

# **Haiwell Products Catalog**













Haiwell Cloud

PLC Controller

Human Machine Interface

Cloud Box

Cloud SCADA

Inverter

Servo

Industrial Panel PC

Large Screen Controller TVBOX

Data Visualization System

# Xiamen Haiwell Technology Co., Ltd.

Xiamen Haiwell Technology Co,.Ltd was founded in 2005 and has been the global leader in PLC automation control industry. It's a high-tech enterprise, integrating independent research and development, production, sales and services. As one of the earliest participants in the Chinese industrial control market, Haiwell has long been focused on the improvement of automation level in the industrial control field and committed to the research and development of industrial automation core control system, in order to provide the integrated solution for industrial automation equipment manufacturers.

As more than 10years development, the company has evolved from a PLC supplier to an industrial IoT solution provider. Now the products include PLC, HMI built-in Ethernet Cloud, Industrial Panel PC, Cloud SCADA software (free software), Cloud BOX, Haiwell Cloud service, Inverter, Servo, Large-screen Controller TVBOX, Load Cell Module, intelligent gateway, wireless communication modules ect. They are widely used in plastic, packaging, textile, food, medical, pharmaceutical, environmental protection, municipal, printing, construction material, elevator, central air conditioning, precise CNC machines and other industrial control field. The company is dedicated to providing industrial IoT solutions, such as smart factories, smart agriculture, smart photovoltaics, smart farming, intelligent fire protection, smart charging piles etc.

Haiwell has been identified as high-tech enterprise, software company and small technology giant enterprise. In strict accordance with the ISO9001 quality system requirements, Haiwell carrys out the total quality management from R & D, production to sales, and a full range of products have passed CE, FCC and other certification. We advocate "Quality-oriented, Haiwell soul, Good faith, Continual improvement" and rely on reliable product quality and good aftersales service to win the majority of users recognized, the products have been sold to all over China and overseas, agencies around the users can provide fast service and technical support. Haiwell has complete intellectual property rights over its hardware and software, we can offer customization services to meet the needs of different industries.

Broaden heart like Sea. Good faith makes good work!





### Corporate Culture >>

Company spirits: honesty and execution with broad vision

Core Value: intellectual property rights, domestic innovation boutique

Service concept: people-oriented, customer first

Haiwell vision: become a reliable global supplier of automated hardware and software products

### Value >>

Customers: create value for customers, win-win with partners Employee: Protect employee value, share development results

Shareholders: respect the interests of shareholders and reward the investment of shareholders

### Haiwell Certification >>













# **Contents**

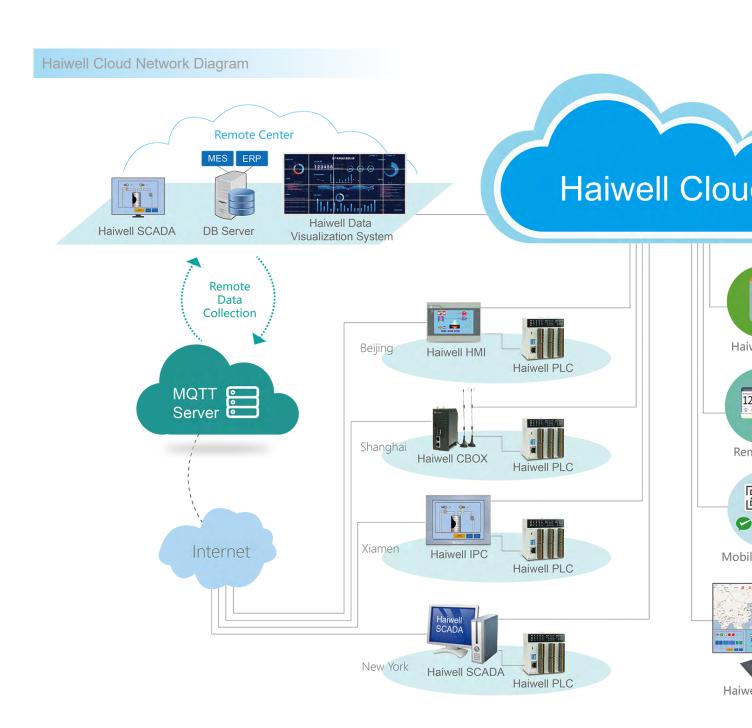
	Haiwell Cloud Platform	4
OF Section		
	Haiwell Cloud APP	5
	A Series Card-type PLC Controller	6
	DIGG II	
	PLC Controller	8
<u> </u>	HaiwellHappy	16
The second secon	наіменнарру	10
A Planet Cloud SCADA	Cloud SCADA	17
and the service of th		
	Human Machine Interface HM	18
17		
	Cloud Box	19
	Industrial Panel PC	20
Silver A Street		
<b>5</b>	Haiwell Data Visualization System	21
71	Laura Causau Cantus II au TVDOV	22
	Large Screen Controller TVBOX	22
	Text Display	23
TO STATE OF THE ST	ion a represy	
A	Inverter	24
	Servo	28
Manufacture Comments	Protocol Gateway	30

# **Haiwell Cloud Platform**

Haiwell Cloud is a cross-platform IOT cloud platform. It supports PC, iPad, Android, IOS and other terminals. You can visit on-site equipments from a thousand miles away, and realize the remote monitoring and maintaining for HMI and PLC. It supports remote programming, firmware upgrades, monitoring and diagnosis etc. 9 main features of Haiwell Cloud: Cloud Network, Cloud Access, Cloud Video, Cloud Alarm, Cloud Engine, Cloud Management, Cloud Security, Cloud Translate, Cloud Map.

