Elite of technology

Elitech

Refrigeration & Industrial Control Business Unit
Product Guide

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Jiangsu Jingchuang Electronics Co.,Ltd

http://www.e-elitech.com

The largest microcomputer temperature controller production base in Asia.

Founded in 1996, Jiangsu Jingchuang Electronics, Co.,Ltd (also referred to as Elitech) has now become one of the largest temperature measuring and controlling manufacturers in China. With strong R&D capacity in cold chain networking industry, Elitech has sold more than 15 million pieces of controllers . Our products cover various fields of the refrigeration and heating ventilation, including: cold chain (network) monitoring system, automobile air conditioning control system, new energy automobile air conditioning control system, temperature & humidity control system, temperature & humidity data logger, electrical control system for refrigeration unit, industrial refrigeration control system, etc. They are widely applied to storage and distribution of foodstuffs and pharmaceuticals at lower temperature, control of automobile and new energy vehicle air conditioning system, and industrial refrigeration.
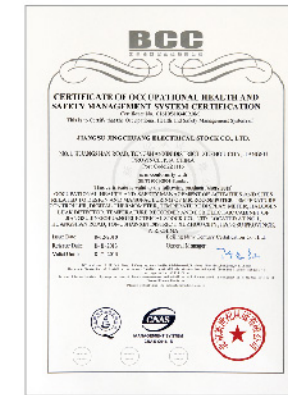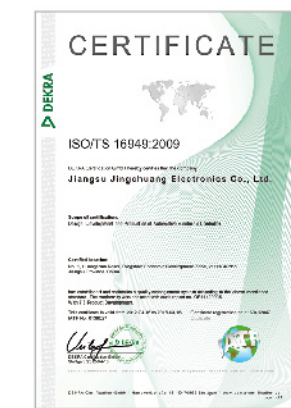
Company Certification

CERTIFICATE OF OCCUPATION HEALTH
AND SAFETY MANAGEMENT SYSTEM
CERTIFICATION GB/T28001-2001

CERTIFICATE OF ENVIRONMENTAL
MANAGEMENT SYSTEM CERTIFICATION
GB/T24001-2004/ISO14001-2004

CERTIFICATE OF QUALITY MANAGEMENT
SYSTEM CERTIFICATION
GB/T19001-2008/ISO9001-2008

CERTIFICATE OF DEKRA
CERTIFICATION GMBH ISO/TS16949:2009

CE CERTIFICATE OF ETC

Our company has passed certifications of ISO9001:2008, ISO14001:2004, OHSAS18001:2011, TS16949:2009, CE, UL and ETL. It is qualified to produce environment-friendly products completely in accordance with EU ROHS directive.

Elitech has established four branches: ELITECH TECHNOLOGY Inc (in US Silicon Valley), ELITECH (UK) LIMITED (in London), Jiangsu Jingchuang Networking Technology Co.,Ltd (in Nanjing) and Joycontrol (Shanghai) Environment Technology Co.,Ltd (in Shanghai Free Trade Zone). We have eight business units: Cold Chain End Measurement and Control Business Unit, Cold Chain Networking Business Unit, Refrigeration Industrial Control Business Unit, Data Logger Business Unit, Environment Science and Technology Business Unit, Automobile Electronics Business Unit and Heat Pump Unit Business Unit.

Elitech has built strategic cooperation relationship with many well-known enterprises, such as Panasonic (Dalian), Xingxing, Haier, Hisense, Aucma, etc. Our market share is listed top one in the same industry nationally and also leading in the global market of the same industry.

Panasonic   **HOSHIZAKI**   **Supco**   **DeLaval**   **3M**   **CPS**   **GRAINGER**

Haier   **Hisense**   **KELON**   **AUCMA**   **XINGX** ...

Our core suppliers are Hongfa, Schneider, Honeywell, NEC…

Reading Guide

Please read this manual before you select products. We are here to help you find the products you want quickly.

1 The manual contains product overview, specifications, technical parameters and wiring diagrams of Elitech main series, such as Universal Controller Series—Refulgence Series,Commercial Display Case Controller Series, Medicine Cabinet Controller Series, etc. Please refer to the contents to start your selection.

2 Please make sure not to install and use the unit under such harsh circumstances as: extreamely humid, too high or too low temperature, contaminated places, etc. Please distinguish the power wire and other connecting wires to avoid possible interference.

3 For personal safety, please make sure our products are installed by professionals. Make sure the voltage, load capacity and the connection methed is in accordance with the requirement of each product's manual.

4 Disclaimer: If products are damaged due to the following reasons (including but not limited to): the installation environment does not meet the safety requirements; the load capacity exceeds the permitted scope; our components are misused, dismantled or replaced; we will not provide free repair service to damaged products, regardless of whether it is still in the period of quality assurance. Meanwhile, we won't bear the direct or indirect liabilities caused by such damage.

5 If you have any questions or advice concerning products, please do not hesitate to tell us. We also offer OEM and ODM based on your specific requirements. Please contact our sales representative in your region. (You can refer to the "Contact us" page in our website http://www.e-elitech.com)

6 Suggestion: It's important to select high-tech thermostats with stable and reliable performance. Elitech has big market share at home and broad, a strong research team, products of high quality and various series, large production capacity, and excellent after-sales service, it will be your best choice!

CONTENTS

Elitech®

Cold Storage Cloud Monitoring Series

ECB–5060C   ECB–500NET Series

The First Electric Control Box Housed in Plastic Case in China
Modular Design Free Expansion Remote control

ECB–2010/2020/2030

Application

Medium and low temperature cold storage and quick–cooling storage in freezing and refrigerating industry.

Specifications

Product size: 300 * 400 * 150 mm

Features

◆ Adopts temperature controller MTC–5060C; refrigeration, defrost, compressor current and voltage protection, RS485 communication.

◆ Used as control terminal device to match with Elitech relay module RCW–1 and access to network, with remote monitoring and control function.

ECB–5060C

Application

For automatic control of refrigerating units in small and medium–sized refrigerated storage and freezing storage.

Specifications

Product size: 329 * 380 * 140 mm

Features

◆ The first electric control box housed in plastic case in China, modular and combined design, large display panel, touch buttons,

◆ Innovative combined design allows free infinite expansion of control units, easy upgrading of functions and quick response to users'customized demands.

◆ Specially designed for 3.8KW/5.5KW/7.5KW refrigerating unit control systems. Centralized control of all the units, including compressor, fan, defrosting, light and alarm.

◆ ABS flame retardant case, more simple and elegant appearance. Compared with metal case, it has better insulating property, so it is more reliable and secure.

◆ Equipped with RS–485 communication interface, which communicates with PLC devices, etc. Upper computer software can be used to monitor the cold storage centrally.

◆ With functions of current display, overload, phase loss, three–phase imbalance, phase sequence protection, and high/low voltage alarm.

◆ The non–business hour mode helps to save energy at night. Business hour mode can be set via the clock, reducing energy consumption of cold storage.

ECB–2020

ECB–2030

Application

Medium and low temperature cold storage and quick–cooling storage in freezing and refrigerating industry.

Specifications

Product size: 350 * 470 * 180 mm

Features

◆ Specially designed for medium and low temperature cold storage, with remote monitor function. Adopt touch control temperature controller LTC–500 with big panel, integrate temperature display, current display and clock display.

◆ Remote and centralized control of cold storage, convenient to manage.

◆ Overload protection, phase loss protection, imbalance protection,

◆ Color nixie tube display in big panel, touch control buttons.

◆ Double temperature sensor input; light and alarm output; buzzer alarm

◆ ECB–520NET: refrigeration, defrost; ECB–530NET: refrigeration, defrost, fan

ECB–1000S

Temperature measurement, display and control; relay control output for cooling or heating; timed defrost function; manual power on/off function; temperature sensor failure alarm.

Specifications

◆ Product size: 250 * 350 * 150 (mm)

Technical parameters

◆ Power supply: 220VAC ± 10%, 50/60Hz;　　◆ Power consumption: < 5W;

◆ Measuring temperature range: -50℃~99℃;　　◆ Accuracy: ±1℃;

◆ Temperature control range: -40℃~99℃;　　◆ Temperature resolution: 0.1℃;

◆ Relay contact output capacity: compressor 5HP/230VAC (MAX);

Four-way valve 5A/220VAC;

◆ Storage Temperature: -30℃~75℃;

◆ Ambient temperature: -10℃~60℃;

◆ One way alarm output: buzzer;

◆ Sensor type: NTC (10KΩ/25℃, B value 3435K)

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Elitech Relay Module

RCW–1　3G　RCW–2　2G

RCW–1/2 is used as a networking relay for terminal devices, such as temperature controllers, to be connected with Elitech cloud platform. It helps terminal devices access network.

Functions

◆ Support terminal models: EK–3030E, LTC–500, ECM–400
◆ SMS alarm and push, real–time uploading of data,device parameter settings in server
◆ Conform to GB4706.1–2005 standard

Technical parameters

◆ Operating voltage: (100–240) VAC, 50~60Hz
◆ Operating ambient temperature: –20℃~65℃
◆ Data transmission: temperature and humidity data is transmitted to server via 3G network.
◆ Communication interface: RS485
◆ Indicator: bi–color LEDs (red and green)
◆ Alarm: SMS, cloud platform
◆ Radio frequency: WCDMA
◆ RS485 load capacity: 16 pieces of terminal devices at maximum
◆ RS485 communication address range: 1–16.
　Note: The terminal devices connected to the same module cannot have the same address.
◆ SIM card: micro SIM card in WCDMA network
◆ Antenna type: sucker antenna
◆ Product size: L: 80+8*2 (mounting hole) ± 2mm, W: 71 ± 2 mm, H: 62 ± 2 mm.

RCW–1/2 antenna
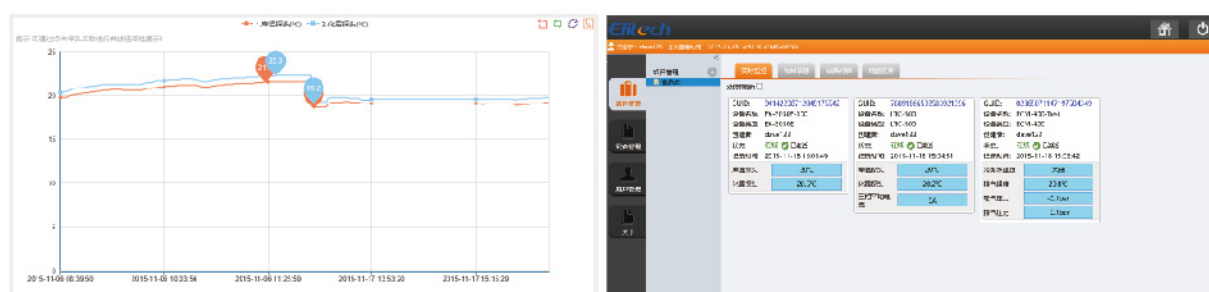
Temp graph

Multi–decice real–time monitoring

Remote Communication Temperature Controller

LTC–500

The temperature and humidity controller is used to control the temperature and humidity of water chillers or oil chillers in industrial refrigeration. It is equipped with functions of auto temperature control, ambient temperature control, compressor delay protection, parameter setting and memory, self–diagnosis in case of over temperature and sensor fault and two–channel user–defined digital input alarm. The auto temperature control function enables the controller to control compressor per the set–point of control temperature, humidity or differential. Ambient temperature control function allows the controller to control the compressor based on current ambient temperature. The compressor delay protection function can prevent compressor from frequent start–up. In case of fault, corresponding fault code shows in the display window and alarm occurs. Two channels of digital input can be customized.

