HNC Electric

DIGITAL

HC Series Card-Type PLC & Remote Modules

KAS CONTROL
TEL : 02-045-4155
Line : kascontrol
Email : sales.kascontrol@gmail.com

CONTENTS

1+15

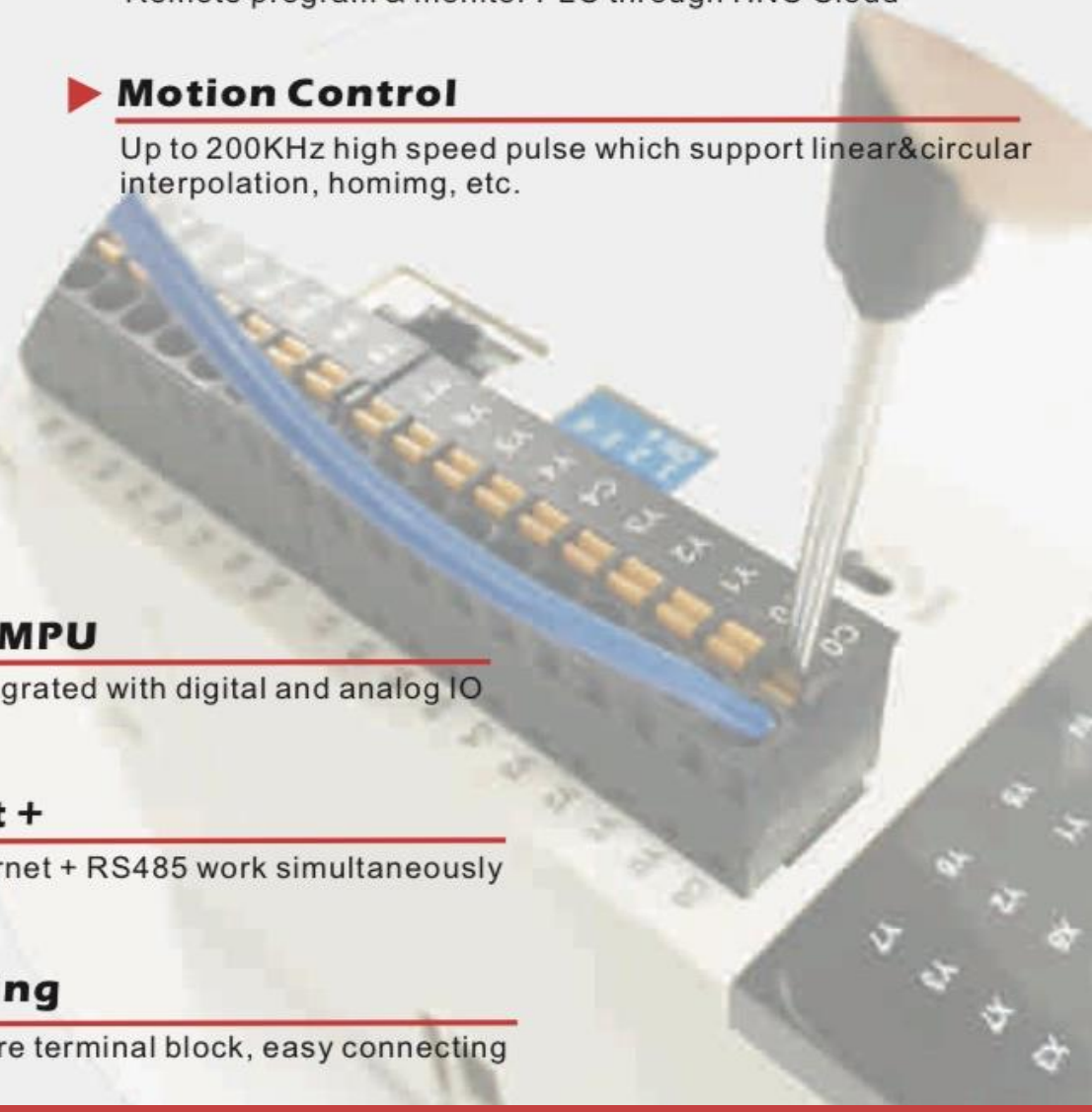
Single PLC MPU can expand 15 modules, up to 256 points

Cloud Engine

Remote program & monitor PLC through HNC Cloud

Motion Control

Up to 200KHz high speed pulse which support linear&circular interpolation, homimg, etc.