Haiwell Cloud provides security mechanisms for communication. It is secured by the encryption mechanism of 128-bit SSL, which ensures the stable and safe data transfer. It also uses A-key and B-Key protection mechanism to enable secure remote access to the devices.

It covers a series of products such as Haiwell Cloud website, Cloud SCADA, Cloud HMI and Cloud APP. You can login to the Cloud platform via http://cloud.haiwell.com or Haiwell Cloud APP.



# **Haiwell Cloud APP**

Haiwell Cloud APP support many platform terminals, such as PC, iPad, Android and iOS. Users can search "Haiwell Cloud" in any APP application store and download it freely or scan the QR code of Haiwell official APP to obtain it directly.

### **APP Features**

- Free register by mobile number or Email address.
- AB Key sercuriry mechanism, higher protection level
- Easy remote monitoring for devices list, devices status and devices map
- Real-time remote project monitoring, and video check
- Real-time alarm notification

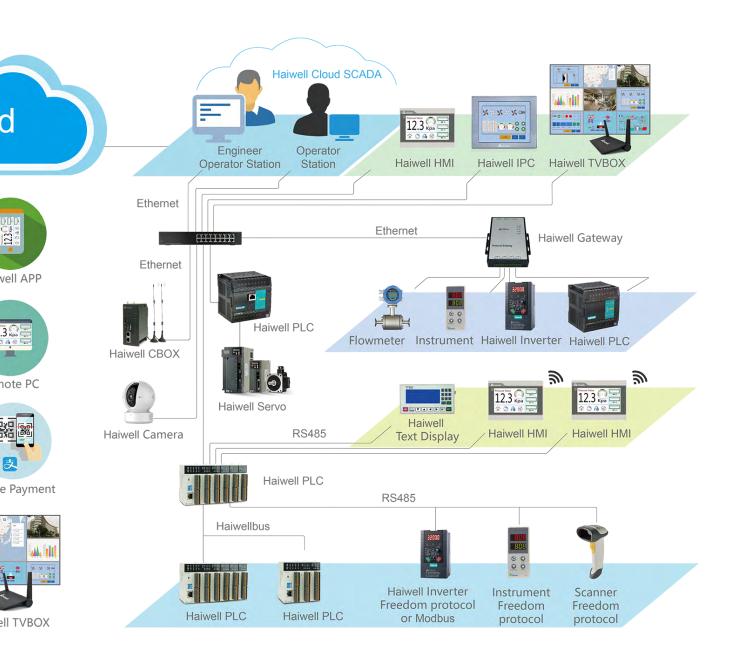












# A Series Card-type PLC Controller





- Ultra-thin design, humanized peripheral port design, saving installation space
- Single Machine integrated digital & analog IO, small size, large application
- Support Haiwell Cloud, remotely program and monitor the PLC through Haiwell Cloud
- Single machine can expand up to 15 modules, maximum expansion I/O up to 256 points
- Support Ethernet + RS485 + 3 RS232/RS485 communication ports to work at the same time, strong communication networking capabilities
- Supports 2 channels A/B phase (4 points) 200 kHz high-speed pulse input and output

### **PLC MPU**

### **AC Series - Economic PLC MPU**

Model	Specifiation										
24VDC	DI	DO		AO	COM Port	Exp.	WxHxD(mm)				
AC10S0R	6	4 Relay			TCP+485	3					
AC10S0T	6	4 Transistor NPN			TCP+485	3					
AC10S0P	6	4 Transistor PNP			TCP+485	3	nie				
AC16S0R	8	8 Relay			TCP+485	3					
AC16S0T	8	8 Transistor NPN			TCP+485	3	A. A.				
AC16S0P	8	8 Transistor PNP			TCP+485	3	40×95×65				
AC12M0R	4	4 Relay	2	2	TCP+485	3	4,00000				
AC12M0T	4	4 Transistor NPN	2	2	TCP+485	3					
AC12M0P	4	4 Transistor PNP	2	2	TCP+485	3					

