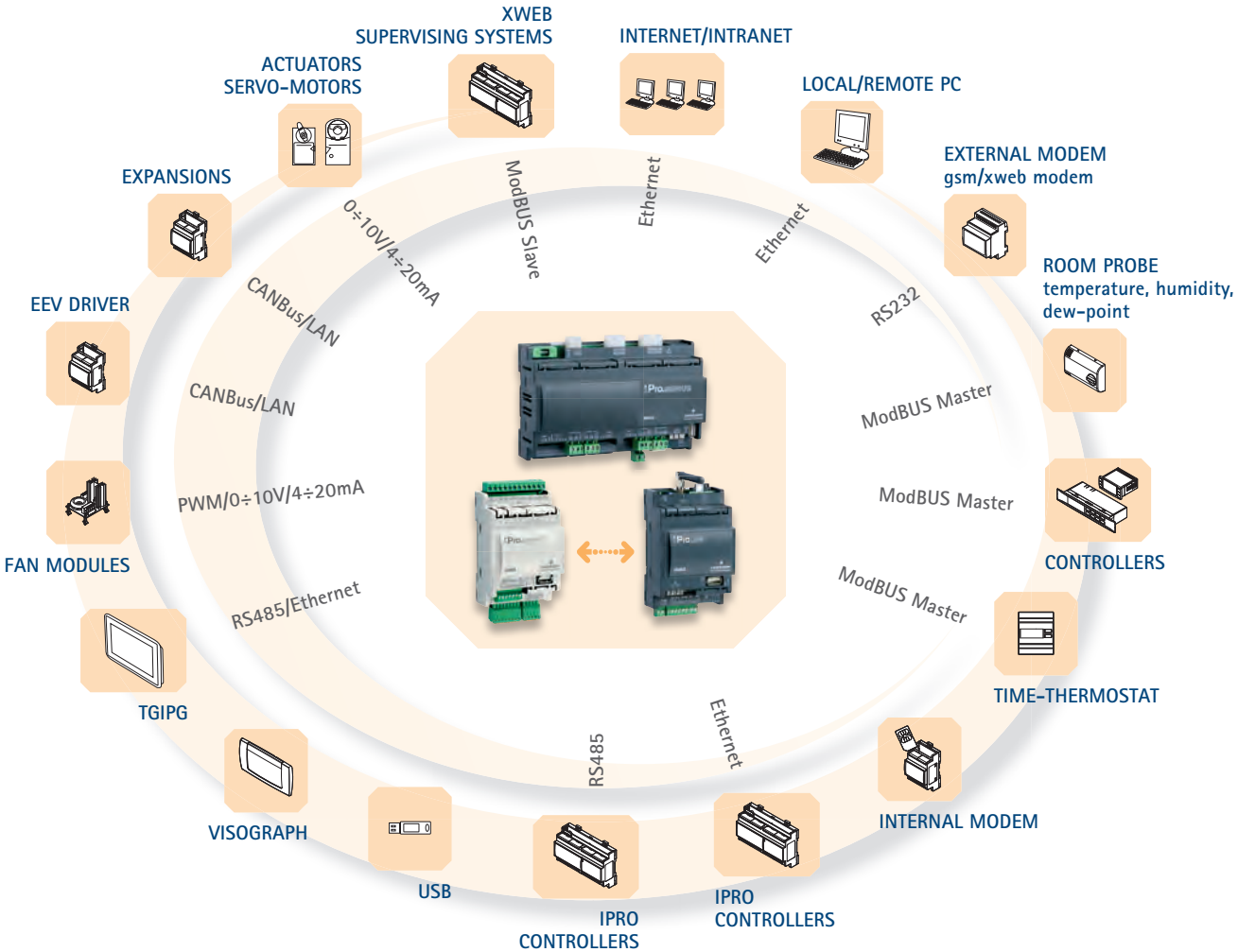
- Powerful platform based on LINUX operative system on ARM9 (200MHz/32bit) microprocessor
- Internal Web Server with standard or customized Web Site
- Ethernet for connection to an intranet-internet network and to other controllers for a distributed application management
- USB output that allows the download of parameters, data/alarm logger and the applications and parameters upload
- Slave 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



CONNECTIVITY

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





iProTOOL DEVELOPMENT TOOL

1 ISaGRAF® + WIZMATE

2 ISaGRAF® + WIZMATE + VISOPROG

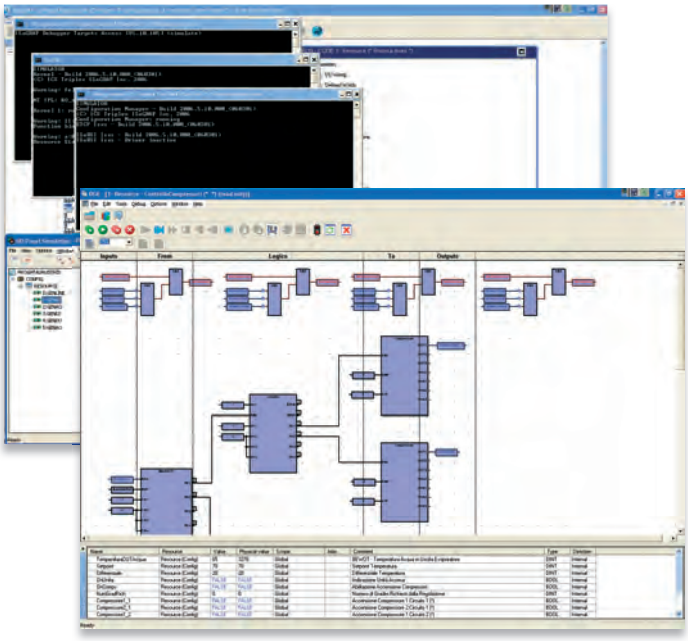
iPro-TOOL is a complete and easy to use tool that allows the user to work independently to create programs for iPro controllers, taking advantage of all the programmable series potential. The package includes manuals and the **ISaGRAF®**, **WIZMATE** and **VISOPROG** (optional) software.

The user can choose among 2 options as you can see on the left.

Note: WIZMATE can be used with iProCHILL applications.

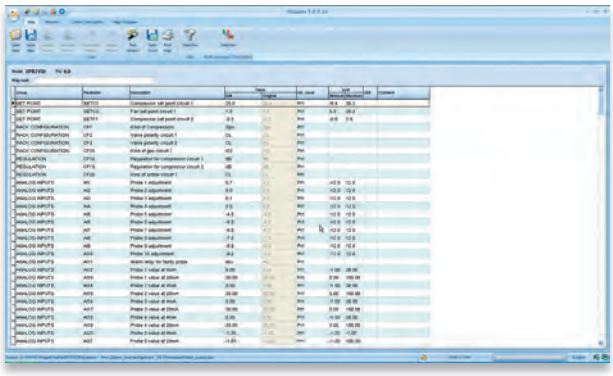
ISaGRAF®

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: Sequencial Function Chart; ST: Structured Text; FBD: Function Block Diagram; IL: Instruction List; LD: Ladder Diagram).



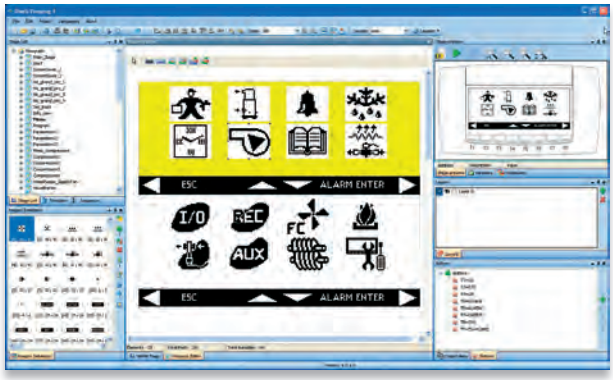
WIZMATE

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



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.



GENERAL PURPOSE PROGRAMMABLE CONTROLLERS

iProGENIUS

IPG108D	Programmable controller in 4 DIN Rail format with disconnectable connectors
IPG115D	Programmable controller in 10 DIN Rail format with disconnectable connectors
IPG208D	Programmable controller in 4 DIN Rail format with bayonet connectors, ideal for the civil field
IPG215D	Programmble controller in 10 DIN Rail format with bayonet connectors, ideal for the civil field
IPG215F	Programmble controller in 10 DIN Rail format with front LED screen and bayonet connectors, ideal for civil engineering use

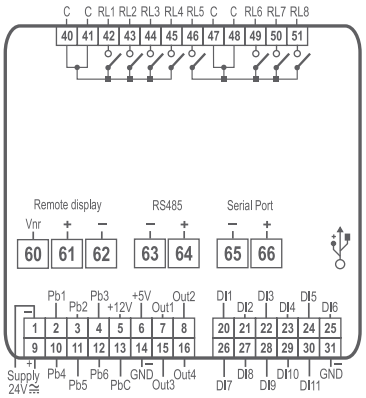
D: 4 DIN Rail

D, **F**: 10 DIN Rail

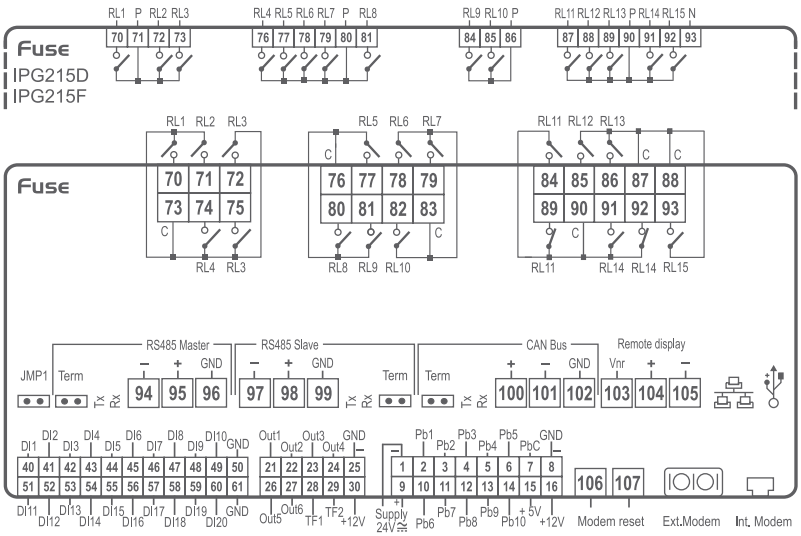
FEATURES	IPG108D	IPG115D	IPG208D	IPG215D-IPG215F
Power supply	24Vac/dc from TF40D	24Vac/dc from TF20D	24Vac/dc from TF40D	24Vac/dc from TF20D
Probe inputs				
0÷1V, 0÷5V, 0÷10V, 0÷20mA, 4÷20mA, NTC, PTC, DI	6 config	10 config	6 config	10 config
Digital inputs				
Optoinsulated	11 config	20 config	11 config	20 config
Relay outputs				
Configurable	8x5A	12x5A + 3x8A	8x5A	12x5A + 3x8A
Other outputs				
PWM outputs for fan speed module		2 config		2 config
0÷10V or 4÷20mA outputs for fan speed module	4 config		4 config	
0÷10V outputs for external relay		4		4
RS485	slave	master + slave	slave	master + slave
USB	pres	pres	pres	pres
External modem		GSM, analogue opt		GSM, analogue opt
LAN/RS485 master	pres		pres	
CANBus		pres		pres
Ethernet	via USB-ETH-CONV	opt	via USB-ETH-CONV	opt
Other				
Remote keyboard	1xVGIPG	2xVGIPG	1xVGIPG	2xVGIPG
Internal modem		analogue opt		analogue opt
Real time clock	pres	pres	pres	pres
Flash memory	32MB	128MB	32MB	128MB
Connections	disconnectable	disconnectable	bayonet	bayonet
Connection kit	DWS30-KIT, IP-FC108	DWB30-KIT	IP-FC208	IP-FC215CP
Expansion modules	IPX106D, IPX115D, IPX125D	IPX106D, IPX115D, IPX125D	IPX206D, IPX215D, IPX225D	IPX206D, IPX215D, IPX225D
BACnet protocol	opt	opt	opt	opt

