www.kahancontrols.com

Refrigeration

Air-Conditioning

Humidification

Industrial

If technologies & solutions are the essence of success,

... We deliver success.

kahan controls

HVAC - R Controls & Technologies

Refrigeration

Air-Conditioning

Humidification

Industrial

Company Profile

About us :

KAHAN CONTROLS, a young and dynamic company founded in 2003. Since then there has been no looking back. Company started business by representing Dixell Italy as a Sole Distributor for India market. Now company is representing more than 8 MNCs exclusively in India market. Company is one of the leader in providing Controls, Automation & Technological products to Refrigeration industry with supplies to all major OEMs, Contractors & End Customers. To strive future growth, company is also focusing for HVAC Building Automation market from past few years and aiming to have sizeable market share of IBMS.

Now, KAHAN CONTROLS operates with head office in Mumbai, South regional office in Chennai, North regional office in Delhi & East regional office in Kolkata with total employee strength of more than 25. KAHAN CONTROLS operates in two major verticals i.e. Refrigeration Automation & HVAC building Automation. We cater businesses like OEM Supplies & Complete Integrated Project Solutions. Company has grown annually by an average of approx. 65% in last 7 years and aims to grow by over 100% annually in next 5 years.

Vision :

To evolve as the best controls, automation, technology and customised solution provider company to Indian Refrigeration & Air-conditioning industry, by providing unmatched quality products & services, at the most competitive prices, meeting or exceeding the customer expectations.

Mission :

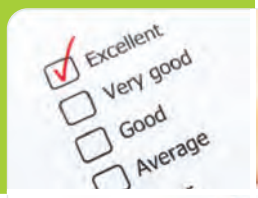
By virtue of our commitment to bring best technological products for Indian HVAC & R industry, we shall work very closely with our overseas technology partners and we shall manage all required operations like creating awareness about world's best technologies and new advanced products etc., creating local customised infrastructure to facilitate Indian HVAC-R industry so that they can make world class products made in India.

Core Values :

The core values of an organisation are those values which form the foundation on which, we all work, perform and conduct. We have lots of values available but some of them are so primary and important that throughout the changes in society, politics, or technology, they are still the core values we will abide by. In an ever-changing world, core values are always constant. At KAHAN CONTROLS, our hidden driving force are : Leadership by Example, Best People, Client Value, Integrity & Transparency and Excellence.

Passion for Excellence

We must enthusiastically strive to achieve the highest standards in the industry, through every small work we do in our daily life, be it quality of our products or services, documentation or communication.



Responsibility

We must continue to be responsible, sensitive to the countries, communities and environments in which we work, always ensuring that what comes from the people goes back to the people many time over.

Change is life. We should not be scared of change. Our thirst for change and continuous improvement must ensure that everybody is encouraged to generate new and creative ideas. We must also ensure that those creative ideas get properly implemented to achieve new & better product or service.

Change Improvement & Innovation

Customers First

The customer should always be at the center of all that we do. All our work should lead towards providing best product and service support to the customers and we shall strive to attend best possible relationship with customer

dixell our experience... ...your solutions · REGIN · Pego · murco gas detection solutions · AKO · Fuji Electric · EMERSON · SAGINOMIYA · tecnocooling

Refrigeration | Air-Conditioning | Humidification | Industrial




Index

E-Class
(Basic Refrigeration Controller / Indicator)

The new E-CLASS series in CX format, is the innovative range of products that Dixell has introduced on the market for both heating and L.T. and N.T. refrigeration. The E-CLASS family (32x74mm) is realized with the latest knowledge and technologies, software and hardware for a high standard of performance.

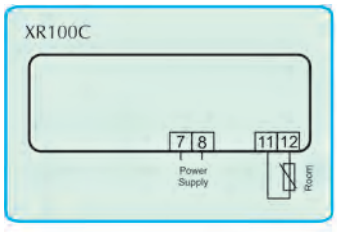
- Reduced number of parameters, easy and intuitive programming mode
- Keyboard lock, alarm display
- Reduced mounting depth (only 50mm)
- Increasing temperature display delay (useful faction for display cabinet): new
- Neutral zone management
- Compressor relay up to 1or 2HP (8A or 20A relay inside)
- Complete condensing unit management controller: new
- Decimal resolution (-9.9 ÷ 9.9), 2 digits
- Built-in gasket (IP65).
- Manual dial type thermometer for OEM requirement (Heat / Cool)

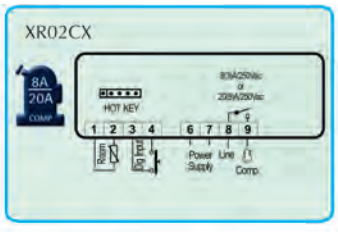
FEATURES

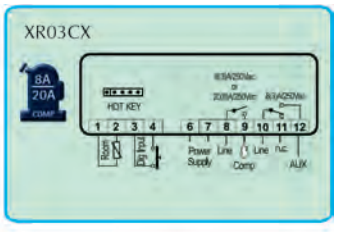
	XR100C	XR02CX	XR03CX	XR06CX	XR08CX (new)		XC30CX (new)
Display: n° digits	± 3 d.p.						
Power Supply	12, 24Vac/dc 110, 230Vac	110, 230Vac 12, 24Vac/dc	12, 24Vac/dc 110, 230Vac	12, 24Vac/dc 110, 230Vac	110, 230Vac 12, 24Vac/dc		110, 230Vac
Measurement range	probe dependent						
Depth		50mm	50mm	59mm	50mm		70mm
Probe inputs							
Probe	NTC/PTC						
Thermostat		NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC		NTC/PTC
Defrost				NTC/PTC	NTC/PTC		
Condenser Probe							PTC
Suction Pressure							PPR (+5V)
Digital Input							
Alarm, start defrost, AUX, door switch, pressure switch / HP Input	config	config	config		config		config
Relay outputs							
Compressor		8A, 20A opt	8A, 20A opt	8A, 20A opt	8A 8A	16A 20A opt	20A
Defrost				8A	8A	8A	8A
Fan (1)					8A	5A	
AUX			8A				
Fan 2							5A
Other							
Hot Key output	yes	yes	yes	yes	yes		yes
Buzzer	opt*	opt*	opt*	opt*	opt		opt*

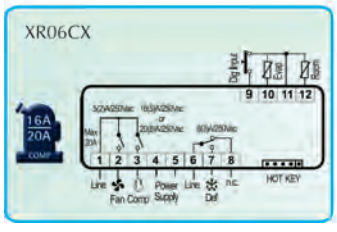
Note : XR08CX is a special controller for BULK MILK COOLER or REFRIGERATED AIR DRIER Application

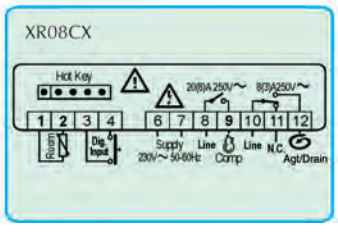
LINE DIAGRAM

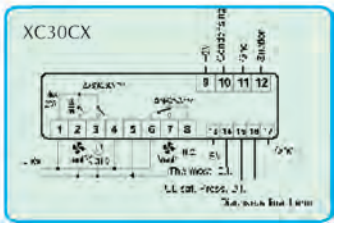






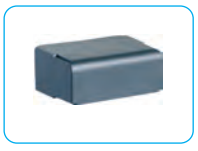




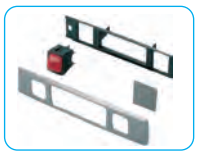


ACCESSORIES

Hot Key



MDP/CX



FA/CX

Blue LED

Prime CX
(General Refrigeration Controller)

The CX family (32x74mm) has new functions plus an innovative and attractive design. The revolutionary introduction of 6 keys allows the user direct access to all main functions rapidly and intuitively, while the display with illuminated icons allows an instant view of the machine's status.

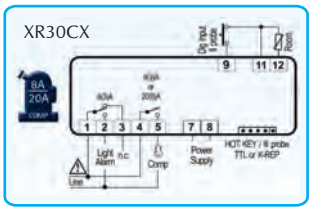
PLUS

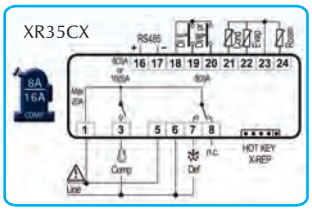
- Regulation stop by auxiliary probe (beer dispenser applications); it is possible to supervise the tube temperature, stopping the compressor when the temperature becomes too low, and restarting when the correct values have been restored. new
- Max and Min temperature or HACCP function.
- Virtual probe for air on / air off application; used in multideck applications where it is important to regulate temperature using the average of 2 temperatures. new
- Condenser temperature management to prevent critical situations in the system.
- Real time clock.
- TTL serial connection for monitoring systems (direct for XR35/75/77CX or through XJ485CX). new
- Connection for remote display X-REP (excludes TTL).

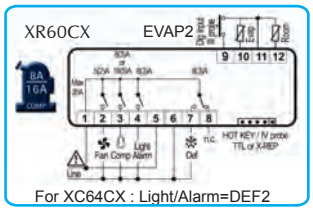
FEATURES

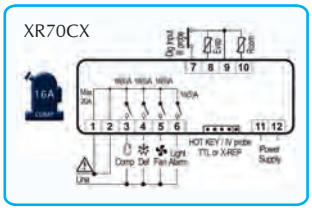
	XR30CX	XR35CX	XR64CX	XR70CX	XR72CX	XR75CX
Display : n digits	± 3 d.p. 12, 24Vac/dc	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.
Power Supply	24, 110, 230Vac 9÷40 Vdc	110, 230Vac	24,110, 230Vac / 24, 110, 230Vac	24,110, 230Vac / 24, 110, 230Vac	24,110, 230Vac / 12Vac/dc	110,230Vac
Probe Inputs						
Thermostat	NTC/PTC	NTC/Pt1000	NTC/PTC / NTC/PTC	NTC/PTC / NTC/PTC	NTC/PTC / NTC/PTC	NTC/Pt1000
Defrost		NTC/Pt1000	NTC/PTC / NTC/PTC	NTC/PTC / NTC/PTC	NTC/PTC / NTC/PTC	NTC/Pt1000
Defrost 2			NTC/PTC / NTC/PTC			
Condenser	NTC/PTC on Hot Key	NTC/Pt1000	NTC/PTC on Hot Key	NTC/PTC on Hot Key	NTC/PTC on Hot Key	NTC/Pt1000
Digital Inputs						
Alarm, start defrost, AUX, door switch, pressure switch, probe	config	config	config	config	config	config
Alarm, start defrost, AUX, door switch, pressure switch		config				config
Relay Outputs						
Compressor	8A, 20A opt	8A, 16A opt	8A,16A opt / 16A	8A, 16A opt / 16A	8A, 16A opt / 16A	8A,16A opt
Compressor 2					8A / 16A	
Defrost			8A / 16A	8A / 16A	8A / 16A	8A
Defrost 2			8A / 16A			
Fans			5A / 16A	5A / 16A	5A / 16A	5A
Light or Alarm	8A	8A		8A / 16A		8A
Other						
Hot Key/prog tool kit output	pres	pres	pres	pres	pres	pres
Remote display output	X-REP opt	X-REP	X-REP opt	X-REP opt	X-REP opt	X-REP
Serial Output	TTL	RS485	TTL	TTL	TTL	Rs485
Buzzer	opt	opt	opt	opt	opt	opt
Real time clock	opt	opt		opt		opt

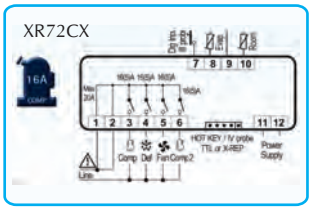
LINE DIAGRAM

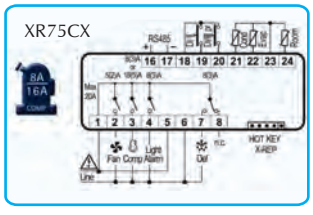












ACCESSORIES


FA/CX


MDP/CX

X-REP


Hot Key

Blue LED

XJ485CX (MODBUS-RTU)

WING Basic
(Special Refrigeration Controller)

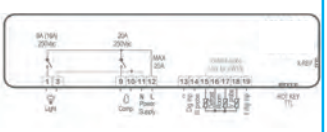
- Direct live and neutral load connections for reduction of wiring costs.
- Up to 8 push buttons with direct action for user friendly interface\Hot Key connector for a quick and easy programming.
- Connection for X-REP remote display (L and K formats, for LS format is an alternative to TTL output).
- Serial connection to monitoring systems (L, LS and K formats).
- Display with red LED (10,5mm high) and icons (L, LS and CX formats), 13,2mm high (VS and V formats).
- Ultra reduced depth of LS & VS formats. new
- TTL serial connection for monitoring systems.

FEATURES

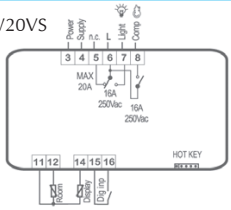
	XW20L	XW20LS	XW20VS	XW20K	XW60L	XW60V	XW60VS	XW60K
Display: n° digits	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.	± 3 d.p.
Keyboard: push buttons	6	6	6	6	Cx620 - T620 V620:6	6	5	CX620 - T620 -
Power supply	24,110,230Vac	24,110,230Vac	24,110,230Vac	24,110,230Vac	24,110,230Vac	24,110,230Vac	24,110,230Vac	24,110,230Va
Probe inputs								
Thermostat	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC
Defrost		NTC/PTC			NTC/PTC	NTC/PTC	NTC/PTC	NTC/PTC
Condenser	NTC/PTC			NTC/PTC	NTC/PTC			NTC/PTC
Display	NTC/PTC		NTC/PTC	NTC/PTC	NTC/PTC		NTC/PTC	NTC/PTC
Digital inputs								
Alarm, start defrost, door switch,	config	config*	config	config	config	config	config	config
pressure switch								
DI 2	config				config			
Relay outputs								
Compressor	20A	20A	16A	20A	20A	8A, 20A opt	16A	20A
Defrost					8A	8A	16A	16A
Fans					8A	8A	8A	8A
Light, ON/OFF	8A, 16A opt	8A	16A	16A	8A, 16A opt	16A		16A
Alarm, AUX								
Other								
Hot Key/Prog Tool Kit output	pres	pres	pres	pres	pres	pres	pres	pres
Serial output	TTL	TTL		TTL	TTL			TTL
Remote display output	X-REP opt	X-REP opt		on keyboard	X-REP opt			
Buzzer	opt	opt	opt		opt	opt	opt	on keyboard
Real time clock	opt	opt			opt			

LINE DIAGRAM

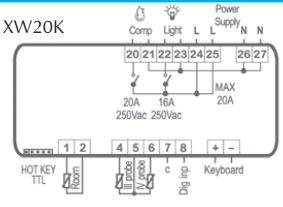
XW20L



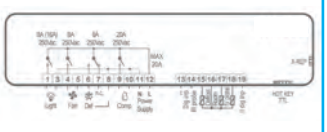
XW20VS



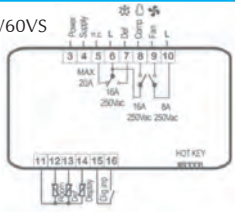
XW20K



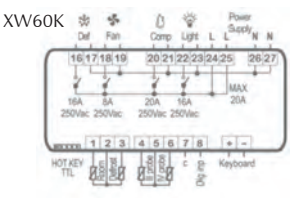
XW60L



XW60VS



XW60K



ACCESSORIES

Steel Front

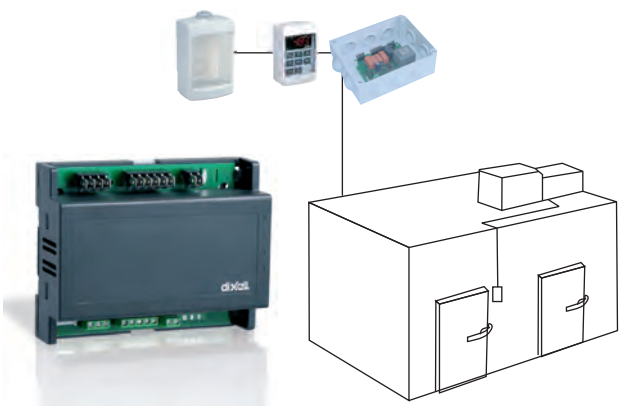
Blue LED

LS

VS

Hot Key

XJ485CX (MODBUS-RTU)

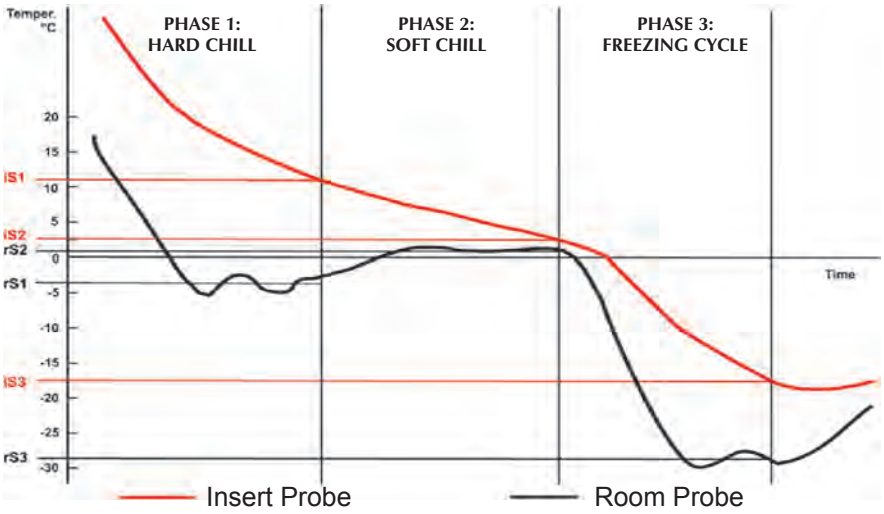


XW 20 / 60 K + V-KIT (Cold Room Controller)

- V-KIT: A wall/panel mount housing kit with vertical format keyboard for remote connection to XW20K and XW 60K Series refrigeration controllers.
- Designed for cold and freezer room applications.
- Connections between controller and V-KIT requires 2 wire electric cable (max. up to 100 m).
- IP55 against water sprinkles.
- Standard communication protocol ModBUS-RTU.
- Hot key or Prog tool kit connector for a quick and easy programming.