### AT Series - Standard PLC MPU

Model					Specifiation				Dimension
24VDC	DI	DO		AO	Pulse Input	Pulse Output	COM Port	Ехр.	WxHxD(mm)
AT16S0R	8	8 Relay			2 ChannelsA/B phase 4points 200K		TCP+485	15	
AT16S0T	8	8 Transistor NPN			2 ChannelsA/B phase 4points 200K	2 ChannelsA/B phase 4points 200K	TCP+485	15	
AT16S0P	8	8 Transistor PNP			2 ChannelsA/B phase 4points 200K	2 ChannelsA/B phase 4points 200K	TCP+485	15	
AT12M0R	4	4 Relay	2	2	1 Channel A/B phase 2points 200K		TCP+485	15	40×95×65
AT12M0T	4	4 Transistor NPN	2	2	1 Channel A/B phase 2points 200K	1 Channel A/B phase 2points 200K	TCP+485	15	
AT12M0P	4	4 Transistor PNP	2	2	1 Channel A/B phase 2points 200K	1 Channel A/B phase 2points 200K	TCP+485	15	

# AH Series - High Performance PLC MPU

Model							Dimension
24VDC	DI	DO	Pulse Input	Pulse Output	COM Port	Exp.	WxHxD(mm)
AH16S0R	8	8 Relay	4 Channels A/B phase 8points 200K		TCP+485	15	
AH16S0T	8	8 Transistor NPN	4 Channels A/B phase 8points 200K	4 Channels A/B phase 8points 200K	TCP+485	15	Arma J.
AH16S0P	8	8 Transistor PNP	4 Channels A/B phase 8points 200K	4 Channels A/B phase 8points 200K	TCP+485	15	40×95×65

### **AN Series - Motion Control PLC MPU**

Model			Dimension				
24VDC	DI	DO	Pulse Input	Pulse Output	COM Port		WxHxD(mm)
AN16S0T	8	8 Transistor NPN	4 Channels A/B phase 8points 200K	4 Channels A/B phase 8points 200K	TCP+485	15	
AN16S0P	8	8 Transistor PNP	4 Channels A/B phase 8points 200K	4 Channels A/B phase 8points 200K	TCP+485	15	40×95×65

# Digital I/O Modules

Model		Specifi	cation	Dimension			
24VDC	DI	DO	COM Port	WxHxD(mm)			
A16DI	16						
A16DOR		16 Relay		447 -			
A16DOT		16 Transistor NPN		- 1			
A16DOP		16 Transistor PNP	1				
A16XDR	8	8 Relay		25×95×65			
A16XDT	8	8 Transistor NPN		20-30-00			
A16XDP	8	8 Transistor PNP					

# Analog I/O Modules

Model	Specit	ication			Dimension
24VDC	Al	AI AO Conversion Accuracy		COM Port	WxHxD(mm)
A04AI	4		12bit		
A04AO		4	12bit		
A04XA	2	2	12bit		
A08AI	8		12bit		
A08AO		8	12bit		447
AX80A	4	4	12bit		- 1
A04TC	4 Thermocouple		16bit	,	Tay I
A04RC	4 Thermal Resistance		16bit		25×95×65
A08TC	8 Thermocouple		16bit		
A01WG	1 Channel weighing		24bit		
A02WG	2 Channels weighing		24bit		
A04DT	4 Channels digital temperature & humidity sensor		9~12bit		

### **Communication I/O Modules**

Model	Specification	Dimension(mm) WxHxD
A01RS	With isolution, 1 RS232/RS485 communication port. Supports Modbus RTU/ASCII, Freedon comomunication protocol, Haiwellbus, 1200~115200bps	25×95×65

# **PLC Controller**

Haiwell PLC is a versatile high-performance programmable logic controller, which is widely used in plastics, packaging, textiles, food, medical, pharmaceutical, environmental, municipal, printing, building materials, elevators, central air conditioning, numerical control machine tools and other fields of systems and control equipment. In addition to its own various peripheral interfaces (digital input, digital output, analog input, analog output, high-speed counter, high-speed pulse output channels, power supply, communication ports, etc.), it is also expandable with all types of expansion modules for flexible configuration.

Haiwell company owns the full independent intellectual property rights over both its hardware and software products, all products can be customized according to customer's requirements to meet the different needs of various industries.