IPG215F front

IPG108D - IPG208D



IPG115D - IPG215D - IPG215F



IPX EXPANSION MODULES

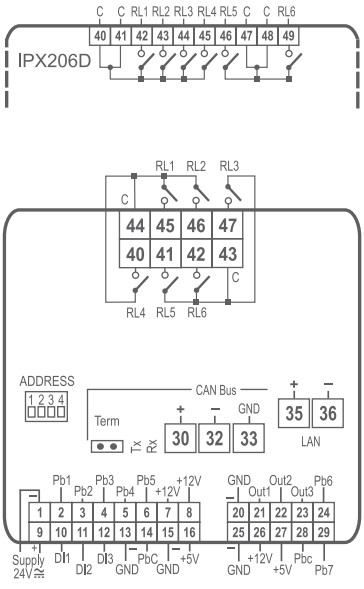
D: 4 DIN Rail

D: 10 DIN Rail

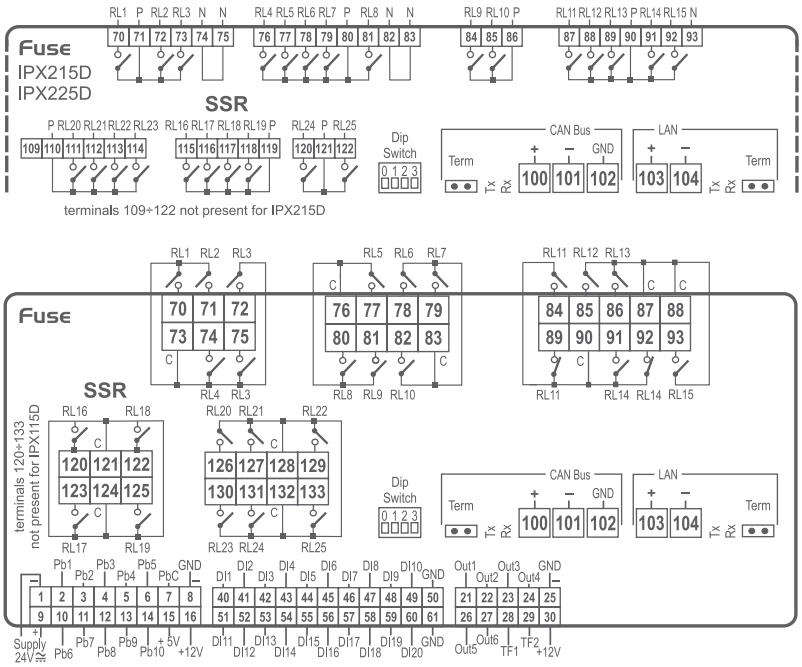
IPX106D	Expansion module in 4 DIN Rail format with disconnectable connectors and 6 relay outputs
IPX115D	Expansion module in 10 DIN Rail format with disconnectable connectors and 15 relay outputs
IPX125D	Expansion module in 10 DIN Rail format with disconnectable connectors and 25 relay outputs
IPX206D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

FEATURES	IPX106D	IPX115D	IPX125D	IPX206D	IPX215D	IPX225D
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
Probe inputs						
0÷1V, 0÷5V, 0÷10V, 0÷20mA, 4÷20mA, NTC, PTC, DI	7 config	10 config	10 config	7 config	10 config	10 config
Digital inputs						
Optoinsulated	3 config	20 config	20 config	3 config	20 config	20 config
Relay outputs						
Configurable	6x5A	12x5A + 3x8A	18x5A + 3x8A + 4xSSR	6x5A	15x5A	21x5A + 4xSSR
Other outputs						
0÷10V, 4÷20mA		2 config	2 config		2 config	2 config
0÷10V	3	4	4	3	4	4
LAN						
CANBus	pres	pres	pres	pres	pres	pres
Other						
Dip switch for address set	pres	pres	pres	pres	pres	pres
Connections	disconnectable	disconnectable	disconnectable	bayonet	bayonet	bayonet
Connection kit	DWEX60-30KIT	DWX115-30KIT	DWEX70-30KIT	IP-FCEX60	IP-FCEX215	IP-FCEX70

IPX106D - IPX206D



IPX115D - IPX125D - IPX215D - IPX225D

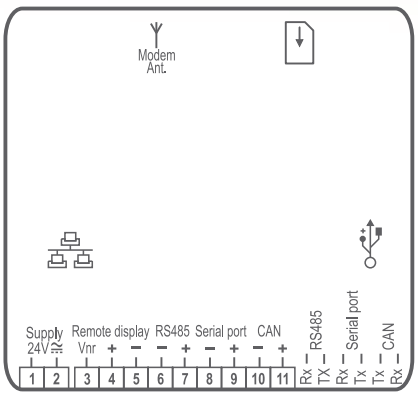


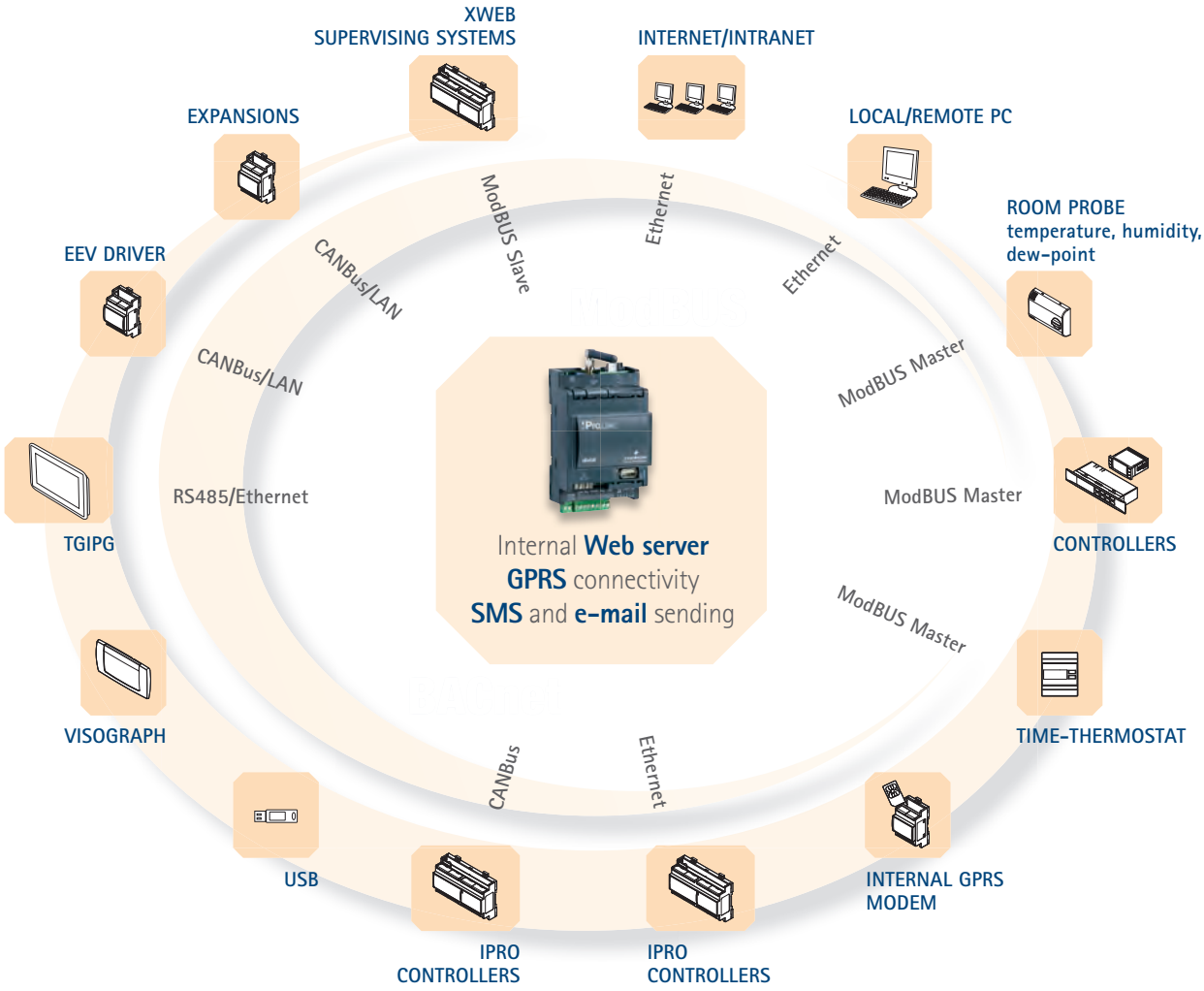
CONNECTIVITY MODULE

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





TECHNICAL DATA

Housing	self extinguishing ABS
Format	4 DIN Rail: frontal 110x70mm; depth 59,5mm 10 DIN Rail: frontal 110x175mm; depth 59,5mm
Mounting	DIN Rail or wall mounting through integrated brackets
Connections	disconnectable, bayonet and screw connectors (depending on the model) RS485, USB, LAN, CANBus, Ethernet, Visograph (depending on the model)
Power supply	24Vac/dc ±10% 50/60Hz
Power absorption	IPG (4 DIN Rail): 40VA max IPG (10 DIN Rail), IPX (10 DIN Rail), IPL500D: 20VA max IPX (4 DIN Rail): 10VA max
Relay outputs	IPG (4 DIN Rail): 8 SPDT 5(2)A, 250Vac IPG (10 DIN Rail): 12 SPDT 5(2)A and 3 SPDT 8(3)A, 250Vac IPX (4 DIN Rail): 6 SPDT 5(2)A, 250Vac IPX115D: 12 SPDT 5(2)A and 3 SPDT 8(3)A, 250Vac IPX125D: 18 SPDT 5(2)A, 3 SPDT 8(3)A and 4 SSR, 250Vac IPX215D: 15 SPDT 5(2)A, 250Vac IPX225D: 21 SPDT 5(2)A and 4 SSR, 250Vac
Analog outputs	PWM, 4÷20mA, 0÷10V (depending on the model)
Data storing	IPG (4 DIN Rail): on 32MB Flash memory IPG (10 DIN Rail), IPL500D: on 128MB Flash memory
RAM memory	IPG (4 DIN Rail) 32MB IPG (10 Din Rail) 64MB
Processor	32bit
CPU	200MHz
Operating temperature	-10÷60°C (14÷140°F)
Storage temperature	-30÷85°C (-22÷185°F)
Relative humidity	20÷85% (non condensing)
Measuring and regulation range	NTC probe: -50÷110°C (-58÷230°F) PTC probe: -50÷150°C (-58÷302°F)
Resolution	0,1°C or 1°F

HOW to ORDER

IPG108D – IPG208D	I	P	G		0	8	D	-	1	0	C	D	0
IPG115D – IPG215D/F	I	P	G		1	5		-	A	B	C	0	0
IPX106D – IPG206D	I	P	X		0	6	D	-	1	0	0	0	0
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

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

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

IPRO-TOOL	I	P	R	O	-	T	O	O	L	-	0	0	0	0	0
IPRO-TOOL + 2 Visoprog licences	I	P	R	O	-	T	O	O	L	-	0	0	0	0	1

HMI (Human Machine Interface)

SECTION INDEX

VI: 100x64mm

TI: 38x185mm

TI & VI: REMOTE KEYBOARDS with LED DISPLAY

Remote keyboards in horizontal (**TI**) and vertical (**VI**) formats, combined with **IC100/200** controllers, are the ideal solution to control and manage the unit remotely.

- Quick and easy panel mounting (also wall mounting through V-KIT for VI keyboards)
- Up to 2 VI keyboards (1 for IC100 series)
- Maximum distance from the controller: 150m
- NTC internal probe as an option (for VI keyboards)

ADAPTERS for VI KEYBOARDS

Besides wall or panel mounting (using a standard commercial enclosure), **VI** keyboards can be easily wall mounted using the **V-KIT** adapter, available in black or white colors.

V-KIT/W	Wall adapter for vertical keyboards – white
V-KIT/B	Wall adapter for vertical keyboards – black

REMOTE KEYBOARDS for IC100/200 CONTROLLERS

TI620	Horizontal keyboard for IC205D and IC207D controllers with display
VICX610	Vertical keyboard for IC100 controllers
VICX620	Vertical keyboard for IC206CX and IC208CX controllers
VI620	Vertical keyboard for IC260D, IC260L, IC261D and IC261L controllers
VI622	Vertical keyboard for IC205D and IC207D controllers with display

TI: 38x185mm

VI: 100x64mm

FEATURES	TI620	VICX610	VICX620	VI620	VI622
First display: n° digits	± 4 d.p.	± 4 d.p.	± 4 d.p.	± 3 d.p.	± 4 d.p.
Second display: n° digits	± 4 d.p.	± 4 d.p.	± 4 d.p.	± 4 d.p.	± 4 d.p.
Power supply	from controller	from controller	from controller	from controller	from controller
Internal probe		NTC opt	NTC opt	NTC opt	NTC opt
Buzzer	opt	opt	opt	opt	opt
Connection kit		CAB/CJ15 CAB/CJ30		CAB/CJ15 CAB/CJ30	

TECHNICAL DATA

Housing	self extinguishing ABS
Format	TI: frontal 38x185mm; depth 23mm VI: frontal 100x64mm; depth 24mm
Display	TI, VICX, VI622: 4 digits red LED + 4 digits yellow LED + icons VI620: 3 digits red LED + 4 digits yellow LED + icons
Mounting	TI: panel mounting in a 31x150mm cut-out VICX, VI: panel mounting in a 72x56mm cut-out (or wall mounting using the V-KIT)
Front protection	IP65 with gasket
Connections	screw-terminal block ≤ 2.5mm^2
Power supply	from controller
Operating temperature	-10÷60°C (14÷140°F)
Storage temperature	-30÷85°C (-22÷185°F)
Relative humidity	20÷85% (non condensing)
Resolution	0,1°C or 1°F or 0,1bar or 1PSI
Accuracy (at ambient temperature)	± 0.7°C ± 1 digit

HOW to ORDER

TI620	T	I	6	2	0	-	0	B	0	0	0	
VICX610-VICX620	V	I	C	X	6		0	-	A	B	0	0	0
VI620	V	I	6	2	0	-	A	B	0	D	0	
VI622	V	I	6	2	2	-	A	B	0	0	0	

A	B	D
Internal probe	**Buzzer**	**Measurement unit**
0 = No	**0** = No	**0** = °C/bar
S = Yes (for VI620)	**1** = Yes	**1** = °F/PSI
1 = Yes (for VICX and VI622)		**2** = °C/KPA

VG: 82x156mm

VISOGRAPH: REMOTE KEYBOARDS with LCD GRAPHIC DISPLAY

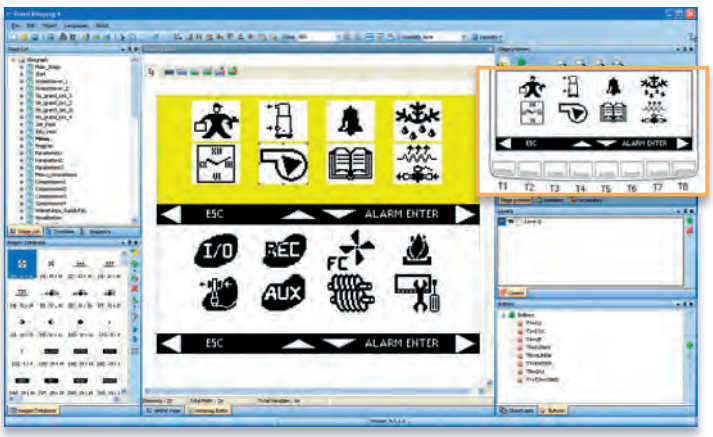
The **VISOGRAPH** graphic displays are the versatile solution designed by Dixell to make the connection with **IC200** and **iPro** controllers easier. They instantly provide complete information about the machine status, they have an intuitive interface and are easy to mount, and for this reason they are customized to every plant's needs. The displays are available in black (for IC200 and iProCHILL controllers) and white (for iProGENIUS controllers).