Mix-type MPU

PLC MPU integrated with digital and analog IO

Ethernet +

Support Ethernet + RS485 work simultaneously

Easy Wiring

Direct pressure terminal block, easy connecting

Hardware features

DIGITAL

Easy selection

Product model naming is easy to understand and convenient for model selection

Structure optimization

Optimized structure design, compact size, beautiful appearance, saving installation space

Easy wiring

Direct insert terminal, humanized design, more convenient wiring

Integrated analog interface

The PLC main unit integrates DI/DO and AI/AO with flexible configuration and higher cost performance

Ethernet +

Ethernet and RS485 interfaces are standard on the PLC main unit, supporting simultaneous operation of two communication ports. Each communication port can be programmed and networked as a master or slave station

1+15+256

A single main unit can expand up to 15 modules, with a maximum expansion capacity of 256 points

Unlimited networking

PLC main unit can be networking, theoretically can form unlimited points control network, a perfect substitute for medium or even large PLC system.

High-speed pulse interface

PLC main unit supports up to 4 channels A/B phase (8 points) 200KHz high-speed pulse input/output.

Perfect temperature control

Thermal resistance, thermocouple and unique temperature& humidity sensor modules, etc., perfectly meet the application requirements of process control

Communication +

Communication extension module with isolation to meet stable communication extension requirements.

Programming software features

DIGITAL

Three programming languages

HPMaster is a PLC programming software conforming to IEC 61131-3, which supports LD (ladder diagram), FBD (function block diagram) and IL (instruction table).

Good compatibility

Stable operation in Win98, Win200X, WinXP, Win7, Win8, Win10 and other operating systems

Prompt message and help function

All instructions and detailed information of hardware modules can be opened in the software through F1 key to find the answer. Even if HPMaster programming software is used for the first time, the program can be easily written.

Three-level password protection

Password for project files, password for PLC, password for individual program blocks, and protection functions such as preventing program upload.

Modular program project structure

Up to 63 program blocks can be established (including main program, subroutine, interrupt program), programming language can be chosen arbitrarily, execution order of program blocks can be adjusted arbitrarily, each block can be imported and exported separately and has the same password protection as program project.

Cloud programming

The built-in cloud engine enables PLC remote programming, download, firmware upgrade, diagnosis, monitoring and debugging through HNC cloud, enabling easy remote connection and detecting on-site conditions at any time.Locally, the PLC can be programmed with a cloud engine built into the HT3000 series HMI.

Program simulator

Can be simulated running PLC program in the case of complete separation from PLC,greatly reducing field debugging time and improving debugging efficiency.

Communication simulator

Equipped with a communication simulation tool specially designed for debugging communication instructions, it can simulate the process of PLC executing communication instructions and processing the data returned from the slave computer.

Interpolation simulator

Track and draw the motion trajectory generated by motion control instructions such as linear interpolation and circular interpolation, display the current position, mechanical origin position, output mode, etc., of the channel, or set the axis length and unit pulse number.

Online monitoring and debugging function

Provide up to 10 pages of component monitoring table, can choose to display data in different data formats, support mixed monitoring of bit components and register components and display component notes at the same time.

Unique real-time curve function

Real-time curve monitoring can be carried out on any register components to facilitate process control and debugging.

PLC execution file

The PLC source program can be generated into a PLC execution file that can be independently released and executed, convenient and safe to give the PLC execution file to the end user to download, there is no need to worry about the user knowing the source program content.

Firmware upgrade function

No matter MPU or extension module, firmware can be upgraded for free. Even the previously purchased products can have various latest functions continuously introduced.

Powerful online PLC function

It can search out all PLC connected with the PC, show the information and status of all online PLC, and can choose any PLC for online monitoring, program download, firmware upgrade, control PLC running stop, etc.

Programming instructions features

DIGITAL

Powerful innovation convenience instructions

On the basis of analyzing and absorbing various EXISTING PLC instructions, many powerful innovation convenience instructions are launched.
Such as communication instruction (MODR, MODW HWRD HWWR), PID control (PID), valve control (VC), upper and lower alarm (HAL, LAL), send (SC), the temperature curve radius (TTC), only one instruction can implement other brand PLC need multiple instructions to realize the function, greatly improve the efficiency of programming and program run faster.