## **PLC MPU**

# C Series - Economic PLC (-e : Built-in Ethernet port)

Etherne	et Model	Мо	del		Spe	cification		Dimension
24V DC	220V AC	24V DC	220V AC	DI	DO	Communication	Max Exp.	WxHxD
C10S0R-e	C10S2R-e	C10S0R	C10S2R	6	4 Relay	RS232 + RS485	N/A	
C10S0T-e	C10S2T-e	C10S0T	C10S2T	6	4 Transistor NPN	RS232 + RS485	N/A	
C10S0P-e	C10S2P-e	C10S0P	C10S2P	6	4 Transistor PNP	RS232 + RS485	N/A	
C16S0R-e	C16S2R-e	C16S0R	C16S2R	8	8 Relay	RS232 + RS485	N/A	
C16S0T-e	C16S2T-e	C16S0T	C16S2T	8	8 Transistor NPN	RS232 + RS485	N/A	93×95×82mm
C16S0P-e	C16S2P-e	C16S0P	C16S2P	8	8 Transistor PNP	RS232 + RS485	N/A	
C24S0R-e	C24S2R-e	C24S0R	C24S2R	16	8 Relay	RS232 + RS485	N/A	
C24S0T-e	C24S2T-e	C24S0T	C24S2T	16	8 Transistor NPN	RS232 + RS485	N/A	
C24S0P-e	C24S2P-e	C24S0P	C24S2P	16	8 Transistor PNP	RS232 + RS485	N/A	
C32S0R-e	C32S2R-e	C32S0R	C32S2R	16	16 Relay	RS232 + RS485	N/A	
C32S0T-e	C32S2T-e	C32S0T	C32S2T	16	16 Transistor NPN	RS232 + RS485	N/A	131×95×82mm
C32S0P-e	C32S2P-e	C32S0P	C32S2P	16	16 Transistor PNP	RS232 + RS485	N/A	
C48S0R-e	C48S2R-e	C48S0R	C48S2R	28	20 Relay	RS232 + RS485	N/A	
C48S0T-e	C48S2T-e	C48S0T	C48S2T	28	20 Transistor NPN	RS232 + RS485	N/A	
C48S0P-e	C48S2P-e	C48S0P	C48S2P	28	20 Transistor PNP	RS232 + RS485	N/A	
C60S0R-e	C60S2R-e	C60S0R	C60S2R	36	24 Relay	RS232 + RS485	N/A	
C60S0T-e	C60S2T-e	C60S0T	C60S2T	36	24 Transistor NPN	RS232 + RS485	N/A	177×95×82mm
C60S0P-e	C60S2P-e	C60S0P	C60S2P	36	24 Transistor PNP	RS232 + RS485	N/A	

- Contain 72 models. MPU Points: 10/16/24/32/48/60;
- Program capacity: 48K steps;
- No extension module function;
- Cost-effective, high-reliability and practical;
- 220VAC or 24VDC power supply;
- Use removable terminal blocks, with the rechargeable battery for saving real-time clock;
- The platform update, using ARM architecture, the processing speed increases more than 10 times;
- COM port: Built-in RS232 and RS485 ports, compatible with Modbus ASCII/RTU Protocol, Free communication Protocol and Haiwellbus high speed Protocol;
- Support Ethernet port and 5 other RS232/RS485 communication ports working simultaniously, support N:N network type.

T Series - Standard PLC (-e : Built-in Ethernet port)

Etherne	et Model	Мо	del			Sp	pecification			Dimension
24V DC	220V AC	24V DC	220V AC	DI	DO	Pulse Input	Pulse Output	Communication	Мах Ехр.	WxHxD
T16S0R-e	T16S2R-e	T16S0R	T16S2R	8	8 Relay	2 Channels A/B phase, 4 points 200KHz		RS232 + RS485, Max 5 ports	7	
T16S0T-e	T16S2T-e	T16S0T	T16S2T	8	8 Transistor NPN	2 Channels A/B phase, 4 points 200KHz	2 Channels A/B phase, 4 points 200KHz	RS232 + RS485, Max 5 ports	7	
T16S0P-e	T16S2P-e	T16S0P	T16S2P	8	8 Transistor PNP	2 Channels A/B phase, 4 points 200KHz	2 Channels A/B phase, 4 points 200KHz	RS232 + RS485, Max 5 ports	7	93×95×82mm
T24S0R-e	T24S2R-e	T24S0R	T24S2R	16	8 Relay	2 Channels A/B phase, 4 points 200KHz		RS232 + RS485, Max 5 ports	7	
T24S0T-e	T24S2T-e	T24S0T	T24S2T	16	8 Transistor NPN	2 Channels A/B phase, 4 points 200KHz	2 Channels A/B phase, 4 points 200KHz	RS232 + RS485, Max 5 ports	7	
T24S0P-e	T24S2P-e	T24S0P	T24S2P	16	8 Transistor PNP	2 Channels A/B phase, 4 points 200KHz	2 Channels A/B phase, 4 points 200KHz	RS232 + RS485, Max 5 ports	7	
T32S0R-e	T32S2R-e	T32S0R	T32S2R	16	16 Relay	2 Channels A/B phase, 4 points 200KHz		RS232 + RS485, Max 5 ports	7	131×95×82mm
T32S0T-e	T32S2T-e	T32S0T	T32S2T	16	16 Transistor NPN	2 Channels A/B phase, 4 points 200KHz	2 Channels A/B phase, 4 points 200KHz	RS232 + RS485, Max 5 ports	7	
T32S0P-e	T32S2P-e	T32S0P	T32S2P	16	16 Transistor PNP	2 Channels A/B phase, 4 points 200KHz	2 Channels A/B phase, 4 points 200KHz	RS232 + RS485, Max 5 ports	7	
T48S0R-e	T48S2R-e	T48S0R	T48S2R	28	20 Relay	2 Channels A/B phase, 4 points 200KHz		RS232 + RS485, Max 5 ports	7	
T48S0T-e	T48S2T-e	T48S0T	T48S2T	28	20 Transistor NPN	2 Channels A/B phase, 4 points 200KHz	2 Channels A/B phase, 4 points 200KHz	RS232 + RS485, Max 5 ports	7	
T48S0P-e	T48S2P-e	T48S0P	T48S2P	28	20 Transistor PNP	2 Channels A/B phase, 4 points 200KHz	2 Channels A/B phase, 4 points 200KHz	RS232 + RS485, Max 5 ports	7	0
T60S0R-e	T60S2R-e	T60S0R	T60S2R	36	24 Relay	2 Channels A/B phase, 4 points 200KHz		RS232 + RS485, Max 5 ports	7	177×95×82mm
T60S0T-e	T60S2T-e	T60S0T	T60S2T	36	24 Transistor NPN	2 Channels A/B phase, 4 points 200KHz	2 Channels A/B phase, 4 points 200KHz	RS232 + RS485, Max 5 ports	7	
T60S0P-e	T60S2P-e	T60S0P	T60S2P	36	24 Transistor PNP	2 Channels A/B phase, 4 points 200KHz	2 Channels A/B phase, 4 points 200KHz	RS232 + RS485, Max 5 ports	7	