- Great versatility and extensive customization opportunities
- LCD display with 240x96pixels
- Complete integration with ISaGRAF® projects
- UNICODE character compatible
- Quick panel or wall mounting
- Up to 2 keyboards connectable with iPro controllers (1 for IC200 controllers)
- Maximum distance from the controller: 150m
- VGIPG model fully programmable through VISOPROG or USB from iPro

KEY and PROGRAMMING TOOL

VISOKEY Programming key for Visograph keyboards

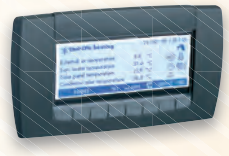
VISOPROG VISOPROG allows the creation of graphic interfaces for VISOGRAPH keyboards, VGIPG model. The program installed on a PC is connected to the ISaGRAF® project with a basic interface that can be easily customized based on the user's needs. VISOPROG allows a direct transfer of the user interface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



GRAPHIC DISPLAYS for IC200 CONTROLLERS and iPro

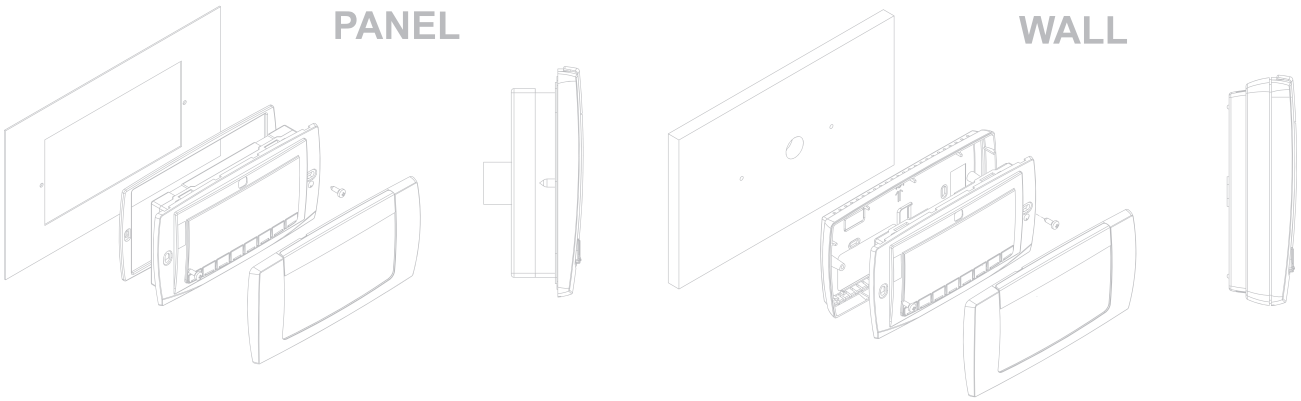
VISOGRAPH

VGI820	Graphic display with interface for IC205D and IC207D controllers without display
VGI890	Graphic display with interface for IC290D and IC291D controllers
VGIPC	Graphic display with interface for iProCHILL controllers
VGIPG	Graphic display fully programmable for iProGENIUS controllers



VG: 82x156mm

FEATURES	VGI820	VGI890	VGIPC	VGIPG
Power supply	from controller	from controller	from controller	from controller
Visokey output	pres	pres	pres	pres
Buzzer	opt	opt	opt	opt
Connection kit		CAB/C3J15 CAB/C3J30		



TECHNICAL DATA

Housing	self extinguishing ABS
Format	frontal 82x156mm; depth 25mm for panel mounting and 24,7mm for wall mounting
Display	LCD with 240x96pixels
Mounting	panel or wall mounting in a 69x127mm cut-out
Front protection	IP65
Connections	screw-terminal block ≤ 2.5mm²
Power supply	from controller
Operating temperature	-10÷60°C (14÷140°F)
Storage temperature	-30÷85°C (-22÷185°F)
Relative humidity	20÷85% (non condensing)

HOW to ORDER

VGI820-VGI890	V	G	I	8		0	-	A	B	0	0	0
VGIPC-VGIPG	V	G	I	P		-	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

TGIPG: 228x280mm

TGIPG: 143x204mm

TGIPG: 104x145mm

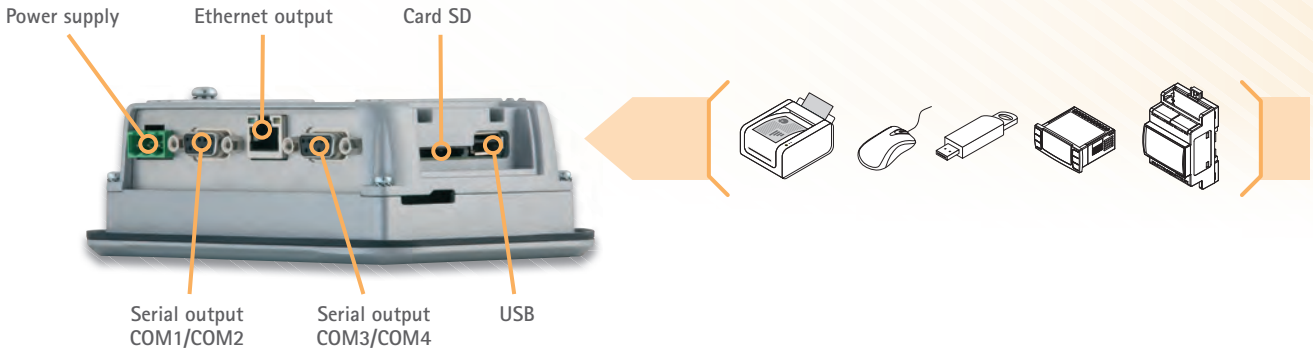
TGIPG: PROGRAMMABLE TOUCH SCREEN DISPLAYS

To make easier, more intuitive and complete communication with iPro and iCHILL, Dixell introduces the innovative family (**TGIPG**) of TFT touch screen displays, characterized by a high aesthetic value and high 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.

- Connection with iPro controllers via RS485 or Ethernet
- Connection with iCHILL controllers via RS485
- 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

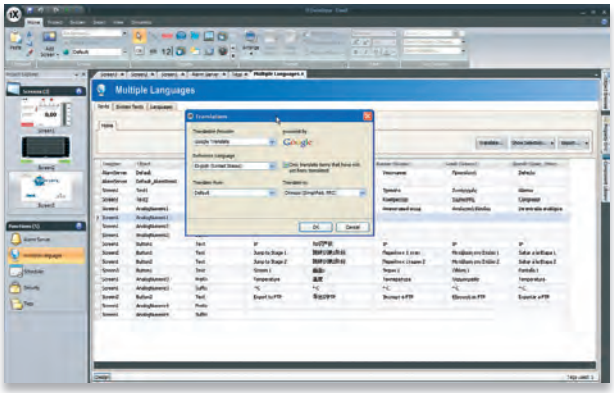
CONNECTIVITY

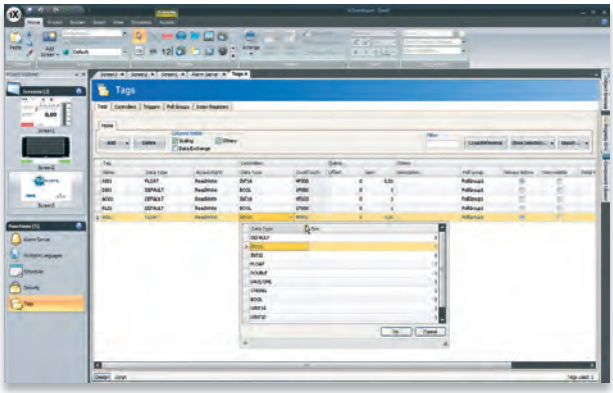
Touch screen displays of the TGIPG line with multiple ports, are characterized by high connectivity both local and remote to satisfy every application need.



SOFTWARE

The TGIPG family is characterized by a 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. On the previous page, an example of a "final screen", here below an example of a "language configuration window" 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"
Format	16:9	16:9	4:3
Display	480x272pixels	800x480pixels	640x480pixels
Ethernet output	pres	pres	pres
Serial output	2xRS485/232/422	2xRS485/232/422	2xRS485/232/422
USB output	pres	pres	pres
Buzzer (beeps when pressed)	pres	pres	pres
RTC	pres	pres	pres

TECHNICAL DATA

Housing	powder-coated aluminum
Touch screen	polyester on glass, resistive
Format	4,3": frontal 104x145mm; depth 44mm 7": frontal 143x204mm; depth 44mm 10,4": frontal 228x280mm; depth 44mm
Display	4,3": TFT-LCD 480x272pixels, 16.7 million colors 7": TFT-LCD 800x480pixels, 16.7 million colors 10,4": TFT-LCD 640x480pixels, 16.7 million colors
Mounting	4,3": panel mounting in a 89x130mm cut-out 7": panel mounting in a 128x189mm cut-out 10,4": panel mounting in a 211x264mm cut-out
Active area	4,3": 53.9x95.0mm 7": 91.4x152.4mm 10,4": 158.4x211.2mm
Front protection	IP65
Connections	Ethernet + USB + 4 RS485/232/422
Power supply	24Vdc
Processor	400MHz ARM9
RAM memory	64MB (DDR2)
Data storing	on FLASH memory 128MB SSD on external card SD
Power absorption	1A max
Operating temperature	0÷50°C (32÷122°F)
Storage temperature	-20÷85°C (-4÷185°F)
Relative humidity	<95% (non condensing)

HOW to ORDER

TGIPG

T	G	I	P	G	-	A	0	0	0	0

A

Version

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

EEV DRIVERS

SECTION INDEX

D: 4 DIN Rail

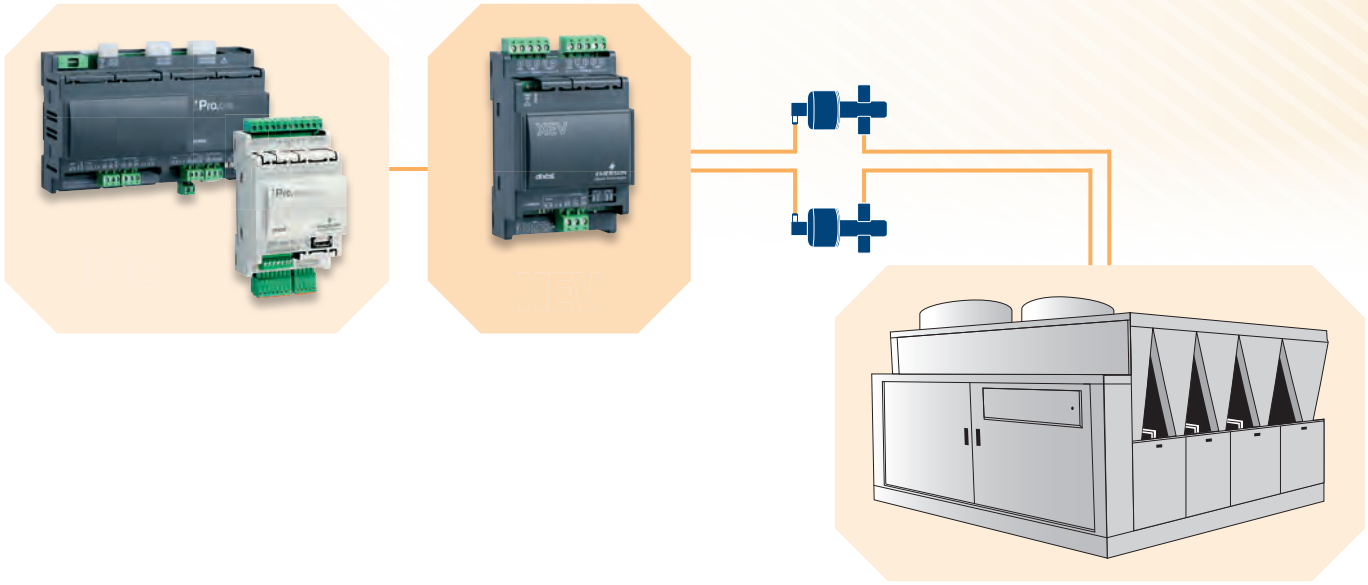
IEV & XEV SERIES: DRIVERS for STEPPER ELECTRONIC EXPANSION VALVE MANAGEMENT

IEV & XEV represent Dixell solution for stepper electronic expansion valves management. **XEV20D** (combined with **iPro** controllers), **IEV21/23D** (combined with **IC200 evo** controllers) and **IEV22/24D** models (in stand alone mode) allow the best superheat regulation inside the unit. In this way the maximum performance of the unit it's guaranteed during every weather working conditions, improving energy saving.