XB570L (Blast Freezer Controller)

- Design to comply with the rules concerning preparation and chilling of foodstuffs (HACCP)
- Four configurable cycles: pre-set according to the most common food – safety applications: soft chill, hard chill and freezing.
- Output for remote display to monitor the core temperature of goods.
- Internal real time clock.
- Printer output (XB07PR) for temperature and blast chiller cycles reports.
- All different phases monitorated and shown on the display.
- Ultra violet sterilization cycle management.
- Standard communication protocol ModBUS-RTU.



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

- **First phase: hard chill**

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

- **Soft chill phase**

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

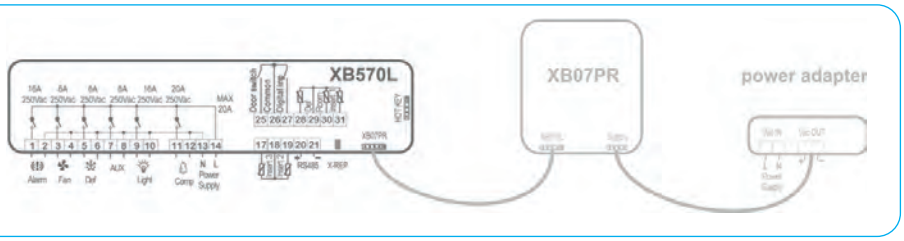
- **Freezing cycle phase**

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

- **Holding phase**

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

LINE DIAGRAM



XC
(Compressor Rack Controller)

- The series are designed for compressor rack up to 15 compressors/fans
- Compressor types: multi-stages, differing power, semi-hermetic, scroll and screw new
- Proportional band or neutral zone control.
- Load activation: in set sequence or with automatic rotation.
- Type of probes (NTC / PTC / 4÷20mA) selectable by parameter
- Low and high safety pressure-switch inputs
- Digital input for liquid level alarm.
- Type of gas setting: to control temperature or pressure
- Hours run meter with maintenance warning for each stage.
- Standard communication protocol ModBUS-RTU
- Hot key or Prog tool kit connector for a quick and easy programming.

FEATURES

	XC420C	XC440C	XC811M	XC1015D
First display (suction): n° digits	± 3 d.p.	± 3 d.p.	4 d.p.	
Second display (condensing): n° digits	± 4 d.p.	± 4 d.p.	4 d.p.	
Power supply	12, 24Vac/dc	12, 24Vac/dc	24, 110, 230Vac	24Vac/dc (from TF20D)
Probe inputs				
Regulation	NTC/PTC/4÷20mA	NTC/PTC/4÷20mA		
Suction 1			NTC/4÷20mA	NTC/PTC/4÷20mA/0÷5V
Suction 2				NTC/PTC/4÷20mA/0÷5V
Condensing 1			NTC/4÷20mA	NTC/PTC/4÷20mA/0÷5V
Condensing 2				NTC/PTC/4÷20mA/0÷5V
Auxiliary 1				NTC/PTC
Auxiliary 2				NTC/PTC
Auxiliary 3				NTC/PTC
Auxiliary 4				NTC/PTC
Digital inputs				
Alarm	2	4		
ON/OFF, liquid level	config	config		
Liquid level			pres	
Low pressure switch 1 (main voltage)			pres	pres
Low pressure switch 2 (main voltage)				pres
High pressure switch 3 (main voltage)			pres	pres
High pressure switch 4 (main voltage)			11	pres
Safety loads (main voltage)				15
Free of voltage				4 config
Relay outputs				
Loads	2 x 8A	4 x 8A	11 x 8A	15 x 7A config
Alarm	8A	8A	2 x 8A	2 x 8A
Logger				
Alarms	last 10	last 10	last 10	
Data				
Other				
Hot Key/Prog Tool Kit output	pres	pres	pres	pres
Serial output	TTL	TTL	Rs485	Rs485
Alarm output				
Triac output				
Fan output				
Buzzer	opt	opt	pres	on keyboard opt
Infrared output				
Reduced set point			pres	
Real time clock			pres	
Remote display output				VGC810
Inverter compressor output				2 x 4÷20mA/0÷10V opt
Inverter fan output				2 x 4÷20mA/0÷10V opt
External module connections				LAN opt

ACCESSORIES

Visograph

XJ485CX (MODBUS-RTU)

XT
(Universal Multi Probe Controller)

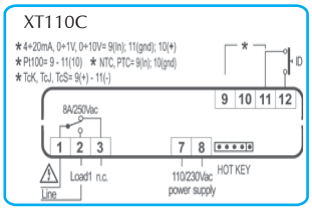
- Universal controllers to manage temperature, humidity and pressure in both the industrial and commercial applications.
- Stock optimization: thanks to the multi-probe inputs.
- 1 or 2 stage ON/OFF or proportional with direct or reverse action.
- Temperature inputs: PTC, NTC, Pt100; thermocouple J, K or S by selecting the parameters.
- Pressure or humidity inputs: 4÷20mA, 0÷1V or 0÷10V by selecting the parameters.
- Display with integrated measurement unit (°C / °F / RH / bar / PSI).
- PID (Auo-tuning) controllers for heating application with standard size or 48 x 48. new

FEATURES

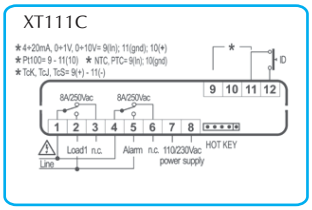
	XT110C	XT111C	XT120C	XT121C	XT151D	XT160D
Display: n° digits	± 3½ d.p.	± 3½ d.p.	± 3½ d.p.	± 3½ d.p.	± 3½ d.p.	± 3½ d.p.
Power supply	12, 24Vac/dc	12, 24Vac/dc	12, 24Vac/dc	12, 24Vac/dc	24Vac/dc	24Vac/dc
	110, 230Vac	110, 230Vac	110, 230Vac	110, 230Vac	24, 110, 230Vac	24, 110, 230Vac
Probe inputs						
NTC, PTC, Pt100,TcJ,TcK, TcS/4÷20mA, 0÷1V,	config	config	config	config	config	config
0÷10V						
Relay outputs						
Stage 1	8A	8A	8A	8A	no 8A / nc 5A	no 8A / nc 5A
Stage 2			8A	8A	no 8A / nc 5A	no 8A / nc 5A
Stage 3					no 8A / nc 5A	no 8A / nc 5A
Stage 4						8A
Alarm		8A		8A	8A	
Other						
Digital input	pres	pres	pres	pres	pres	pres
Hot Key/Prog Tool Kit output	pres*	pres*	pres*	pres*	pres	pres
Serial output	TTL*	TTL*	TTL*	TTL*	TTL	TTL
Analog output					4÷20mA opt	4÷20mA opt
Buzzer	opt	opt	opt	opt	opt	opt

LINE DIAGRAM

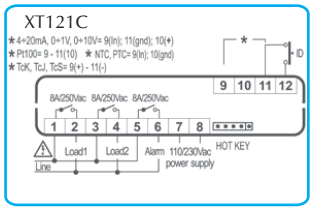
XT110C



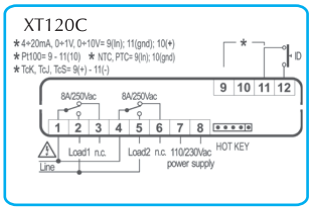
XT111C



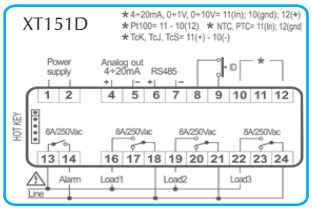
XT121C



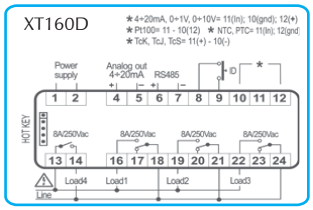
XT120C



XT151D



XT160D



ACCESSORIES

Hot Key

XJ485CX (MODBUS-RTU)

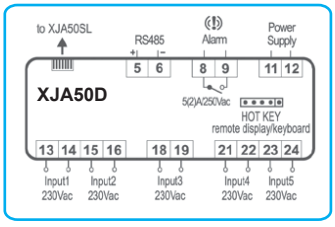
XJA/XJP/XJR/IPX106D/IPX125D (I/O Module And Expansion Board For iPro)

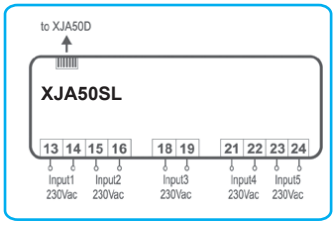
- Up to 6 inputs for NTC, PTC, 4÷20mA and 0÷10V and 3 digital inputs or 4 Pt100 inputs and 4 digital inputs (XJP).
- Up to 10 line voltage inputs (XJA).
- 4 relay output modules, managed by monitoring system (XJR).
- Digital inputs for local enable/disable of relays (XJR).
- Data acquisition modules suitable for collecting data from any kind of installation (XJP).
- I/O Expansion board suitable for small and big iPro models. new
- SSR outputs in IPX125D for special functions of screw compressors. new

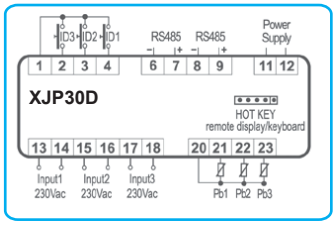
FEATURES

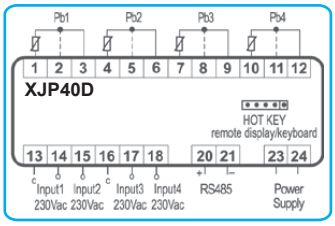
Models	XJA50D	XJA50SL	XJP30D	XJP40D	XJP60D	XJR40D	IPX106D	IPX125D
Power supply	24, 110, 230Vac	from controller	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac	24, 110, 230Vac	24Vac/dc	24Vac/dc
Inputs								
Analogue			3 x NTC/PTC/ 4÷20mA/0÷10V	4x Pt100	6*x NTC/PTC/ 4÷20mA/0÷10V		7 Config.	10 Config.
Digital inputs (power supply voltage)	5	5	3	4	3			
Digital inputs (free of voltage contacts)			3 opt		3*	4	3 Config.	20 Config.
Outputs								
Digital Outputs	4 x 5A opt					4 x no 8A / nc 5A	6 x 5A	21 x 5A + 4 x SSR
Analogue Outputs							3 Config.	6 Config.
Other								
Hot Key/Prog Tool Kit output	pres		pres	pres	pres	pres		
Remote display/keyboard output	X-REP/KB1PRG		X-REP/KB1PRG	X-REP/KB1PRG	X-REP/KB1PRG	KB1PRG		
Serial output	Rs485		Rs485	Rs485	Rs485	Rs485		
Buzzer						opt		
CANBus or LAN Output							Pres	Pres
DIP Switch for Address Selection							Pres	Pres

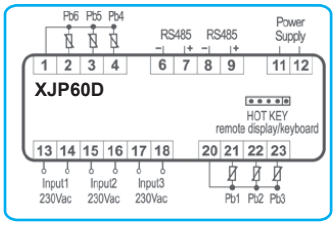
LINE DIAGRAM

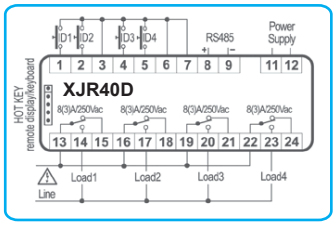












ACCESSORIES

XJ485CX (MODBUS-RTU)

KBI PRG

Visograph Display

Development Tools

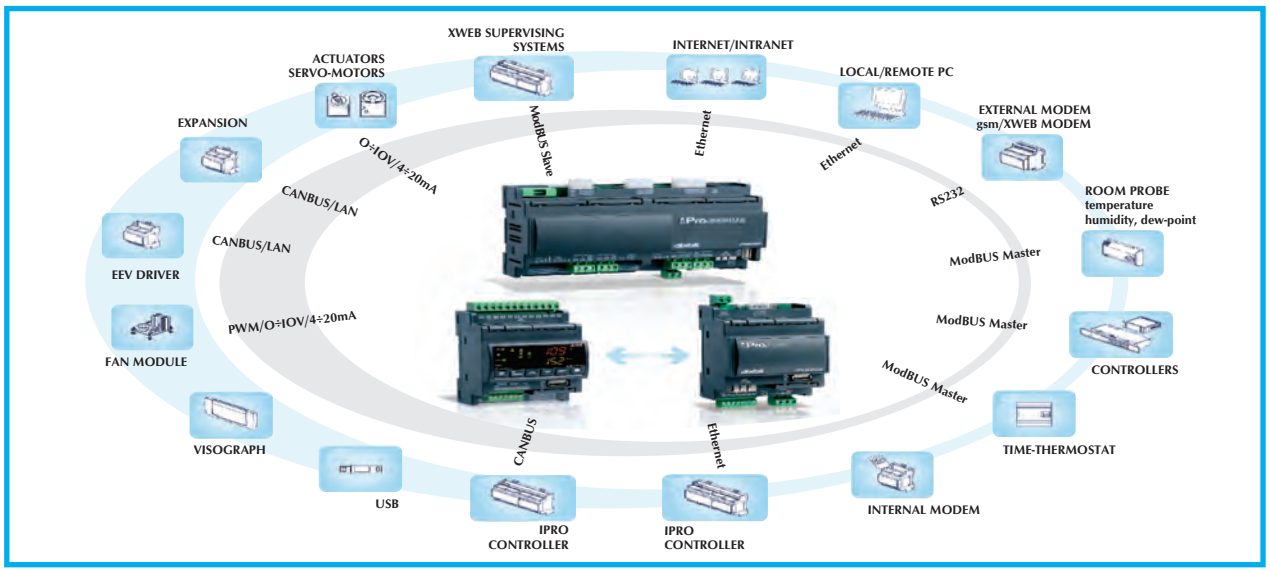
iProGENIUS
(Programmable Logic Controller - PLC)

- **Hardware Details :**
  - LINUX Operative System.
  - ISaGRAPH® Software.
  - 200Mhz CPU.
  - 32bit Processor.
  - 32MB RAM Memory.
  - 20VA Power Absorption.
- **Applications :**
  - Complete Compressor Rack Controls (iProRack) new
  - Complete Ammonia Refrigeration system controls new
  - Multiple condenser/ evaporator controls for cold room
  - Typical food processings like vanaspati
  - Pharmaceutical cold storage controls with BMS connectivity
  - Complete Fruit Ripening Process controls new
  - Complete Screw Compressor (with steps / stepless) Management

Bitzer INDIA Approved

FEATURES

	IPG108D	IPG110D	IPG115D	IPG208D	IPG210D	IPG215D
Power Supply	24Vac/dc-TF20D	24Vac/dc-TF20D	24Vac/dc-TF20D	24Vac/dc-TF20D	24Vac/dc-TF20D	24Vac/dc-TF20D
Display	opt			opt		
Format	4 DIN Rail	10 DIN Rail	10 DIN Rail	4 DIN Rail	10 DIN Rail	10 DIN Rail
Probe Inputs						
0÷1V - 0÷5V - 0÷10V - 0÷20mA - 4÷20mA	6 config	10 config	10 config	6 config	10 config	10 config
Digital Inputs						
Opto-insulated	11 config	20 config	20 config	11 config	20 config	20 config
Relay Outputs						
Configurables	8x5A	9x5A + 1x8A	12x5A + 3x8A	8x5A	10x5A	15x5A
Other Outputs						
PWM for Fan Speed Modules		2 config	2 config			
0÷10V, 4÷20mA for Fan Speed Modules	4 config	2 config	2 config	4 config	2 config	2 config
0÷10V for External Relay Drivers	4 config	4	4	4 config	4	4
Remote Keyboard	1xVGIPG	2xVGIPG	2xVGIPG	1xVGIPG	2xVGIPG	2xVGIPG
Rs485	slave	master / slave	master / slave	slave	master / slave	master / slave
USB	pres	pres	pres	pres	pres	pres
External Modem		GSM, XWEB opt	GSM, XWEB opt		GSM, XWEB opt	GSM, XWEB opt
LAN	pres			pres		
CANBus		pres	pres		pres	pres
Ethernet Enabled		opt	opt		opt	opt
Connections						
Disconnectable + Screw	pres	pres	pres			
Bayonet + Screw				pres	pres	pres
Other						
Internal Modem		opt	opt		opt	opt
RTC	pres	pres	pres	pres	pres	pres
USB-Ethernet Adapter	opt			opt		
Flash Memory	16MB	128MB	128MB	16MB	128MB	128MB