Relay module is optional.
It can be used for cloud platform access and SMS alarm

Application

◆ Temperature measurement, display and control
◆ Refrigeration, deforst, fan and light control
◆ Current detection, protection (optional), detection of phase sequence error (optional)
◆ Clock display (optional)

Technical parameters

◆ Temperature measuring range: –45℃~100℃
◆ Temperature accuracy: ± 1℃
◆ Temperature control range: –40℃~85℃
◆ Temperature resolution: 0.1℃
◆ Current measuring range: 0~80A. It cannot be used in the equipment with transient current over 230A.
◆ Current measuring accuracy: ± 2A (0~30A), ± 3% (within nominal range of mutual inductor)
◆ Current display resolution: 0.1A
◆ Output capacity of relay contact: compressor: 5A/220VAC, defrost: 5A/220VAC, light: 5A/220VAC, AUX 1: 5A/220VAC, AUX 2: 5A/220VAC
◆ Operation voltage: 220VAC ± 10%, 50/60Hz
◆ Operating ambient temperature: –5℃~60℃
◆ Relative humidity: 20%~85% (non–condensing)
◆ Overall power consumption: <5w
◆ Sensor: NTC (10KΩ/25℃, B value 3435K)
◆ Support Modbus communication protocol
◆ Main board is separated from operation panel.
◆ Display panel size: 165*95*26 mm

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Temperature Controller

MTC–5060C

The controller is used to control the temperature of cold storage with functions of refrigeration, defrost, phase sequence detection and protection, current detection and protection, RS485 communication. With remote monitoring and control function, it can also be used as control terminal device to match with Elitech relay module and access to network. It features temperature measurement, display, control and calibration, over temperature alarm, outrange alarm and sensor fault alarm, etc.

Specifications

◆ Front panel size: 100 (L) * 51 (W) mm
◆ Mounting–hole size: 92 (L) * 44 (W) mm
◆ Product size: 100 (L) * 51 (W) * 82.5 (D) mm
◆ Temperature sensor wire length: 2m (including probe length)

Technical parameters

◆ Operating voltage: 220VAC ± 10%, 50Hz/60Hz
◆ Temperature measuring and control range: –50℃~50℃
◆ Temperature measuring accuracy: ± 1℃
◆ Display resolution: 0.1℃
◆ Current detection range: 1~40A
◆ Current detection accuracy: ± 1A (0–20A), ± 5% (20A–40A)
◆ Output capacity of refrigerating and deforst relay contact: 5A/220VAC
◆ Sensor: NTC (10KΩ/25℃, B value 3435K), current transformer
◆ Operating ambient temperature: 0℃~60℃
◆ Operating ambient humidity: 20%~85% (non–condensing)

EK–3030E

Application

The controller is mainly used in industrial refrigeration. It adopts Modbus communication protocol and can communicate with PLC devices etc.

Functions

◆ A simple centralized monitoring solution: With no need to use router, etc., the controller can access to PC USB through RS485 to achieve centralized monitor of cold storage groups and multiple refrigerating devices.
◆ Transmission distance up to 500m: User can analyze and process temperature data and alarm info of cold storage in duty room or monitor room via upper computer software. It is much more simple and regular to manage cold storage.
◆ 6 independent buttons on the panel: Users can directly operate the controller with no need to use menu and user manual. No menu, simple operation!
◆ It adopts touch buttons and unibody injection moulding of front panel. It is waterproof and dustproof, with more stable and reliable performance.
◆ RS485 module is optional. Conversion interface from RS485 to USB is optional.

Technical parameters

◆ Temperature measuring range: –40℃~99℃
◆ Temperature control range: –40℃~85℃
◆ Temperature measuring accuracy: ± 1℃ ± 0.5 digit (–30℃~50℃); ± 2℃ ± 0.5 digit (others)
◆ Display resolution: 1℃/0.1℃ (integer/decimal switch)
◆ Sensor: NTC (10KΩ/25℃, B value 3435K)

Specifications

◆ Product size: 85.0 (L) * 35.0 (H) * 63.8 (D) mm
◆ Mounting size: 71(L) * 29(H) mm
◆ Length of sensor and wire: 2m

Wiring diagram

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Touch Control Series

EK–3010   EK–3020

Specifications

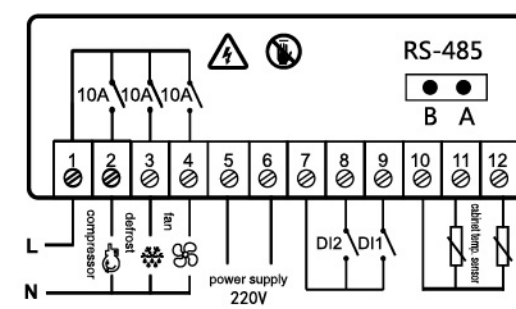◆ Product size: 85(L) * 35(H) * 63.8(D) mm
◆ Mounting size: 71(L) * 29(H) mm

Technical parameters

◆ Temperature measuring range: –40℃~99℃
◆ Temperature control range: –40℃~85℃
◆ Temperature measuring accuracy: ±1℃ ± 0.5 digit (–30℃~50℃);
　　　　　　　　　　　　　　　 ±2℃ ± 0.5 digit (others)
◆ Display resolution: 0.1℃/1℃
◆ Operating voltage: 220VAC ± 10%, 50/60Hz
◆ Operating ambient temperature: –5℃~55℃
◆ Relative humidity: 10%~90% (non–condensing)
◆ Storage temperature: –25℃~75℃

EK3010

Table of EK series functions

	Features	EK–3010	EK–3020	EK–3021	EK–3030	EK–3030E
Output	Refrigeration	●	●	●	●	●
	Defrost		●	●	●	●
	Fan				●	●
	Alarm	Buzzer	Buzzer	Buzzer	Buzzer	Buzzer
Input	Sensor	1 piece	1 piece	2 piece	2 piece	2 piece
	RS485					●

EK3020

Wiring diagram

EK3010
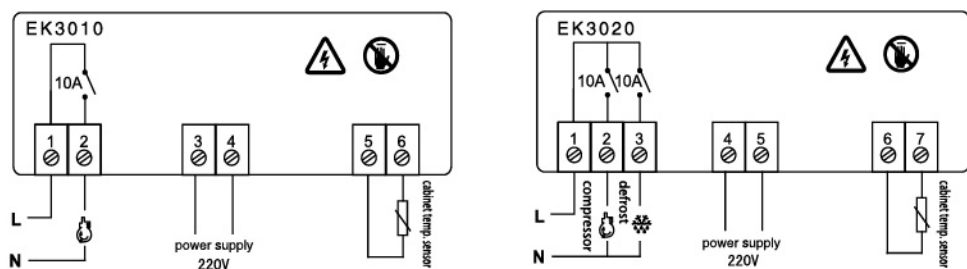
EK3020

EK–3021   EK–3030

Specifications

◆ Product size: 85(L) * 35(H)* 63.8(D) mm
◆ Mounting size: 71(L) * 29(H) mm

EK3021

Technical parameters

◆ Temperature measuring range: –40℃~99℃
◆ Temperature control range: –40℃~85℃
◆ Temperature measuring accuracy: ±1℃ ± 0.5 digit (–30℃~50℃);
　　　　　　　　　　　　　　　 ±2℃ ± 0.5 digit (others)
◆ Display resolution: 0.1℃/1℃
◆ Operating voltage: 220VAC ± 10%, 50/60Hz
◆ Operating ambient temperature: –10℃~55℃
◆ Relative humidity: 10%~90% (non–condensing)
◆ Storage temperature: –25℃~75℃

Wiring diagram

EK3021

EK3030

EK3030
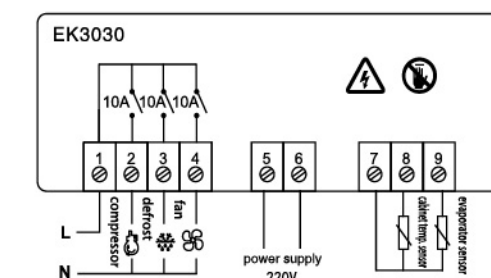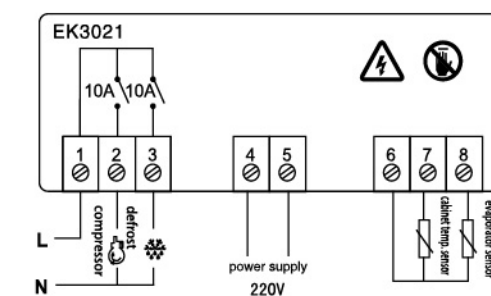
Temperature and Humidity Controller Series
(Medicine Cabinet Controller)

MTC-6040

Cooling | Defrost | Fan | Door Swith | 3 NTC | Temperature Calibration

Application

Widely applied in places require temperature and humidity control.

Features

◆ Equipped with Honeywell sensors of high accuracy up to 5%RH (Max) in the whole measuring range, the controller can accurately control humidity.

◆ Door switch alarm; over temperature/humidity limit alarm; complete conformity with GSP medical standard.

◆ Double screens to display temperature and humidity information; simple operation—general settings and operations can be realized with no need of menus.
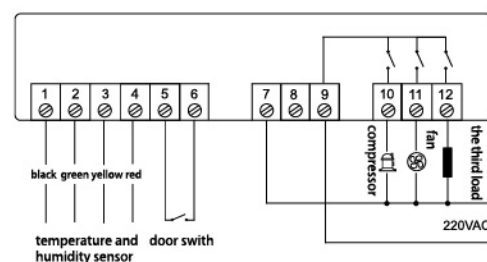
Specifications

◆ Product size: 77 (L) * 34.5 (H) * 82 (D) mm

◆ Mounting size: 71(L) * 29(H) mm

Technical parameters

◆ Temperature measuring range: –40℃~80℃(Only when the calibration value of sensor is set to 0.)

◆ Temperature control range: 0℃~20℃

◆ Temperature measuring accuracy: ±0.5℃(0℃~40℃); ±1℃(others)

◆ Temperature resolution: 0.1℃

◆ Power supply: 230 VAC ± 10%

◆ Humdity measuring range: ±5%RH (0~100%)

◆ Humidity accuracy: 1%RH

◆ Output capacity: refrigeration: 16A/250VAC, fan: 7A/250VAC, third relay: 7A/250VAC

◆ Protection grade of front panel: IP64

◆ Protection grade of rear housing: no

◆ Operating ambient temperature: 0℃~55℃

◆ Storage temperature: –25℃~75℃

◆ Relative humidity: 20%~85% (non–condensing)

Wiring diagram

MEC-H9

Application

Mainly for temperature and humidity detection, control and logging in medical refrigerators, such as efrigerated cabinets, cool cabinets, etc.

Features

◆ Product size: 178 * 48 * 86 mm

◆ Mounting size: 157 * 39 * 80 mm (mounted by clamps)

◆ Temperature measuring range: –40℃~99℃

◆ Temperature measuring accuracy: ±1℃

◆ Humdity measuring range: 0~99.9%RH

◆ Humidity accuracy: ±5%RH

◆ Application environment: temperature: –20~60℃, humidity: 20%RH~90%RH (non–condensing)

◆ Storage environment: temperature: –30~70℃, humidity: 20%RH~90%RH (non–condensing)

◆ Power supply: 230VAC ± 10%, 50/60Hz

◆ Overall consumption: <8VA

Technical parameters

◆ Accuracy reaches 5%RH (30%RH–90%RH) and can meet the requirement of cool cabinets.

◆ Refrigeration, defrost with compressor off, fan, heating control.

◆ Data can be exported by USB disk. It is convenient to read and view data.

Wiring diagram

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Temperature and Humidity Controller Series

Protection Module & Sensor

MTC-6050   MTC-6060

CP-6000

Cooling   Defrost   Fan   Door Swith   3 NTC   Temperature Calibration

The current protector is equipped with functions of three-phase current detection, current protection, and phase sequence detection. It can protect the current in case of phase sequence error.
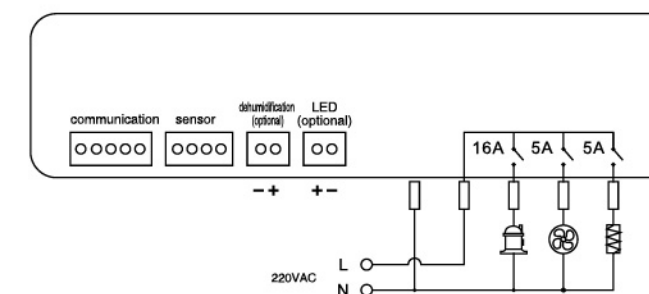
Application

Cool cabinets, medical cabinets, cold storage for food, agricultural greenhouses, medical cold storage, etc.