- Unipolar/bipolar stepper valve support such as ALCO, CAREL, SPORLAN, DANFOSS, SAGINOMYA and PARKER
- Increased energy savings
- Single or dual circuit
- Temperature analog inputs (NTC, PTC, Pt1000)
- Pressure analog inputs (0÷5V, 4÷20mA)
- 4 position DIP Switch to set the address
- LAN output
- CANBus output for the connection to iPro family (XEV)
- Easy programming via HOT KEY or PC (WIZMATE PROG TOOL KIT) (IEV)

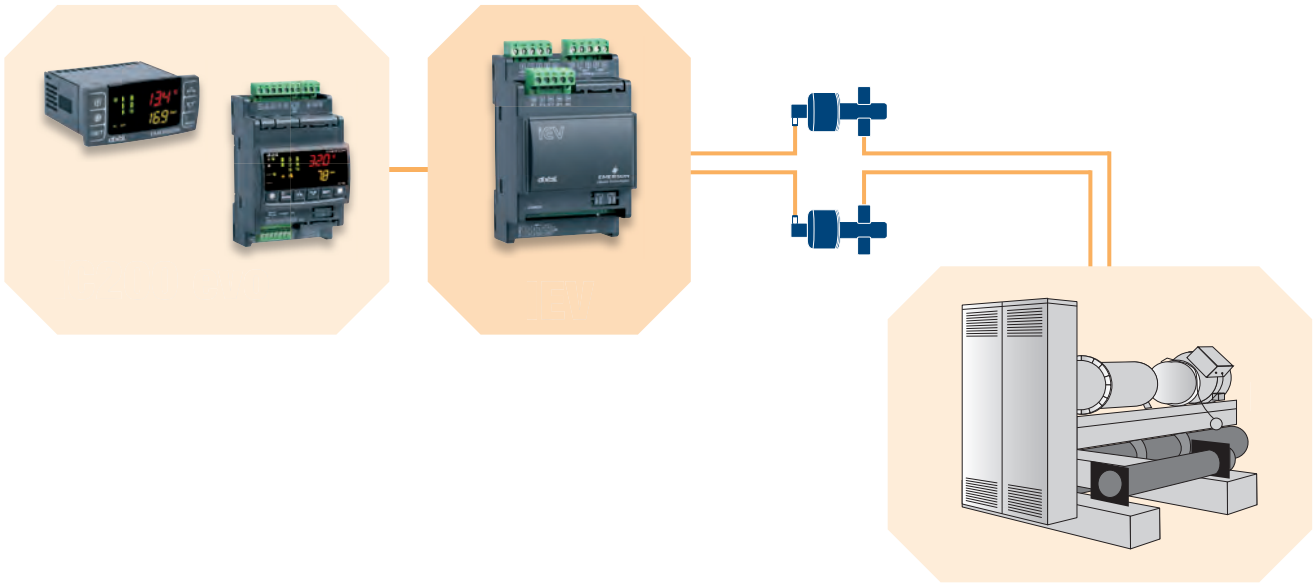
EXAMPLE of APPLICATION with XEV20D DRIVER

XEV20D driver combined with **iPro** controllers is the ideal solution for complex units.



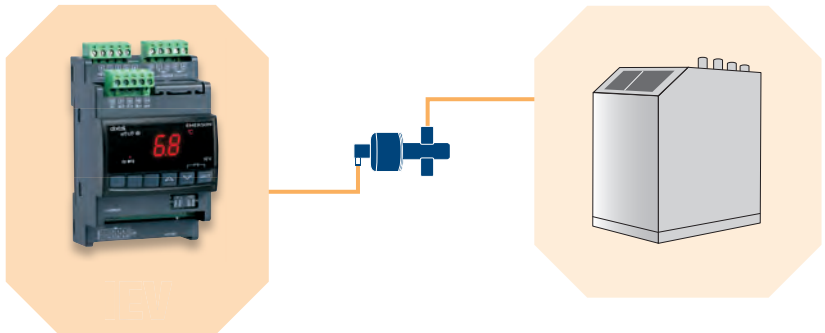
EXAMPLE of APPLICATION with IEV21D and IEV23D DRIVERS

IEV drivers without display, combined with **IC200 evo** controllers, are the ideal solution for medium units.



EXAMPLE of APPLICATION with IEV22D and IEV24D DRIVERS

IEV drivers with display are designed to work in **stand alone** mode and, thanks to their internal algorithms, are the ideal solution to manage electronic expansion valves.



XEV

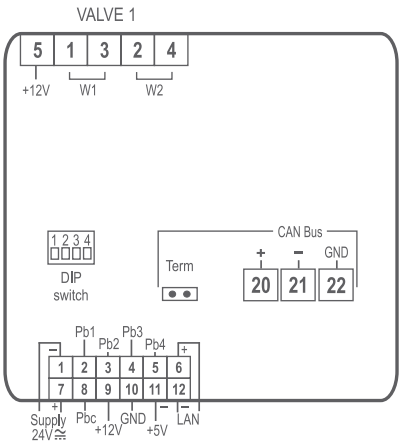
DRIVER for EEV MANAGEMENT COMPATIBLES with iPro CONTROLLERS

XEV20D | Driver for 1 or 2 unipolar and bipolar stepper electronic expansion valves can be used with iPro programmable controllers

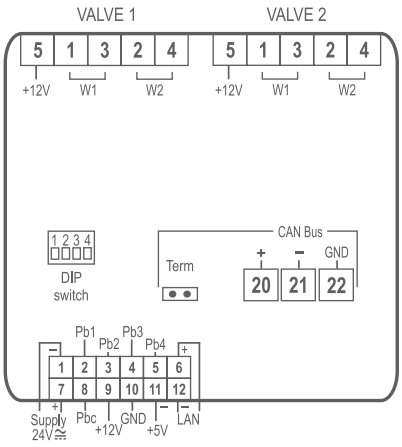
D: 4 DIN Rail

FEATURES	XEV20D
Power supply	24Vac/dc (from TF20D/TF40D)
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

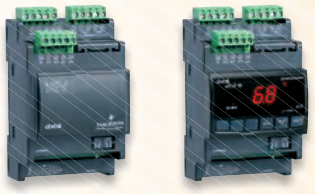


XEV20D – 2 circuits



DRIVERS for EEV MANAGEMENT with STAND ALONE FUNCTIONALITY or COMPATIBLE with IC200 evo CONTROLLERS

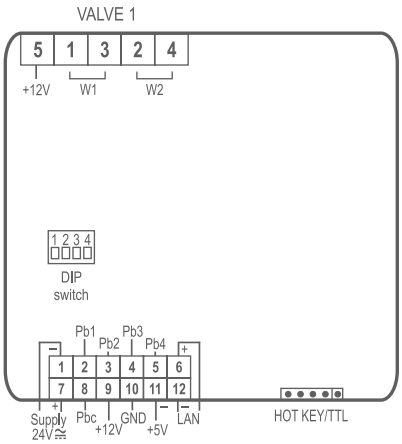
IEV21D	Driver for 1 unipolar and bipolar stepper electronic expansion valve that can work combined with IC200 evo controllers
IEV22D	Driver for 1 unipolar and bipolar stepper electronic expansion valve with stand alone functioning
IEV23D	Driver for 2 unipolar and bipolar stepper electronic expansion valves that can work combined with IC200 evo controllers
IEV24D	Driver for 2 unipolar and bipolar stepper electronic expansion valves with stand alone functioning



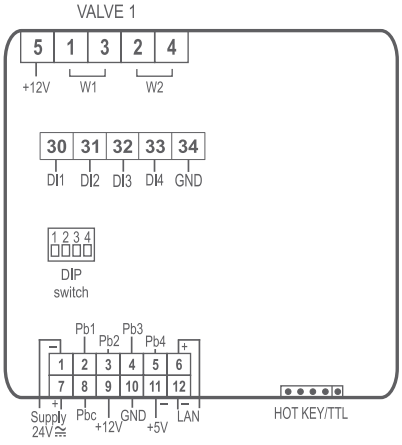
D: 4 DIN Rail

FEATURES	IEV21D	IEV22D	IEV23D	IEV24D
N° valves	1	1	2	2
Display: n° digits		±3 d.p.		±3 d.p.
Keyboard: n° keys		3		3
Power supply	24Vac/dc (from TF20D)	24Vac/dc (from TF20D)	24Vac/dc (from TF40D)	24Vac/dc (from TF40D)
Probe inputs				
Pressure	4÷20mA/0÷5V config	4÷20mA/0÷5V config	4÷20mA/0÷5V config	4÷20mA/0÷5V config
Temperature	Pt1000/NTC config	Pt1000/NTC config	Pt1000/NTC config	Pt1000/NTC config
Digital inputs				
Free voltage		n° 4		n° 4
Other				
TTL/Hot Key/Prog Tool Kit output	pres	pres	pres	pres
LAN output	pres	pres	pres	pres
Dip switch for address set	pres	pres	pres	pres
Connection kit	DWXEV30	DWXEV30	DWXEV30	DWXEV30

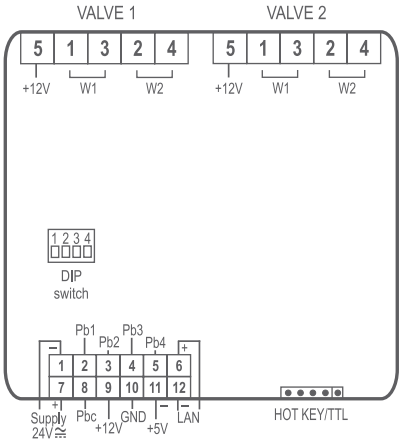
IEV21D



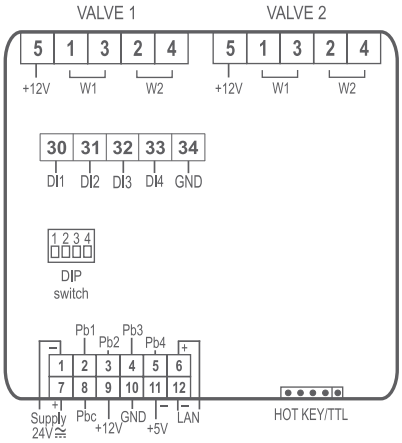
IEV22D



IEV23D



IEV24D



TECHNICAL DATA

Housing	self extinguishing ABS
Format	frontal 110x70mm; depth 59,5mm
Display	IEV22D, IEV24D: 3 digits, red LED, high 10,5 mm + icons
Mounting	DIN Rail or wall mounting through integrated brackets
Connections	disconnectable connectors TTL LAN CANBus (for XEV)
Power supply	24Vac/dc ±10% 50/60Hz
Power absorption	20VA max (440VA max with 2 valves)
Data storing	on non volatile memory (EEPROM)
Operating temperature	0÷55°C (32÷131°F)
Storage temperature	-25÷60°C (-13÷140°F)
Relative humidity	20÷85% (non condensing)
Resolution	0,1°C or 1°F or 0,1bar or 1PSI
Accuracy (at ambient temperature)	± 0.7°C ± 1 digit

HOW to ORDER

XEV

X	E	V	2	0	D	-	1	1	C	0	0

C

Number of valves

0 = 1 valve

1 = 2 valves

IEV

I	E	V	2		D	-	1	B	C	D	0

B

Temperature probe

P = Pt1000

N = NTC

C

Pressure probe

0 = 0÷5V

1 = 4÷20mA

D

Measurement unit

C = °C/bar

F = °F/PSI

FAN SPEED CONTROLLERS

SECTION INDEX

D: 4 DIN Rail

PK: 80x70mm

XV05/10/22 SERIES: SINGLE-PHASE FAN SPEED CONTROLLERS

XV05/10/22 is the range of chopped phase speed controllers to control the speed of condenser fans.