Instruction routines

In the help document, all instructions are explained in detail and corresponding routines are supported to be opened and downloaded into PLC.

Rich communication protocols

Built-in Modbus TCP, Modbus RTU/ASCII protocol, free communication protocol and PLCbus high-speed communication protocol instructions independently developed by HNC.

Powerful communication instruction

No matter use what kind of communication protocol is simply a communication instruction can complete complex communication function, no conflict, to send and receive control for communication port, communication interrupt handling problems such as trouble, and the same communication port can use different protocols, complete the required all sorts of data exchange easily.

Programming instructions features

DIGITAL

- **Powerful analog input processing**

  AI register can be used to directly access analog input, analog input support engineering conversion, sampling times setting and zero correction.

- **Powerful analog output processing**

  The analog output can be directly controlled by AQ register. The analog output can support engineering conversion and can be configured with blackout output holding function.

- **PID control function**

  Support 32 incremental PID, 32 self-tuning PID, 32 fuzzy temperature control, with TTC temperature curve control, VC valve control and other instructions to easily achieve a variety of complex control requirements of industrial site.

Programming instructions features

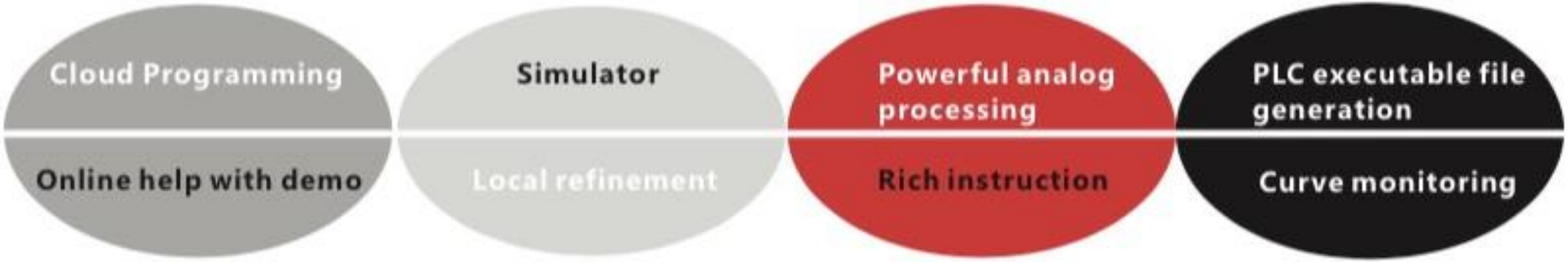
DIGITAL

High-speed pulse instruction

Supports acceleration and deceleration pulse output.
The unique synchronous pulse output instruction can easily realize accurate synchronization control. The single machine supports 8-channel pulse width modulation output (PWM) and can drive 8 servo or stepper motors at the same time.

Motion control function

The single machine supports 8-axis 200KHz motion control, linear interpolation and circular interpolation of any 2-axis, absolute position, relative position, reverse clearance compensation, origin regression, electric origin definition and other functions.



HCS Series - Economic PLC MPU

DIGITAL

Model	Specification							Dimension WxHxD(mm)
24VDC	DI	DO	AI	AO	COM Port	Power	Exp.	
HCS-6X4Y-R	6	4 Relay			TCP+485	<4.8W	3	 40×95×65
HCS-6X4Y-TN	6	4 Transistor NPN			TCP+485	<4.8W	3	
HCS-6X4Y-TP	6	4 Transistor PNP			TCP+485	<4.8W	3	
HCS-8X8Y-R	8	8 Relay			TCP+485	<4.8W	3	
HCS-8X8Y-TN	8	8 Transistor NPN			TCP+485	<4.8W	3	
HCS-8X8Y-TP	8	8 Transistor PNP			TCP+485	<4.8W	3	
HCS-4X4Y4A-R	4	4 Relay	2	2	TCP+485	<3.6W	3	
HCS-4X4Y4A-TN	4	4 Transistor NPN	2	2	TCP+485	<3.6W	3	
HCS-4X4Y4A-TP	4	4 Transistor PNP	2	2	TCP+485	<3.6W	3	