ACCESSORIES

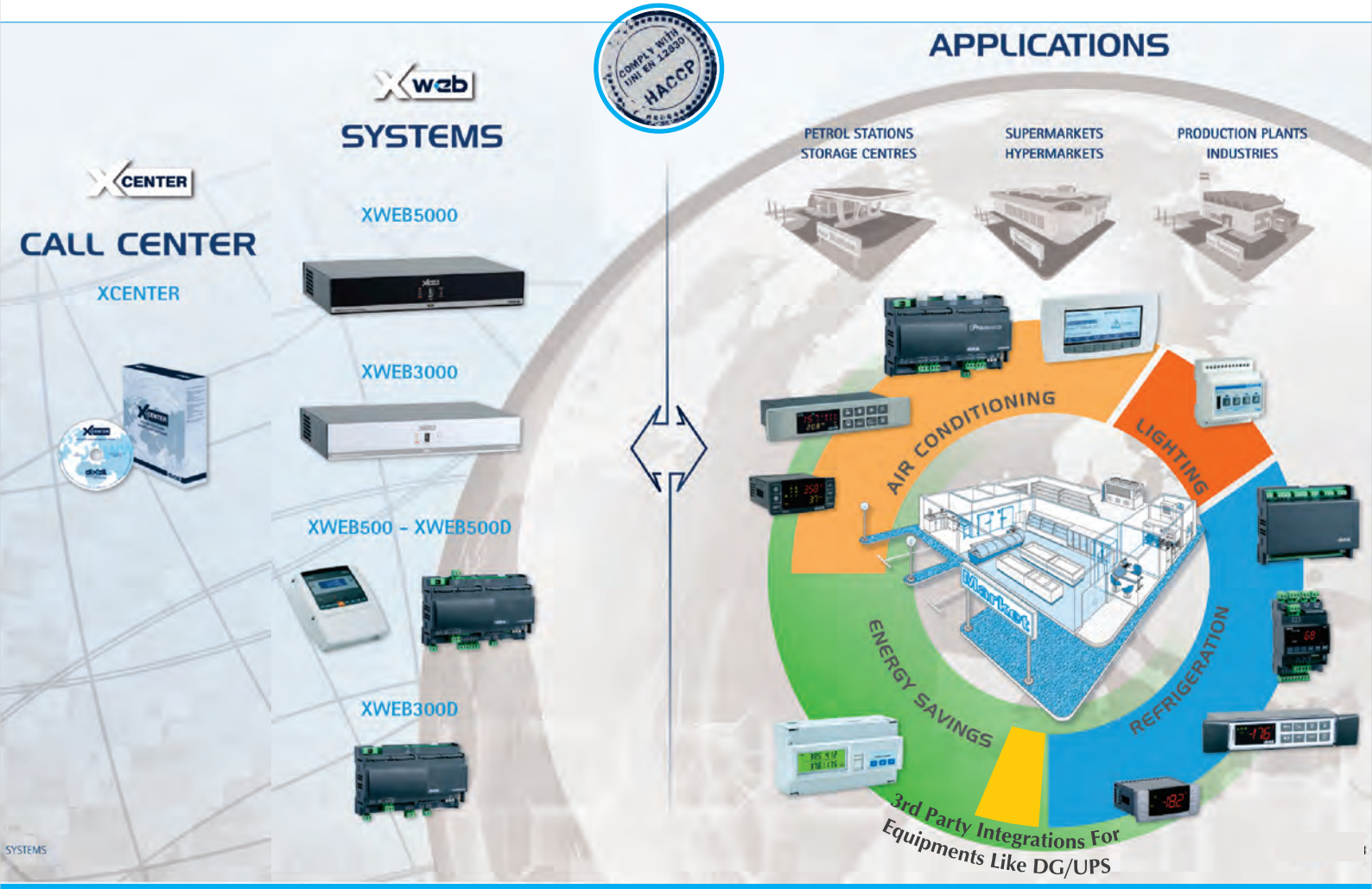
Connectivity Module For VGI, RS485 (M/S), LAN, CANBus

EEV Module

Transformer and Cable Kit

Development Tools

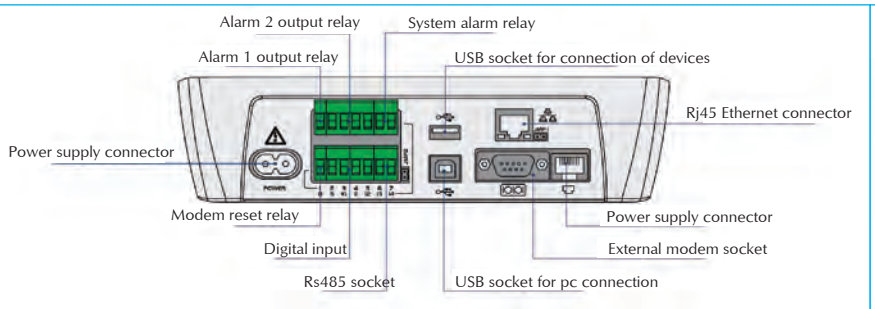
Xweb (mini BMS for Refrigeration and HVAC application)

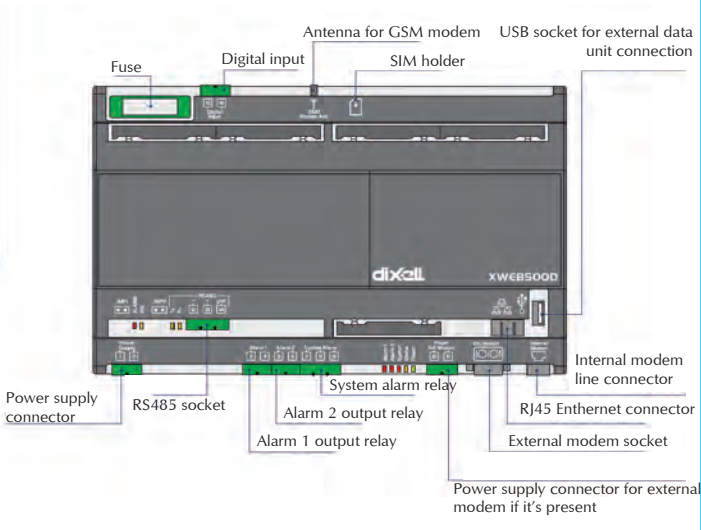


Xweb System Data Logging, Monitoring, Supervisory & Controlling System

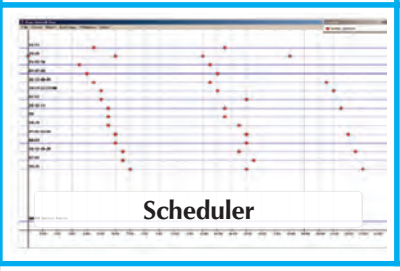
Application

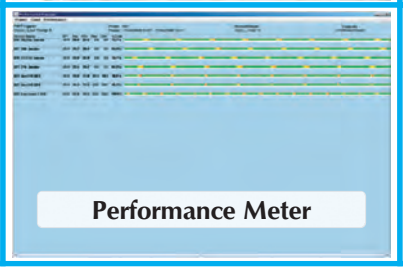
• Supermarket / Hypermarket • Cold Warehouse • CA Storage • Food Production / Processing Plants
• Server / Data Room • Research / Test Lab

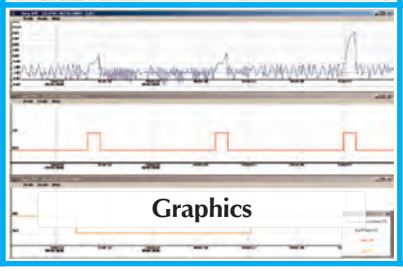


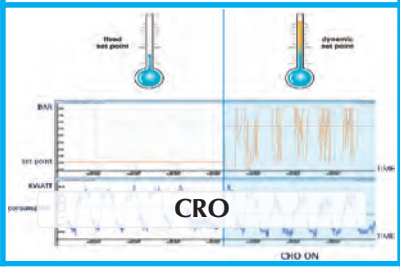


Xweb Features

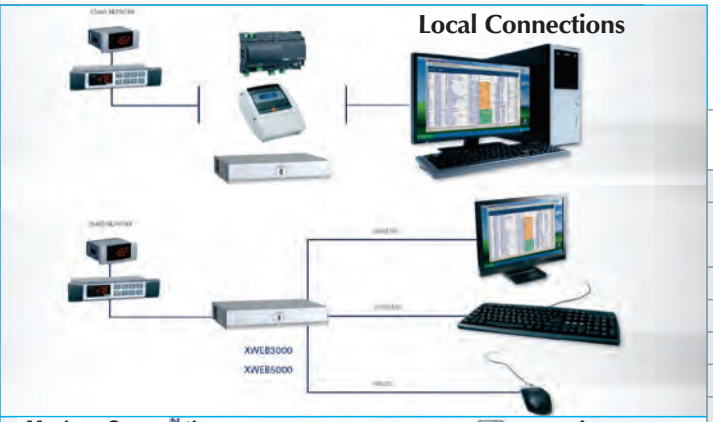


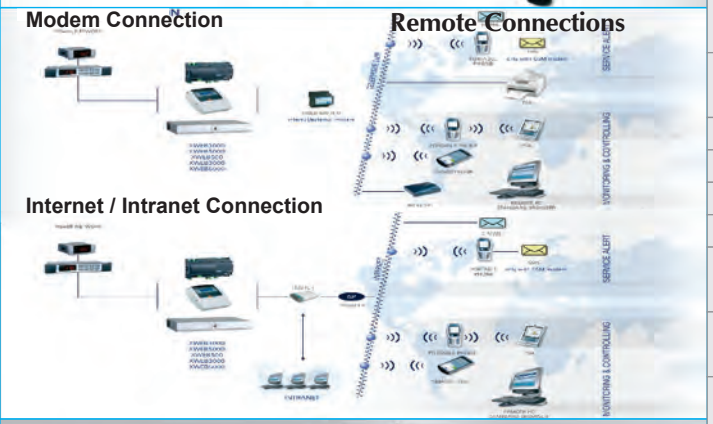






Xweb Connectivity





Xweb Systems Guide

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

Other Products

Temperature / Humidity Data Logger

- Models XDL 01+PW/DL+XR 30/70CX
- Models XDL 01+XJDL40D
- The XDL is a temperature and status recording module for refrigerating applications that works in accordance to HACCP rules. It works with Dixell instruments equipped with the serial output or combined with XJDL40D probe module.
- Data can be easily downloaded on a USB key.
- Connection to Dixell controllers that are provided with serial output (through PW-DL)
- Stand-alone operation in a 4 DIN module (XJDL40D provided with 4 NTC probes, 4 DI and 1relay output).
- Recorded data download on a USB key: txt format that can also be displayed in EXCEL.
- Data recording: up to 1 year with sampling up to 16 minutes (settable).
- TTL and RS485 inputs with internal converter (on PW-DL or XJDL40D).

CAM Regis Multi Probe Data Logger

- Models 15750/52, 15740/42
- Large, high luminosity graphic display
- Setup wizard and text menus in multiple languages, with on-screen help
- 5 channel or 10 channel multi probe data logger
- With or without built-in printer
- Quick print button, to print out the last calendar week of all entries logged
- Internal memory up to three years, with a recording frequency of 15 minutes
- Integrated RS485 communications. ModBus protocol.
- PC based software for monitoring datalogger (optional)
- Application: Industrial and commercial refrigeration, processing industry, heathcare pharmaceutical etc.

Digital Scroll Compressor Controller

- Models XC645CX
- Electronic Controller for Tandem Condensing Unit Applications with Digital Scroll Facility, Suction and Discharge Pressure Management and Fan Modulation.
- Management of Tandem Condensing Units with 1 Digital Scroll Compressor, 1 Standard Compressor and up to 2 Fans.
- Up to : 3 Probe Inputs, 4 Fan/Compressor Outputs, 7 D.I.
- 2 Compressor Controllers (1 Digital + 1 Standard)
- 2 Fans or Additional Compressor Outputs
- Alarm Logger built-in
- Standard Communication Protocol ModBUS-RTU

Condensing Unit Controller

- Model XC30CX.
- Control based on Pressure or Temperature (Selectable)
- Suction/Discharge Temperature Control and Alarms
- 2 Nos. of Fan Cycling possible
- Total Running Hour of Compressor/Fans also possible along with Service Alarms
- Optional RS485 Communication Output for Monitoring System

Dual Temperature Management Controller

- Models XR 420C/XR 460C
- Advanced multifunction refrigeration controllers with dual temperature management
- Ideal for heating-cooling applications such as bain - marie with under-counter refrigerated storage
- Designed for a dual refrigeration circuit or 2 independent circuits
- Integrated defrost management
- Dual display with red and yellow LED and 14 icons
- Hotkey for quick and easy programing

Truck Refrigeration Controller

- Models XW 20L/60L/370K
- Multifunction controllers in compact and split format designed for refrigerated trucks (8-40Vdc power supply)
- Maximum and minimum temperature recording
- 3 operating modes: cooling, heating and neutral zone (Xw300)
- "on demand" defrost for optimum defrost cycles management (Xw300)
- Service hours count for system maintenaince cycles (Xw300)
- Thermostatic command for shutter opening (Xw300)
- Hot Key or Prog tool kit connector for a quick and easy programming

Other Products

Electrical Control Panel For Cold / Freezer Room

- Models EPC200
- Complete control of single-phase static or ventilated refrigeration systems up to 2 HP , with off-cycle or electrical defrosting and direct or pump-down compressor stop.
- Control of evaporating unit only with freon solenoid or remote motor condenser enabling.
- Built in temperature regulation.
- Models EPC300
- Control of three-phase refrigeration plant up to 7.5 HP , static or ventilated, with off-cycle or electrical defrosting.
- Hot-gas defrost control (Option)
- Built in temperature regulation.
- Magnetothermic protection and motor circuit breaker for the compressor accessible from the front panel linked to an innovative form makes it a perfect and functional choice.

Electric Panel (Customised)

- Models ECP 04 / 07 / 10 / 15
- A simple, compact solution for control of three phase condensing units up to 20 HP .
- Compact unit with self-extinguishing ABS panel and IP 65 protection rating plus circuit breaker on front of panel.
- System status indicated by LED icon.
- Models ECP 300VD / 400VD / 750VD / 1000VD / 1500VD CR / 2000VD CR / 2500VD CR
- A line of power and control panels for refrigeration systems with three-phase compressor up to 25HP
- Compact unit with self-extinguishing ABS housing panel and IP 65 protection rating plus circuit breaker on front of panel.
- System status indicated by LED icon.
- Alarm signal by voltage-free contact.

Refrigerant Leak Detection System

- Detects all refrigerants which are mainly used in Refrigeration applications like Ammonia (NH3) or Carbon Di-oxide (Co2)
- Detects all refrigerant gases which are mainly used in HVAC applications like Hydrocarbons, Halocarbons – HFCs (R134a, R404A, R407, R410A, R507), HCFCs (R22), CFCs (R12)
- Complete Electronic Panel for monitoring up to 99 Refrigerant Leak Sensors with BMS Compatible
- Optional Housings for sensors with IP56, Ip66, Exd etc. for all kinds of Environment conditions

Ammonia Refrigeration System Controller

- Model: iPRO with Customised Program
- Completely Automated System for Ammonia Compressor (Suitable for KC Series Semi -hermetic compressor or Bitzer Screw Compressors)
- Complete Management of Suction/Discharge Pressure
- VFD Control also possible for Compressor Motor (Part load)
- Complete Management of Liquid Ammonia Pump with Ammonia level switch
- Complete Interlocks & Alarm Systems including Ammonia Leak alarms

Banana Ripening Process Controller

- Model: iPRO with customized program
- Fully Automatic Banana Ripening Process Controller with Optional Touch screen Display
- Built-in Timer with Real Time Clock Operation for Cooling, Ethylene Dosing, Ventilation etc.
- Management of Cooling by Compressor
- Management of Humidity (95% rH) by Electrode type Humidifier
- Management of CO2 by controlling Damper for fresh air & Exhaust Fan
- Management of Ethylene by Dosing Time, Ethylene PPM level etc.