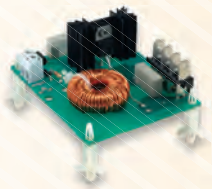
- Compatibility with all iCHILL family controllers
- Compatibility with IPC108D, IPC108E and IPG108D controllers
- Trigger output to drive up to 2 modules

SINGLE-PHASE FAN SPEED CONTROLLERS

XV05/10/22

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

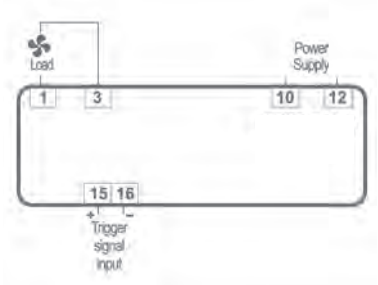
D: 4 DIN Rail



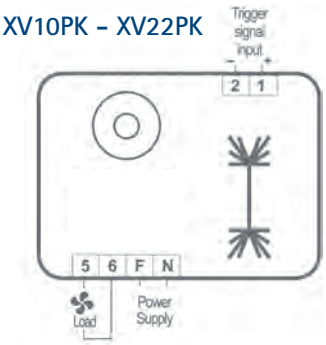
PK: 80x70mm

FEATURES	XV05PD	XV05PK	XV10PK	XV22PK
Power supply	230Vac	230Vac	230Vac	230Vac
Maximum load	2A	2A	4A	9,5A
Control input	PWM	PWM	PWM	PWM
Trigger signal	pres	pres	pres	pres

XV05PD



XV05PK - XV10PK - XV22PK



TECHNICAL DATA

Housing	open board or self extinguishing ABS
Format	XV05PD: frontal 84,5x70mm; depth 64mm XV05PK: frontal 80x70mm; depth 26,5mm XV10PK: frontal 80x70mm; depth 43,5mm XV22PK: frontal 80x70mm; depth 65,5mm
Mounting	PD: DIN Rail mounting PK: with plastic spacers
Front protection	PK: IP00 PD: IP20
Connections	screw-terminal block ≤ 2.5mm² for signals 6,3mm faston (7,3mm for PK) for loads
Power supply	230Vac ±10% 50/60Hz
Operating temperature	0÷60°C (32÷140°F)
Storage temperature	-25÷60°C (-13÷140°F)
Relative humidity	20÷85% (non condensing)
Regulation 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

XV300 SERIES: THREE-PHASE FAN SPEED CONTROLLERS

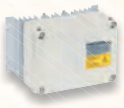
XV300 is the family of chopped phase regulators designed for 3-phase fans with adjustable voltage motors. The versatility of the range and the five models with different maximum power (from 5,5kVA to 26kVA) offer an optimal solution for each type of system.

- 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
- Less time spent for wiring operations
- On-board 0÷10V output to be used for testing operations
- Compatibility with all iCHILL family controllers
- Compatibility with iPro family controllers

THREE-PHASE SPEED ADVANCED CONTROLLERS

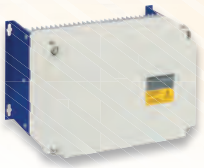
XV300

XV308K	Speed controller designed for three-phase A.C. motors up to 5,5kVA, 8A, with input for PWM, 4÷20mA or 0÷10V
XV312K	Speed controller designed for three-phase A.C. motors up to 8kVA, 12A, with input for PWM, 4÷20mA or 0÷10V
XV320K	Speed controller designed for three-phase A.C. motors up to 13kVA, 20A, with input for PWM, 4÷20mA or 0÷10V
XV328K	Speed controller designed for three-phase A.C. motors up to 19kVA, 28A, with input for PWM, 4÷20mA or 0÷10V
XV340K	Speed controller designed for three-phase A.C. motors up to 26kVA, 40A, with input for PWM, 4÷20mA or 0÷10V



K: 165x230mm

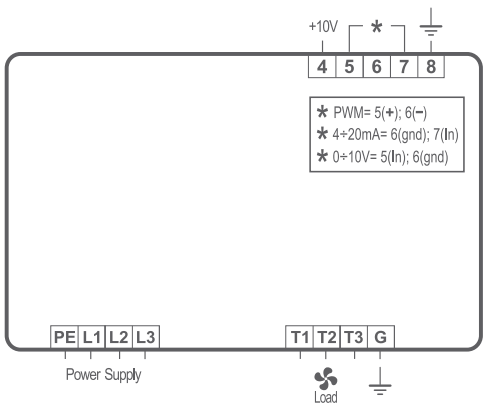
K: 230x265mm



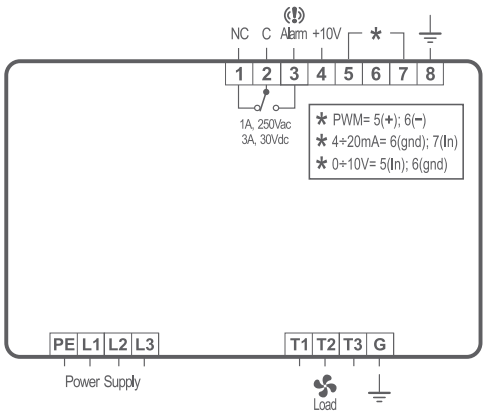
K: 270x340mm

FEATURES	XV308K	XV312K	XV320K	XV328K	XV340K
Power supply	400Vac	400Vac	400Vac	400Vac	400Vac
Maximum load	8A	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
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
Supply LED	pres	pres	pres	pres	pres
Alarm LED	pres	pres	pres	pres	pres
Relay ON LED		pres	pres	pres	pres

XV308K

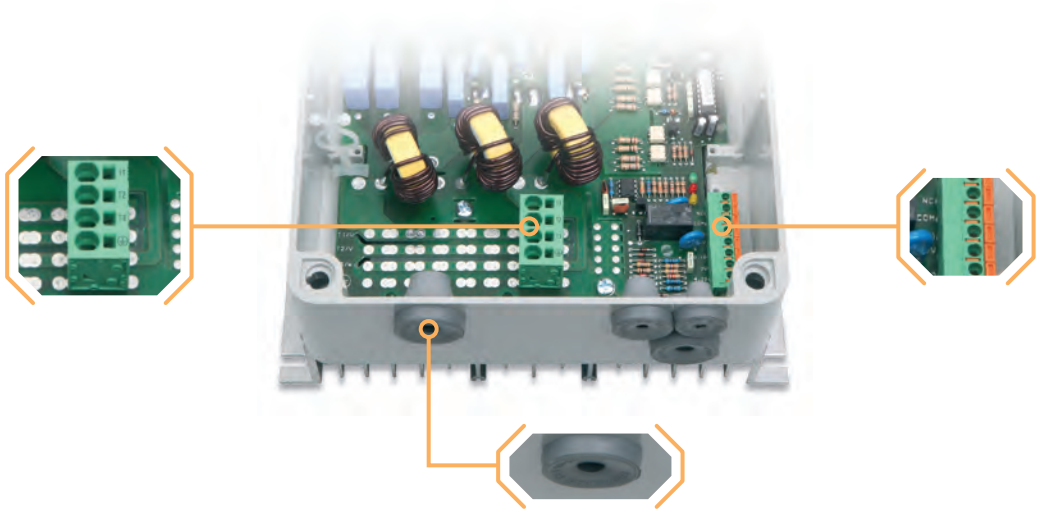


XV312K - XV320K - XV328K - XV340K



EXAMPLE of XV300 BOARD

The IP55 protection, the screwless spring connectors and the useful feed-through cables ensure a quick and safe set up in every situation.



TECHNICAL DATA

Housing	metallic or self extinguishing ABS
Format	XV308K: frontal 165x230mm; depth 150mm XV312K: frontal 230x265mm; depth 165mm XV320K: frontal 230x265mm; depth 230mm XV328K: frontal 270x340mm; depth 235mm XV340K: frontal 270x340mm; depth 235mm
Weight	XV308K: 2,5kg XV312K: 4kg XV320K: 4,8kg XV328K: 7kg XV340K: 9kg
Mounting	wall mounting
Front protection	IP20 (metallic cover) or IP55 (plastic cover)
Connections	spring terminal block
Power supply	400Vac ±10% 50/60Hz
Power dissipation	XV308K: 30W XV312K: 60W XV320K: 80W XV328K: 120W XV340K: 155W
Operating temperature	-10÷50°C (-14÷122°F)
Storage temperature	-20÷80°C (-4÷176°F)
Relative humidity	20÷85% (non condensing)
Regulation range	20÷100%

HOW to ORDER

XV300K	X	V	3			K	-	7	0	C	0	0

C

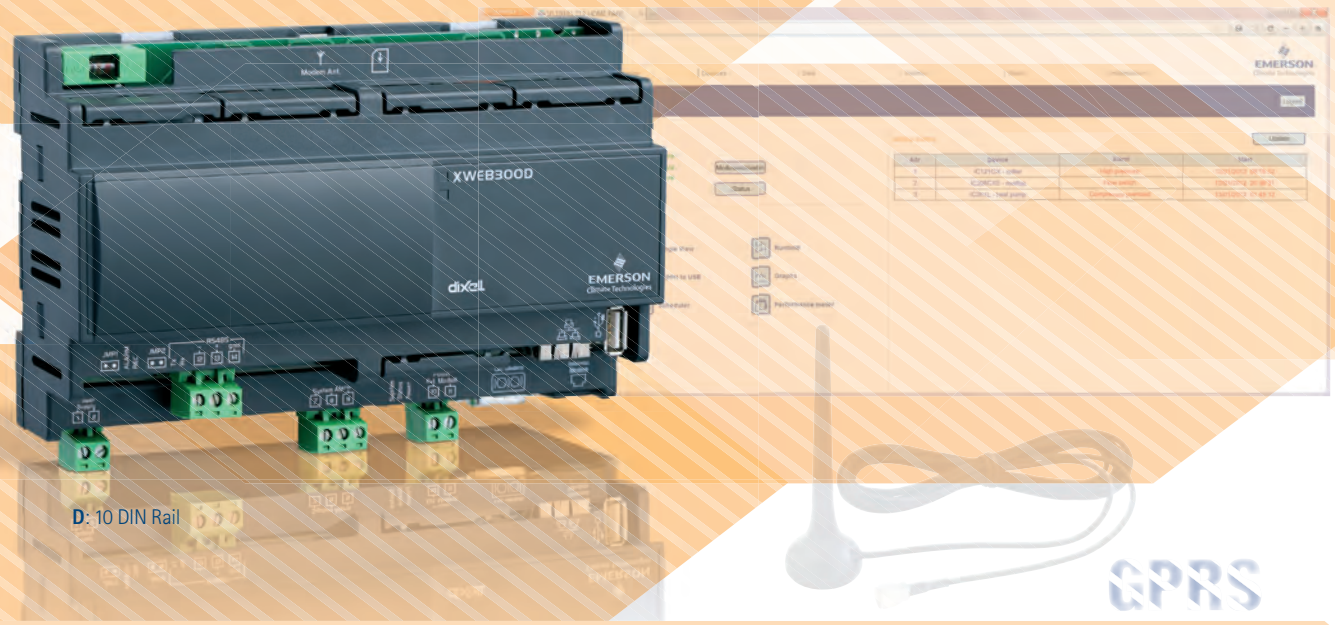
Protection grade

0 = IP20

1 = IP55

SYSTEMS

SECTION INDEX



D: 10 DIN Rail

XWEB: MONITORING and CONTROLLING ALARM SYSTEM

XWEB300D and **XWEB500D** are flexible solutions offered by Dixell for remote management, monitoring, and control of Dixell controllers and their alarms. Ideal for remote maintenance of chillers, roof-top units, heat pumps, and more, XWEB checks the unit status and in case of alarm malfunction, notifies recipients through FAX, SMS or e-mail.

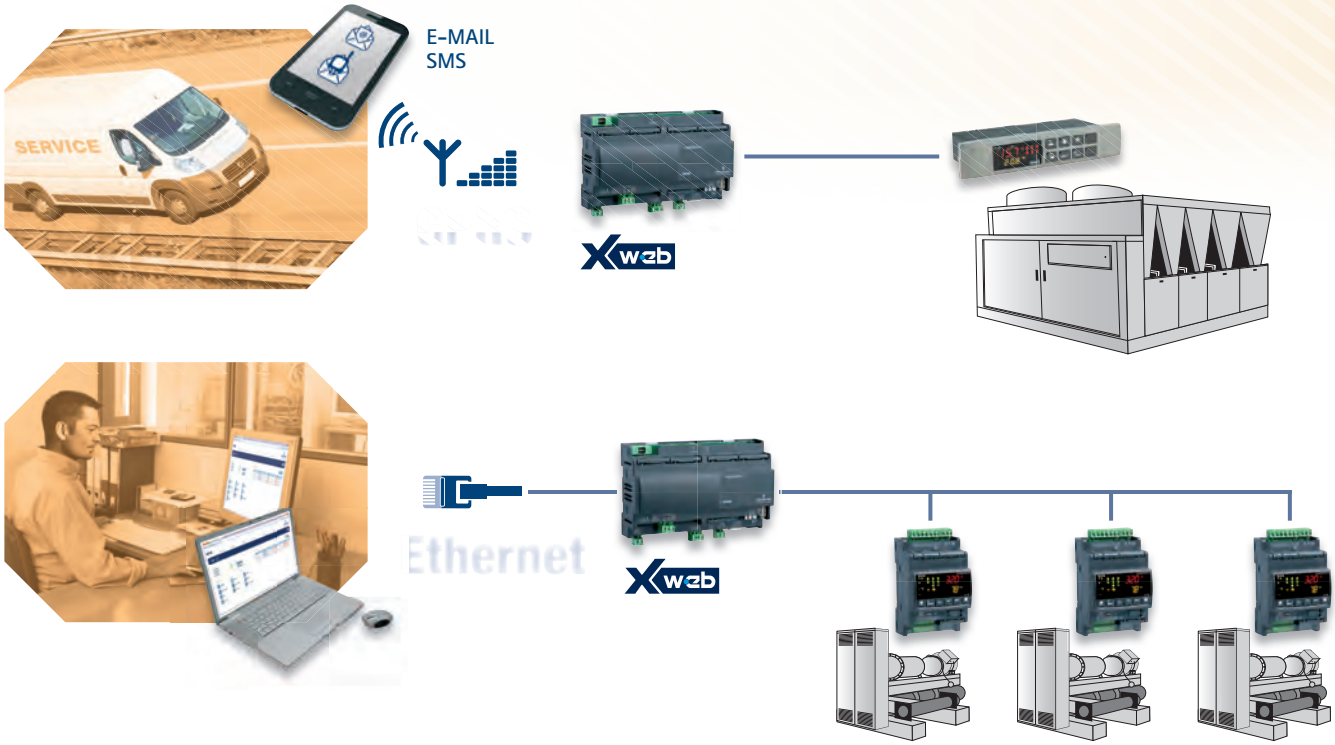
Information on alarm status given by the XWEB is fundamental in deciding the kind of action to take in order to optimize time and costs.