HCG Series - Standard PLC MPU

DIGITAL

Model	Specification									Dimension
24VDC	DI	DO	AI	AO	Pulse Input	Pulse Output	COM Port	Power	Exp.	WxHxD(mm)
HCG-8X8Y-R	8	8 Relay			2 Channels A/B phase 4 points 200K		TCP+485	<4.8W	15	
HCG-8X8Y-TN	8	8 Transistor NPN			2 Channels A/B phase 4 points 200K	2 Channels A/B phase 4 points 200K	TCP+485	<4.8W	15	
HCG-8X8Y-TP	8	8 Transistor PNP			2 Channels A/B phase 4 points 200K	2 Channels A/B phase 4 points 200K	TCP+485	<4.8W	15	
HCG-4X4Y4A-R	4	4 Relay	2	2	1 Channels A/B phase 2 points 200K		TCP+485	<3.6W	15	
HCG-4X4Y4A-TN	4	4 Transistor NPN	2	2	1 Channels A/B phase 2 points 200K	1 Channels A/B phase 2 points 200K	TCP+485	<3.6W	15	
HCG-4X4Y4A-TP	4	4 Transistor PNP	2	2	1 Channels A/B phase 2 points 200K	1 Channels A/B phase 2 points 200K	TCP+485	<3.6W	15	

40×95×65

HCM Series - High Performance PLC MPU

DIGITAL

Model	Specification							Dimension
24VDC	DI	DO	Pulse Input	Pulse Output	COM Port	Power	Exp.	WxHxD(mm)
HCM-8X8Y-R	8	8 Relay	4 Channels A/B phase 8 points 200K		TCP+485	<4.8W	15	 40×95×65
HCM-8X8Y-TN	8	8 Transistor NPN	4 Channels A/B phase 8 points 200K	4 Channels A/B phase 8 points 200K	TCP+485	<4.8W	15	
HCM-8X8Y-TP	8	8 Transistor PNP	4 Channels A/B phase 8 points 200K	4 Channels A/B phase 8 points 200K	TCP+485	<4.8W	15	

*HCM series supports linear interpolation and circular interpolation of any 2 axes, and supports absolute position, relative position, backlash compensation, origin point return, electrical origin point definition and other functions

Digital I/O Modules

DIGITAL

Model	Specification				Dimension WxHxD(mm)
24VDC	DI	DO	Power	COM Port	
AE-8X	8		<2.4W		 25×95×65
AE-8Y-R		8 Relay	<4.8W		
AE-8Y-TN		8 Transistor NPN	<4.8W		
AE-8Y-TP		8 Transistor PNP	<4.8W		
AE-4X4Y-R	4	4 Relay	<2.4W		
AE-4X4Y-TN	4	4 Transistor NPN	<2.4W		
AE-4X4Y-TP	4	4 Transistor PNP	<2.4W		
AE-16X	16		<2.4W		 25×95×65
AE-16Y-R		16 Relay	<8.4W		
AE-16Y-TN		16 Transistor NPN	<8.4W		
AE-16Y-TP		16 Transistor PNP	<8.4W		
AE-8X8Y-R	8	8 Relay	<4.8W		
AE-8X8Y-TN	8	8 Transistor NPN	<4.8W		
AE-8X8Y-TP	8	8 Transistor PNP	<4.8W		

Analog I/O Modules

DIGITAL

Model	Specification					Dimension WxHxD(mm)
24VDC	AI	AO	Conversion Accuracy	Power	COM Port	
AE-4AD	4		12bit	<2.4W		 25×95×65
AE-4DA		4	12bit	<2.4W		
AE-2AD2DA	2	2	12bit	<2.4W		
AE-8AD	8		12bit	<2.4W		
AE-8DA		8	12bit	<3.6W		
AE-4AD4DA	4	4	12bit	<3.6W		

Temperature I/O Modules

DIGITAL

Model	Specification				Dimension WxHxD(mm)
24VDC	Sensor Type	Conversion Accuracy	Power	COM Port	
AE-4TC	4 Thermocouple	16 bit	<2.4W		 25×95×65
AE-4RC	4 Thermal Resistance	16 bit	<2.4W		
AE-8TC	8 Thermocouple	16 bit	<2.4W		
AE-4DT	4 Channels digital temperature & humidity sensor	9-12 bit	<2.4W		