Ethylene/CO2 Sensor & Controls

- Model: iPRO with customized program
- Electro-Chemical type Ethylene Sensor with 0-100 PPM (for Cold Rooms) or Semi-Conductor type 0-1000PPM (for Ripening Chamber) with Ip66 Protection Enclosure
- IR Based CO2 sensor with Various Ranges like 0-2000PPM (for Ventilation HVAC), 0-10000 PPM & 0-30000 PPM (for Cold Storage & Ripening application) with IP66 Protection Enclosure
- LED Display for PPM and with Controls for Ethylene Generator/Removal or Damper/Exhaust system
- Complete PLC or Monitoring System Integration is also optionally available

Other Products

Cool Mate (Cold Room Controller)

- Designed to be wall or panel mounted.
- Display with red LED (30,5mm high) and 11 icons.
- Dual display with red LED (25,3mm high) and yellow LED (20,3mm high) and 13 icons.
- Advanced multifunction refrigeration controllers with dual temperature management.
- Designed for a dual refrigeration circuit or 2 independent circuits. new
- Clear alarm signals thanks to the front lid
- Advanced multifunction controllers with temperature and humidity management.
- Dehumidifying action by cooling circuit. new
- Standard communication protocol ModBUS-RTU.
- Hot key or Prog tool kit connector for a quick and easy programming.

XM (Multiplexed Cabinet Controller)

- Multifunction controllers for refrigerated multiplexed cabinet applications.
- Multi-master devices (XM400/600).
- Each slave module can be driven and set through a unique keyboard held by the master unit (XM400/600).
- Up to 5 controllers linked for XM400 series and up to 8 for XM600 series.
- Internal Real Time Clock. new
- Integrated electronic expansion valve drive (XM600).
- Anti-sweat heater management through a "DEW POINT" (XM600). new
- Hot Key or Prog tool kit connector for a quick and easy programming.
- Display with red LED (13,2 mm high), (10,5mm and icons for CX format).
- Standard communication protocol ModBUS-RTU or TTL output

Small Pressure Controls

- Models ACB / LCB / HCB / GCB / TCB
- Pressure Control CB series are disc type small pressure controls featuring compact structure and field proven high quality.
- It is designed to suit modern designed application with its compact and various type of connection styles, such application as air conditioning, automobile industries and others.
- Pressure Range Unit : MPa (kgf / cm^2)

ACB	=	0.7 (7) -4.5 (45)
LCB	=	0.1 (1) -0.7 (7)
HCB	=	2.5 (25) -2.0 (20)
GCB	=	0.2 (2) -3.14 (32)
TCB	=	0.2 (2) -3.14 (32)

Electronic Expansion Valves

Xev Series: Superheat Regulation (Dixell Electronic Expansion Valve Driver)

- Drivers for ON/OFF (pulsed) and stepper electronic expansion valve management
- ON/OFF (pulsed) expansion valve support with 30W max power and coil c.a.
- Temperature analog inputs (NTC, PTC, Pt1000)
- Pressure analog inputs (0÷5V, 4÷20mA)
- Possibility to broadcast via LAN the pressure signal to multiplexed cabinets
- Alarm management (visual, relay)
- Cool Defrost for defrost time reduction
- Superheat adaptive control
- Sub-cooling management (XEV32D)
- Hot Key or Prog Tool Kit connector for quick and easy programming
- Serial connection to monitoring systems
- 20VA max power absorption
- Display with red LED (10,5mm high) and icons

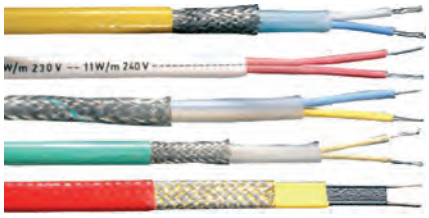
Alco Emerson Electronic Expansion Valve

- Multifunction as expansion valves, hot gas bypass, suction gas throttling, head pressure, liquid level actuator etc.
- Fully hermetic design (no thread joints between valve body and motor compartment).
- Stepper motor driven, Very fast full stroke time & Short opening and closing time.
- High resolution and excellent repeatability, Bi-flow versions for heat pump applications.
- Positive shut-off function to eliminate the use of an additional solenoid valve.
- Linear flow capacity, Balanced force design.
- Continuous modulation of mass flow, no stress (liquid hammering) in the refrigeration circuit.
- Direct coupling of motor and valve for high reliability (no gear mechanism).
- Ceramic slide and port for accurate flow and minimal wear.
- Corrosion resistant stainless steel body and connections.

Saginomiya Electronic Expansion Valve

- Wide range of air conditioning and refrigeration equipment
- Refrigerant: R22, R134a, R404A, R407C, R410A
- High cool down capability.
- Quick response.
- Less energy consumption.
- Bi-Flow capability. (Type UKV, SKV, VKV, AKV)

Other Products



Heating Cables

- Door heater / Cabinet or Showcase Heaters
- Models AKO-MPC-4M / 8M / 12M
- Entrance heater for cold room
- Models AKO-EC-100 / 150 / 200 / 250 / 300
- Heating cables for subsoil protection
- Models AKO-SC-20M2 / 40M2 / 60M2 / 80M2 / 100M2
- Pipe mount self regulating heating cables
- Models AKO-1221 / 71214T / 71218T / 5239 / 52401 / 52402
- Constant wattage heating cables for glass door in freezer cabinet
- Models AKO-5234 / 52344 / 52341 / 52383

CAMAlarm : Trapped Person Alarm For Freezer Rooms

- Models AKO-52065 (light switch up to -25°C
- Models AKO-52063 / 52064 (light switch up to -50°C
- This is designed for cold room stores working at negative temperatures or with a controlled atmosphere, optically and acoustically signalling if there is someone trapped.
- This is designed under EN 378-1 European standard and is provided with Rs485 communication
- Optical and acoustic alarm. Acoustic power upper 90 dB to 1 m
- Detection of broken pushbutton cable
- 1 output relay for remote alarm indication (GSM module).
- Battery back up for more than 10 hour in case of power failure

Cooking Oven Controller

- Models XF 330M/XF332M
- Up to 9 programmable cooking cycles.
- Start of cooking cycle settable by real time clock.
- "Economy" function for energy saving.
- Pt100 or TCJ/TCK probes selectable by user.
- Management of the steam injection: automatic or manual mode.
- Custom versions on request.
- Hot key connector for a quick and easy programming
- Display with red LED 13,2mm (n° 2), 10,5mm (timer)

Solenold Valve And Check Valves

- Models SEV (Solenold Valve)
- Pilot operated, 2-way, normally closed valve.
- For non-corrosive refrigerant (liquid or gas) in refrigeration units. Also available for air application.
- Can operate under no pressure difference. (SEV–502 and 603)
- Can install horizontally and vertically. (Coil should be located above the axis of pipe line.)
- Models : ACV (Check Valve)
- Install in the liquid line of heat pump air conditioner to prevent the counter flow at change over of cycles from heating to cooling and vice versa.
- Also for prevention of reverse flow of high pressure gas when compressor stops
- For use with Fluorinated Refrigerants, air or oil
- Can be mounted in horizontal or vertical line.

Water Flow Switch

- Liquid flow control.
- Well-suited in:
  - heating and air conditioning systems;
  - refrigeration systems.
- TECHNICAL DATA
- Switch capacity: 5A,250Vac
- Contacts: dust-tight microswitch with SPDT contacts
- Max Pressure: -20...+110°C
- Differential: min.0,7l/min
- Plug: Connector female DIN 43650-A
- Body: Brass
- Paddle: Stainless steel
- Sealing: NBR
- Protection: Lp65, class II
- Size: 103,6X31X36,3mm

Single / Three Phase Fan Speed Controllers

- Models XV 05PD / XV 10PK / XV 22PK
- Choked phase speed controllers to control pressure and temperature in refrigerating systems including cooling fans
- Inputs for regulation by temperature and pressure
- XM600 series compatible (4÷20mA/0÷10V or OC/PWM output) for anti-sweet heaters or evaporator fans applications.
- Direct or inverse action for condenser or evaporator fans.

Sensors & Transmitter

NTC / PTC / PT 1000 TEMPERATURE PROBES

PROBE	DESCRIPTION	TYPE	CABLE	TEMP. RANGE
S6.SH	Heating applications, inox steel cap "dimension Ø6x40mm"	PTC	Silicone - 1,5/2,0m -58÷302°F	-50÷150°C
SC5.5	Probe fixed with threaded male, inox steel cap "dimension Ø6x80mm"	NTC / PTC	PVC - 2,0m	-30÷80°C -22÷176°F
NS6	General purpose, resinated, IP67, inox steel cap "dimension Ø6x30mm"	NTC	PVC - 1,5/3,0m	-30÷80°C -22÷176°F
NG6	General purpose, over-molded, IP67, thermoplastic cap "dimension Ø6x15mm"	NTC	Thermoplastic 1,5/3,0m	-40÷110°C -40÷230°F
NG6K	General purpose, over-molded, IP68, Hot Key connector, thermoplastic cap "dimension Ø6x15mm"	NTC	Thermoplastic 1,5m	-40÷110°C -40÷230°F
NY6P	Thermoplastic, IP68, inox steel cap "dimension Ø6x50mm"	NTC	Thermoplastic 1,5/3,0m	-40÷110°C -40÷230°F
NT6-67	Pipemount fitting "Ø4÷Ø30mm in diameter", IP67, over-molded, thermoplastic sensor	NTC	Thermoplastic 1,5m	-40÷110°C -40÷230°F
PMG5P	Thermoplastic wire, IP68, cap dimension Ø5x20mm	PT 1000	Thermoplastic 1,5÷3,0m	-50÷110°C -58÷230°F
NGPOP	Product Temperature Thermoplastic Probe, Ip68, 100x100mm	NTC	Thermoplastic 1,5÷3,0m	-50÷110°C -58÷230°F
PMGPOP	Product Temperature PT1000 sensor, thermoplastic, IP68, 100x100mm	PT 1000	Thermoplastic – 5m	-50÷120°C -58÷248°C
NPC10PS	insert sensor, plastic handle, inox steel cap "dimension Ø3,5x100mm"	NTC	Silicone - 3m	-30÷80°C -86÷176°F
PT6	General purpose, 3 wires, inox steel cap "dimension Ø6x100mm"	PT 100	PVC - 2m	-30÷105°C -22÷221°F
PT6.F	Protected, 3 wires, inox steel cap "dimension Ø6x100mm"	PT 100	Vetrotex - 2m	-60÷350°C -76÷662°F
TJ6	General purpose, protected, Fe-CO, cap "dimension Ø6x100mm", 2,0/3,0m vetrotex cable	"J" TC		-30÷350°C -22÷662°F
TK6	General purpose, protected, Cr-Al, cap "dimension Ø6x100mm", 2,0/3,0m vetrotex cable	"K" TC		0÷350°C 32÷662°F

HUMIDITY PROBES

PROBE	POWER SUPPLY	ACCURACY	OUTPUT	OPRATING TEMPERATURE	MEASUREMENT RANGE
XH1OP	9÷18Vac - 19÷35Vdc	±5%	4÷20mA	0÷60°C (32÷140°F)	30÷90% R.H.
	15÷35Vdc	±5%	0÷10Vdc	0÷60°C (32÷140°F)	30÷90% R.H.
XH2OP	9÷18Vac - 19÷35Vdc	±3%	4÷20mA	0÷70°C (32÷158°F)	0÷99% R.H.
	15÷35Vdc	±3%	0÷10Vdc	0÷70°C (32÷158°F)	0÷99% R.H.

PRESSURE PROBES PRESSURE TRANSDUCERS

PP07	2 wires transducer with 4÷20mA output and measurement range –0,5÷7bar, supply 8-28Vdc, IP65
PP11	2 wires transducer with 4÷20mA output and measurement range –0,5÷11bar, supply 8-28Vdc, IP65
PP30	2 wires transducer with 4÷20mA output and measurement range 0÷30bar, supply 8-28Vdc, IP65
PP30FE	2 wires transducer with 4÷20mA output, female fitting and measurement range 0÷30bar, supply 8-28Vdc, IP65

RATIOMETRIC PRESSURE TRANSDUCERS

PPR15	3 wires ratiometric transducer with 0÷5V output and measurement range 0÷15bar, Supply 4.5-5.5Vdc, IP65
PPR30	3 wires ratiometric transducer with 0÷5V output and measurement range 0÷35bar, Supply 4.5-5.5Vdc, IP65

PROGRAMMING KEYS

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

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 Kit includes: the CAB/PTK2 wire for DIN module instrument connection, the CAB/PTK485 wire for DIN module RS485 (built-in) instrument connection, the CAB/SW9-9 wire for PC connections.

SERIAL INTERFACE

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

ADAPTERS

C-BOX C-BOX2	Wall adapter for C and CX format controllers, IP55, dimensions: 108x108x90mm Wall adapter for C and CX format controllers, IP55, dimensions: 170x105x82mm

TRANSFORMERS

TF3	The TF3 3VA model is available in the following versions: 230/12Vac, 110/12Vac and 24/12Vac.
TF5	The TF5 5VA model is available in the following versions: 230/12Vac, 110/12Vac and 24/12Vac.
TF10	The TF10 10VA model is available in the following versions: 230/12Vac, 110/12Vac and 24/12Vac.
TF10D	The TF10D (DIN Rail mounting) 10VA model is available in the following versions: 230/24Vac and 110/24Vac. 2 DIN Rail format.
TF20D	The TF20D (DIN Rail mounting) 20VA model is available in the following versions: 230/24Vac and 110/24Vac. 2 DIN Rail format.
TF40D	The TF40D (DIN Rail mounting) 40VA model is available in the following versions: 230/24Vac and 110/24Vac. 4 DIN Rail format

Sensors, Transmitters, Switches And Detector

Temperature / Humidity Transmitters (Output: 0…10 V DC or 4…20 mA)

Wall mount HTRT 10 Series

Working range Humidity	10...90% RH
Working range Temp	0...50°C

Wall mount HTRT 2500 Series

Working range HTRT 2500 series	
Humidity:	10...95% RH
Temperature:	0...50 % RH
Working range HTWT 10 series	
Humidity:	0...100 % RH.,
Temperature:	-40...+60°C

Duct mount HTDT Series

Working range HTDT 2500 series	
Humidity:	10...95 % RH.
Temperature:	0...50°C.
Working range HTDT 10 series	
Humidity:	0...100 % RH.,
Temperature:	-40...+60°C

Pressure and Air flow

Presigo PDT Series (For Air)

Output:	Selectable: 0...10 V DC or 4...20 mA,
Working range	PSI:0: 1250pa/ PS2:0...7500Pa

DTL Series (For Air & Non-corrosive Gas)

Output:	0...10 V DC or 4...20 mA
Working range	Selectable -50...5000 Pa

DTK Series (For Liquid & Gas)

Output:	0...10 V DC or 4...20 mA
Working range:	0...2500 kPa

TTK Series (For Liquid & Gas)

Output:	0-10 V DC or 4-20 mA
Working range:	0...10 MPa (100 bar)

AVDT 25 Series (Air Velocity Sensor)

Output:	0-10 V DC or 4-20 mA
Working range:	Selectable 0...10 m/s, 0...15 m/s, 0...20 m/s

DTV Series (For Air & Non-corrosive Gas)

Output	5 A (0.8 A) 250 V AC
Working range:	Selectable pressure range from 20...5000 Pa

Temperature Sensors

NTC / PT100/ PT1000 Sensors

With housing (NTC Sensors)		
TG-R4...	Room sensor with setpoint adjustment	0...30°C
TG-R5...	Room sensor	0...30°C up to 20...50°C
TG-R6...	Outdoor sensor	-30...+30°C up to 20...50°C

Without housing (NTC Sensors)		
TG-A...	Clamp-on sensor	0...30°C
TG-B...	Bulb sensor	-20 ...+10°C up to 60...90°C
TG-G...	Floor sensor	0...40°C
TG-D...	Immersion sensor	0...30°C up to 60...90°C
TG-K3...	Duct sensor	-30...+30 up to 0...70°C

With/Without Housing (PT100/ PT1000 Sensor)		
TG-AH/ PT 1000	Clamp-on sensor w housing	-30...+120°C
TG-KH/ PT100/1000	Duct sensor with housing	-30...+70°C
TG-DH/ PT100/1000	Immersion with housing	-20...+120°C

CO2 / Temperature / Humidity / Transmitters

CO2 RT Series (Wall Mount)

	Outputs	Working range
CO2	0...10 V DC referring to 0...2000 ppm	0...2000 ppm
Temperature	0...10 V DC referring to 0...50°C, PT1000-sensor (class DIN B)	0...50°C
Humidity	0...10 V DC referring to 10...90% RH (working range1...9 V)	0...90% RH

CO2 DT Series (Duct Mount)

Output	0...10V DC
Working range	0...2000 ppm
Accuracy CO2	CO2 ± (50 ppm +2% of measured value)
Protection class	IP65

Accessories

Transformers

TRAFO 15D

Technical data	
Supply voltage	230 V AC
Output voltage	24 V AC
Max. load	15 VA

TRAFO 40D

Technical data	
Supply voltage	230 V AC
Output voltage	12 V AC and 24 V AC
Max. load	40 VA

TRAFO 60 / 75S

Technical data	
Supply voltage	230 V AC
Output voltage	24 V AC
Max. load	60 VA / 75 VA

Smoke Detector for Duct Mounting

- Ionisation / optical detection with alarm / fan relay.
- Supply voltage 15... 30V DC (via contrmok
- Models : SDD Series

Control Unit for Smoke Detector

- Control units for the SDD, S50 and S65 series
- Supply and alarm handling for smoke detectors, with or without service alarm.