Features

◆ Besides common temperature control functions, it possesses functions of dehumidifying and temperature compensation, heating, etc. Optional functions include defrosting by shutting down compressor, heating defrosting;

◆ It adopts Honeywell high accuracy sensor with full range accuracy up to 5%RH so that humidity can be controlled accurately.

◆ It is in complete conformity with GSP medical standard and equipped with door switch alarm, over temperature/humidity limit alarm.

◆ Temperature and humidity information is displayed separately in two screens. Simple operation, no menu!

MTC-6050

Technical parameters

◆ Temperature measuring range: −40℃~80℃(Only when the calibration value of sensor is set to 0.)

◆ Temperature control range: −50℃~50℃

◆ Temperature measuring accuracy: ±.0.5℃(0℃~40℃); ±1℃(others)

◆ Temperature resolution: 0.1℃

◆ Power supply: 230 VAC ± 10%

◆ Humdity measuring range: ±5%RH (0~100%)

◆ Humidity accuracy: 1%RH

◆ Output capacity: refrigeration: 16A/250VAC, fan: 7A/250VAC, heating relay: 7A/250VAC

MTC-6060

Wiring diagram

Technical parameters

◆ Current measuring range: 0~99A

◆ Current display resolution: 1A

◆ Measuring accuracy: ±2A(0~30A), ±3% (other, within nominal range of mutual inductor)

◆ Front panel waterproof grade: IP65

◆ Power supply: L1−N: 220 VAC ± 10%, 50Hz

◆ Protection output relay capacity: 10A/220VAC (nomally open)

◆ Operating ambient temperature: 0℃~55℃

◆ Storage temperature: −25℃~75℃

◆ Ambient humidity: 20%~85% (non−condensing)

◆ Mounting−hole size: 71 * 29 mm
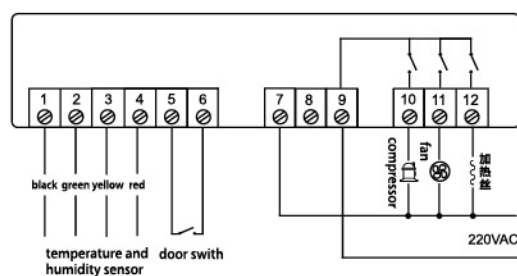
CP-170

The controller is used to protect units. It is equipped with functions of current detection, overload protection (inverse time lag protection), phase loss protection, imbalance protection, etc. Modular design allows it to be directly installed in the electric control box or terminal box.

Features

◆ Current display, resolution: 0.1A

◆ Overcurrent protection (inverse time lag protection)

◆ Current imbalance protection, phase loss protection

Technical parameters

◆ Current measuring range: 0~30A, control range: 0~30A

◆ Measuring accuracy: ±1A (0~15A), ±5% (20A~30A)

◆ Power supply: 12VAC/12VDC

◆ Overall power consumption: <5W

◆ Operating ambient temperature: 20℃~55℃

◆ Relative humidity: 20%~85% (non−condensing)

◆ Storage temperature: −25℃~75℃

◆ Capacity of output protection relay: 10A/220VAC (normally open, normally close)

◆ Display: three digit nixie tube

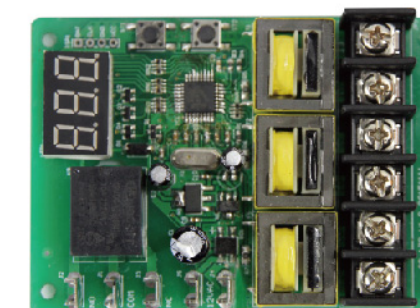◆ Module size: 90 * 65 mm

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CP–200

The controller is used to protect units. It is equipped with functions of current detection, overload protection (inverse time lag protection), phase loss protection, imbalance protection, etc. Modular design allows it to be directly installed in the electric control box or terminal box. It is better to be used together with Elitech phase sequence protection module.
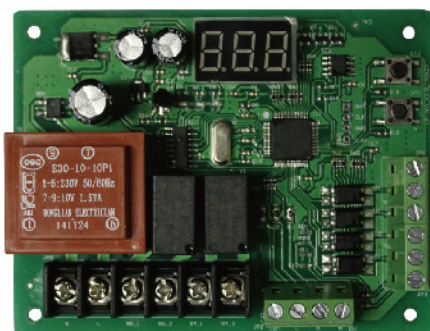
Features

◆ Current display, resolution: 0.1A.

◆ Overcurrent protection (inverse time lag protection).

◆ Current imbalance protection, phase loss protection.

◆ Three–channel of switch input, one–channel on/off digital signal input.

Technical parameters

◆ Current measuring range: 0~30A, control range: 0~30A

◆ Measuring accuracy: ±1A (0~15A), ±5% (20A~30A)

◆ Power supply: 220VAC ± 10%, 50/60Hz

◆ Overall power consumption: <5W

◆ Operating ambient temperature: 20℃~55℃

◆ Relative humidity: 20%~85% (non–condensing)

◆ Storage temperature: –25℃~75℃

◆ Capacity of output protection relay: 10A/220VAC

◆ Capacity of bypass–valve protection relay: 10A/220VAC

◆ Display: three digit nixie tube and failure status indicator

◆ Module size: 77 * 100 * 23.5 mm

◆ Mounting size: 66.5 * 88.9 mm, the diameter of mounting hole: 3.2 mm

Pressure Transmitter

The product is widely used in various refrigerating units.

Features

◆ Germany ceramic chip: special ceramic material, solid ceramic sensitive diaphragm, with strong output signals and long term stability;

◆ Pressure chips specialized for refrigeration systems; anti-corrosion, shock resistance, good performance of strong anti-corrosion to refrigerant; they are completely meet the vibration and shock requirements of refrigerating units, more stable and reliable performance;

◆ Interior sealing compound technology, high level of protection, full consideration of application environment of refrigerating systems; interior sealing treatment can effectively avoid ship and circuit failure caused by condensation by inner negative pressure;

◆ Anti-interference design ensures stabler output signals; it has passed anti-interference tests, such as electromagnetic radiation, electromagnetic radiation sensitivity, electrostatic discharge, etc. so it can run stably and reliably under harsh electromagnetic conditions, thus avoiding distortion or loss of measured information caused by interference signals generated by refrigerating unit motor;

◆ Auto tuning and digital compensation technology helps effectively restrain errors caused by temperature drift, so the product is highly accurate and stable.

Technical parameters

◆ Power supply: 24(8~36)VDC;

◆ Pressure span:

PA-1000-FS3-A-X1: -1~16 bar;

PA-1001-FS3-A-X1: -1~40 bar 1MPa=10bar;

◆ Overload pressure: 1.5 times rated pressure (1.5X);

◆ Breakdown pressure: 3 times rated pressure (3X);

◆ Accuracy: ±0.5% F.S(10~30℃); Max: ±1% F.S(0~65℃);

◆ Operating temperature: -40℃~80℃;

◆ Compatible medium: all the corrosive medium that is compatible with 1Cr18Ni9Ti and ceramics;

◆ Output signal: 4~20mA;

◆ Vibration/shock: 10g/5~2000Hz, axes X/Y/Z20g sine 11ms;

◆ Electromagnetic compatibility:

electromagnetic radiation: EN50081-1/-2;

electromagnetic sensitivity: EN50082-2.

Type	Span	Accuracy	Voltage range
PA–1000–FS3–X1	–1 ~ 16 bar		
PA-1001–FS3–X1	–1 ~ 40 bar		
PA–1002–FS3–X1	–0.5 ~ 11bar		
PA-1003–FS3–X1	–0.5 ~ 11bar	1%	8 ~ 36VDC
PA–1004–FS3–X1	0 ~ 30bar		
PA–1005–FS3–X1	0 ~ 30bar		
PA–1006–FS3–X1	–0.5 ~ 7bar		

Industrial Refrigeration Series

MC–90   MC–80
Controllers for lange and Medium Water Chilers

The controller is widely used to control the temperature and humidity of water chillers in industrial refrigeration. It is equipped with functions of compressor control, fan control, crankshaft heating, relay alarm, conductivity detection and flow detection. It controls two kinds of temperature through high and low temperature heating rods. Besides five–channel switch fault signal input, it also has all–around system protection functions, five–channel current detection and overload protection, phase sequence protection, phase loss protection, etc.

The temperature controller is used to control the temperature of water chillers or oil chillers in industrial refrigeration. It is equipped with functions of auto temperature control, compressor delay protection, parameter setting and memory, one key reset to default, self–diagnosis in case of over temperature and sensor fault, and one–channel compressor overload protection and one–channel digital input alarm. The auto temperature control function enables the controller to control compressor per the set–point of control temperature and differential. The compressor delay protection function can prevent compressor from frequent start–up. Fault code appears in display window and alarm occurs in case of fault.

Features

◆ LCD screen, language switch between Chinese and English
◆ Four–channel temperature measuring sensor input; Max temperature up to 140℃
◆ Six–channel switch input; normally open and close modes can be set.
◆ Electromagnetic flowmeter input; instantaneous flow rate can be displayed.
◆ Real–time conductivity can be displayed.
◆ Five–channel current detection, three–phase sequence detection, current measurement and display, overload protection.
◆ Dual–temperature and double pump mode and mono–temperature and single pump mode can be selected.
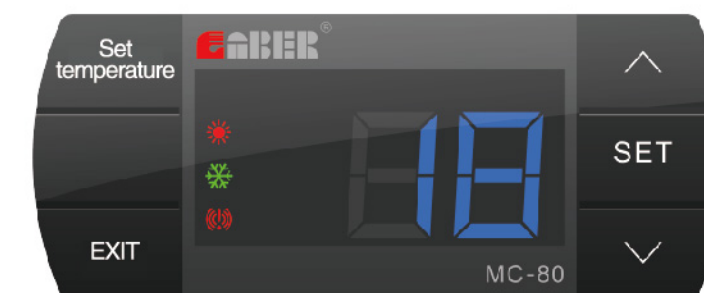◆ Main board is separated from operation panel. A 5m wire is used to connect display panel and control board.

Technical parameters

◆ Power supply: 230VAC ± 10%, 50/60Hz (internal transformer)
◆ Temperature measuring range: –20℃~80℃
◆ Temperature control range: –20℃~80℃
◆ Resolution: 0.1℃
◆ Temperature accuracy: 1℃
◆ Up to 11–channel relay output, 6–channel contact output, capacity: 10A/220VAC
◆ Operating temperature: –20℃~80℃
◆ Relative humidity: 20%~85%RH (non–condensing)
◆ Storage temperature: –20℃~80℃
◆ Storage humidity: 20%~85%RH (non–condensing)
◆ Display: LCD
◆ Sensor: 3 NTC, 2m
◆ Compressor discharge temperature sensor: 1; length: 1m; –20℃~140℃; resolution: 1℃
◆ Alarm port: 3 (signal channel)

Specifications

◆ Product size: 85 * 35 * 63.8 mm
◆ Mounting size: 71* 29 mm

Technical parameters

◆ Temperature control range: 5℃~55℃
◆ Resolution: 1℃
◆ Temperature measuring range: –20℃~80℃
◆ Temperature accuracy: ± 1℃
◆ Sensor: 1 NTC, 2m
◆ Alarm port: 1 for compressor alarm, 1 for signal channel
◆ Overall consumption: ≤1.5W
◆ Display: blue nixie tubes
◆ Relay contact capacity: compressor: 8A/250VAC, alarm: 8A/250VAC

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MC-10   MC-20   MC-60

Controllers for Small and Medium-sized Water Chilling Units

Machine Tool Environment Controller Oil Cooler Controller

Features

◆ Regulate real-time cooling capacity by controlling refrigerant solenoid valve, so as to control water temperature accurately.
◆ Accuracy of temperature set-point and differential can reach 0.1℃ so as to guarantee the stability and precision of cooling systems.
◆ Intelligent operating mode: auto regulation of water temperature set-point based on the change of ambient temperature.
◆ Self-diagnosis of over temperature limit and sensor fault.