XWEB can also record and export all relevant data using special functions, enabling the OEM to make changes or improvements to the unit itself.

- Connection to Dixell and other OEM compatible controllers with ModBUS-RTU (for conditions please contact Dixell)
- 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
- Access to functioning data from local or remote connection without using proprietary programs but with browsers such as Microsoft Internet Explorer®, Firefox®, etc...
- 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 6 or 18 controllers with XWEB300D
  - one year of stored data with 15min sampling time for 36 or 100 controllers with XWEB500D
- XWEB is always accessible even with isolated installations using the built-in GPRS connectivity (optional)

APPLICATIONS

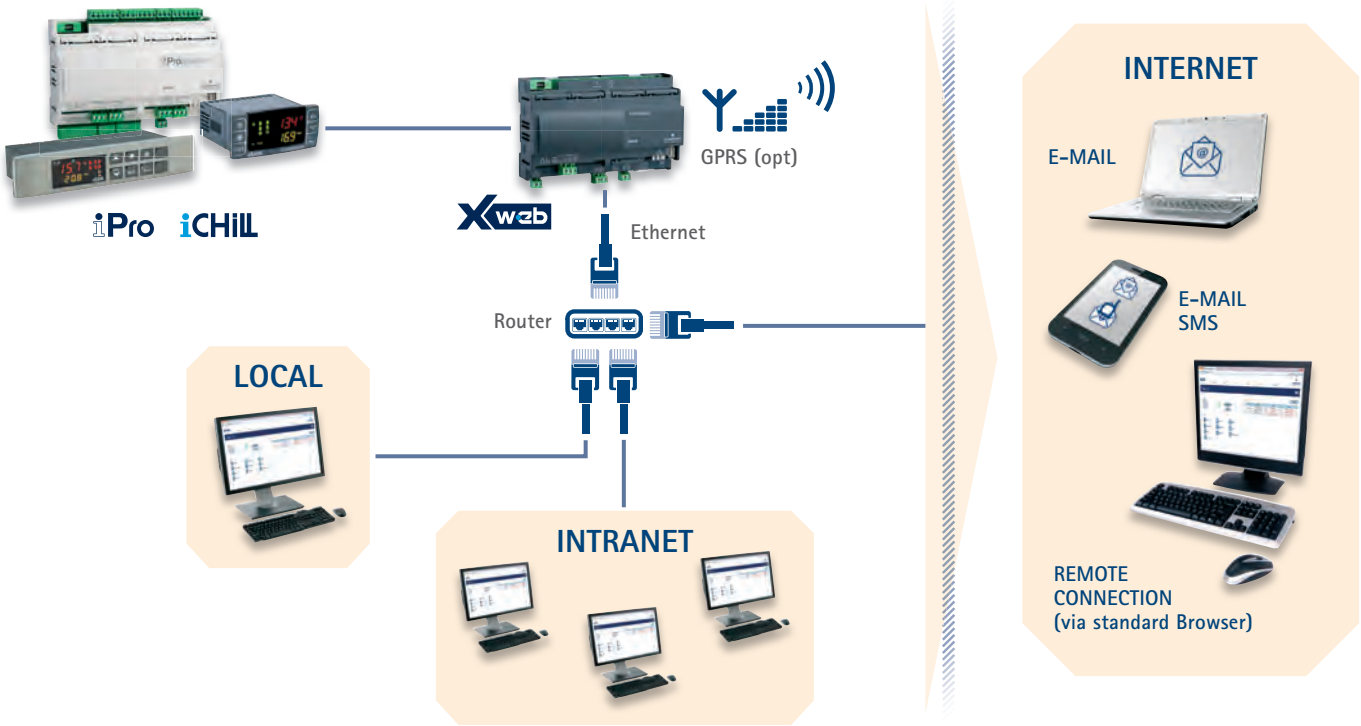
The XWEB family of controllers, thanks to its high connectivity, that distinguishes it as a best-solution service, tele-assistance, and control in residential, commercial and industrial applications. Even where the plant is isolated and difficult to be reached, XWEB is the ideal solution because takes advantage of a widespread GPRS network.



CONNECTIONS

XWEB can be locally (connecting the unit in LAN to a PC) or remotely linked:

- by modem with point to point connection, also with GSM modem;
- by Internet connection, if provided with a static IP address.



FUNCTIONS

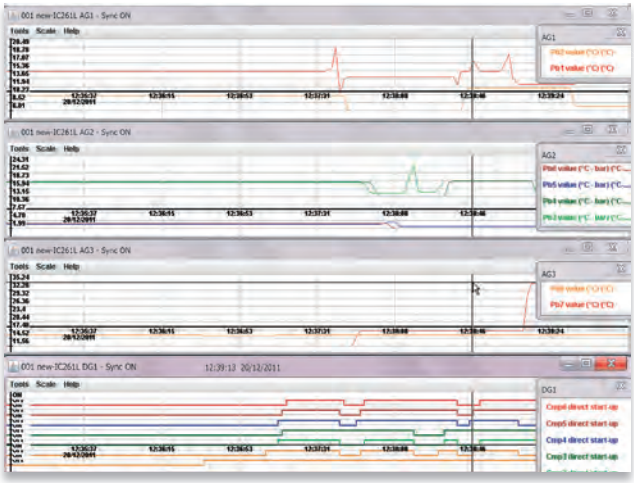
The XWEB family provides the user with special functions for control of connected machines, which are user friendly thanks to an intuitive and easy interface.

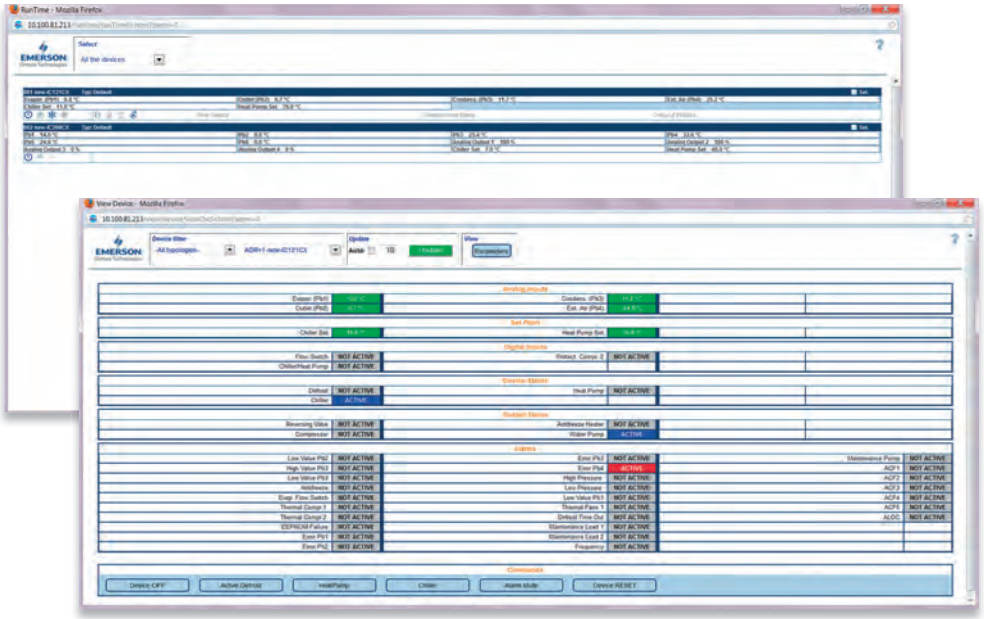
ALARM MACHINE STATUS

This special function allows to display the machine status during an alarm in order to give useful information to the user about alarm causes.

GRAPHICS

The XWEB can supply powerful graphs, able to represent multiple analog values to compare simultaneously temperatures, pressures, alarms, outputs, and more



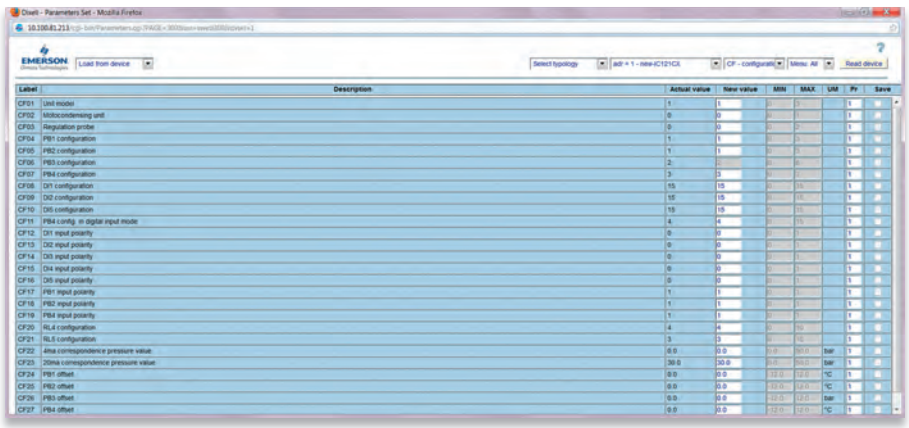


VIEW OF DEVICES

The Run Time function displays main data of many devices simultaneously, in a unique window. This is a dynamic page and the data displayed on it is updated in real time. The status of the devices connected is displayed simply and clearly.

PARAMETERS

With the XWEB, the user has an intuitive, yet powerful and versatile device that allows the user to modify all the various functioning parameters of the instruments (for third party instrumentation please contact Dixell).

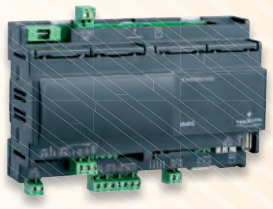


ALARM MANAGEMENT, MONITORING and CONTROLLING WEB SERVER

XWEB

XWEB300D | Alarm and controlling web server with the possibility to connect from 6 to 18 instruments