Models : ABV-S-300/D

Presence Detector

Detectors which give a signal when someone enters the room. The detector has a pulse-detecting function that minimizes the risk of false alarms. Settable on/off delays.

Models : IR24-P (Wall)
IR24-PC (Ceiling)

iCHILL
(1 or 2 Compressor Pre-Programmed Chiller Controller)

- 1 circuit - 1 compressor up to 2 capacity stages management
- 2 independent circuit with 1 compressor each management.
- Temperature/pressure unloading function
- Complete screw compressor chiller management
- Geothermal free cooling management new
- Compressor rotation control (Equal Run Hour)
- Direct, part-winding, star-delta compressor start
- Start and stop by time bands from RTC (optional)
- Energy saving by time bands from RTC or digital input (optional)
- Easy programming through HOT KEY 64 or PC (PROG TOOL KIT)
- RS485 serial output with ModBUS protocol

FEATURES

	IC120CX - IC121CX	IC208CX	IC291DV
First display	± 4 d.p.	± 4 d.p.	
Second display	± 4 d.p.	± 4 d.p.	
Keyboard: push buttons	6	6	12Vac/dc
Power supply	12Vac/dc (24Vac/dc)	12Vac/dc (24 Vac/dc)	(24Vac/dc)
Probe inputs			10 config
NTC - PTC - 4÷20mA -0÷5V		6 config	
Pb1	NTC config		
Pb2	NTC config		
Pb3	NTC/4÷20mA/0,5V config		
Pb4	NTC/dig inp config		
Digital inputs			
High pressure	pres		
Low pressure	pres		
N° 4	config		
N°11		config	config
Relay outputs			
N° 10		5A	5A
RL1 Compressor 1	8A		
Rl2	8A config		
Rl3	8A config		
Rl4	8A config		
Rl5	8A config		
Other outputs			
PWM outputs for fan speed			2
module		2 config	2 config
0÷10V or 4÷20mA outputs for		2 config	4 config
fan speed module		2xVICX620 or 1xVGICX620	Vi620
0÷10V outputs for free cooling,		TTL	VGI620
heat recovery, external relay		pres	TTL, Rs485
Remote keyboards (up to 2)		pres	pres
Hot Key 64/Prog Tool Kit output	(4÷20mA) or (0÷10V)		
Analog output for fan speed module	PWM		
Signal output for triac or ON/OFF fan mod.	12Vdc-40mA max		
Open collector output	VICX610		
Remote keyboards	TTL		
Serial output	pres		
Other			
RTC	( )	( )	( )
Buzzer	( )	( )	( )

ACCESSORIES

Remote Keyboard

External Relay

Hotkey / Hotkey 64

XJ485CX

Disconnectable Cable Kit

Transformer

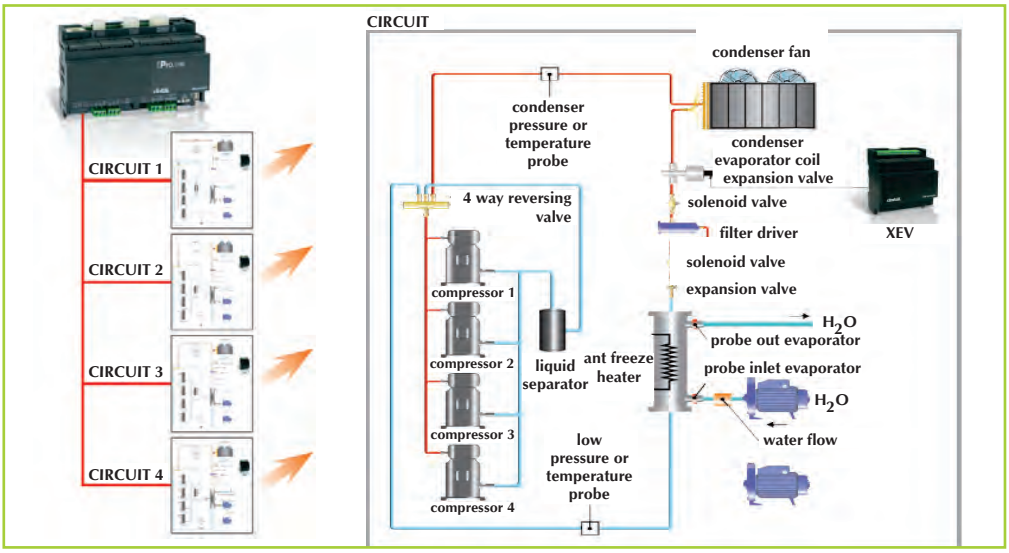
Touch Screen

iProCHILL
(Complete Programmable Controller - PLC)

- Suitable for all chillers, heat pump and geothermal heat pump units.
- Suitable for up to 4circuits and 16 compressors (max.)
- CAN Bus digital communication serial protocol for the connection to other programmable controllers or expansion board
- Possibility to connect Electronic Expansion Value driver.
- ModBUS-RTU standard communication protocol for BMS / SCADA connectivity.
- Connectivity HUB for BACNET, M-BUS, (optional)

FEATURES

	IPS408D	IPC415D
Power Supply	24Vac/dc-TF20D	24Vac/dc-TF20D
Display	opt	
Format	4 DIN Rail	10 DIN Rail
Probe Inputs		
0÷1V - 0÷5V - 0÷10V - 0÷20mA - 4÷20mA - NTC - PTC - DI	6 config	10 config
Digital Inputs		
Opto-insulated	11 config	20 config
Relay Outputs		
Configurables	8x5A	12x5A +3x8A
Other Outputs		
PWM for Fan Speed Modules		2 config
0÷10V, 4÷20mA for Fan Speed Modules	4 config	2 config
0÷10V for External Relay Drivers	4 config	4
Remote Keyboard	1xVGIPG	2xVGIPC
RS485	slave	master/slave
USB	pres	pres
External Modem		GSM, XWEB modem opt
LAN	pres	
CANBus		pres
Ethernet Enabled		opt
Connections		
Disconnectable + Screw	pres	pres
Bayonet + Screw		
Other		
Internal Modem		opt
RTC	pres	pres
USB-Ethernet Adapter	opt	
Flash Memory	16MB	128MB



ACCESSORIES

Small Expansion Board

EEV Module

Big Expansion Board

Transformer And Cable Kit

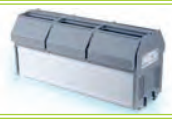
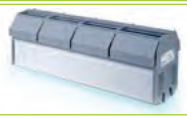
Connectivity Module For VGI, RS485 (M/S), LAN, CANBus

Development Tools

EXOflex
(Freely Programmable Controllers)

- For large buildings and integration of many buildings/installations.
- For systems with a large number of I/Os (cost-efficient for more than 75 I/Os).
- Easy to expand the capacity and add functions.
- Communication via EXOline, TCP/IP, LON, KNX/EIB, Modbus, SIOX , M-Bus.
- Gateway to Arrigo web portal.
- Large number of PIFA cards for different applications.

FEATURES

Product Details	Processor Housings	Model	Expansion Housings	Model
	Processor housing with room for the Main Power PIFA and one additional PIFA unit.	EH11-S	Expansion housing with room for the Power PIFA for Extender and one additional PIFA unit. The expansion housing connects to the main processor via the EFX channel (115 200 bps).	EH10-S
	Processor housing with room for the Main Power PIFA and three additional PIFA units.	EH21-S	Expansion housing with room for the Power PIFA for Extender and three additional PIFA units. The expansion housing connects to the main processor via the EFX channel (115 200 bps).	EH20-S
	Processor housing with room for the Main Power PIFA and five additional PIFA units.	EH31-S	Expansion housing with room for the Power PIFA for Extender and five additional PIFA units. The expansion housing connects to the main processor via the EFX channel (115 200 bps).	EH30-S
	Processor housing with room for the Main Power PIFA and seven additional PIFA units.	EH41-S	Expansion housing with room for the Power PIFA for Extender and seven additional PIFA units. The expansion housing connects to the main processor via the EFX channel (115 200 bps).	EH40-S

PIFA UNITS DETAILS


Main Power PIFA
Model : EP1011


Power PIFA for Extender
Model : EP1004


32 DI Multifunction PIFA
Model : EP2032


16 DO Multifunction PIFA
Model : EP3016


16 DI / 8 DO Mixed Multifunction PIFA
Model : EP4024


12 AI Multisensor PIFA
Model : EP5012


12 AO Voltage Multifunction PIFA
Model : EP6012


12 AI / 6 AO Mixed Multifunction PIFA
Model : EP7218


8 Mixed I/O and Serial PIFA
(2 DI / 4 AI / 2 AO)
Model : EP7408


16 Mixed I/O PIFA
(6 DI / 2 DO / 4 AI / 4 AO)
Model : EP7416


Basic Serial PIFA
Model : EP8101


Dual Basic Serial PIFA
Model : EP8102


LON PIFA
Model : EP8210


TCP/IP PIFA
Model : EP8282


Slot cover
Model : EP0000

EXOcompact (Freely Programmable Controllers)

- Freely programmable with fixed I/O configuration.
- For control of heating centrals, air handling units etc.
- 8, 15 or 28 I/Os, with or without display.
- Digital outputs via Mosfet with 2 A, 24 V AC/DC.
- Powerful processor.
- Possibility of DC supply voltage.
- Possibility to expand the number of I/Os using two ports and expansion units based on EXOcompact without display.
- Dual ports as option.
- Programming is performed in EXO designer.
- TCP/IP and LON optional.
- Communication via RS485 (EXO line, Modbus).
- Communication via BACNET/MSTP Protocol. NEW
- Complement to EXOflex in large automation systems.

FEATURES

Technical data	
Power supply	24 V AC/DC, 6 VA, ±15 %. 50/60 Hz.
Display	Backlit, LCD, 4 rows of 20 characters, international character set
Dimensions (WxHxD)	148 x 123 x 58 mm, 8.5 modules
Protection class	IP20
Mounting	DIN-rail or cabinet
Inputs	
Analogue inputs (AI)	0...10 V DC, 0...200 mV, PT1000, DIN Ni1000, LGNi1000, 12-bit A/D
Digital inputs (DI)	Floating switch, 24 V DC, configurable for pulse input
Universal inputs (UI)	AI or DI (see above)
Outputs	
Analogue outputs (AO)	0...10 V DC, 5 mA, 8-bit D/A, short-circuit proof
Digital outputs (DO)	Mosfet 24 V AC/DC, 2 A. Totally max. 8 A.
24 V DC output	0.1 A, short-circuit proof
Operating system	EXOreal
Communication	EXOline, Modbus or dial-up connection Port 1, isolated, via a built-in RS485 connector. Modems are available as accessories for Port 1. There are models with TCP/IP or LON port.
Battery backup	Memory and real-time clock, at least 5 years
LON	FT3150, gives a second communication route
TCP/IP	EXOline (Port 1) over TCP/IP instead of RS485

	C80-S	C80D-S	C150-S	C150D-S	C152-S	C152D-S	C280-S	C280D-S	C282-S	C282D-S
AI	2	2	4	4	4	4	4	4	4	4
DI	3	3	4	4	4	4	8	8	8	8
UI	-	-	-	-	-	-	4	4	4	4
AO	1	1	3	3	3	3	5	5	5	5
DO	2	2	4	4	4	4	7	7	7	7
LON	Option	Option	Option	Option	-	-	Option	Option	-	-
TCP/IP	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option
Display version	-	Yes	-	Yes	- Y	es	-	Yes	-	Yes
External display	Option	-	Option	-	Option	-	Option	-	Option	-
Dual ports	-	-	-	-	Yes	Yes	-	-	Yes	Yes

ACCESSORIES

Cable for RS232 connection
Model : E CABLE - RS232
Cable for USB connection
Model : E-Cable - USB

RS232 TO RS485 converter
Model : CONV232-485

Repeater, RS485
Model : REPEAT485

Battery for EP1011,
EXOcompact, Corrigo E
Model : BATTERY4289

EXOline to hlEXOline converter
Model : X11714/X9D21

Panel PC with operating system in English
Model : AFL12A-GB

Corrigo (Pre-Programmed Controller For Standard HVAC-AHU Application)

- Corrigo E comes with pre-programmed ready to - use applications for air handling, heating / domestic hot water control and boiler control.
- The controller can be configured directly using the buttons and display, or on a PC via the **(Etool© software)**. new
- The second generation of Corrigo E has improved communication speed. This can be very useful in large, integrated bus systems, e.g. Modbus systems, with SCADA.
- Communication via RS485 (Modbus/EXOline),TCP/IP, LON.
- One or two communication ports.
- With or without built-in display, an external display unit can also be connected.
- 8, 15 or 28 I/Os with expansion possibilities.

FEATURES

Technical data	
Supply voltage	24 V AC ±15 %, 50...60 Hz or 20...36 V DC
Power consumption	8 VA, 4 W (DC) WEB models: 12 VA, 6 W (DC)
Ambient temperature	0...50°C
Storage temperature	-40...+50°C
Ambient humidity	Max. 90 % RH
Protection class	IP20 (E-DSP Ip44)
Memory back-up	Built-in long-life battery with long time back-up of all settings
Display	Backlit, LCD, 4 rows of 20 characters
Dimensions (WxHxD)	148 x 123 x 58 mm, 8.5 modules
Mounting	DIN-rail
Communication	RS485, EXOline (free protocol) and Modbus as standard. LON and TCP/IP as options.
Inputs	
Analogue inputs (AI)	For a PT1000 sensor or 0...10 V DC
Digital inputs (DI)	For potential-free contacts
Outputs	
Analogue outputs (AO)	0...10 V DC, 1 mA, short-circuit proof
Digital outputs (DO)	Mosfet 2 A each, max. 8 A total, 24 V AC or DC

MODEL OVERVIEW

	E8D-S	E8-S	E15D-S	E152D-S	E15-S	E152-S	E28D-S	E282D-S	E28-S	E282-S
AI	2	2	4	4	4	4	4	4	4	4
DI	3	3	4	4	4	4	8	8	8	8
UI	-	-	-	-	-	-	4	4	4	4
AO	1	1	3	3	3	3	5	5	5	5
DO	2	2	4	4	4	4	7	7	7	7
LON	Option	Option	Option	-	-	-	Option	Option	-	-
TCP/IP (Web Server)	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option
Display	Yes	-	Yes	Yes	-	-	Yes	Yes	-	-
External display	-	Option	-	-	Option	Option	-	-	Option	Option
Dual ports	-	-	-	Yes	-	Yes	-	Yes	-	Yes

ACCESSORIES

E tool© software
Corrigo E is delivered with the software E tool© which is used to configure and adjust the pre-installed applications and settings. You can conveniently prepare the settings in your office, and then load the settings into the controller during installation

EXOline - BACNet Converter

Pre-Programmed Controller For Standard HVAC Application

- Optigo is a range of pre-programmed controllers.
- Operated with just a knob.
- Optigo has a knob with an encoder which makes the menu system very easy to use.

Features:

- Temperature control.
- Humidity control.
- CO2 control. new
- Pressure control.
- Supply air temperature control.
- Supply air temperature control with outdoor compensation.
- Numeric/graphic backlit display.
- Pre-loaded with multiple control modes.

FEATURES

Technical data	
Supply voltage	24 V AC ±15 % OP10-230: 230 V AC
Power consumption	4 VA
Ambient temperature	0...50°C
Storage temperature	-40...+50°C
Ambient humidity	Max. 90 % RH
Mounting	DIN-rail, 7 modules
Protection class	Ip20
Display	Backlit LCD, numeric/graphic
Dimensions (WxHxD)	123 x 123 x 60 mm, 7 modules
Clock (OP10 only)	Week-based 24-hour clock
Inputs	
Analogue inputs (AI)	Pt1000
Digital inputs (DI)	Closing potential-free contact
Universal input (UI)	0...10 V DC or digital
Outputs	
Analogue outputs (AO)	0...10 V DC, short-circuit protected
Digital outputs (OP10 and OP10-230 only)	Triac 24 V AC, 0.5 A (3-point control or alarm output) and one change-over relay 230 V AC, 5 A (fan start)

INPUTS/OUTPUTS (I/OS)

	OP5	OP10	OP10-230
AI	1	2	2
DI	1	2	2
UI	1	1	1
AO	2	2	2
DO	0	3	3
Total number of I/Os	5	10	10

Regio - Room Controller / Thermostat

- Regio is a line of room controllers which can handle a great variety of applications, e.g. heating and cooling, ventilation, lighting, humidity, CO2, fans and blinds. With Regio, you can create anything from stand-alone systems for managing the functions in one room to large integrated SCADA systems.
- Regio has following 3 series:
  - Regio maxi (Freely programmable Thermostats with communication and web interface)
  - Regio midi (Pre-programmed Thermostats with communication)
  - Regio mini (Pre-programmed Stand alone Thermostats)
- Regio tool software for PC monitoring new
- Award winning design in International Forum

Regio Maxi (Freely Programmable Thermostats with communication / web interface)

F = Fan control (3-speed)
T = TCP/IP communication

Inputs/outputs (I/Os)

	RCP100 / RCP100T	RCP100F / RCP100FT	RCP200 / RCP200T	RCP200F / RCP200FT
AI	2	2	2	2
DI	3	3	3	3
CI	1	1	1	1
AO	-	-	2	2
DO, 230 V AC relay for fan	control	-	3	3
DO, 24 V AC	4	4	2	2
Total number of I/Os	10	13	10	13

Models with communication via RS485 (Modbus or EXOline) /TCP

Type	Fan control	Output signal	Can be combined with
RCP100 / T	-	3-point or on/off	RU, RU-O, RU-DO, RU-DOS
RCP100F / FT	Yes	3-point or on/off	RU-F, RU-FO, RU-DFO, RU-DOS
RCP200 / T	-	0...10 V DC	RU, RU-O, RU-DO, RU-DOS
RCP200F / FT	Yes	0...10 V DC	RU-F, RU-FO, RU-DFO, RU-DOS


RU


RU - F


RU -O

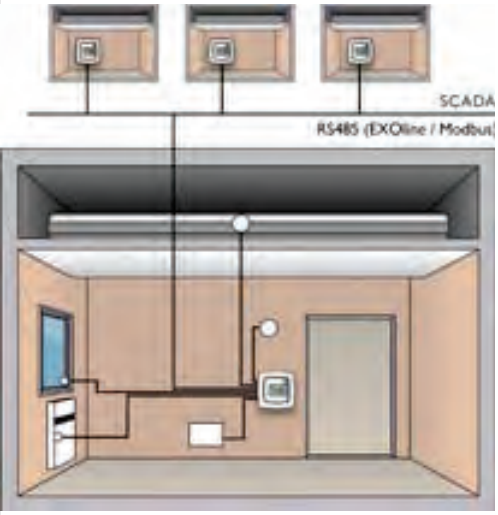

RU -DO


RU -FO


RU -DFO


RU -DOS

Regio Midi (Pre-programmed Room Thearmostats with communication)



Regio Midi are controllers with a built-in sensor and an RS485 communication port. Controllers in different rooms can be connected to a bus line enabling communication with a central SCADA system via RS485 (EXOline or Modbus).