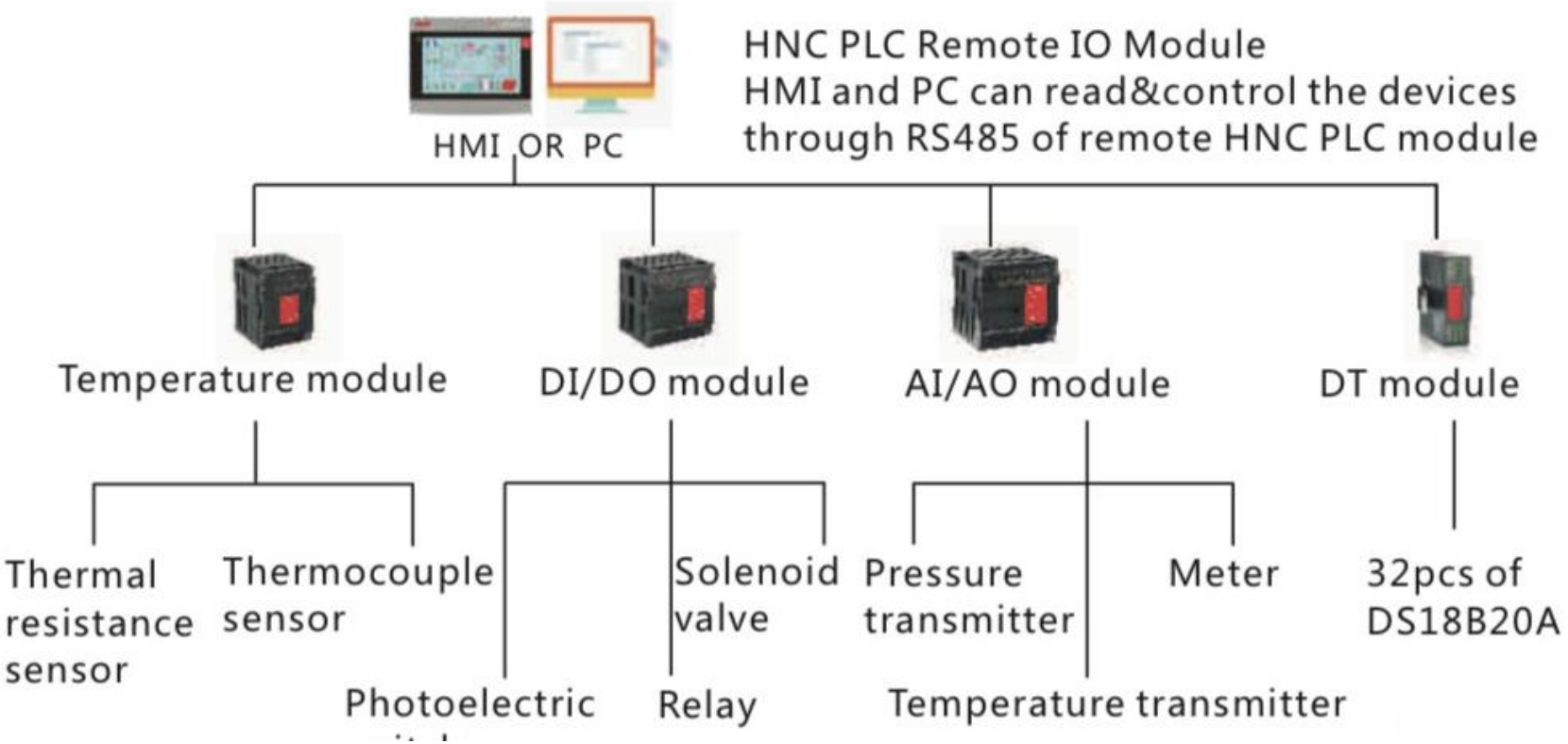
Communication I/O Modules

DIGITAL

Model	Specification	Power	Dimension WxHxD(mm)
AE-1C	With isolution, 1 RS232/RS485 communication port. Supports Modbus RTU/ASCII, Freedom communication protocol, PLCbus, 1200~115200bpS and 8,N,1	<2.4W	 25×95×65

Remote IO Module&Functions

DIGITAL



- Support serial bus, running independently.
- Can be installed independently without PLC system points limitation.
- Long distance. Flexible configuration. Low cost.
- Widely used in data acquisition, equipment monitoring, environmental monitoring and industrial process control, etc.