Technical parameters

◆ Power supply: 24VDC -20 /+10%
◆ Rated power: <3W
◆ Relay output: compressor relay: 16A, solenoid valve relay: 10A
◆ Input: 2 NTC; resistance: 10 KΩ at 25℃
◆ 4 buttons (up, down, SET, RST)
◆ Temperature display: three digit nixie tube (resolution: 0.1℃)
◆ Buzzer alarm; two status indicators

MC-10

Features

◆ Applied to multiple operating conditions: refrigerating at full power/partial power, compressor off and heating control.
◆ Constant temperature control and intelligent control is optional.
◆ High precision control: temperature fluctuation of cold water can be controlled within 0.2℃.
◆ System inertial parameter can be selected per different operating conditions to reach the optimal design of the system.
◆ Self-diagnosis of over temperature limit and sensor fault.
◆ 1 channel digital alarm input can be customized.
◆ Double nixie tube display: temperature set-point and real-time temperature is clear and visual.
◆ Pre-configured groups of parameter items: no need to adjust menu or remember parameters.

MC-20

Technical parameters

◆ Temperature control range: -45℃~99.9℃   ◆ Display resolution: 0.1℃
◆ Temperature accuracy: ±1℃(-30℃~50℃); ±2℃(others)   ◆ Sensor: NTC (10KΩ/25℃, B value 3435K)
◆ Environment: Temperature: 0℃ ~ 60℃; Humidity: 20%~85% (non-condensing)
◆ Power supply: 220VAC /110V ±10%, 50/60Hz   ◆ Power consumption: <3W
◆ Relay output capacity: compressor: 16A/220VAC, solenoid valve: 10A/220VAC, electric heating rod: 16A/220VAC, alarm: 3A/220VAC (with normally close point)
◆ Panel size: 92 * 44 mm

The temperature and humidity controller is used to control the temperature and humidity of water chillers or oil chillers in industrial refrigeration. It is equipped with functions of auto temperature control, ambient temperature control, compressor delay protection, parameter setting and memory, one key reset to default, self-diagnosis in case of over temperature and sensor fault and three-channel user-defined digital input alarm. Ambient temperature control function allows the controller to control the compressor based on current ambient temperature.

Features

◆ Auto temperature control
  The controller controls the compressor based on the set-point of temperature, humidity and differential.
◆ Compressor delay protection
  To prevent the compressor from frequent start-up, delay time must elapse first before it starts.
◆ Parameter setting and memory
  Various parameters, such as delay time and control temperature, can be modified and memorized permanently.
◆ Fault self-diagnosis
  Fault code will appear in the display window in case of over temperature or sensor fault.

Technical parameters

◆ Power supply: 230VAC ± 10%, 50/60Hz (internal transformer)
◆ Temperature measuring range: -20℃~80℃
◆ Temperature control range: -20℃~80℃
◆ Resolution: 0.1℃
◆ Temperature accuracy: 1℃
◆ Relay contact capacity: compressor: 7A/250VAC, reversing valve: 5A/250VAC, alarm: 5A/250VAC
◆ Operating temperature: -20℃~80℃
◆ Relative humidity: 20%~90%RH (non-condensing)
◆ Storage temperature: -20℃~80℃
◆ Storage humidity: 20%~90%RH (non-condensing)
◆ Display: blue nixie tubes
◆ Sensor: 1 NTC, 2m; 1 humidity sensor (optional)
◆ Alarm port: 3 (signal channel)

μ PLC Controller

EMC−200Series

μ PLC is a controller for compressor racks and applicable to multiple piston, scroll and screw compressors.

Features

◆ Support 2 to 4 parallel piston compressors and 1 to 3 parallel screw compressors.

◆ Compressor dead−zone control and management by suction pressure.

◆ To reduce compressor wear, balanced running hour mode is selectable.

◆ Real−time detection of compressors' various alarm signals to avoid compressor failure and lengthen its life.

◆ Multiple cooling modes to meet different needs: water cooling, air cooling, evaporation cooling.

◆ RS485 remote communication interface is reserved in all the products of this series.

Electric Control Box

ECB−3010/3021/3030

Application

Small and medium−sized refrigerated storage and freezing storage

Product size

Product size: 250 * 350 * 150 mm

Features

◆ The product adopts CP−6000 current protector with inverse time limit protection.

◆ Meaning: Inverse time over−current protection means protection time shortens automatically with increase of overload current. Inverse time limit protection can really ensure the safety of refrigerating units.
Feature: The larger overload current of compressor, the shorter protection time.
Value: When compressor is running, it can adjust protection time automatically based on overcurrent to realize real overcurrent protection.

◆ Phase loss protection, phase order protection and three−phase imbalance protection
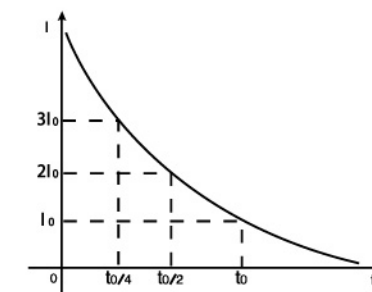
◆ It adopts EK series temperature controller with six touch buttons, no menu operation saves fussy parameter settings for end users.

◆ ECB−3010: only refrigeration
ECB−3021: refrigeration/defrost
ECB−3030: refrigeration/defrost/fan

ECB-5060S ECB-5080S ECB-5060

ECB-5060S

Application

Medium and low temperature cold storage and quick-cooling storage in freezing and refrigerating industry.

Specifications

Product size: 300 * 400 * 150 mm

Features

◆ Adopts temperature controller MTC-5060C; double temperature sensors, individual control of compressor and defroster.
◆ Compressor start delay adjustable
◆ Independent R & D motor protector   ◆ Current display
◆ Compressor on/off in proportional mode in case of sensor fault
◆ Manual/auto rotary switch
◆ Easy operation, stable performance

ECB-5080S

Application

Medium and low temperature cold storage and quick-cooling storage in freezing and refrigerating industry.

Specifications

Product size: 300 * 420 * 150 mm

Features

◆ Adopts temperature controller MTC-5080C; double temperature sensors, individual control of compressor, defroster and fan.
◆ Compressor start delay adjustable.
◆ Independent R & D motor protector.   ◆ Current display.
◆ Compressor on/off in proportional mode in case of sensor fault.
◆ Manual/auto rotary switch.   ◆ Easy operation, stable performance .

ECB-5060

Application

Medium and low temperature cold storage and quick-cooling storage in freezing and refrigerating industry.

Specifications

Product size: 300 * 400 * 150 mm

Features

Optimal design specially for refrigerating units. Great human-computer interface; easy to operate; intelligent and simple to use. Double screens to display current cold storage temperature and temperature set-point. With stable and reliable property and high cost performance.

ECB-200@/ECB-Y1B1@/ECB-BZR

Electric Control Box for Medical and Food Storage

Features

◆ The ECB is designed with brand new Internet plus concept. You can monitor cold storage easily from cloud and master cold storage running conditions anywhere and anytime
◆ The ECB has the functions of history data query, statistics, analysis and positioning, etc. You may enjoy cloud platform service for free and realize modernized management of cold storage.
◆ SMS alarm, APP alarm from intelligent terminal and phone call alarm can guarantee the safety of medical and food storage.
◆ ECB-Y1B1@ is specially designed for medical storage with one-running-one-standby function. It conforms to GSP certification.

BITZER Dedicated Electric Control Box

ECB-BZR

Features

◆ Specially designed based on BITZER unit features
◆ With 7 fault detection and protection functions; ensure units to run safely and reliably
◆ Can record fault types and running time; convenient for after-sales maintenance and fault diagnosis
◆ No need to use menu for general settings
◆ Double screen, big display panel, artistic appearance

![Elitech® logo]

Coldwatch Remate Alarm Monitor

RCW-400A

RCW-400A is a two-channel temperature and humidity data logger with a wide temperature range and high precision. Segment LCD screen can display the system clock, current running status, record capacity and record data. It has functions of buzzer and relay alarm. It can transmit data wirelessly by 3G to our cold chain cloud platform, and users can check real-time temperature/humidity data through internet terminals and receive SMS (short message service) alarms by GSM. Users can view, manage and monitor data online remotely by browser or smart phone APP.

The standard accessories include one temperature-humidity combined sensor, which can be doubled into two channels of temperature and humidity sensors. The monitor Coldwatch has a built-in rechargeable lithium battery which enables continuous real-time data uploading and SMS alarms even in case of power outage.

The monitor could be widely used in foodstuff, medicine, restaurant, transportation and other industries in accordance with HACCP system certification.
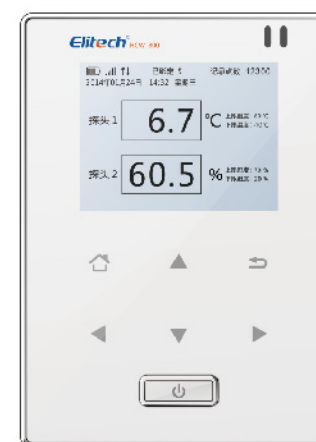
Features

◆Completely comply with the latest GSP standard.
◆Users can know the temperature and humidity in the cold storage in real time via mobile phone and PC.
◆SMS and APP alarm in case of over temperature/humidity limit.
◆All the data is saved in the cloud platform, convenient to trace, query and analyze.
◆Monitor cold storage running status.
◆Keep working for at least 6 hours after power off.
◆Two alarm output: buzzer alarm and relay alarm
◆Monitor and record temperature and humidity data
◆Record cycle could be flexibly adjusted.
◆The monitor can record 20000 points of data. The points recorded in the server are not limited.
◆The monitor can communicate with the cloud platform, which allows remote monitoring, uploading, printing and managing data.

RCW-800A

RCW-800A cold chain safety monitor is a high-tech product based on networking of things technology. It completely changes the traditional management style of manual record. It effectively solves the problems of cold storage temperature and humidity abnormity caused by human monitoring error, thus avoiding economic loss and hidden danger.

The monitor is equipped with various functions, such as temperature and humidity query, abnormal temperature and humidity alarm, power failure reminder, timing push, temperature and humidity data uploading through network, etc. Users can know the temperature, humidity and power supply in the cold storage anywhere at any time via mobile phone. In case of abnormal status in cold storage, the monitor will notice users by SMS or phone call. It completely complies with HACCP system certification and can be widely used in industries of pharmaceuticals, foodstuffs, logistics, etc.

Features

◆Completely comply with the latest GSP standard.
◆Adopt high sensitivity probe with quick response.
◆Keep working for at least 2 hours after power supply is disconnected.
◆Temperature and humidity alarm range can be set. Over-range alarm via LED blinking, buzzer beeping, etc.
◆Uploading interval can be set. Data records can be controlled by users.
◆The monitor can record 20000 points of data. The points recorded in the server are not limited.
◆3G network, real-time data uploaded to cloud platform.
◆Data can be exported flexibly in multiple formats via cloud platform.

Technical parameters

◆ Temperature measuring range: -40℃~70℃
◆ Temperature accuracy: ±1℃(-25℃~0℃); ±0.5℃(0℃~40℃); ±2℃(others); Standard length of sensor wire: 5m.
  If sensor wire is longer than 50m, accuracy deviates 1%.
◆ Humidity measuring range: 10~90%RH
◆ Humidity accuracy: ±5%RH , Length of sensor and wire: 5m (standard)
◆ Resolution: 0.1
◆ Data transmission: temperature and humidity data is transmitted to server via 3G network
◆ Record capacity: 20,000 points
◆ Communication interface: 3G (WCDMA)
◆ Screen: 2.4 inch color LCD screen; resolution: 320x240
◆ Alarm: SMS, phone call, LED, buzzer
◆ Dimension: 110 *78*27 mm
◆ Ambient temperature: -10℃~45℃
◆ Frequency band: supports 3G (WCDMA), language switch between Chinese/English

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RCW–600A

RCW–600A cold chain safety monitor is a high–tech product based on networking of things technology. It completely changes the traditional management style of manual record. It effectively solves the problems of cold storage temperature and humidity abnormity caused by human monitoring error, thus avoiding economic loss and hidden danger.