C = Communication, EXOline or Modbus
H = Hidden setpoint
C (at the end) = CO2 input
D = Display
O = Occupancy button
F = Fan control (3-speed)
T = 3-point output

Models with 0...10V DC, on/off or 3-point output with communication

Type	Display	Occupancy button / Forced ventilation	Fan control	Setpoint knob	Hidden setpoint	Output
RC-C	-	-	-	Yes	-	0...10 V DC or on/off
RC-CO	-	Yes	-	Yes	-	0...10 V DC or on/off
RC-CH	-	-	-	-	Yes	0...10 V DC or on/off
RC-CDO	Yes	Yes	-	-	-	0...10 V DC or on/off
RC-CF	-	-	Yes	Yes	-	0...10 V DC or on/off
RC-CFO	-	Yes	Yes	Yes	-	0...10 V DC or on/off
RC-CDFO	Yes	Yes	Yes	-	-	0...10 V DC or on/off
RC-CDOC	Yes	Yes	-	-	-	0...10 V DC or on/off
RC-CTH	-	-	-	-	Yes	3-point
RC-CT	-	-	-	Yes	-	3-point
RC-CTO	-	Yes	-	Yes	-	3-point
RC-CDTO	Yes	Yes	-	-	-	3-point

Inputs/outputs (I/Os)

	RC-C	RC-CO	RC-CH	RC-CDO	RC-CF	RC-CFO	RC-CDFO	RC-CDOC	RC-CTH	RC-CT	RC-CTO	RC-CDTO
AI	1	1	1	1	1	1	1	2	1	1	1	1
DI	2	2	2	2	2	2	2	2	2	2	2	2
UI	1	1	1	1	1	1	1	0	1	1	1	1
DO	1	1	1	1	4	4	4	0	5	5	5	5
UO	2	2	2	2	2	2	2	3	-	-	-	-
Total number of I/Os	7	7	7	7	10	10	10	7	9	9	9	9


RC-CH, RC-CTH


RC-C, RC-CT


RC-CO, RC-CTO

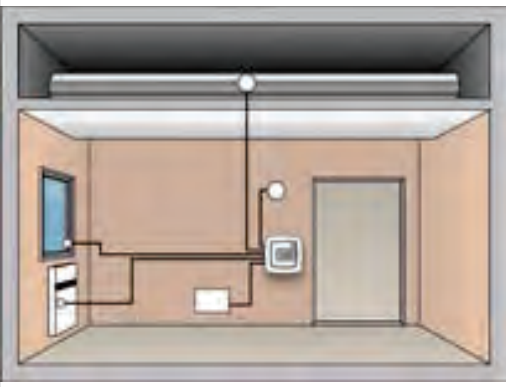

RC-CDO, RC-CDOC, RC-CDTO


RC-CF


RC-CFO


RC-CDFO

Regio Mini (Pre-programmed Stand alone Room Thermostats)



The Regio Mini controllers are pre-programmed and can be configured for a specific application via the display or dipswitches (in most cases, though, the default settings can be applied). The controllers have a built-in temperature sensor. Alternatively, an external temperature sensor can be connected.

D = Display
O = Occupancy button
F = Fan control (3-speed)
T = 3-point output
H = Hidden setpoint

Models with 0...10V DC, on/off or 3-point output without communication

Type	Display	Occupancy button / Forced ventilation	Fan control	Setpoint knob	Hidden setpoint	Output
RC	-	-	-	Yes	-	0...10 V DC or on/off
RC-O	-	Yes	-	Yes	-	0...10 V DC or on/off
RC-H	-	-	-	-	Yes	0...10 V DC or on/off
RC-DO	Yes	Yes	-	-	-	0...10 V DC or on/off
RC-F	-	-	Yes	Yes	-	0...10 V DC or on/off
RC-FO	-	Yes	Yes	Yes	-	0...10 V DC or on/off
RC-DFO	Yes	Yes	Yes	-	-	0...10 V DC or on/off
RC-T	-	-	-	Yes	-	3-point
RC-TO	-	Yes	-	Yes	-	3-point
RC-DTO	Yes	Yes	-	-	-	3-point

Inputs / outputs (I / Os)

	RC	RC-O	RC-H	RC-DO	RC-F	RC-FO	RC-DFO	RC-T	RC-TO	RC-DTO
AI	1	1	1	1	1	1	1	1	1	1
DI	2	2	2	2	2	2	2	2	2	2
UI	1	1	1	1	1	1	1	1	1	1
DO	1	1	1	1	4	4	4	5	5	5
UO	2	2	2	2	2	2	2	-	-	-
Total number of I/Os	7	7	7	7	10	10	10	9	9	9


RC-H


RC, RC-T


RC-O, RC-TO


RC-DO, RC-DTO


RC-F


RC-FO


RC-DFO

ROOM CONTROLLERS/THERMOSTATS

Fan-coil thermostat with on/off or 3-point outputs

Technical data	
Supply voltage	230 V AC ±10 %, 50/60 Hz
Power consumption	< 3 VA

Description	Installations	Change-over function	Type
Room thermostat for fan-coil applications	2- or 4-pipe	Automatic	RCF-230D/TD
(T= on/off and TD= 3-point output)	2-pipe	Manual	RCFM-230D/TD

FAN-COIL CONTROLLER FOR 0...10V CONTROL SIGNAL

Technical data	
Supply voltage	230 V AC ±10 %, 50/60 Hz
Power consumption	< 3 VA

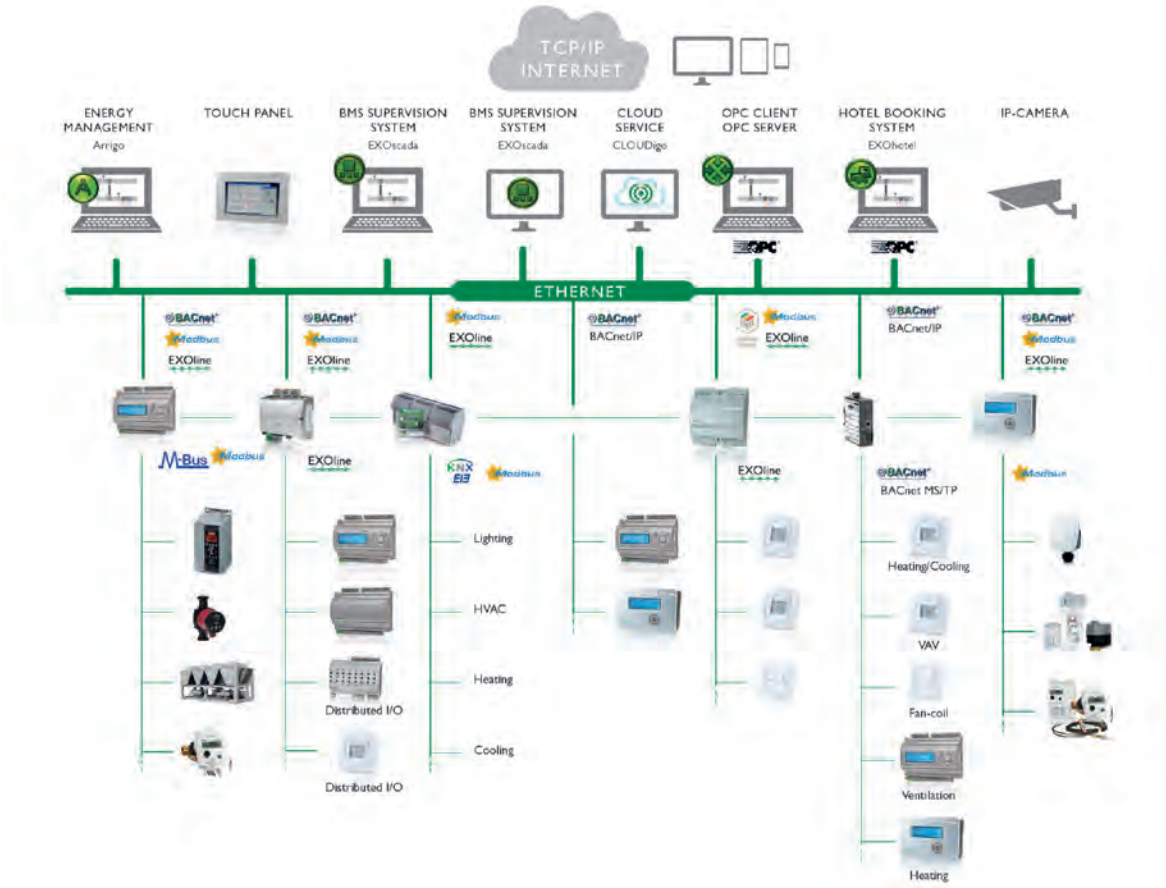
Description	Installations	Change-over function	Type
Room controller for fan-coil applications *(AD= 0...10V output)*	2- or 4-pipe	Automatic	RCF-230AD

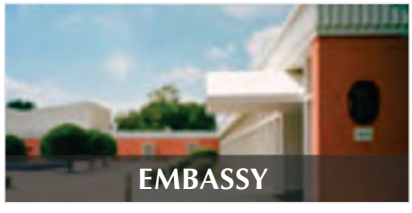
Regin SCADA Software For Complete Building Control & Automation

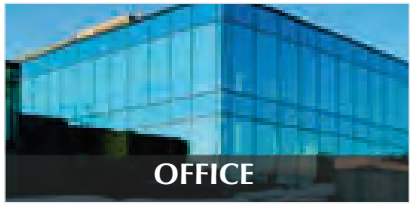
- Software specifically designed for use together with Regin's EXO hardware. The result is a highly effective and user-friendly building automation system with software that takes full advantage of all the possibilities offered by the hardware.

Key features

- Dynamic visualization of plants and processes
- Alarm window with filtering function
- Time channel program
- Easy to change control curves
- A powerful history window
- Large template library
- Support for large server environments
- Scalable and vector-based graphics
- Script language available
- Built-in report generator for creation of advanced reports
- Powerful charting of historical data and real time log
- Alarm distribution as email







EXOhotel

- Hotel booking system EXOhotel is an add-on program for EXOscada which connects a hotel booking system running the Fidelio protocol to the full range of functionalities offered by the EXO system. Heating and cooling in each hotel room can be controlled to save energy when the room is empty and provide a comfortable indoor climate when the room is occupied.

Article	Discription
EXOHOTEL	Hotel booking system. Add-on for EXOscada Base, requires an EXOscada OPC licence

Reduce energy costs by planning the bookings on each floor

Integrate fire protection systems, facilitate fire extinguishing.

The corridor lighting is based on the time and occupancy.

Occupancy control common areas to achieve energy savings and safety.

Domestic hot water access based on the total number of guests.

Control the temperature, lighting, blinds and bathroom dryers when the guests check in/out. Open window turns the heating/cooling etc. off.

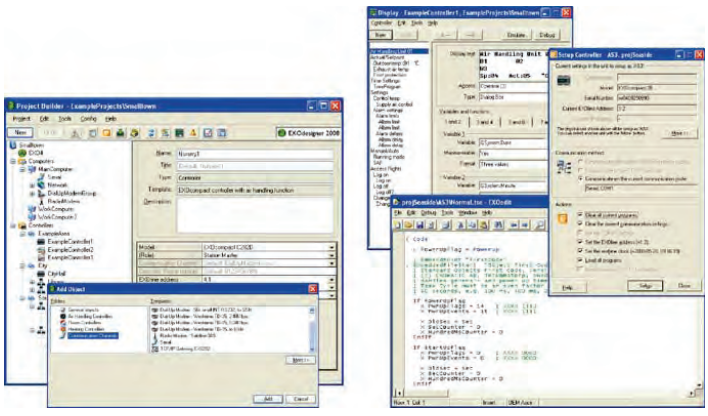
The ventilation in conference rooms is controlled by measuring the Co2 concentration

Minimise the risk of leakage.

EXOdesigner

- All EXO controllers are fully software compatible and are programmed using EXOdesigner, a PC-based development environment.

Discription	Type
Development software EXOdesigner 2009	EXODESIGNER2009



EXOscada

- A complete and powerful SCADA system for the EXO system. EXOscada enables an operator to monitor and control system processes using a modern and intuitive interface, as well as to handle alarms and display historical values using reports and diagrams.
  The built-in report generator enables the creation of advanced reports.

Key features

- Dynamic visualization of plants and processes
- Alarm window with filtering function
- Time channel program
- Easy to change control curves
- A powerful history window
- Large template library
- Support for large server environments
- Scalable and vector-based graphics
- Script language available
- Built-in report generator for creation of advanced reports
- Powerful charting of historical data and real time log
- Alarm distribution as email

Design tools

The built in configuration tools makes it easy to create user-friendly views in EXOscada. The huge library containing graphic symbols and SCADA images simplifies work even further. EXOscada also supports animated symbols and offers many options for configuring the SCADA design according to your personal requirements.

SCADA/HMI software for operator stations

EXOscada has a graphical user interface, making all settings and commands very easy to use. The licensing system is flexible and can easily be adapted to various needs. A dongle and on or more licence codes are needed for every server running EXOscada. EXOscada can communicate via OPC with equipment of other brands using various communication protocols. The BACnet protocol features a driver as an accessory.

Article	Discription
EXOSCADA-T	EXOscada Trial. Max. 75 I/O:s, only one user can be logged on at a time
EXOSCADA-B	EXOscada Base. Max. 200 I/O:s, up to three users can be logged on simultaneously.
EXOSCADA-BSD	EXOscada Base Soft Dongle
EXOSCADA-100	EXOscada 100 I/O. Add-on for EXOscada Base, adds another 100 I/O:s.
EXOSCADA-500	EXOscada 500 I/O. Add-on for EXOscada Base, adds another 500 I/O:s.
EXOSCADA-ULU	EXOscada Unlimited Users. Add-on for EXOscada Base, an unlimited amount of users can be simultaneously logged on.
EXOSCADA-UL	EXOscada Unlimited. Add-on for EXOscada Base, unlimited amount of I/O:s, an unlimited amount of users can be simultaneously logged on.
EXOSCADA-OPC	EXOscada OPC Connection. Add-on for EXOscada Base, 1 OPC server connection.
EXOSCADA-BC	BACnet OPC server. Add-on for EXOscada Base, requires an EXOscada OPC licence.
EXOHOTEL	Hotel booking system. Add-on for EXOscada Base, requires an EXOscada OPC licence.
EXOSCADA-NIMBUS	Nimbus Alarm Server. Add-on for EXOscada Base with support for Nimbus Alarm Server.

EXOopc Driver

- EXOopc Driver makes it possible to connect EXO controllers to any software supporting the OPC standard. This means that most of the SCADA software in the market today can be used together with Regin's controllers. The possibility of communication with various OPC clients / servers can easily be controlled using the Matrikon OPC Sniffer .
- All the data will then be available via the OPC interface.