- Contain 60 models, the total of 16 points,24 points,32 points,48 points,60 points are optional;
- Supports 2-channel duplex high-speed (200KHz) pulse input, supports 2-channel duplex high-speed (200KHz) pulse output;
- Adopts detachable terminal wiring, and it adds rechargeable batterise which is used to keep real-time clock;
- The control points, program capacity and RAM compnent count has increased greatly;
- · Modifies command algorithm, and adds new instructions;
- Supports communication format of N,8,1 RTU, and baud rate 115200;
- Users can record and search system fault by SV817~SV832;
- Support Ethernet port and 5 other RS232/RS485 communication ports working simultaniously, support N:N network type.



# H Series - High Performance PLC (-e: Built-in Ethernet port)

Etherne	et Model	Mo	del			Sp	pecification			Dimension
24V DC	220V AC	24V DC	220V AC	DI	DO	Pulse Input	Pulse Output	Communication	Мах Ехр.	WxHxD
H16S0R-e	H16S2R-e	H16S0R	H16S2R	8	8 Relay	4 Channels A/B phase, 8 points 200KHz		RS232 + RS485, Max 5 ports	7	
H16S0T-e	H16S2T-e	H16S0T	H16S2T	8	8 Transistor NPN	4 Channels A/B phase, 8 points 200KHz	4 Channels A/B phase, 8 points 200KHz	RS232 + RS485, Max 5 ports	7	
H16S0P-e	H16S2P-e	H16S0P	H16S2P	8	8 Transistor PNP	4 Channels A/B phase, 8 points 200KHz	4 Channels A/B phase, 8 points 200KHz	RS232 + RS485, Max 5 ports	7	
H24S0R-e	H24S2R-e	H24S0R	H24S2R	12	12 Relay	4 Channels A/B phase, 8 points 200KHz		RS232 + RS485, Max 5 ports	7	93×95×82mm
H24S0T-e	H24S2T-e	H24S0T	H24S2T	12	12 Transistor NPN	4 Channels A/B phase, 8 points 200KHz	4 Channels A/B phase, 8 points 200KHz	RS232 + RS485, Max 5 ports	7	
H24S0P-e	H24S2P-e	H24S0P	H24S2P	12	12 Transistor PNP	4 Channels A/B phase, 8 points 200KHz	4 Channels A/B phase, 8 points 200KHz	RS232 + RS485, Max 5 ports	7	
H32S0R-e	H32S2R-e	H32S0R	H32S2R	16	16 Relay	4 Channels A/B phase, 8 points 200KHz		RS232 + RS485, Max 5 ports	7	
H32S0T-e	H32S2T-e	H32S0T	H32S2T	16	16 Transistor NPN	4 Channels A/B phase, 8 points 200KHz	4 Channels A/B phase, 8 points 200KHz	RS232 + RS485, Max 5 ports	7	
H32S0P-e	H32S2P-e	H32S0P	H32S2P	16	16 Transistor PNP	4 Channels A/B phase, 8 points 200KHz	4 Channels A/B phase, 8 points 200KHz	RS232 + RS485, Max 5 ports	7	
H40S0R-e	H40S2R-e	H40S0R	H40S2R	20	20 Relay	4 Channels A/B phase, 8 points 200KHz		RS232 + RS485, Max 5 ports	7	131×95×82mm
H40S0T-e	H40S2T-e	H40S0T	H40S2T	20	20 Transistor NPN	4 Channels A/B phase, 8 points 200KHz	4 Channels A/B phase, 8 points 200KHz	RS232 + RS485, Max 5 ports	7	
H40S0P-e	H40S2P-e	H40S0P	H40S2P	20	20 Transistor PNP	4 Channels A/B phase, 8 points 200KHz	4 Channels A/B phase, 8 points 200KHz	RS232 + RS485, Max 5 ports	7	
H60S0R-e	H60S2R-e	H60S0R	H60S2R	36	24 Relay	4 Channels A/B phase, 8 points 200KHz		RS232 + RS485, Max 5 ports	7	
H60S0T-e	H60S2T-e	H60S0T	H60S2T	36	24 Transistor NPN	4 Channels A/B phase, 8 points 200KHz	4 Channels A/B phase, 8 points 200KHz	RS232 + RS485, Max 5 ports	7	177×95×82mm
H60S0P-e	H60S2P-e	H60S0P	H60S2P	36	24 Transistor PNP	4 Channels A/B phase, 8 points 200KHz	4 Channels A/B phase, 8 points 200KHz	RS232 + RS485, Max 5 ports	7	00 02.////