The monitor is equipped with various functions, such as temperature and humidity query, abnormal temperature and humidity alarm, power failure reminder, timing push, temperature and humidity data uploading through network, etc. Users can know the temperature, humidity and power supply in the cold storage anywhere at any time via mobile phone. In case of abnormal status in cold storage, the monitor will notice users by SMS or phone call. It completely complies with HACCP system certification and can be widely used in industries of pharmaceuticals, foodstuffs, logistics, etc.

Features

◆ Adopt high sensitivity probe with quick response.
◆ Keep working for at least 2 hours after power supply is disconnected.
◆ Temperature and humidity alarm range can be set. Over–range alarm via LED blinking, buzzer beeping, etc.
◆ Uploading interval can be set. Data records can be controlled by users.
◆ The monitor can record 20000 points of data. The points recorded in the server are not limited.
◆ 3G network access, real–time data uploaded to cloud platform.
◆ Data can be exported flexibly in multiple formats via cloud platform.

Technical parameters

◆ Temperature measuring range: –40℃~70℃
◆ Temperature accuracy: ±1℃(–25℃~0℃); ±0.5℃(0℃~40℃); ±2℃(others); Standard length of sensor wire: 5m.
◆ Humidity measuring range: 10~90%RH
◆ Humidity accuracy: ±5%RH   ◆ Resolution: 0.1
◆ Temperature sensor: Shibaura NTC thermistor, model: PX3–42H–1%, R(25℃)=10KΩ±1%, B(25/85)=3435K±1%; Humidity sensor: HIH5030, standard length of sensor wire: 5m
◆ Data transmission: temperature and humidity data is transmitted to server via 3G network
◆ Record capacity: 20,000 points   ◆ Communication interface: mini USB
◆ Screen: 2.4 inch color LCD screen; resolution: 320x240   ◆ Alarm: SMS, phone call, LED, buzzer
◆ Dimension: 110 *78*27 mm   ◆ Ambient temperature: –10℃~45℃
◆ Frequency band: supports 3G (WCDMA), language switch between Chinese/English

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RCW–800WIFI

Coldwatch safety monitor of temperature & humidity RCW–800WiFi is a high–tech product based on networking technology. It is widely used in foodstuffs, catering, logistics and industries that require HACCP system certification. It can transmit data by WiFi to our cold–chain cloud platform. Users can view, manage and monitor data online remotely by browser or smart phone APP. It also has functions of alarm reminder via the platform and buzzer.

The monitor has one temperature–humidity combined sensor. With a built–in rechargeable lithium battery, it can provide real–time data uploading and platform alarm service even in case of cold storage power outage.

Features

◆ Completely comply with the latest GSP standard.
◆ Adopt high sensitivity probe with quick response.
◆ Keep working for at least 6 hours after power supply is disconnected.
◆ Temperature and humidity alarm range can be set. Over–range alarm via LED blinking, buzzer beeping, etc.
◆ Set uploading interval and control data records freely.
◆ Record 20000 points of data, with no data storage limit in server.
◆ Connect WiFi access point, collect data and upload real–time data to the cloud platform.
◆ Export data flexibly in multiple formats from the cloud platform.

Technical parameters

◆ Power supply: 5V/1A (DC); It can connect with 220V, 50/60Hz power supply by external power adapter.
◆ Application environment: –10℃~45℃
◆ Temperature measuring range: –40℃~70℃
◆ Temperature accuracy: ± 0.5℃(–20℃~40℃); ± 1℃(others)
◆ Humidity measuring range: 10~90%RH
◆ Humidity accuracy: ±5%RH
◆ Temperature sensor: NTC, humidity sensor: Honeywell
◆ Temperature resolution: 0.1℃, humidity resolution: 0.1%RH
◆ Record cycle: 1 min to 24 hr. continuously settable
◆ Record capacity: 20000 points
◆ Communication interface: WiFi
◆ Battery: 3.7V 1100mAH lithium battery, working for 6 hr. after power failure

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Data Logger Series

RCW-10B

DR-210A Temperature and Humidity Data Logger

This is a GPRS remote temperature monitor for cooler boxes in cold chain logistics. It is equipped with functions of temperature detection and alarm, online remote query and storage of real-time temperature data, etc. It can monitor the storage temperature of thermal sensitive objects and indicate the temperature in the cooler box remotely in time.

Application

Food, medicine, cold chain logistics

Technical parameters

◆Temperature measuring range: −40℃~70℃

◆Temperature accuracy: ±0.5℃(0℃~40℃); ±1℃(others)

◆Humidity measuring range: 10~90%RH, MAX error of relative humidity: ±5%RH

◆Display resolution: temperature: 0.1, humidity: 0.1%

◆Temperature sensor: NTC thermistor; Humidity sensor: HIH5030

◆Data export: via USB, format: txt. It takes no more than 5 min to export all the data.

◆Record capacity: 10000 points

◆Communication interface: GPRS

◆Alarm: SMS, LED (red), buzzer

◆Data transmission: temperature and humidity data is transmitted to cloud platform via GPRS

◆Screen: 2.4 inch color TFT screen

◆Basttery: rechargeable 3.7V/10000mAh lithium battery

◆Battery duration: 72h in full power

◆Ambient temperature: −10℃~45℃

Application

Medicine, food, modern agriculture, flowers and plants, breeding industry, chemical industry, refrigerated trucks, containers, cool cabinets, medical cabinets, fresh food cabinets, freezer cabinets, incubators, laboratories, cold storage.

Features

◆Multiple data interfaces, convenient to upload or print data.

◆Built-in mini stylus printer supports to print online sheet, historical sheet and daily sheet.

◆LAN can be built via RS485 to monitor multiple points simultaneously.

◆Support USB power supply; read, save and print data via data management software.

◆Buzzer alarm and relay alarm.

◆Rechargeable standby battery supplies power for no less than 10 days in case of external power outage.

Technical parameters

◆Temperature measuring range: −50℃~120℃

◆Temperature accuracy: ±0.5℃/0.9℉(−20℃~40℃); ±1℃/1.8℉(other)

◆Humidity measuring range: 0%~95%

◆Humidity accuracy: ±5%RH

◆Resolution: 0.1℃ (temperature), 0.1%RH (humidity)

◆Record interval: 10 sec ~ 24 hr.

◆Memory capacity: 13000 points (MAX)

◆Display: multi-function LCD

◆Operating mode: four buttons

◆Alarm: enabled, via LCD, indicator, buzzer and relay

◆Sensor: external

◆Data interface: USB, RS485

◆Data management software: supports WIN XP/7 and exports reports in PDF and Excel format

◆Power supply: 12VAC/DC~24VAC/DC

◆Size: 144 (L) * 144 (W) * 83 (H) mm

◆Weight: 630g

RC-12　RC-55

Application

Medicine, food, cooler boxes, cooler bags, containers, laboratories, greenhouses, blood bags, vaccine, fresh food.

Features

◆High protection grade　　◆Compact in size　　◆Double LEDs

Technical parameters

◆Temperature measuring range: −30℃~70℃(−22℉~158℉)
◆Temperature accuracy: ±0.5℃/0.9℉(−20℃~40℃)，
　　　　　±1℃/1.8℉(other)
◆Resolution: 0.1℃　　　　　◆Record interval: 1~10 min
◆Memory capacity: 16000 points (MAX)　　　◆Display: indicator
◆Operating mode: single button　　◆Alarm: enabled, via indicator
◆Sensor: internal　　　　　◆Data interface: USB2.0
◆Data management software: supports WIN XP/7/8/10 and exports reports in PDF and Excel format
◆Power supply: 3.0V lithium battery CR2032
◆Protection grade: IP67
◆Size: 80 (L) * 48 (W) * 5.8 (H) mm　　　◆Weight: 10g

RC-12
Single-use USB temperature
data logger

Application

Medicine, food, life science, flowers and plants, cooler boxes, refrigerated trucks, cooler bags, containers, fresh food lockers, incubators, blood bags, vaccine.

Features

◆Automatic generation of data report in AI format
◆Food grade colloidal injection molding technology, high protection grade
◆Double LED indicators
◆Super-long battery life

Technical parameters

◆Temperature measuring range: −30℃~70℃(−22℉~158℉)
◆Temperature accuracy: ±0.5℃/0.9℉(−20℃~40℃); ±1℃/1.8℉(other)
◆Resolution: 0.1℃　　　　　◆Record interval: 10 sec ~ 12 hr.
◆Memory capacity: 32000 points (MAX)　　◆Display: indicators
◆Operating mode: single button　　◆Alarm: enabled, via indicators
◆Sensor: internal　　　　　◆Data interface: USB 2.0
◆Auto generation of AI report: supports WIN XP/7/8/10 and MAC
◆Data management software: no　　◆Power supply: 3.6V lithium battery (2 year)
◆Protection grade: IP67　　　◆Size: 59 (L) * 30 (W) * 14 (H) mm
◆Weight: 16g

RC-55
Single-use AI temperature
data logger

RC-61　TI-10

Application

Medicine, food, life science, modern agriculture, flowers and plants, breeding industry, containers, cool cabinets, medicine cabinets, fresh food cabinets, freezer cabinets, incubators, laboratories, cold storage, greenhouses.
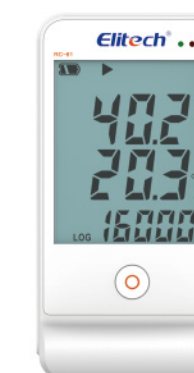
Features

◆Conform to new GSP standard .
◆Big multi-function LCD, super-long battery life, sound-light alarm.
◆External temperature and humidity probe.
◆Embedded magnet, directly attracted on metal materials.

Technical parameters

◆Temperature measuring range: −40℃~85℃(−40℉~185℉)
◆Temperature accuracy: ±0.5℃/0.9℉(−20℃~40℃); ±1℃/1.8℉(other)
◆Humidity measuring range: 10%~99%
◆Humidity accuracy: ±3%RH (25℃, 20%~90%RH), ±5%RH (other)
◆Resolution: 0.1℃ (temperature), 0.1%RH (humidity)
◆Record interval: 10 sec ~ 24 hr.　　◆Memory capacity: 16000 points (MAX)
◆Display: multi-function LCD and indicator　　◆Operating mode: single button
◆Alarm: enabled, via LCD, indicator and buzzer　　◆Sensor: external
◆Data interface: USB
◆Data management software: supports WIN XP/7/8/10 and exports reports in PDF and Excel format
◆Power supply: 3.6V lithium battery, replaceable　　◆Size: 118 (L) * 61.5 (W) * 19 (H) mm
◆Weight: 100g

RC-61
GSP Temperature and
Humidity Data Logger

Application

Medicine, food, flowers and plants, cooler boxes, refrigerated trucks, cooler bags, containers, fresh food lockers, incubators, laboratories,blood bags, vaccine, fresh food.

Features

◆Protection grade: IP68.
◆LED alarm indication, no need to unpack, convenient to view.
◆180 days service cycle.　　　　　◆Single button for start, easy to use.
◆Multiple temperature ranges optional, higher cost performance compared with chemical indicators.

Technical parameters

◆Temperature measuring range: −10℃~30℃　　◆Temperature accuracy: ±0.5℃(1℃~8℃); ±1℃(other)
◆Record interval: 1 min　　　◆Display: indicator
◆Operating mode: single button　　◆Alarm: enabled, via indicator
◆Sensor: internal　　　　　◆Data management software: no
◆Power supply: 3.0V lithium battery CR2032　　◆Protection grade: IP68
◆Size: 79 (L) * 40 (W) * 4 (H) mm　　◆Weight: 10g

TI-10
Temperature Indicator

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RC–51

RC–51H

Application

Medicine, food, life science, flowers and plants, breeding industry, cooler boxes, cooler bags, containers, cool cabinets, medical cabinets, fresh food cabinets, freezer cabinets, laboratories, greenhouses, vaccine, fresh food.