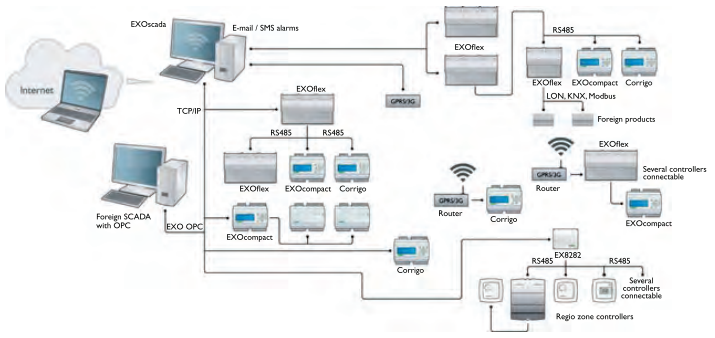
Discription	Type
EXOopc Driver	EXOOPC

SCADA Web Hotel

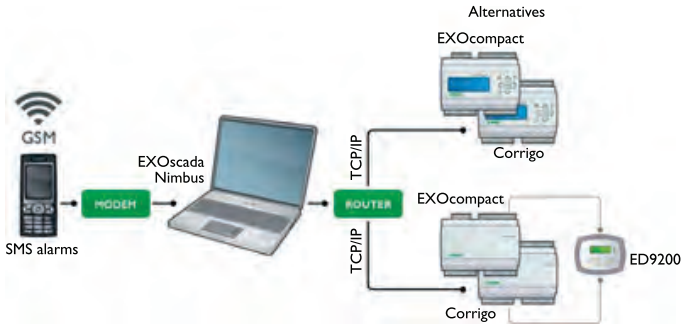
- SCADA Web Hotel is a complete and advanced web hosting service for property management. By connecting your buildings to SCADA Web Hotel, you can manage your properties via a web-based SCADA system and subscribe to different services, while at the same time avoiding investments in e.g. servers.The only thing needed is a computer with a web browser. We take care of daily operation, maintenance, software and hardware upgrades, etc.

Application Examples & Connectivities

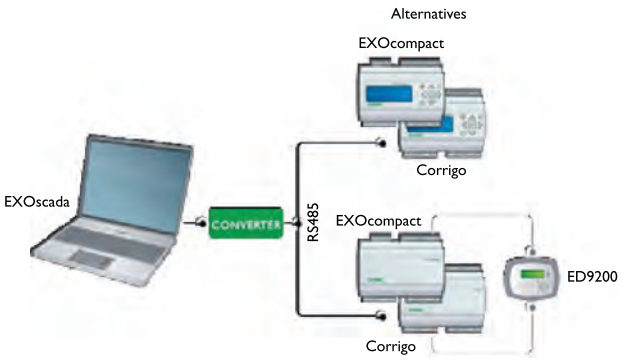
A large Regin system



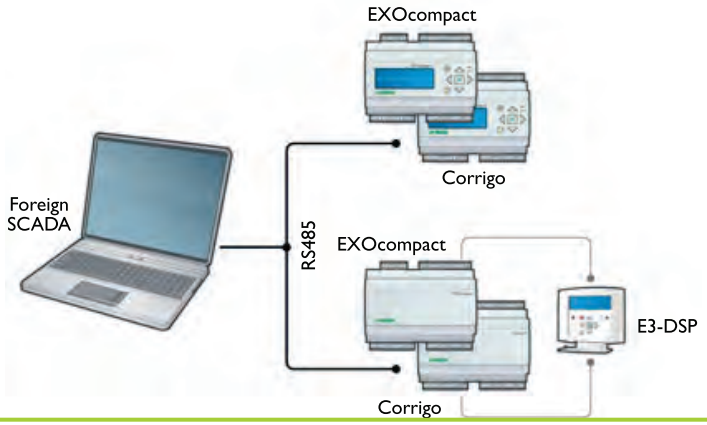
EXOcompact / Corrigo E TCP/IP



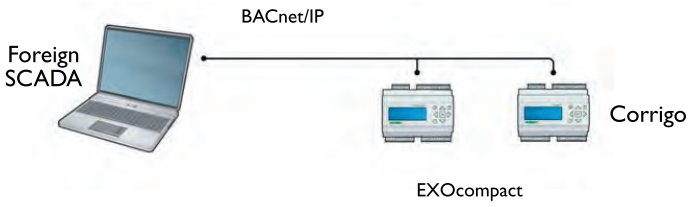
EXOcompact / Corrigo E RS485 EXOline/Modbus



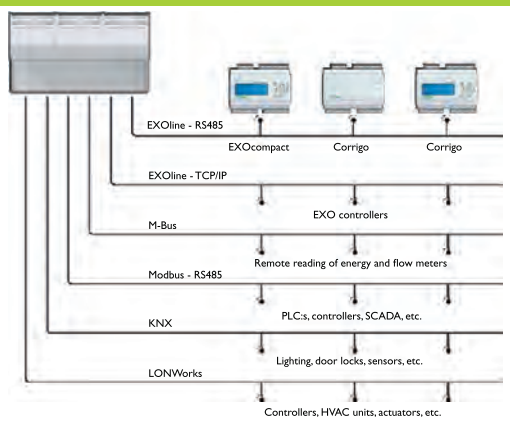
EXOcompac t / Corrigo E Modbus



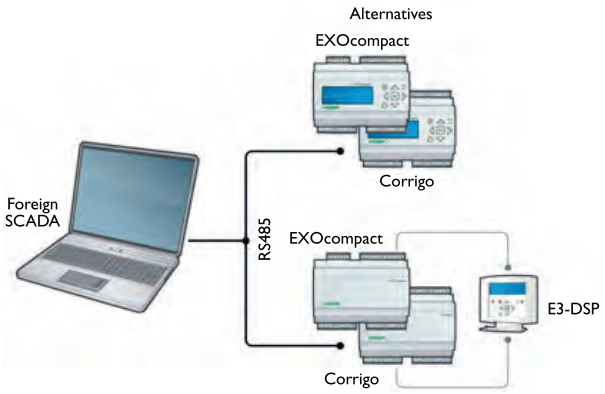
EXOcompact / Corrigo BACnet



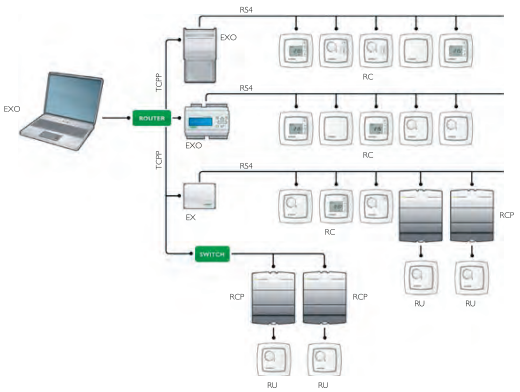
Protocol standards EXOflex



EXOcompact / Corrigo OPC



Regio



HVAC Series

Ace Series

Mini Series

Variable Frequency Drive for Fans & Compressor

Variable Frequency Drive-VFD

- General purpose complete range of HVAC drive ranging from 0.25 kw - 132 kw (0.33HP - 200 HP) 100 V / 200 V / 400 / 575 / 690 V.
- Keypad access to all parameters – basic and advanced menus
- Speed reference input: 0-10V, 0-20mA, 4-20mA (-10V to +10V SM-I/O Lite option)
- Output frequency from 0 to 1500 Hz
- Modbus RTU RS485 via RJ45 connector as standard
- Energy savings with dynamic motor flux V/Hz,BACnet/Modbus
- Fan and pump energy optimisation with quadratic motor flux V/Hz
- VDF as a standard include for 9DI, 4DO, 2RO, 3AI and 2AO. new

Wide variation in model capacity

Standard type (EMC filter built-in type)
- 0.75 to 710kW (Protective structure IP21 or IP55 can be selected with the model between 0.75 and 90kW.)

DCR built-in + EMC filter built-in type
- 0.75 to 90kW (Protective structure IP21 or IP55 can be selected with the model between 0.75 and 90kW.)

Inverter capacity	EMC filter	DC reactor	Protective Structure
0.75kW to 90kW	Built-in	Built-in	IP21/IP55
110kW to 710kW	Built-in	External	IP00

** The models with inverter capacity 45kW to 710kW are coming soon.*

Optimal control with energy-saving function

- Linearization function
- Temperature difference constant control and pressure difference constant control
- Energy saving functions including wet-bulb temperature presumption control
- Automatic energy-saving operation

Slim body

The first slim body design among the Fuji Electric inverters.
The size is the same between IP21 and Ip55 (the first in the industry).

Functions suitable for HVAC use

- 4PID control • Fire mode (forced operation)
- Pick-up operation function
- Real time clock
- Torque vector control
- Filter clogging prevention function
- Customized logic
- User friendly, useful keypad
- Password function

Stand alone

- The inverter can be installed independently; no control panel is required.

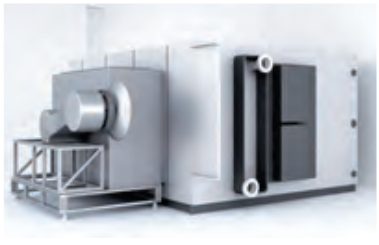
Optimum Control for HVAC Facilities

Cooling tower fan

Chiller Compressor

Chilled water pump

Supply fan / Return fan



Standard Specifications (3-phase, 400V series (0.75 to 55kW)

Item															
Type	FRN □□□ AR1 □-4A : HVAC	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55
	FRN □□□ AR1 □-4E : HVAC	0.75	1.5	2.2	4.0	5.5	7.5	11	15	18.5	22	30	37	45	55
Nominal applied motor (Rated output) [kW] [1]		0.75	1.5	2.2	3.7/4.0	5.5	7.5	11	15	18.5	22	30	37	45	55
Output ratings	Rated capacity [kVA] [2]	1.9	3.1	4.1	6.8	10	14	18	24	29	34	45	57	69	85
	Rated voltage [V] [3]	Three-phase, 380 to 480 V (with AVR function)													
	Rated current [A]	2.5	4.1	5.5	9.0	13.5	18.5	24.5	32	39	45	60	75	91	112
	Overload capability	110% - 1 min (Overload capability interval : IEC 61800-2 compliant)													
	Rated frequency [Hz]	50, 60Hz													
Input ratings	Main circuit power input : Phases, voltage, frequency	Three-phase, 380 to 480 V, 50/60 Hz												Three-phase, 380 - 440 V, 50 Hz Three-phase, 380 - 480 V, 60 Hz	
	Auxiliary control power input : Phases, voltage, frequency	Single-phase 380 to 480 V,50/60 Hz													
	Auxiliary power input for main circuit :Phases, voltage, frequency [4]	-												Single-phase 380 - 440 V, 50 Hz Single-phase 380 - 480 V, 60 Hz	
	Voltage, frequency variations	Voltage: +10 to -15% (Interphase voltage unbalance : 2% or less) Frequency: +5 to -5%													
	Rated current [A] [6]	1.6	3.0	4.3	7.4	10.3	13.9	20.7	27.9	34.5	41.1	55.7	69.4	83.1	102
	Required power supply capacity [kVA]	1.2	2.1	3.0	5.2	7.2	9.7	15	20	24	29	39	49	58	71
Braking	Torque [%] [7]	20										10 to 15			
	DC injection braking	Starting frequency:0.0 to 60.0Hz, Braking time:0.0 to 30.0s, Braking level:0 to 60%													
EMC filter (IEC/EN 61800-3:2004)		EMC standards compliance : Category C2 (emission) / 2nd Env. (Immunity)													
DC reactor (DCR)		Built-in (IEC/EN 61000-3-2, IEC/EN 61000-3-12)													
Power factor(at rated load)	Displacement P.F. (cosφ)	>0.98													
	True P.F.	≧0.90													
Efficiency (at rated load)		95%	96%			97%									
Applicable safety standards		UL508C, IEC/EN 61800-5-1:2007													
Enclosure (IEC/EN 60529)		IP21/IP55													
Cooling method		Fan cooling													
Weight/Mass [kg]	IP21	10	10	10	10	10	10	18	18	18	18	23	23	50	50
	IP55	10	10	10	10	10	10	18	18	18	18	23	23	50	50

Other Products

Control Valves and Actuators

2 / 3-Way Modulating Control Valve (Globe Type)

- For individual room control and for example control of baffles/batteries, hot/cold water, fan convectors, and after-heaters/after-coolers.
  Valve Models : ZTV/ZTR, ZTVB/ZTRB,
  Kvs : 0.25-20
  DN : 15-40
- Actuator Model : RVAZ4
  Supply voltage : 24 V AC/DC
  Control signal : 3-point or 0...10 V
  Force : 400 N

2 / 3-Way Modulating Control Valve (Globe Type)

- Valve Model : BTV / BTR
  Kvs : 0.63 – 39
  DN : 15 – 50
- Actuator Model : RVA5
  Control signal : 3-point or 0...10 V
  Force : 500 N
  Stroke time : 60 s

2 / 3-Way Modulating Control Valve (Flange Type)

- For hot and cold water, district heating systems, cooling systems and steam.
- Valve Model : GTVS/GTRS
  Kvs : 27 – 310
  DN : 40 – 150
- Actuator Model : RVA
  Control signal : 3-point or 0...10 V
  Force : RVA5 (500 N)
  RVA10 (1000 N)
  RVA18 (1800 N)
  RVA25 (2500 N)

Pressure independent control valves

- Valve Model :-
  PCTVS - DN 15-20
  PCMTV - DN15-32
- Pressure class 25 bar
- Flow characteristics Equal percentage
- Max. diff. pressure 600 kPa
- Media Hot water, cold water, glycol-mixed water (max. 50 % glycol)
- Max. leakage 0.01 % of maximum flow, Class IV IEC 60534-4
- Media temperature -10...+120°C
- Actuator : RTAM 100, RVAPC, RTAM125,RVAPC
- Flow rate: 150l/h - 3000 l/h

Pressure independent control valve with measuring ports

- Valve Model :-
  PCMTV - DN32-50
  PCMTV - DN50-150
- Application Heating systems, cooling systems, fan-coil units, ventilation systems
- Pressure class 16 bar
- Flow characteristics Equal percentage
- Range ability > 100 : 1
- Max. diff. pressure 600 kPa / 400 kPa
- Stroke(°) 90 °
- Media Hot water, cold water, glycol-mixed water (max 50 % glycol)
- Max. leakage 0.01 % of maximum flow, Class IV IEC 60534-4
- Media temperature -10...+120°C / ℃

2 / 3-Way FCU Motorised Valve With Actuator (Detachable)

- Valve Model :-
  DFCM
  Kvs : 3.2 – 5.7
  DN : 15 – 25
  Supply voltage : 230 V AC
  Control signal : On/off

Other Products

Single-phase type

Three-phase type

Condenser Fan Speed Controllers

- The most suitable for controlling the speed of a condenser fan of freezing and refrigeration condensing unit, package air conditioner and other units which are operated throughout a year.
- Keep condensing pressure constant in winter and intermediate seasons for stable operation.
- One of the following operation models is selectable when low speed. Minimum Speed Operation Cut off Operation
- Excellent noise-resisting design.
- Applicable to the external forced operation switch.
- Applicable to the external forced operation switch.
- Max.working pressure : 4.7MPa
  Control method : Phase control
  Enclosure : Ip54

Refrigerant Leak Sensor

- Refrigeration leak sensor detects leak of refrigeration gas and gives alarm signal so that preventive actions can be taken.
- Detects all kinds of refrigerant gases like ammonia, carbon dioxide, Hydrocarbons, Halocarbons (HFCs, HCFCS, CFCs)
- Application involves like Chillers, Supermarket, Compressor Room / Rack, Cold Rooms, VRVS etc.
- Modbus-RTU communication for BMS integration

Electric Heating Controller (1/3 phase)

- Electric heating controllers intended for control of electric heating coils or radiators. The controllers pulse the whole load on/off and utilise time-proportional triac control.
- Models :

<u>For 1 or 2 phase :-</u>

Supply Voltage : 200...415 VAC, 50/60Hz.
: 16A, 1-phase max. 3.6kw.
: 2-phase max. 6.4kw.

<u>For 3 phase :-</u>

Supply Voltage : 380...415VAC.
Models : TTC25 - 25A,17kw.
: TTC40 - 40A,27kw.
: TTC63F - 63A, 43kw.
: TTC80F - 80A,55kw.

BTU/Heat Meters

Energy meter with ultrasonic flow meter

Compact energy meters with built-in ultrasonic flow meter, intended for heating or cooling.

- Model : SS2U
- Temperature ranges 1...105 °C.
- Flow meter:
  Connection threaded according to ISO 228/1
- Pressure rating Pn16
- Media water
- Mounting position Horizontal or vertical.
- flow range 06m^3/h (G3/4") (DN15) (110mm) - 3.5m^3/h(G1 1/4") (DN25) (150mm).
- Type of measurement and installation point - Heating & cooling in combinations^2, installation of flow meter in return pipe.
- All energy meters TUV & MID approved.

Ultrasonic energy meters

Horizontal or vertical mounting.

- Model : USWV / US-S/FFL
- Power supply 3.6 V lithium battery
- Temperature range 1...150 °C.
- Protection class IP54 (heating), IP65 (cooling)
- Flow meter:
  Conenction Threaded according to ISO 228/1
  Flanges according to EN 1092-3
- Pressure rating PN16 & Pn25
- Media Water
- Mounting position Horizontal or vertical
- Flow range: 1.5m^3/h (G3/4") (DN15) (110mm) - 10m^3/h (G2) (DN40") (300mm).
- Flow range: 3.5m^3/h (DN25) (260mm)(PN25 flange with 4 bolt holes) - 60m^3/h (Dn100) (360mm) (PN25 flange with 8 bolt holes)

Woltmann type combined energy meter

Horizontal or vertical mounting.