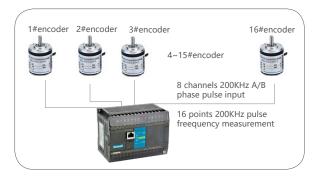
- MPU Points: 16/24/32/40/60;
- Program capacity: 48K steps;
- Expandable to Max. 7 Modules;
- 220VAC or 24VDC power supply;
- Use removable terminal blocks and use the rechargeable battery for saving real-time clock;
- The platform update, using ARM+FPGA architecture, the processing speed increases more than 10 times;
- 4 groups of AB phase 200KHz pulse output; 4 channels of 200KHz pulse input;
- COM port: Built-in RS232 and RS485 ports, compatible with Modbus ASCII/RTU Protocol, up to 5 communication ports and up to 7 non-communication modules;
- Support Ethernet port and 5 other RS232/RS485 communication ports working simultaniously, support N:N network type.

### N Series - Motion Control PLC (-e : Built-in Ethernet port)

Etherne	et Model	Мо	del			Sp	ecification			Dimension
24V DC	220V AC	24V DC	220V AC	DI	DO	Pulse Input	Pulse Output	Communication	Мах Ехр.	WxHxD
N16S0T-e	N16S2T-e	N16S0T	N16S2T	8	8 Transistor NPN	4 Channels A/B phase, 8 points 200KHz	4 Channels A/B phase, 8 points 200KHz	RS232 + RS485, Max 5 ports	7	
N16S0P-e	N16S2P-e	N16S0P	N16S2P	8	8 Transistor PNP	4 Channels A/B phase, 8 points 200KHz	4 Channels A/B phase, 8 points 200KHz	RS232 + RS485, Max 5 ports	7	E
N24S0T-e	N24S2T-e	N24S0T	N24S2T	12	12 Transistor NPN	6 Channels A/B phase, 12 points 200KHz	6 Channels A/B phase, 12 points 200KHz	RS232 + RS485, Max 5 ports	7	93×95×82mm
N24S0P-e	N24S2P-e	N24S0P	N24S2P	12	12 Transistor PNP	6 Channels A/B phase, 12 points 200KHz	6 Channels A/B phase, 12 points 200KHz	RS232 + RS485, Max 5 ports	7	
N40S0T-e	N40S2T-e	N40S0T	N40S2T	20	20 Transistor NPN	8 Channels A/B phase, 16 points 200KHz	8 Channels A/B phase, 16 points 200KHz	RS232 + RS485, Max 5 ports	7	
N40S0P-e	N40S2P-e	N40S0P	N40S2P	20	20 Transistor PNP	8 Channels A/B phase, 16 points 200KHz	8 Channels A/B phase, 16 points 200KHz	RS232 + RS485, Max 5 ports	7	131×95×82mm
N60S0T-e	N60S2T-e	N60S0T	N60S2T	36	24 Transistor NPN	8 Channels A/B phase, 16 points 200KHz	8 Channels A/B phase, 16 points 200KHz	RS232 + RS485, Max 5 ports	7	
N60S0P-e	N60S2P-e	N60S0P	N60S2P	36	24 Transistor PNP	8 Channels A/B phase, 16 points 200KHz	8 Channels A/B phase, 16 points 200KHz	RS232 + RS485, Max 5 ports	7	177×95×82mm

- The total of 32 models: 16 points, 24points to the host, 40 points, 60 points are optional
- Support linear interpolation, ARC interpolation, Synchronism pulse output
- Support absolute address, relative address, Support backlash compensation
- Support electric original point redefine etc.
- The platform update, using ARM+FPGAarchitecture, the speed increase more than 10 times
- The single support 16 points (8 200KHZ,16 bit high speed pulse input) (8 200KHZ high speed pulse output)
- It comes with 2 communication ports(RS232+RS485), which can extend 3 communication port, 5 port can programmingand network
- communication
- Equipped with a removable terminal,increase the rechargeable battery for storing real-time clock
- The capacity of 48K program
- The largest expansion of 7 modules
- The external power supply 220VAC or 24VDC optional
- Support Ethernet port and 5 other RS232/RS485 communication ports working simultaniously, support N:N network type.