Features

◆Automatic generation of data report in AI format .
◆LCD and LED alarm indication and statistical information view.
◆Special technology to realize quick response to measured temperature.
◆High protection grade, longer battery life.

Technical parameters

◆Temperature measuring range: −30℃~70℃(−22℉~158℉)
◆Temperature accuracy: ±0.5℃/0.9℉(−20℃~40℃); ±1℃/1.8℉(other)
◆Resolution: 0.1℃
◆Record interval: 10 sec ~ 12 hr.
◆Memory capacity: 32000 points (MAX)
◆Display: multi–function LCD and indicator
◆Operating mode: single button
◆Alarm: enabled, via LCD and indicator
◆Sensor: internal
◆Data interface: USB 2.0
◆Auto generation of AI report: supports WIN XP/7/8/10 and MAC
◆Data management software: supports WIN XP/7/8/10 and exports reports in AI and Excel format
◆Power supply: 3.6V lithium battery (2 years), replaceable
◆Protection grade: IP67
◆Size: 131 (L) * 24 (D) mm
◆Weight: 60g

RC–51
Reusable AI Temperature
Data Logger

RC–51H
Reusable AI Temperature
Data Logger

Application

Medicine, food, life science, flowers and plants, breeding industry, cooler boxes, containers, cool cabinets, medical cabinets, fresh food cabinets, laboratories, greenhouses.

Features

◆Automatic generation of data report in AI format
◆LCD and LED alarm indication and statistical information view
◆Bi–color LED button, integrated design
◆Super–long battery life

Features

◆Temperature measuring range: −30℃~70℃(−22℉~158℉)
◆Temperature accuracy: ±0.5℃/0.9℉(−20℃~40℃); ±1℃/1.8℉(other)
◆Humidity measuring range: 10%~95%
◆Humidity accuracy: ±3%RH (25℃, 20%~90%RH), ±5%RH (other)
◆Resolution: 0.1℃ (temperature), 0.1%RH (humidity)
◆Record interval: 10 sec ~ 12 hr.
◆Memory capacity: 32000 points (MAX)
◆Display: multi–function LCD and indicator
◆Operating mode: single button
◆Alarm: enabled, via LCD and indicator
◆Sensor: internal
◆Data interface: USB 2.0
◆Auto generation of AI report: WIN XP/7/8/10 and MAC
◆Data management software: supports WIN XP/7/8/10 and exports reports in AI and Excel format
◆Power supply: 3.6V lithium battery (2 years), replaceable
◆Size: 131 (L) * 24 (D) mm
◆Weight: 60g

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ETAG–1 Single–use NFC Data Logger
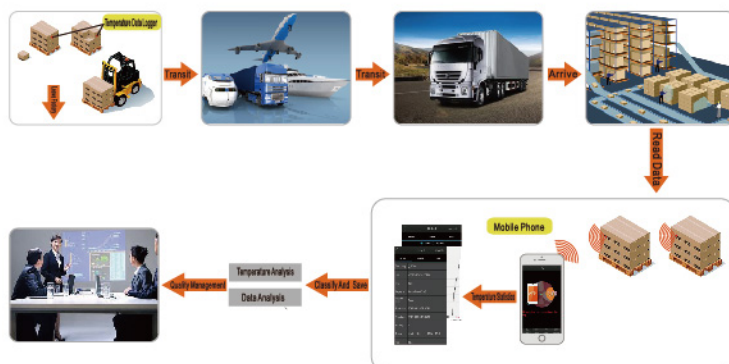
RC–5 USB temperature data logger

Application

Medicine, food, life science, modern agriculture, flowers and plants, breeding industry, chemical industry, cooler boxes, refrigerated trucks, cooler bags, containers, cool cabinets, medical cabinets, fresh food cabinets, freezer cabinets, fresh food lockers, incubators, laboratories, cold storage, greenhouses, blood bags, vaccine, fresh food.

Features

◆Near field reading of data via mobile phone, no need to unpack
◆Export data report in PDF or Excel format from mobile phone
◆Share data report via email, WeChat, QQ, etc.
◆Upload data to cloud platform
◆Read data via NFC mobile phone in case indicator is power off

Technical parameters

◆Temperature measuring range: –25℃~60℃
◆Temperature accuracy: ±0.5℃
◆Resolution: 0.1℃
◆Record interval: 1~240 min
◆Memory capacity: 4000 points (MAX)
◆Display: indicator
◆Operating mode: single button
◆Sensor: internal
◆Data interface: Near Field Communication (NFC)
◆Data management software: supports Android 4.0 and above, export PDF and Excel report via cloud platform and exports reports in PDF and Excel format
◆Power supply: 3.0V lithium battery CR2032
◆Protection grade: IP67
◆Size: 70 (L) * 50 (W) * 2.4 (H) mm
◆Weight: 10g

Application

Medicine, food, life science, flowers and plants, breeding industry, cooler boxes, cooler bags, containers, cool cabinets, medical cabinets, fresh food cabinets, freezer cabinets, laboratories, greenhouses, vaccine, fresh food.

Features

◆Conform to GSP standard
◆Multi–function LCD, LCD alarm indication
◆Support USB power supply; read, save and print data via data man agement software
◆Large memory capacity, high protection grade, compact size, double buttons
◆Three ways to mount: by magnet, screws and adhesive Velcro, optional supporting bracket

Technical parameters

◆Temperature measuring range: –30℃~70℃ (–22℉~158℉)
◆Temperature accuracy: ±0.5℃/0.9℉(–20℃~40℃), ±1℃/1.8℉(other)
◆Resolution: 0.1℃
◆Record interval: 10 sec~24 hr.
◆Memory capacity: 32000 points (MAX)
◆Display: multi–function LCD
◆Operating mode: double buttons
◆Alarm: enabled, via LCD
◆Sensor: internal
◆Data interface: USB
◆Data management software: supports WIN XP/7/8/10 and MAC, exports reports in PDF and Excel format
◆Power supply: 3.0V lithium battery CR2032, replaceable
◆Protection grade: IP67
◆Size: 79 (L) * 33.5 (W) * 14 (H) mm
◆Weight: 20g

Bracket

RC–4 Mini Temperature Data Logger

Application

Medicine, food, life science, modern agriculture, flowers and plants, breeding industry, containers, cool cabinets, medical cabinets, incubators, laboratories, cold storage, greenhouses.

Features

◆ Conform to GSP standard

◆ Multi–function LCD, LCD alarm indication, buzzer alarm

◆ Internal temperature sensor, optional external sensor

◆ Support USB power supply; read, save and print data via data management software

◆ Three ways to mount: by magnet, screws and adhesive Velcro, optional supporting bracket

Technical parameters

◆ Temperature measuring range: –30℃~60℃(internal sensor),
    –40℃~85℃(optional external sensor)

◆ Temperature accuracy: ±0.5℃/0.9℉(–20℃~40℃),
                                      ±1℃/1.8℉(other)

◆ Resolution: 0.1℃

◆ Record interval: 10 sec~24 hr.

◆ Memory capacity: 16000 points (MAX)

◆ Display: multi–function LCD

◆ Operating mode: single button

◆ Alarm: enabled, via LCD and buzzer

◆ Sensor: internal, optional external sensor

◆ Data interface: USB

◆ Data management software: supports WIN XP/7/8/10 and MAC, exports reports in PDF and Excel format

◆ Power supply: 3.0V lithium battery CR2450, replaceable

◆ Size: 84 (L) * 44 (W) * 20 (H) mm

◆ Weight: 35g

Bracket   External temperature sensor

RC–4HC Mini Temperature and Humidity Data Logger

Application

Medicine, food, life science, modern agriculture, flowers and plants, breeding industry, containers, cool cabinets, medical cabinets, fresh food cabinets, incubators, laboratories, cold storage, greenhouses.

Features

◆ Conform to GSP standard

◆ Multi–function LCD, LCD alarm indication, buzzer alarm

◆ Internal temperature and humidity sensor, optional external sensor

◆ Support USB power supply; read, save and print data via data management software

◆ Three ways to mount: by magnet, screws and adhesive Velcro, optional supporting bracket

Technical parameters

◆ Temperature measuring range: –30℃~60℃(internal sensor),
    –40℃~85℃(optional external sensor)

◆ Temperature accuracy: ±0.5℃/0.9℉(–20℃~40℃), ±1℃/1.8℉(other)

◆ Humidity measuring range: 0%~99%

◆ Humidity accuracy: ±3%RH (25℃, 20%~90%RH), ±5%RH (other)

◆ Resolution: 0.1℃(temperature), 0.1%RH (humidity)

◆ Record interval: 10 sec~24 hr.

◆ Memory capacity: 16000 points MAX

◆ Display: multi–function LCD

◆ Operating mode: single button

◆ Alarm: enabled, via LCD and buzzer

◆ Sensor: internal temperature and humidity, optional external sensor

◆ Data interface: USB

◆ Data management software: supports WIN XP/7/8/10 and MAC, exports reports in PDF and Excel format

◆ Power supply: 3.0V lithium battery CR2450, replaceable

◆ Size: 84 (L) * 44 (W) * 20 (H) mm

◆ Weight: 35g

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Halogen Leak Detector Series

CPU–C

HLD–200+

This detector is a practical halogen detection device with higher cost performance. With micro–processing signal and digital processing capacity, it can manage electrical system and probe signal better and catch subtle change of signals.

Features

◆ Detect all the refrigerants containing halogen
◆ Single–color LED display of leak
◆ 7–level sensitivity regulation in cycle and real time
◆ Low–voltage and undervoltage alarm
◆ Button–style switch is easy to operate.
◆ Auto calibration after start: the detector automatically detects the current refrigerant concentration and takes it as zero point.

Technical parameters

◆ Ultimate sensibility: 3g/yr
◆ Response time: instant
◆ Reset time: 2s
◆ Warm–up time: about 6s
◆ Power supply: 2 "C" batteries (3VDC)
◆ Operating temperature: 0℃~52℃;
◆ Detection mode: continuous, unlimited
◆ Battery life: about 20h in normal use

Specifications

◆ Overall size: 229*65*65 mm
◆ Probing rod length: 36.5 cm

The detector is new and intelligent with high performance. With novel housing and artistic appearance, it is easy to carry, operate and maintain.

Features

◆ Equipped with snap–in protecting case: easy to carry.
◆ Visual display: single LEDs light gradually.
◆ Display leak in wide range.
◆ Detect all the refrigerants containing halogen.
◆ Three–color LED display of leak.
◆ 7–level sensitivity regulation in cycle and real time.
◆ Low–voltage and undervoltage alarm.
◆ Button–style switch is easy to operate.
◆ Auto calibration after start: the detector automatically detects the current refrigerant concentration and takes it as zero point.

Technical parameters

◆ Ultimate sensibility: 3g/yr
◆ Response time: instant
◆ Reset time: 2s
◆ Warm–up time: about 6s
◆ Power supply: 2 AA batteries (3VDC)
◆ Operating temperature: 0℃~52℃;
◆ Detection mode: continuous, unlimited
◆ Probing rod length: 30.5cm
◆ Conform to ROHS
◆ Conform to SAE_J1627 and EN14624 standards

Specifications

◆ Overall size: 44* 61 * 176 mm
◆ Probing rod length: 30.5 cm
◆ Weight: 185 g

Elitech®

WJL-6000 HLD-100

HLD-100+   CLD-100

This electronic halogen leak detector is an ideal economic halogen detection device. It is easy to operate, reliable in performance and compact in size.

Features

◆ Detect all the refrigerants containing halogen.
◆ The detector can adjust sensitivity anytime to reach the best detection status automatically.
◆ Internal high precision and stabilivolt IC, ultra-low power consumption circuit design, more stable operation, longer service life of batteries.
◆ Automatic calibration, applied to harsh environment.