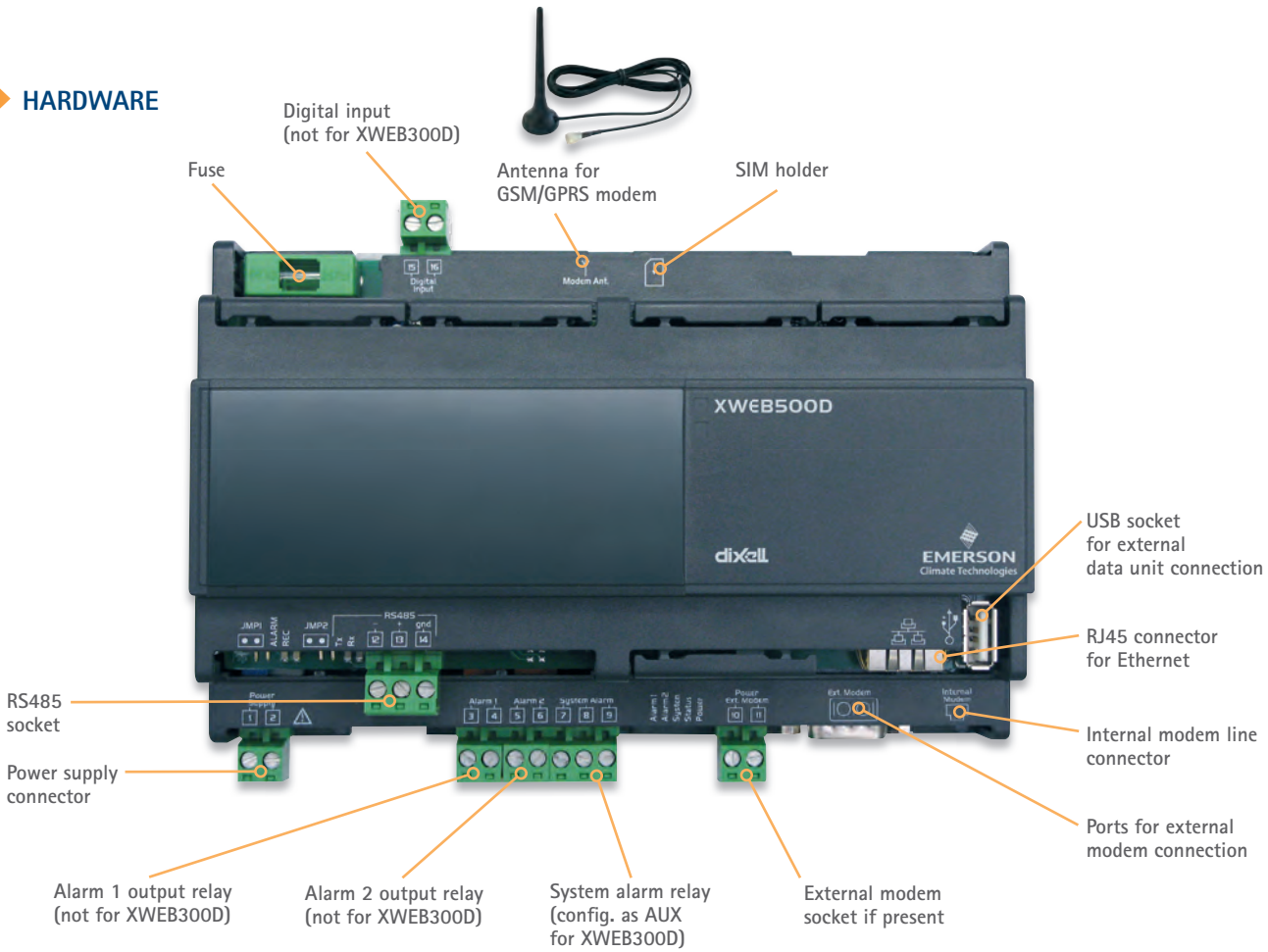
XWEB500D | Monitoring and controlling web server with the possibility to connect from 36 to 100 instruments



D: 10 DIN Rail

FEATURES	XWEB300D	XWEB500D
Applications	small and medium	medium and big
Power supply	24Vac or 110÷230Vac	24Vac or 110÷230Vac
N° of instruments	6 - 18	36 - 100
Peripheral USB output	pres	pres
Relay outputs	1	3
Digital input		pres
LAN output	pres	pres
RS485 output	pres	pres
External modem	analogue or GSM opt	analogue or GSM opt
Internal modem	analogue	analogue or GSM/GPRS opt
Sampling time	from 1 to 60 minutes	from 1 to 60 minutes
RS485 line-check	pres	pres
Parameter programming	pres	pres
Runtime function	pres	pres
Data export in Excel format	pres	pres
Graphics	pres	pres
Layout function		pres
Scheduler function		pres
Global commands		pres
Performance meter		pres

HARDWARE



TECHNICAL DATA

Housing	self extinguishing ABS
Format	frontal 110x175mm; depth 59,5mm
Mounting	DIN Rail or wall mounting through integrated brackets
Connections	disconnectable connectors Ethernet LAN USB RS485 RS232
Power supply	24, 110÷230Vac ±10% 50/60Hz
Digital inputs	1 (for XWEB500)
Relay outputs	SPDT 8(3)A, 250Vac (3 for XWEB500D)
Power absorption	10VA max
Operating temperature	-10÷60°C (14÷140°F)
Storage temperature	-30÷85°C (-22÷185°F)
Relative humidity	20÷85% (non condensing)

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

XWEB500D

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

A	B	E
Power supply	**N° of instruments**	**Internal modem**
2 = 24Vac	**H** = 36	**0** = No
8 = 110÷230Vac	**T** = 100	**1** = Analogue
		2 = GSM/GPRS

PROBES

SECTION INDEX

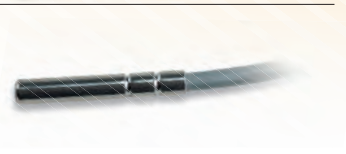
PROBES

TEMPERATURE PROBES

NTC PROBES

PROBE	DESCRIPTION	CABLE	TEMP. RANGE	
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		
NG6	General purpose, over-molded, IP67, 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, IP68, 2 pole connector, cap "dimension Ø5x20mm"			
NX6P	Thermoplastic wire, IP68, inox steel cap "dimension Ø6x20mm"	Thermoplastic 1,5m - 3,0m	-40÷110°C -40÷230°F	
NX6PJ	Thermoplastic wire, IP68, 2 pole connector, inox steel cap "dimension Ø6x20mm"			
NY6P	Thermoplastic wire, IP68, inox steel cap "dimension Ø6x50mm"	Thermoplastic 1,5m - 3,0m	-40÷110°C -40÷230°F	
NY6PJ	Thermoplastic wire, 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			

PTC PROBES

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	Waterproof, resinated, IP67, inox steel cap "dimension Ø6x40mm"	PVC 1,5m - 3,0m	-30÷80°C -22÷176°F	
S6.S	Waterproof, resinated, inox steel cap "dimension Ø6x30mm"	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	

PT1000 PROBES

PROBE	DESCRIPTION	CABLE	TEMP. RANGE	
PMG5P	Thermoplastic wire, resinated, IP68, inox steel 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	

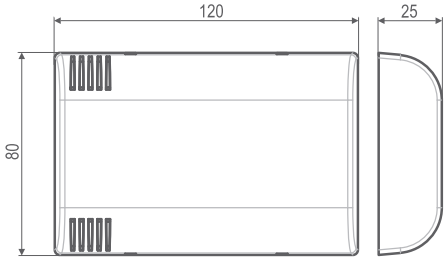
TEMPERATURE/HUMIDITY PROBES

Temperature/humidity probes for HVAC/R with DEW-POINT calculation and RS485 output with ModBUS protocol. Ideal for residential/industrial conditioning, working with iPro controllers, they are a fundamental device to manage the comfort of any ambient dwelling, hotel rooms, hospital structures and more. Depending on the model, in any zone it is possible to obtain the temperature (management of floor heating) or both temperature and relative humidity (management of radiating plants).

- 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

TECHNICAL DATA

Power supply	12÷24Vac/dc - 12÷40Vdc
Remote probe input	NTC
Digital input	free of voltage
Configurable relay output	8A, 16A optional
Hot Key output	present
Serial output	RS485
Optional analog output	0÷10V

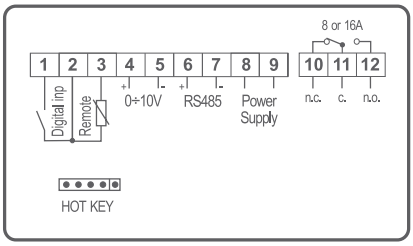


HOW to ORDER

XH50/55P

X	H	5		P	-	0	N	C	D	E

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



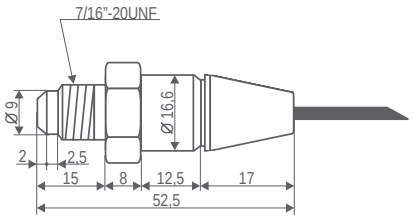
PRESSURE PROBES

PRESSURE TRANSDUCERS

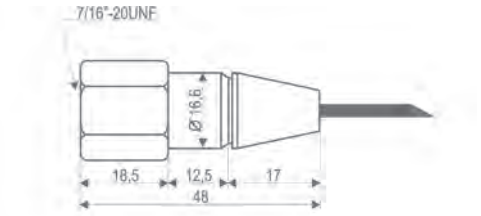
Pressure transducers supply a standard output current signal (4÷20mA). The silicon sensor is assembled in a waterproof steel housing filled with oil that optimizes stable and constant measurement with additional protection against vibrations and a duration equivalent to millions of pressure cycles. The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

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)

MALE FITTING



FEMALE FITTING



FEATURES

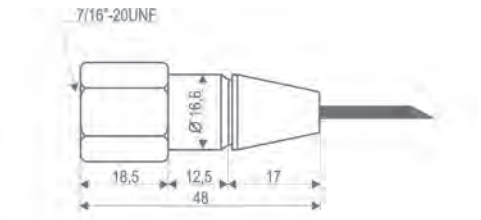
Power supply	8÷28Vdc
Output	4÷20mA
Protection	IP65
Operating temperature	-40÷135°C (-40÷275°F)
Storage temperature	-40÷135°C (-40÷275°F)
Accuracy	1% F.S.

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.

WIRING & ACCESSORIES

SECTION INDEX

WIRING & ACCESSORIES

A complete series of wiring and accessories that enables the end user to have an easy, fast and accurate use of each instrument for each application.

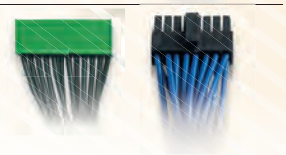
WIRING

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 iCHILL

CF-KIT	For IC100	2 disconnectable female connectors, 12-14 pins with faston	
CAB/CJ15	For IC100, IC260, IC261, IC290 and IC291	Connector with 1,5m wires for remote keyboard, PB4 probe, open collector alarm and 4÷20mA output for condensing control	
CAB/CJ30	For IC100, IC260, IC261, IC290 and IC291	Connector with 3m wires for remote keyboard, PB4 probe, open collector alarm and 4÷20mA output for condensing control	
CAB/C3J15	For IC290 and IC291	Connector, 3 pins with 1,5m wires for VGI890 keyboard	
CAB/C3J30	For IC290 and IC291	Connector, 3 pins with 3m wires for VGI890 keyboard	
CW15-KIT	For IC100	2 disconnectable female connectors, 12-14 pins with wires 1,5m	
CW25-KIT	For IC100	2 disconnectable female connectors, 12-14 pins with wires 2,5m	
CWC15-KIT	For IC100 + triac module	2 disconnectable female connectors, 6-14 pins with wires 1,5m, for models with internal triac	

CWCXA15-KIT	For IC206CX	1+2 disconnectable female connectors, 10 and 14-18 pins with wires 1,5m	
CWCXA30-KIT	For IC206CX	1+2 disconnectable female connectors, 10 and 14-18 pins with wires 3m	
CWCXB15-KIT	For IC208CX	1+2 disconnectable female connectors, 12 and 14-18 pins with wires 1,5m	
CWCXB30-KIT	For IC208CX	1+2 disconnectable female connectors, 12-14-18 pins with wires 3m	
DWDE30-KIT	For IC205D, IC207D and ICX207D	2 disconnectable female connectors, 10-18 pins with wires 3m	
LW30-KIT	For IC260, IC261, IC290 and IC291	3 disconnectable female connectors, 8-16-22 pins with wires 3m	

WIRING for iPro

DWS30-KIT	For IPC108D, IPC108E and IPG108D	2 disconnectable female connectors, 12-16 pins with wires 3m	
DWB30-KIT	For IPC115D and 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 IPC108D, IPC108E and IPG108D	1+1 screw female connectors, 7 and 12 pins	
IP-FC208	For IPG208D	1+1 screw female connectors, 7 and 12 pins and 2 bayonet female connectors 12-16 pins	
IP-FC215CP	For IPG215D and IPG215F	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, 8 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	

WIRING for IEV & XEV

DWXEV30	For IEV & XEV	1 disconnectable female connector, 12 pins with wires 3m	

PROGRAMMING

PROGRAMMING TOOL

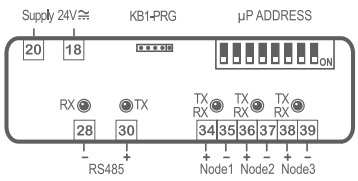
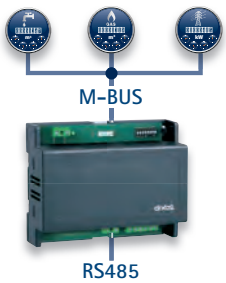
WIZMATE PROG-TOOL KIT	Programming kit made up of CD and DIN RAIL module (PROG-TOOL) with connections for Hot Key and RS485 for Dixell instruments; it allows the user to connect controllers to a PC running Windows 2000/XP OS. The CD-rom includes: WIZMATE (to program an instrument or a Hot Key). The Kit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

PROGRAMMING KEYS

HOT KEY	Key for a quick and easy Dixell's controllers programming. Dimensions 0,8x16x46mm	
HOT KEY 64	Key for a quick and easy IC200 controllers programming. Dimensions 0,8x16x46mm	
VISOKEY	Programming key for Visograph keyboards	

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% No. of nodes that can be connected: max 3 Certified models: ISTA (Istameter, Domaqua, Sensonic II) 	

GASKETS

GASKETS

RG-LX	Front panel rubber gasket for L format, IP65 mounting (INOX)	
RG-V	Front panel rubber gasket for V format, IP65 mounting	

TRANSFORMERS

TRANSFORMERS

TF5	5VA model for IC100 series availables in the following versions: 230/12Vac, 230/24Vac, 110/12Vac and 24/12Vac	
TF10	10VA model for IC200 series availables in the following versions: 230/12Vac, 110/12Vac and 24/12Vac	
TF10D	10VA model in 2 DIN Rail format availables in the following versions: 230/24Vac and 110/24Vac	
TF20D	20VA model in 3 DIN Rail format availables in the following versions: 230/24Vac and 110/24Vac	
TF40D	40VA model in 4 DIN Rail format availables in the following versions: 230/24Vac and 110/24Vac	