Digital I/O Modules

Ethernet Model	Model	Specification			Dimension WxHxD(mm)
24VDC	24VDC	DI	DO	Communication	
	TE-16X	16		RS485, supports remote function	 70×95×82
	TE-16Y-R		16 Relay	RS485, supports remote function	
	TE-16Y-TN		16 Transistor NPN	RS485, supports remote function	
	TE-16Y-TP		16 Transistor PNP	RS485, supports remote function	
	TE-8X8Y-R	8	8 Relay	RS485, supports remote function	
	TE-8X8Y-TN	8	8 Transistor NPN	RS485, supports remote function	
	TE-8X8Y-TP	8	8 Transistor PNP	RS485, supports remote function	
TE-24Xe	TE-24X	24		RS485, supports remote function	 93×95×82
TE-12X12Y-Re	TE-12X12Y-R	12	12 Relay	RS485, supports remote function	
TE-12X12Y-TNe	TE-12X12Y-TN	12	12 Transistor NPN	RS485, supports remote function	
TE-12X12Y-TPe	TE-12X12Y-TP	12	12 Transistor PNP	RS485, supports remote function	

Digital I/O Modules

DIGITAL

Ethernet Model	Model	Specification			Dimension WxHxD(mm)
24VDC	24VDC	DI	DO	Communication	
TE-40Xe	TE-40X	40		RS485, supports remote function	 131×95×82
TE-36Y-Re	TE-36Y-R		36 Relay	RS485, supports remote function	
TE-36Y-TNe	TE-36Y-TN		36 Transistor NPN	RS485, supports remote function	
TE-36Y-TPe	TE-36Y-TP		36 Transistor PNP	RS485, supports remote function	
TE-20X20Y-Re	TE-20X20Y-R	20	20 Relay	RS485, supports remote function	
TE-20X20Y-TNe	TE-20X20Y-TN	20	20 Transistor NPN	RS485, supports remote function	
TE-20X20Y-TPe	TE-20X20Y-TP	20	20 Transistor PNP	RS485, supports remote function	
TE-32X32Y-Re	TE-32X32Y-R	32	32 Relay	RS485, supports remote function	 177×95×82
TE-32X32Y-TNe	TE-32X32Y-TN	32	32 Transistor NPN	RS485, supports remote function	
TE-32X32Y-TPe	TE-32X32Y-TP	32	32 Transistor PNP	RS485, supports remote function	

Analog I/O Modules

DIGITAL

Ethernet Model	Model	Specification				Dimension WxHxD(mm)
24VDC	24VDC	AI	AO	Conversion Accuracy	Communication	
	TE-4AD	4		12 bits	RS485, supports remote function	 70×95×82
	TE-4DA		4	12 bits	RS485, supports remote function	
	TE-2AD2DA	2	2	12 bits	RS485, supports remote function	
TE-8ADe	TE-8AD	8		12 bits	RS485, supports remote function	 93×95×82
TE-8DAe	TE-8DA		8	12 bits	RS485, supports remote function	
TE-4AD4DAe	TE-4AD4DA	4	4	12 bits	RS485, supports remote function	

Temperature & Humidity Modules

DIGITAL

Ethernet Model	Model	Specification			Dimension WxHxD(mm)
24VDC	24VDC	Sensor Type	Conversion Accuracy	Communication	
	TE-32DT	32 Channels DS18B20, RW1820 temperature sensor, Ds1990 sensor	9-12 bits	RS485, supports remote function	 30×95×82
	TE-4TC	4 thermocouple	16 bits	RS485, supports remote function	 70×95×82
	TE-4RC	4 thermal resistance	16 bits	RS485, supports remote function	
	TE-8TC	8 thermocouple	16 bits	RS485, supports remote function	 93×95×82
TE-8RC-e	TE-8RC	8 thermal resistance	16 bits	RS485, supports remote function	

Load Cell Modules

DIGITAL

Model 24VDC	Specification	Conversion Accuracy	Communication	Dimension WxHxD(mm)
TE-1WG	1 Channel weighing	24 bits	RS485, supports remote function	 30×95×82

Note: All remote modules do not support direct connection with HC series card PLC; Can communicate via RS485 or Ethernet port

DIGITAL

KAS CONTROL

TEL : 02-045-4155

Line : kascontrol

Email : sales.kascontrol@gmail.com