Technical parameters

◆ Ultimate sensibility: 6g/yr
◆ Reset time: 2~10s
◆ Power supply: 4 AAA batteries (6VDC)
◆ Detection mode: continuous, unlimited
◆ Conform to SAE_J1627 and EN14624 standards
◆ Response time: instant
◆ Warm-up time: about 10s
◆ Operating temperature: 0℃~52℃;
◆ Conform to ROHS

Specifications

◆ Overall size: 229 * 65 * 65 mm
◆ Probing rod length: 20cm

WJL-6000

Features

◆ Detect all the refrigerants containing halogen.
◆ Single-color LED display, 6-level leak indication.
◆ Power voltage indication in bright color.
◆ Reset key: more convenient and efficient.
◆ Realtime stepless regulation of sensitivity level.

Technical parameters

◆ MAX sensibility: 3g/yr
◆ Reset time: 2s
◆ Power supply: 2 "C" batteries (3VDC)
◆ Detection mode: continuous, unlimited
◆ Conform to ROHS
◆ Response time: instant
◆ Warm-up time: about 6s
◆ Operating temperature: 0℃~52℃;
◆ Battery life: about 30h in normal use
◆ Conform to SAE_J1627 and EN14624 standards

Specifications

◆ Overall size: 229 * 65 * 65 mm
◆ Weight: 560g
◆ Probing rod length: 35.5 cm

HLD-100

This detector is a specially designed halogen detection device with higher cost performance. With multiple functions, it is easy to operate, reliable in performance and compact in size.

Features

◆ Single-color LED display, 6-level leak indication.
◆ Power voltage indication in bi-color.
◆ Reset key: more convenient and efficient.
◆ Realtime stepless regulation of sensitivity level.
◆ High-grade sensor.

Technical parameters

◆ Ultimate sensibility: 3g/yr
◆ Reset time: 2s
◆ Power supply: 2 "C" batteries (3VDC)
◆ Detection mode: continuous, unlimited
◆ Conform to ROHS
◆ Response time: instant
◆ Warm-up time: about 10s
◆ Operating temperature: 0℃~52℃
◆ Conform to SAE_J1627 and EN14624 standards

HLD-100+

Specifications

◆ Overall size: 229 * 65 * 65 mm
◆ Probing rod length: 35.5cm

This detector is an economic and practical halogen detection device with latest leak detection technology. It is easy to operate, reliable in performance and compact in size.

Features

◆ Detect all the refrigerants containing halogen.
◆ The detector can adjust sensitivity anytime to reach the best detection status automatically.
◆ Internal high precision and stabilivolt IC, ultra-low power consumption circuit design, more stable operation, longer service life of batteries.
◆ Power voltage indication in bi-color.
◆ High-grade sensor.

Technical parameters

◆ MAX sensibility: 5g/yr
◆ Reset time: 2-10s
◆ Power supply: 4 AAA batteries (6VDC)
◆ Detection mode: continuous, unlimited
◆ Conform to ROHS
◆ Response time: instant
◆ Warm-up time: about 6s
◆ Operating temperature: 0℃~52℃
◆ Battery life: about 20h in normal use
◆ Conform to SAE_J1627 and EN14624 standards

CLD-100

Specifications

◆ Overall size: 53* 50 * 175 mm
◆ Weight: 150 g
◆ Probing rod length: 20 cm

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SLD−300 (Semi−conductive Leak Detector)

Elitech SLD series intelligent leak detector innovatively adopts the semi−conductive nano sensor and starts a new benchmark for leak detection industry. Compared with traditional leak detectors, the service life of SLD series length− ens 3 to 5 times. It can quickly detect less leakage rate of refrigerant in even more harsh environment, thus saving users' system maintenance and use cost. It embodies Elitech's innovation philosophy—advocate science and technology, pursue elaboration and accuracy. Leak detectiors made by Elitech is accrate, stable and reliable.

Features

◆ With getter pump
◆ Unique design for appearance
◆ Flexible stainless steel probing rod
◆ The detector responds to all halogenated refrigerants (including Chlorine and Fluorine), which include but not limited to:
    CFCs   e.g. R12, R11, R500, R503 etc.
    HCFCs   e.g. R22, R123, R124, R502 etc.
    HFCs   e.g. R134a, R404a, R410a, R407c etc.
◆ Detect ethylene−oxide leaks from hospital sterilizing equipment (detect gas with halogen)
◆ Detect SF−6 in high−voltage circuit breakers
◆ Detect cleaning agents used in dry cleaning equipment, e.g. carbon tetrachloride
◆ Detect Halon gas used for fire extinguishing systems

Technical parameters

◆ Sensor: semi−conductive sensor
◆ Min leak detection: 3g/yr   ◆ Response time: < 2s
◆ Warm−up time: 60s
◆ Display: red and blue LED indicator
◆ One key reset, 7−level sensitivity regulation
◆ Power indication   ◆ Probe fault indication
◆ Rechargeable lithium battery
◆ Conform to ROHS
◆ Conform to SAE_J1627 and EN14624 standards

Collect signals 4965 times/sec   Semi−conductive nano sensor   Internal efficient getter pump   Rechargeable Lithium Battery

LD−100/200

Brand new appearance, unique shape; LED display of power, sensitivity, etc. clear at a glance; convenient to operate.

Features

◆ Highlight LED display
◆ Human engineering design, more comfortable in operation
◆ Flexible stainless steel probing rod can detect hard−to−reach places
◆ The detector responds to all halogenated refrigerants (including Chlorine and Fluorine), which include but not limited to:
    CFCs   e.g. R12, R11, R500, R503 etc.
    HCFCs   e.g. R22, R123, R124, R502 etc.
    HFCs   e.g. R134a, R404a, R410a, R407c etc.
◆ With getter pump, response time and alarm clear time is reduced.
◆ Replaceable probe

Technical parameters

◆ 6−level sensitivity regulation
◆ Max leak detection: 3g/yr (LD−200: 7−level)
◆ Response time: < 3s
◆ Warm−up time: about 60s
◆ Recovery time: <10s (It depends on the detection environment)
◆ Power supply: 3 AA batteries (LD−200: rechargeable lithium battery)
◆ Battery life: 4h (LD−200: 6h)
◆ Probing rod length: 36.5cm
◆ Conform to ROHS
◆ Conform to SAE_J1627 and EN14624 standards

Specifications

◆ Overall size: 256*53*58 mm
◆ Probing rod length: 41.7 cm

Electronic Refrigerant Scale

LMC–100A/F LMC–200

LMC–210 LMC–300 LMC–310

Introduction

Refrigerant Scale is used for weighing in refrigeration industry. Maintenance man can use it to measure the weight of refrigerant in charge or recovery to judge the quantity of refrigerant that needs to be charged or recovered.

Application

Measure the weight of refrigerant in charging and recovery

LMC–100A/F

LMC–200

LMC–210 Wireless

LMC–300

Technical parameters

- ◆ Max weighing: 100kg/50kg
- ◆ Resolution: 5g/2g
- ◆ Accuracy: ±0.05% rdg+10g / ±0.05% rdg+5g
- ◆ Power supply: 9V 6LR61
- ◆ Operating temperature: −10℃~40℃
- ◆ Storage temperature: −15℃~50℃
- ◆ Product size: 227*227*70 mm

Technical parameters

- ◆ Max weighing: 100kg
- ◆ Resolution: 5g
- ◆ Accuracy: ±0.05% rdg+10g
- ◆ Power supply: 5 AAA batteries
- ◆ Operating temperature: −10℃~40℃
- ◆ Storage temperature: −15℃~50℃
- ◆ Product size: 271*271*74 mm

Technical parameters

- ◆ Max weighing: 100kg
- ◆ Resolution: 5g
- ◆ Accuracy: ±0.05% rdg+10g
- ◆ Power supply: 5 AAA batteries, 5 AA batteries
- ◆ Operating temperature: −10℃~40℃
- ◆ Storage temperature: −15℃~50℃
- ◆ Product size: 271*271*74 mm

Technical parameters

- ◆ Max weighing: 100kg
- ◆ Resolution: 5g
- ◆ Accuracy: ±0.05% rdg+10g
- ◆ Power supply: 5 AAA batteries
- ◆ Operating temperature: −10℃~40℃
- ◆ Storage temperature: −15℃~50℃
- ◆ Product size: 271*271*74 mm

Technical parameters

- ◆ Max weighing: 100kg
- ◆ Resolution: 5g
- ◆ Accuracy: ±0.05% rdg+10g
- ◆ Power supply: 5 AAA batteries,5 AA batteries
- ◆ Operating temperature: −10℃~40℃
- ◆ Storage temperature: −15℃~50℃
- ◆ Product size: 271*271*74 mm

LMC–310 wireless refrigerant charging scale

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Thermometer and Hygrometer & Panel Meter Series

TPM–10 TPM–10F TPM–30 TPM–910+/920

Draw–type Thermometer TPM–10

Features

◆Drawer-type structure provides users more convenience to change and use the battery by drawing the battery compartment.
◆High accuracy sensor is more stable and recognized by the market.
◆It passes CE and ROHS certifications, so it is safe and reliable.

Specifications

◆Product size: 58.4 * 25.7 (mm)
◆Mounting size: 64 * 31 (mm)

Technical parameters

◆Power supply: 220VAC±10%, 50/60HZ;   ◆Temperature measuring range: -50℃~80℃;
◆Resolution: 0.1℃(＜100℃); 1℃(≥100℃);   ◆Accuracy: ±1℃(-20℃~70℃), others, ±2℃.

Features

Simple style, beautiful, LCD display screen, damp-proof, anti-interference. Suitable for all kinds of refrigerant equipments such as refrigerant cabinet, display cabinet and so on.

Specifications

◆Mounting size: 46.2* 26.7 (mm)
◆Product size: 48 * 28.5 * 16 (mm)

Technical parameters

◆Power supply: two button batteries (LR44, 1.5V);   ◆Temperature measuring range: -50℃~70℃;
◆Resolution: 0.1 (TPM-10F), 1 (TPM-10AE);   ◆Accuracy: ±1℃(-20℃~70℃), others, ±2℃;
◆Sensor: NTC.

TPM–10F

Features

LCD display screen, pre-positive battery door for easy installation. Suitable for all kinds of refrigerant equipments such as refrigerant cabinet, display cabinet and so on.

Specifications

◆Mounting size: 59.5(W) * 25(H) (mm)
◆Product size: 62.5(W) * 29.5 (H) * 19 (D) (mm)

Technical parameters

◆Power supply: one button battery (LR44, 1.5V);   ◆Temperature measuring range: -50℃~70℃;
◆Resolution: 0.1 (> -20℃), 1 (≤-20℃);   ◆Accuracy: ±1℃(-20℃~70℃), others, ±2℃;
◆Sensor: NTC.

TPM–30

Features

LED display, with simple and elegant appearance, whole waterproof design. Suitable for refrigerant cabinet and display cabinet etc.

Specifications

◆Mounting size: 58.4 * 25.7 (mm)
◆Product size: 64 * 31 (mm)

Technical parameters

◆Power supply: 220VAC±10%, 50/60HZ;   ◆Temperature measuring range: -30℃~110℃;
◆Resolution: 0.1 (<100℃), 1 (≥100℃);   ◆Accuracy: ±1℃.

TPM–910+/920

TPM–60 DST–50 DST–30/31

Features

◆LCD backlight display, transparent front panel, more visual, stylish and convenient;
◆Integral waterproof and dustproof design, suitable for different environment;
◆220V power supply is connected with probe wire in plug-in type. Operation is more convenient and secure;
◆Celsius/Fahrenheit switch jumper is reserved inside, more customized and suitable for global clients from different areas.

Specifications

◆Product size: 64 * 31 * 40 (mm)
◆Hole size: 58.4 * 25.7 (mm)

Technical parameters

◆Power supply: 220VAC±10%, 50HZ;   ◆Overall power consumption: <3w;
◆Ambient temperature: 0℃~60℃;   ◆Temperature measuring range: -40℃~120℃;
◆Resolution: 0.1℃;
◆Temperature measuring accuracy: ±0.5℃ (-40℃~80℃); ±1℃ (80℃~120℃);
◆Relative humidity: 20%~85% (non-condensing);
◆Waterproof level: IP65.

TPM–60

DST-50 is suitable for installation in various refrigerant equipments such as cold storage cabinets,display cabinets etc.