- Models: WSTH / WPTH
- Power supply 3V lithium AA battery, replaceable
  Temperature range 1...150 °C
  Protection class Ip65
- Flow meter:
  Connection flanged according to EN 1092-2
  Pressure rating Pn16
- Media Water
- Mounting position WSTH horizontal only / WPTH horizontal or Vertical.
- Flow ranges : 15m3/h (DN50) (PN16 flange with 4 bolt holes) (270 mm) - 150 m3/h (DN150 (PN 16 flange with 8 bolt holes) (500 mm).

MGS (Gas Sensor)

The Gas Sensor (MGS) is a state-of-the-art fixed gas detector which can detect a wide range of different gases. The sensors can be used on a stand-alone basis or integrated into Controls or Building Management Systems (BMS)

Application :

- Refrigerant gases all refrigerant gases including: Ammonia, Carbon Dioxide, Hydrocarbons, Halocarbons - HFCs, HCFCs, CFCs.
- Combustible gases such as: Methane, LPG, Propane, Butane, and Hydrogen
- Toxic gases such as: Carbon Dioxide and Ammonia in refrigeration, Hydrogen Sulphide in sewage treatment and Carbon Monoxide in underground car parks
- Volatile Organic Compounds such as: Acetone, Benzene, Carbon Tetrachloride, Chloroform, Ethanol, Toluene, Trichloroethylene.

FEATURES

Technical Specification	MGS Standard
Power Supply	12/24V AC/DC ± 20%(IR 24V AC/DC)
Power Consumption	EC (24V): 45.7mA SC: 91mA
Power Monitoring*	Green LED
Visual Alarm*	Red LED
Audible Alarm*	Sounder, enabled/disabled
Fault monitoring	Red LED ON – Green OFF
Fault state	0-1V, 0-2mA
Analogue Outputs	0-5V, 1-5V, 0-10V, 2-10V, 4-20mA
Digital Outputs*	1 Relay rated 1 Amp/24 V d.c /120 V a.c
	Selectable delay: 0,1,5,10min
IP Rating	IP41 OR IP66
Dimensions and Weight	86 x 142 x 53 mm 180 g
Standard Compliance	WEEE RoHS CE, EXD

Sensor Information	Electrochemical EC	Semiconductor with filter (multigas) SC	Infrared IR
Typical Measurement Range	0-1,000 ppm	10-1,000 ppm	ppm - %
Temperature Range	A: -20°C to +40°C B: -40°C to +40°C	-40°C to +50°C	-40°C to +50°C
Humidity Range non condensing	0 to 95%	0 to 95%	0 to 95%
Typical Sensor Life	3 yrs	5-8 yrs	8-10yrs
Alarm threshold T50	19 sec	76 sec(filtered)	25 sec
T90	47 sec	215sec(filtered)	90sec
Recovery Time	900 sec	600 sec	210 sec
Linearity	Linear over calibrated range		
Calibration Requirements	Local regulations may specify the procedure and frequency required. Standards generally require at least annual testing or calibration. Refer to Murco for instructions. Semiconductor sensors are non-selective, but calibrated to a specific gas.		

MGD (Gas Detector)

The Gas Detector (MGD) is a reliable fixed gas detector which can detect a wide range of different gases. The MGD is a stand-alone set-point alarm system.

Application :

- Refrigerant gases all refrigerant gases including: Ammonia, Carbon Dioxide, Hydrocarbons, Halocarbons - HFCs, HCFCs, CFCs.
- Combustible gases such as: Methane, LPG, Propane, Butane, and Hydrogen
- Toxic gases such as: Carbon Dioxide and Ammonia in refrigeration and Carbon Monoxide in underground car parks
- Volatile Organic Compounds such as: Acetone, Benzene, Carbon Tetrachloride, Chloroform, Ethanol, Toluene, Trichloroethylene.

FEATURES

Technical Specification	Controller with 1 or 2 sensors		Controller with 4 or 6 sensors	
Alarm Levels	One Level	Two Level	One Level	Two Level
Power Supply	Available in 230V a.c 50Hz / 120V a.c 60Hz / 12V d.c			
Power Monitoring	Green LED	Green LED	Green LED	Green LED
Visual Alarm	Red LED	Orange LED (low) Red LED (high)	Red LED	Orange LED (low) Red LED (high)
Fault Monitoring	Red LED, Volt free relay/ Siren inactive	Red LED, Volt free relay/ Siren inactive	Red LED, Volt free relay/ Siren inactive	Red LED, Fault relay active/ Siren inactive
Audible Alarms	Internal Sounder - continuous	Int. Sound. - intermit. (low)/cont. (high)	External Sounder - continuous	EXT. Sound. - intermit. (low)/cont. (high)
Siren Deactivate	by onboard jumper	by key switch	by onboard jumper	by key switch
Volt Free Relay on Alarm	10 Amp@ 230/120V	10 Amp@ 230/120V	10 Amp@ 230/120V	10 Amp@ 230/120V (both low & high level)
Relay Expander Box	N/A	N/A	N/A	Available
Reset	Automatic when gas clears	Automatic when gas clears (low)	Automatic when gas clears	Automatic when gas clears (low)
Delayed Response	3 min.	25 sec. (low) / 30 sec. (high)	3 min.	25 sec. (low) / 30 sec. (high)
Delayed Start	On power up, 3 min to allow 2 level system to normalise		On power up 3 min, to allow 2 level system to normalise	
Ratings	Controller: IP 51	Standard Sensor: IP41	Controller: IP 51	Standard Sensor: Ip41
Dimensions & Weight	Controller: 214 x 105 x 80 mm 1.3kg Standard Sensor: 86 x 120 x 53 mm 150g		Controller: 262 x 265 x 84 mm 2.6kg Standard Sensor: 86 x 120 x 53 mm 150g	
Cabling Controller-sensor	4 wire cable, 40 meters 7/0.2mm (200 feet, 22 gauge @120V a.c)		4 wire cable, 100 meters 7/0.2mm (500 feet, 22 gauge @120V a.c)	
Standards Compliance	WEEE RoHS EuP			

Standard

IP66

Ip66 With Splash Guard

Splash Guard

IP66/Remote Head

Exd

Exd Remote Head/IP66

PRV/IP66

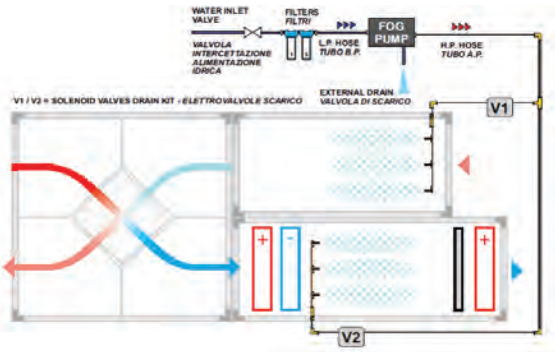
Airflow/Duct Mount IP66

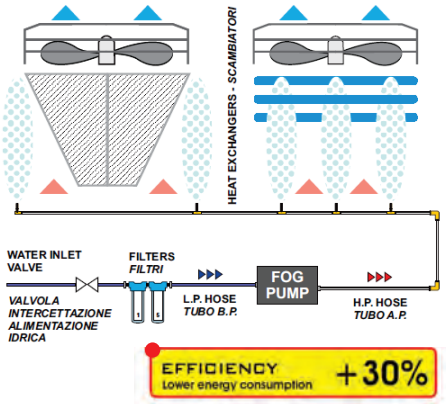
Remote/Face Plate

Solution For Adiabatic Cooling Of Non-airconditioned Application

Benefits :

- Air temperature outside the unit lowered by up to 12°C
- Energy consumption decreased, as much as 30%
- Increase the efficiency of HVAC units up to 30%
- Live of the whole system extended
- Low start up and operating costs
- Quick installation






Outdoor Restaurant


Industrial Work Shop


Pre-Cooling

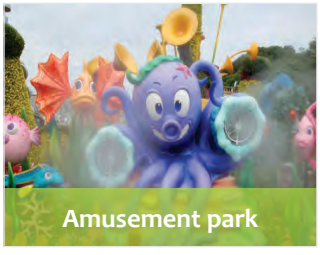

Swiming pool


Green house


Supermarket


Dust Suppression


Metro


Amusement park


Garden


Cattle Shed


Warehouse

Wall Mount Unit

Electrode / Resistive type Steam Humidifier

- Electrode type steam humidifiers.
- Single-phase power supply versions with steam producing up to 6 kg/h.
- Three-phase power supply versions with steam producing up to 48 kg/h.
- Easily interchangeable cylinders with stainless steel electrodes of larger and area Solenoid valve for water charging.
- Tough and reliable heavy duty drain pump. new
- Available cylinders for low conductivity water (mini mum conductivity limit 125 µs/cm).
- Integrated electronic control with display and optional (Modbus-RTU) communication port.
- Specially designed steam humidifier for precision air conditioning (Server Room/Telecom applications) new

ES6-OEM-CCU (Built-in Unit)

Model	ES3-M/MINI	ES6-M/MINI	ES6-N	ES12-N	ES24-N	ES48-N
Steam Produc Tion (kg/h)	3	6	6	12	24	48
Electrical Power SupplY	230v 50-60hz		400v 3/n 50-60hz			
Power (kw)	2	3	4,5	9	18	35
Absorp Tion (a)	9	13,5	6,5	13	25	51
Electronic Control	Slim Easysteam					
Power Suply Control	230v 50-60hz					
Steam Conector (mm)	25	25	25	25	40	40
Number Of Cylinders	1	1	1	1	1	2
Water Pressure	1-10 Bar					
Limits Of Water's Hardness (mg/l Caco 3)	160 - 450	160 - 450	160 - 450	160 - 450	160 - 450	160 - 450
Conduc Tivity Of Water (µs/cm)	250 - 1300	250 - 1300	250 - 1300	250 - 1300	250 - 1300	250 - 1300
Dimensions						
(h)Height (mm)	525	525	525	625	710	710
(l) Width (mm)	430	430	430	430	430	610
(p) Lenght (mm)	240	240	240	240	240	290
Empty Weight (kg)	10	10	10	12	19	38
Working Weigh T (kg)	12	13	13	18	37	74

OEM SERIES (OEM Series)

Model	ES3-M-OEM-CCU	ES6-M-OEM	ES6-OEM-CCU	ES12-OEM	ES24-OEM
Steam Produc Tion (kg/h)	3	6	6	12	24
Electrical Power SupplY	230v 50-60hz		400v 3/n 50-60hz		
Power (kw)	2	3	4,5	9	18
Absorp Tion (a)	9	13,5	6,5	13	25
Electronic Control	Slim Easysteam				
Power Suply Control	230v 50-60hz				
Steam Conector (mm)	25	25	25	25	40
Number Of Cylinders	1	1	1	1	1
Water Pressure	1-10 Bar				
Limits Of Water's Hardness (mg/l Caco 3)	160 - 450	160 - 450	160 - 450	160 - 450	160 - 450
Conduc Tivity Of Water (µs/cm)	250 - 1300	250 - 1300	250 - 1300	250 - 1300	250 - 1300
Dimensions					
(h)Height (mm)	380	380	380	480	565
(l) Width (mm)	340	340	340	340	340
(p) Lenght (mm)	210	210	210	210	210
Empty Weight (kg)	6	6	6	9	11
Working Weigh T (kg)	8	9	9	15	23

Accessories

Distributor With Fan Unit

Distributor For Duct

Food Grade Steam Hose

Humidifier Control Panels

XH20P Humidity Sensor

XJ485CX (MODBUS-RTU)

High Pressurised Adiabatic Humidifier

Evolution Time LSP

GM-FOG VAR series

Evolution Time VAR

- Triplex high pressure heavy-duty crankshaft pump
- 3 ceramic plungers, brass head
- Bride with flexible coupling
- Working pressure: 70 bar
- Pressure regulating valve, built-in bypass with solenoid valve (BPS)
- Safety valve
- Glycerin filled pressure gauge
- Heavy duty ventilated motor 3-phase 4.0-5.5 HP 500-1450 RPM
- ON-OFF switch with thermal overload
- 3/4" M BSP inlet - 3/8" M BSP outlet
- Cyclic digital timer
- Weatherproof s.steel skid cover on antivibration rubber feet
- Equipped with three-ph inverter with soft start
- Only one variable pressurised pumping system can be used for multiple rooms with each room solenoid valve / humidistat arrangement for low initial investment & energy saving by VAR pump.
- Low noise
- Automatic variable flow rate-
- Can operate several nozzle lines
- Automatic switch-off if all line are closed
- Automatic switch-off if water supply is missing
- Automatic switch-off if no pressure (leakage) is detected
- Automatic switch-on if at least one line is opened
- Automatic switch-off if motor overheats
- Energy saving (absorbed power is proportional to water flow)
- Longer pump life (lower RPM)
- Automatic filling of pipelines (timer OFF until lines are refilled)
- Manufactured in compliance with CE regulations

Standard Fan R/R

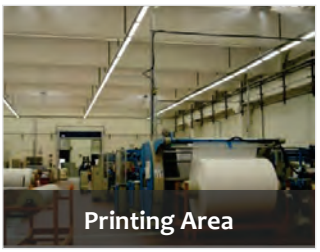
Radial Misting fan

60cm - 30″

45cm - 18″

Exhaust Fan R/S

Solutions For Humidification



Refrigeration

Air-Conditioning

Humidification

Industrial

Solutions offered by Kahan Controls.

Hypermarkets / Supermarkets Solutions

Restaurants / Food chain Outlets Solutions

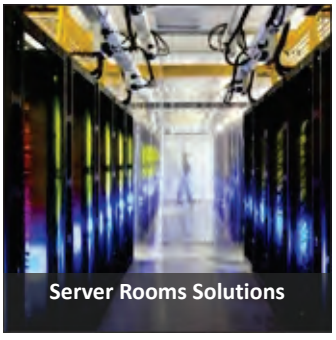
Food Processing Centers Solutions

Flight Kitchens Solutions

Fruits / Vegetables Cold Storage Solutions

Pharmaceutical Storages Solutions

Transport Refrigeration Solutions



Server Rooms Solutions

Air Handling Unit (AHU) Solutions

Fan Coil Unit (FCU) Solutions

Variable Air Volume (VAV) Solutions

Chiller Solutions

Our Associations

INDIAN SOCIETY OF HEATING REFRIGERATING AND AIR CONDITIONING ENGINEERS

Indian Green Building Council

GLOBAL COLD CHAIN ALLIANCE®

Fire & Safety Association of India

ASHRAE

Refrigeration

Air-Conditioning

Humidification

Industrial

Our Esteem List Of Customers / Projects Undertaken

ABB

ADITYA BIRLA GROUP

ADVANCE
COOLING SYSTEMS PVT. LTD.

AMBIENCE

arneg

Arshiya

BAYER

Biocon

Bilcare Research

BLUE STAR

Carrier

Celfrost

CLIMAIRE INC.™
WE INNOVATE

DEPARTMENT OF ATOM ENERGY
GOVERNMENT OF INDIA

DR. REDDY'S

DEV BHUMI COLD CHAIN LIMITED.

Eastern

emami

ETA

FLYJAC

Freeze tech™

GMR

HyperCITY
There's more to discover.

ICL - India

IR Ingersoll Rand

ITC HOTELS

JAIN Irrigation Inc
world leader in micro irrigation

KARTARPUR COLD STORAGE

KEVENTER
Processing the future

LSG Sky Chefs

Mahindra

moserbaer
REWRITING THE FUTURE

MOTHERSON ZANOTTI

Nilkamal

ਪੰਜਾਬ ਮੰਡੀ ਬੋਰਡ

Oberoi Hotels & Resorts

Reliance RETAIL

RINAC
ENGINEERING EVOLUTION

Rise n' Shine
BIOTECH

SANYO

STULZ

SAVLA FOODS
& COLD STORAGE PVT LTD

SIDWAL

skygourmet

srini
FOOD PARK

SUNBEAM

THERMO KING

VOLTAS

Werner Finley

williams

- Technology partners -

Many More ...

www.kahancontrols.com

Refrigeration | Air-Conditioning | Humidification | Industrial

kahan controls
HVAC - R Controls & Technologies

Head Office:
A-207, Kesar Plaza,
Charkop Market, Opp. Bhagwati Hotel,
Kandivali (West),
Mumbai-400 067. INDIA.
T.: +91-22- 2868 2624 / 2868 8486
E.: virendra@kahancontrols.com
sales@kahancontrols.com

South Branch Office:
No. 120, G. N. T. Road,
1st Floor, Alankar Tower,
Opp. Shell Petrol Bunk,
Kanakachatram, Madhavaram,
Chennai-600 110. INDIA.
T.: +91-98847 47788
F.: balaji@kahancontrols.com
sales@kahancontrols.com

North Branch Office:
B-108 DDA Shed,
Okhla Industrial Area, Phase 1,
Behind Crown Plaza Hotel,
New Delhi-110 020. INDIA.
T.: +91-11-2681 8475
E.: sales@kahancontrols.com

East Branch Office:
kolkata branch
E.: sales@kahancontrols.com