### Haiwell PLC with 16 encoders



# Haiwell PLC with 16 servos



# **PLC Expansion**

### Digital I/O Modules (-e : Built-in Ethernet port)

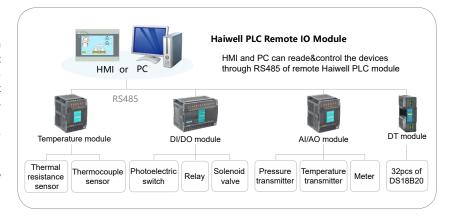
		Mo	odel	Spe		cification	Dimension	
24V DC	220V AC	24V DC	220V AC	DI	DO	Communication	WxHxD	
		H08DI		8				
		H08DOR			8 Relay			
		H08DOT			8 Transistor NPN			
		H08DOP			8 Transistor PNP			
		H08XDR		4	4 Relay		30×95×82mm	
		H08XDT		4	4 Transistor NPN			
		H08XDP		4	4 Transistor PNP			
		H16DI		16		RS485, supports remote function		
		H16DOR			16 Relay	RS485, supports remote function		
		H16DOT			16 Transistor NPN	RS485, supports remote function		
		H16DOP			16 Transistor PNP	RS485, supports remote function		
		H16XDR		8	8 Relay	RS485, supports remote function	70×95×82mm	
		H16XDT		8	8 Transistor NPN	RS485, supports remote function		
		H16XDP		8	8 Transistor PNP	RS485, supports remote function		
H24DI-e	H24DI2-e	H24DI	H24DI2	24		RS485, supports remote function		
H24XDR-e	H24XDR2-e	H24XDR	H24XDR2	12	12 Relay	RS485, supports remote function	1-9	
H24XDT-e	H24XDT2-e	H24XDT	H24XDT2	12	12 Transistor NPN	RS485, supports remote function	93×95×82mm	
H24XDP-e	H24XDP2-e	H24XDP	H24XDP2	12	12 Transistor PNP	RS485, supports remote function	3013010211111	
H40DI-e	H40DI2-e	H40DI	H40DI2	40		RS485, supports remote function		
H36DOR-e	H36DOR2-e	H36DOR	H36DOR2		36 Relay	RS485, supports remote function		
H36DOT-e	H36DOT2-e	H36DOT	H36DOT2		36 Transistor NPN	RS485, supports remote function		
H36DOP-e	H36DOP2-e	H36DOP	H36DOP2		36 Transistor PNP	RS485, supports remote function		
H40XDR-e	H40XDR2-e	H40XDR	H40XDR2	20	20 Relay	RS485, supports remote function	131×95×82mm	
H40XDT-e	H40XDT2-e	H40XDT	H40XDT2	20	20 Transistor NPN	RS485, supports remote function		
H40XDP-e	H40XDP2-e	H40XDP	H40XDP2	20	20 Transistor PNP	RS485, supports remote function		
H64XDR-e	H64XDR2-e	H64XDR	H64XDR2	32	32 Relay	RS485, supports remote function		
H64XDT-e	H64XDT2-e	H64XDT	H64XDT2	32	32 Transistor NPN	RS485, supports remote function		
H64XDP-e	H64XDP2-e	H64XDP	H64XDP2	32	32 Transistor PNP	RS485, supports remote function	177×95×82mm	

- MPU Points: 8/16/24/36/40/64;
- It can be used as extension module for any Haiwell PLC
- 8-point, 16-point digital modules only support 24VDC, digital modules with more than 16-point support both 24VDC and 220VAC power supply;
- Digital modules with more than 8-point have RS485 port, support stand-alone use and can also be used for Remote IO;
- Expansion modules with Ethernet port and RS458 port, can be remote IO unit by distributed installation.

### **Remote IO Functions**

All Haiwell PLC expansion modules which designed with RS485 port are support remote IO functions. It support parallel bus and serial bus, can work with PLC host or running independently. When using as remote IO modules, it can be insatalled independently without PLC system points limitation.

Long distance. Fexible configuration. Low cost.



### Analog I/O Modules (-e : Built-in Ethernet port)

Etherne	Ethernet Model		Model		Specification		Specification		Specification		Specification		Dimension
24V DC	220V AC	24V DC	220V AC	Al	AO	Conversion Accuracy	Communication	WxHxD					
		S04AI	S04AI2	4		12 bits	RS485, supports remote function						
		S04AO	S04AO2		4	12 bits	RS485, supports remote function						
		S04XA	S04XA2	2	2	12 bits	RS485, supports remote function	70×95×82mm					
S08AI-e	S08AI2-e	S08AI	S08AI2	8		12 bits	RS485, supports remote function						
S08AO-e	S08AO2-e	S08AO	S08AO2		8	12 bits	RS485, supports remote function						
S08XA-e	S08XA2-e	S08XA	S08XA2	4	4	12 bits	RS485, supports remote function	93×95×82mm					

- Contain 20 types, can be classified by 4-point and 8-point.
- Signal types:current or voltage, a variety of optional signal range.
- Analog Al/AO support 6 types of signals: [4,20]mA, [0,20]mA, [1,5]V, [0,5]V, [0,10]V, [-10,10]V.
- Hardware conversion accuracy:12 A/D conversion hardware, range:0~32000.
- Comes with a RS485 communication port, which can be use for remote I/O.
- It can be used as expansion module for any host.
- Expansion modules with Ethernet port and RS485 port, can be remote IO unit by distributed installation.