Specifications

◆Installation size: 46.2 (W) * 26.7 (H) (mm)
◆Product size: 66.5 (W) * 31.7 (H) * 19 (D) (mm)

Technical parameters

◆Solar and LR44 standby battery
◆Measure range: -50℃~150℃; -58˚F~+302˚F (temperature >80℃ or <-20℃, need to customise the sensor line);
◆Resolution: 0.1
◆Accuracy: ±1℃ (-20℃~80℃); ±3℃(-50℃~20℃; +80℃~+150℃)
◆Sampling period: 10 seconds
◆Operating temperature -10℃ ~ 60℃
◆Storage temperature: -20℃ ~ 70℃

DST–50

The product adopts solar power, with no need to replace battery, so it is more convenient. When equipped with a balancing battery, the product can display temperature on special occasions so as to cover the shortage of solar power.

Specifications

◆Product size: 66 * 30 * 6.5 (mm)
◆Sensor wire length: 1m

Technical parameters

◆Temperature measuring range: -20℃~40℃(by inner and outer probes);
◆Resolution: 0.1℃;
◆Accuracy: ±2℃(-20℃~-18℃) minus deviation 5℃;
          ±2℃(-18℃~-15℃) minus deviation 4℃;
          ±1℃(-15℃~+5℃) minus deviation 4℃;
          ±2℃(+5℃~+20℃) minus deviation 4℃;
          ±2℃(+20℃~+30℃) minus deviation 4℃;
          ±2℃(+30℃~+40℃) minus deviation 8℃;
◆Power supply: solar battery and CR2032 battery;
◆Ambient temperature: 0℃~55℃;
◆Storage temperature: -10℃~60℃;
◆Water-proof level: IP65 (the overall product, not including probe wire connector);
◆Illumination grade: work normally under 100LUX in case of removing backup battery.

DST–30 / DST–31

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DST-1

The product is mainly targeted to air conditioner, refrigerator, cold storage maintenance market.

General descriptions

◆ Solar power supply, no need to change battery, easy of use;
◆ Max/Min value memory and memory clear function;
◆ High accuracy sensor is more stable and recognized by the market.

Specifications

◆ Product size: 118 * 32 * 27 (mm)

Technical parameters

◆ Temperature measuring range: -50℃~70℃;
◆ Resolution: 0.1℃;
◆ Temperature measuring accuracy: ±1℃(-20℃~70℃); ±2℃ (others);
◆ Compressor delay time: 1~10 min adjustable;
◆ Sampling period: 10 sec;
◆ Power supply: solar battery and button battery (LR44) in parallel operation; DC1.5V;
◆ Ambient temperature: -5℃ ~50℃;
◆ Operating temperature: -10℃ ~60℃;
◆ Operating current: sampling current ≤55uA; standby current≤7uA;
◆ Enable illumination: 100LUX (remove balancing battery).

BT-3

Features

Duel way indoor/outdoor temperature display; with body comfort degree response; big LCD display, convenient to view data; clock alarm function; beautiful and fashionable.

Specifications

◆Display size: 74*61.5 (mm)
◆LCD screen size: 79*69 (mm)

Technical parameters

◆Power supply: DC1.5V one AAA size alkaline battery(optional);
◆Measuring range:
　Indoor temperature -30℃~50℃;
　Outdoor temperature -50℃~70℃;
　Relative humidity: 20%~90% RH;
◆Resolution: temperature:0.1℃, Humidity: 1;
◆Accuracy: temperature: ±1℃, Humidity: ±5%RH.

DST-5

Features

Solar power supply with standby battery; attractive appearance, thermometer head 180° rotating for an easy reading; switch between ℃ and ℉; temperature memory; mainly applied to foodstuff and medicine industry.
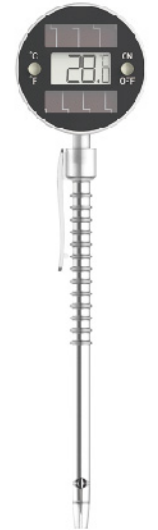
Specifications

◆Product size: 170*43*23.6 (mm)

Technical parameters

◆Power supply: solar battery and LR44 battery
◆Temperature measuring range: -50℃~150℃(-58℉~199℉)
◆Resolution: 0.1
◆Accuracy: ±1℃ (-20℃~80℃)
　　　　　±2℃ (-50℃~20℃, 80℃~120℃)
　　　　　±3℃ (120℃~150℃)

WT-1B

Features

Pen styled, portable, lengthened metal probe, temperature memory, low power consumption indicating and sensor fault indicating, switch between ℃/℉, widely applied to foodstuff ir

Specifications

◆Product size: Φ20*207 (mm)

Technical parameters

◆Power: DC1.5V LR44 button battery;
◆Measuring range: -50℃~300℃ (-58℉~572℉);
◆Resolution: 0.1(≥400℉), 0.1 (others);
◆Accuracy: ±1℃(-20℃~80℃); ±5℃ (others).

WT-2

Features

Fashionable appearance, lengthened metal probe with lead wire, data keeping, switch between ℃/℉, Max./Min. temperature memory, temperature upper and lower limit setting and exceeding temperature alarming, widely applied to HVAC and foodstuff industry.

Specifications

◆Product size: 59*105*19 (mm)

Technical parameters

◆Power: DC1.5V AAA alkaline battery (optional);
◆Measuring range: -50℃~300℃ (-58℉~572℉);
◆Resolution: 0.1(-19.9℃~199.9℃), 1 (others);
◆Accuracy: ±1℃(-20℃~80℃); ±5℃ (others) .

Elitech®

DT–1

Features

Two way temperature measuring, big LCD screen with the display of in door or outdoor temperature simultaneously, lengthened probe lead wire, three placement methods. suitable to be used at home and office.

Specifications

◆Mounting size: 115*64*22 (mm)

Technical parameters

◆Power: DC1.5V AAA alkaline battery (optional);
◆Temperature measuring range: -50℃~70℃;
◆Resolution: 0.1;
◆Accuracy: ±1℃.

ST–1A

Features

LCD display, one way temperature measuring, small and fashionable appearance, various colors optional. Suitable to be used at home, office and refrigeration repair.

Specifications

◆Mounting size: 55.5*42.5*16 (mm)

Technical parameters

◆Power supply: DC1.5V button battery LR44;
◆Measuring range: -50℃~70℃;
◆Resolution: 0.1 (>-20℃), 1℃ (≤-20℃);
◆Accuracy: ±1℃.

DT–2

Features

Big screen LCD display, two-way temperature measuring, one way humidity measuring, temperature, humidity and time displayed simultaneously, body comfort degree display and with clock function, three placement methods. suitable to be used at home and office.

Specifications

◆Product size: 115*64*22 (mm)

Technical parameters

◆Power: DC1.5V, AAA alkaline battery (optional);
◆Measuring range:
  indoor temp.: -30℃~+50℃, outdoor temp.: -50℃~70℃, humidity: 20%~99% (RH);
◆Resolution: temperature: 0.1, humidity: 1;   ◆Accuracy: temperature: ±1℃; humidity: ±5%(25℃).

ST–2

Features

I/out door temperature measuring; clock display; ultra slim shell design.

Specifications

◆Product size: 57*38.5*13 (mm)
◆Screen size: 47*21.5 (mm)

Technical parameters

◆Power supply: DC1.5V button battery LR44;
◆Measuring range: -50℃~70℃;
◆Resolution: 0.1 (>-20℃), 1℃ (≤-20℃);
◆Accuracy: ±1℃.

DT–3

Features

Big screen LCD display. display two-place temperature, one-place humidity simultaneously, comfort display, three kinds of placement, suitable to be used at home and office.

Specifications

◆Product size: 115*64*22 (mm)

Technical parameters

◆Power: DC1.5V, AAA alkaline battery (optional);
◆Measuring range:
  Indoor temp.: -30℃~50℃; Outdoor temp.: -50℃~70℃; Humidity: 20%~99% (RH);
◆Resolution: temperature: 0.1, humidity: 1;   ◆Accuracy: temperature: ±1℃; humidity: ±5% (25℃).

ST–3

Features

Small and fashionable appearance; switch between ℃ and ℉; various colors optional; specially applied to the aquarium.

Specifications

◆Product size: 58*37*12.5 (mm)

Technical parameters

◆Power supply: DC1.5V button battery LR44;
◆Measuring range: -50℃~70℃;
◆Resolution: 0.1 (>-20℃), 1 (≤-20℃);
◆Accuracy: ±1℃.

Optional Components

DT-6 DT-7

The thermo-hygrometer is equipped with imported temperature sensor of high accuracy and reliable performance; ABS flame retardant material shell; power supplied by alkaline battery, 220V power or solar panel; LCD or LED display; various installation sizes and appearances; visual and clear temperature display; long service life; and strong anti-interference capability.

They are suitable for installation in various refrigerant equipments such as refrigerator for kitchen and car, wine cabinet etc. or used at home, office, aquarium and pets breeding.

1. Big LCD display, intuitive and convenient

2. The solar panel works when the illumination reaches 100LUX, When lower than 100LUX, it is powered by the rechargeable battery, which ensures its complete power supply in 24hours everyday, and highly reduces the battery pollution to the environment.

3. Back support, very convenient

4. Duel channel temperature and single channel humidity display for DT-7. For DT-6, it has single channel temperature and single channel humidity (external temperature function reserved), no external sensor.

5. With power on/off switch, very flexible.

★ Five year battery life, environmentally friendly, convenient

Specification
◆Display size: 53*55 (mm)
◆LCD size: 61*57 (mm)

Specification

◆Indoor and outdoor temperature: -50℃ ~ 70℃;
◆Sample cycle: 10s (1s optional);
◆Temperature accuracy: ±1℃ (0℃ ~ +40℃), others, ±3℃;
◆Humidity accuracy: ±10% (40% ~ 80%), others, ±15%;
◆Resolution: Temperature 0.1℃; Humidity 1%;
◆Keys: MAX/MIN/CLEAR;
◆Display Max./Min Value, clear Max./Min. value by pressing CLEAR key for 2s;

◆℃ / °F: switch between ℃ and °F;
◆RESET: Reset key (DT-7: in/out key);
◆Sensor type: NTC;
◆Data display: tilted 5 degrees to the right. Display in two lines;
◆LCD environment temperature: 0℃ ~ 50℃;
◆Power supply: SC6157 solar energy battery and NI-MH battery parallel operation;
◆With power toggle switch at the back.

Solenoid valve

Introduction

Solenoid valve adopts fully plastic-enclosed solenoid coil and DIN electric plug device. It has excellent insulation, waterproof, damp-proof, anti-shock and anti-corrosion property.

Technical parameters

◆ Ambient temperature: –20℃~50℃

◆ Medium temperature: –25℃~100℃ (If the medium's temperature is above 100℃, please contact us for another model.)

◆ Max operating pressure: 3.0 Mpa (4.8 Mpa if system medium is 410A)

◆ Applicable medium: R134a, R22, R407c, R404a, R410A, air, water and oil with Engler viscosity less than 4°E

◆ Optional voltage:
  A.C.: 24V, 36V, 110V, 220V and 380V
  D.C.: 12V, 24V, 110V and 220V

Pressure controller

Introduction

◆ Used to protect the compressor of refrigeration or air conditioning devices from low suction pressure or high discharge pressure

◆ Used to start or stop the fan of compressor or air condenser

◆ Used for the equipment, such as water pump, fire-fighting apparatus, boiler, hydraulic device, ironing device, vacuum device, etc.

◆ Three types of switches: single-pole double-throw (SPDT), double-pole single-throw (DPST) double-pole double-throw (DPDT). Operating value can be fixed per actual needs.

◆ Equipped with copper gas box connector for Freon refrigerant system, and stainless steel gas box connector for corrosive refrigerant system, such as liquid ammonia system

◆ The nimble construction of micro-switch can ensure reliable and quick switch.

Technical parameters

Model	Low pressure bar		High pressure bar	Reset mode		Max pressure	
	Adjustable range	Differential pressure	Adjustable range	Low pressure	High pressure	Low pressure	High pressure
EP-15	–0.5~6	1~4	5~30	Auto	Manual	17	33