VARIOUS

ANTENNA

XW-ANT	GSM/GPRS antenna with magnetic base and 2,5m cable	

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 CONVERTERS

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

EXPANSION MODULE

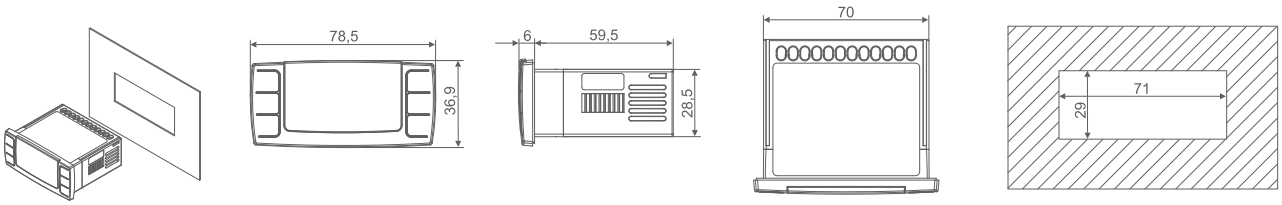
RT314-KIT	Expansion module to connect an external relay (12A/250Vac), DIN Rail mounting	

SIMULATORS

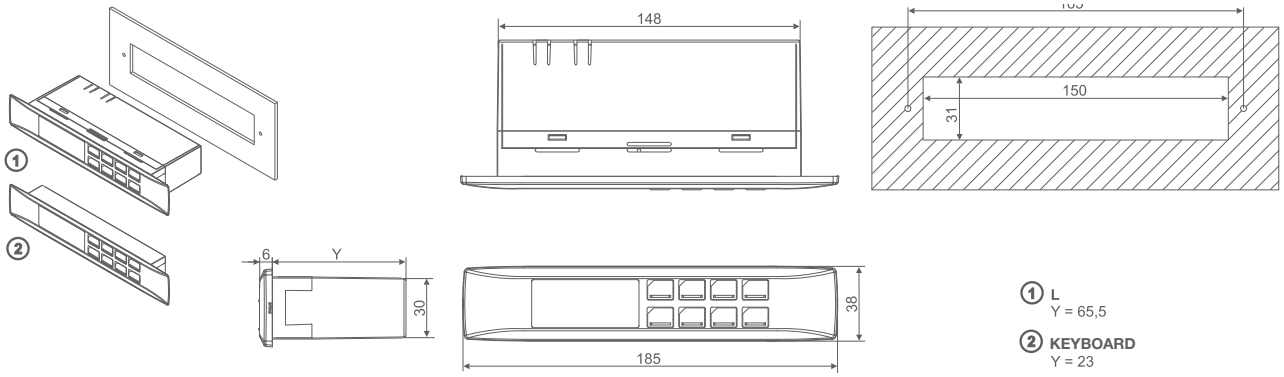
KIT SIMULATORE IC200L	Simulator of inputs and outputs is created to test applications developed for the IC200L/10 DIN Rail controllers. With a solid aluminum frame, its compact dimensions 560x340x85mm, a complete series of wiring and a versatile suitcase, make it ideal for use in many situations. The simulator has a 230Vac power supply.	
KIT SIMULATORE IPRO	Simulator of inputs and outputs is suitable to test the applications developed for the IPRO programmable controllers in 10 DIN Rail format. Thanks to a resistant aluminum frame, its compact dimensions 560x340x85mm, a complete series of wiring and a versatile suitcase, the use is facilitate in every situation. The simulator has a 230Vac power supply.	

DIMENSIONS & CUT OUT

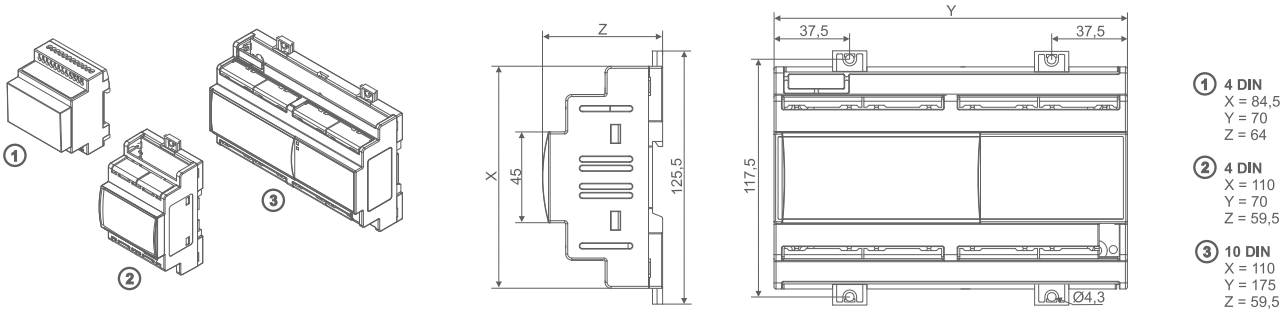
CX (32x74) - panel mounting



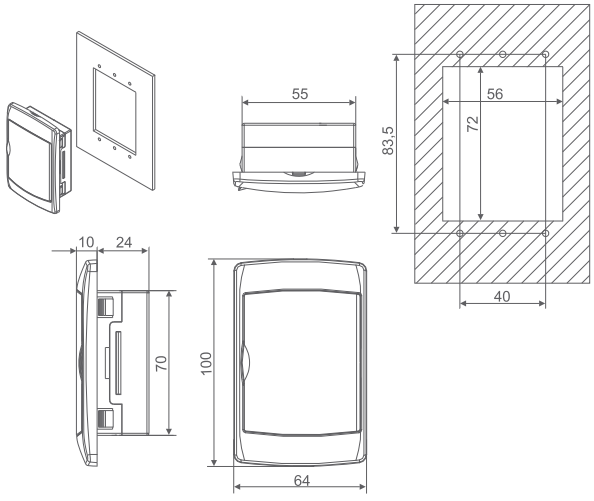
L, KEYBOARD (38x185) - panel mounting



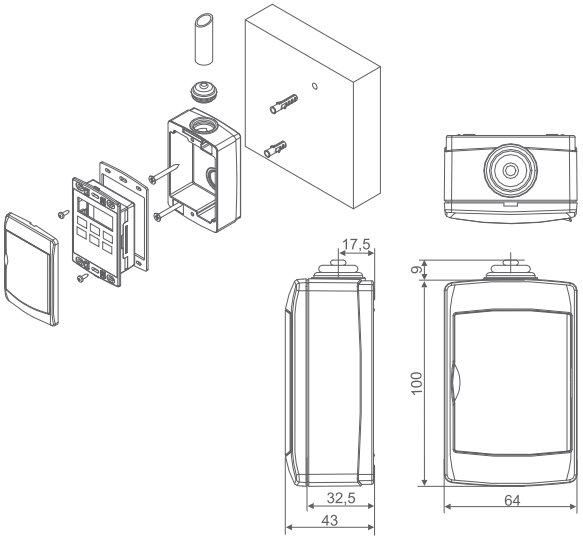
4, **10DIN** (DIN RAIL) - DIN Rail or wall mounting



VI, VICX (100x64) - panel mounting

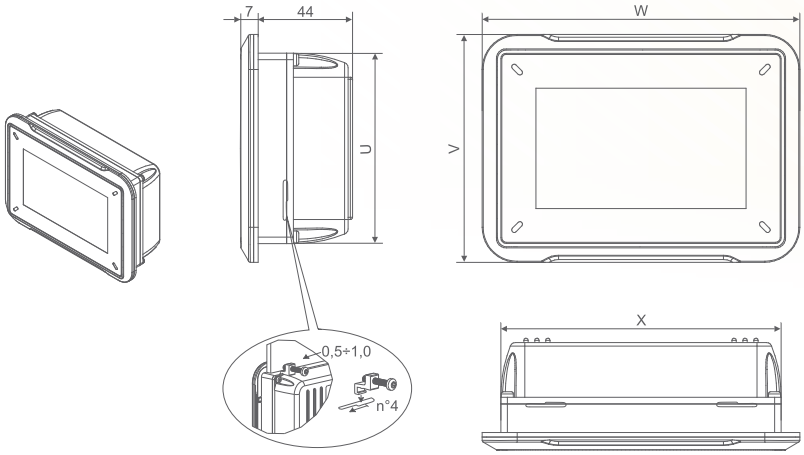


V-KIT (100x64) - wall mounting



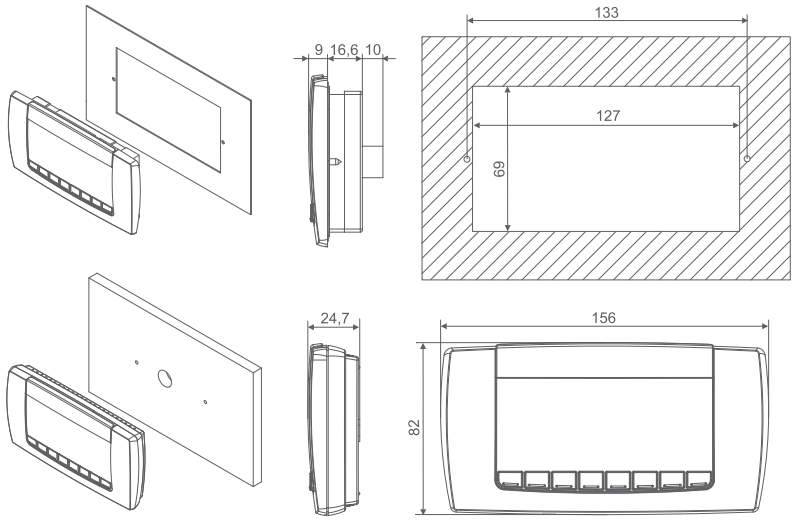
Size in mm

TGIPG - panel mounting

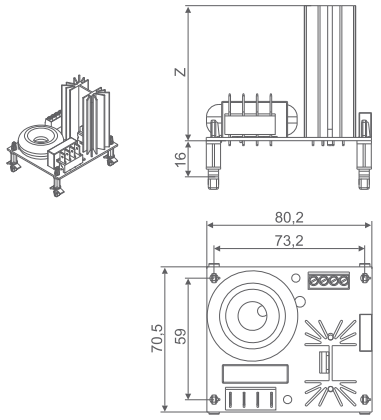


vers. 4,3"	vers. 7"	vers. 10,4"
U = 87	U = 126	U = 209
V = 104	V = 143	V = 228
W = 145	W = 204	W = 280
X = 128	X = 187	X = 262
Y = 89	Y = 128	Y = 211
Z = 130	Z = 189	Z = 264

VISOGRAPH (82x156) - panel or wall mounting

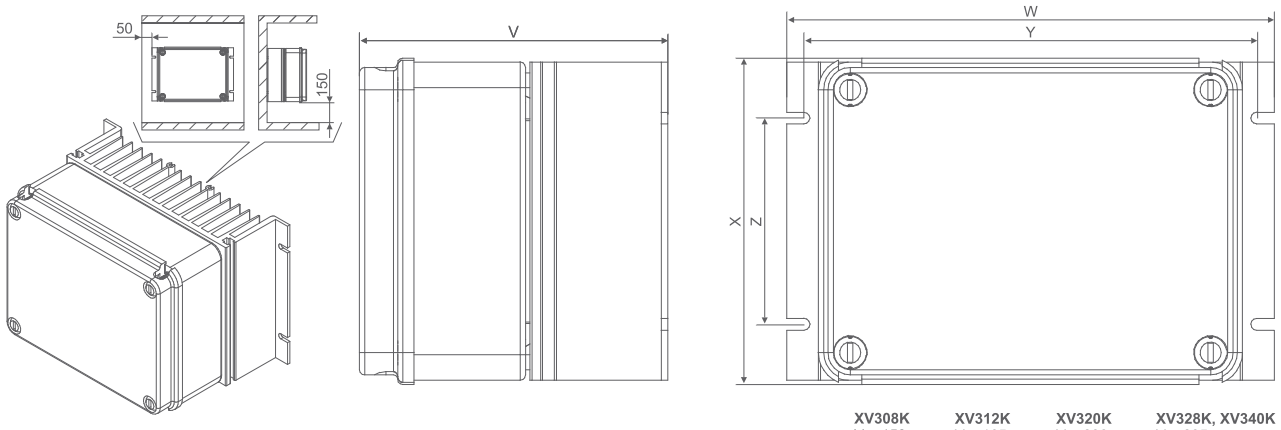


PK (80x70) - panel mounting



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

XV300K - wall mounting



XV308K	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

Size in mm

release 1.0 - 1582300101-GB

ideas communication

Dixell S.r.l. - 32010 Pieve d'Alpago (BL) ITALY - Z.I. Via dell'Industria, 27
Tel. +39.0437.9833 r.a. - Fax +39.0437.989313 - www.dixell.com - dixell@emerson.com

EMERSON
Climate Technologies