### **Temperature & Humidity Modules** (-e : Built-in Ethernet port)

Ethernet Model		Mc	odel		Dimension		
24V DC	220V AC	24V DC	220V AC	Sensor	Conversion ccuracy	Communication	WxHxD
		H04DT		4 Channels DS18B20, RW1820 temperature sensor, DS1990 sensor or SHT1x, SHT7x temperature & humidity sensor		1	
		H32DT		32 Channels DS18B20, RW1820 temperature sensor, DS1990 sensor	9~12 bits	RS485, supports remote function	30×95×82mm
		H04RC	H04RC2	4 thermal resistance	16 bits	RS485, supports remote function	
		H04TC	H04TC2	4 thermocouple	16 bits	RS485, supports remote function	
		H08TC	H08TC2	8 thermocouple	16 bits	RS485, supports remote function	70×95×82mm
H08RC-e	H08RC2-e	H08RC	H08RC2	8 thermal resistance	16 bits	RS485, supports remote function	93×95×82mm

- Contain 12 types, can be divided into thermal resistance, thermocouple and DS18B20 temperature sensor module;
- Thermal Resistance kinds: PT100, PT1000, Cu50, Cu100;
- Thermocouple kinds: S, K, T, E, J, B, N, R, Wre3/25, Wre5/26, [0,20]mV, [0,50]mV, [0,100]mV;
- Come with a RS485 communication port, which can be use for remote I/O;
- Hardware conversion accuracy: 16-bit A/D conversion hardware.
- Expansion modules with Ethernet port and RS485 port, can be remote IO unit by distributed installation.

### **DT Series Digital Temperature & Humidity Module**

ı	Model	Specification	COM Port	Dimension WxHxD
	H04DT	4 Channels DS18B20,RW1820 temperature sensor, DS1990 sensor or SHT1x, SHT7x temperature & humidity sensor	/	30*95*82mm
	H32DT	32 Channels DS18B20, RW1820 temperature sensor, DS1990 sensor	RS485, supports remote function	30*95*82mm

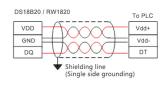
H04DT: it can measure the temperature and humidity at the same time. It can be used to accurately measure the temperature and humidity within 200 meters, furthermore, the collection of temperature and humidity values without error, low

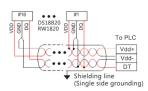
H32DT: supports remote function, it can be used as remote IO module. And it is widely used in coal mines, tunnels, freezing, libraries, archives and other multi-point temperature measurement environment and other environmental monitoring system.

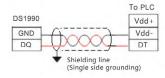


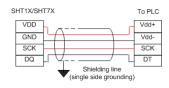
ITEM	LIGART	LICORT
ITEM	H04DT	H32DT
Input interface	SHT1x / SHT7x / DS18B20 / RW1820 sensor	DS18B20, RW1820 sensor
Input Quantity	4 Channels 4 points	2 channels, each channel 16points
Communication interface	N/A	RS485
Communication speed	N/A	2400~115200bps baud rate
Communication protocol	N/A	standard Modbus
Power supply mode	PLC host internal power supply	PLC host internal power supply, or independent external supply of 24VDC
Messured distance	≤200m (wire resistance 50Ω)	≤500m (wire resistance 50Ω)
Messured range	DS18B20 / RW1820 : -55 ~ +125°C SHT1x / SHT7x : -40 ~ 123.8°C 0~100%RH	-55 ~ +125°C
Isolation type	No isolation between channels. Analog & Digital optical isolation	No isolation between channels. Analog & Digital optical isolation

### Wiring Diagram











### **Products Environment Specification**

- Operating Temperature: 0~+55°C storage temperature -25~+70°C
- Operating Humidity: 5~95%RH, without condensation
- Anti-vibration Ability: 10~57Hz amplitude 0.075mm, 57Hz~150Hz acceleration 1G, each 10 times for three-axis direction of X,Y,Z
- Anti-shock Ability: 15G, last 11ms, each 6 times for three-axis direction of
- Anti-jamming Ability: DC EFT ±2500V, surge ±1000V
- Anti-voltage Endurance Ability: DC terminal to ground terminal 500VAC, 1
- Insulation Resistance: over  $5M\Omega$  (all input / output points to time 500VDC)
- Operating Environment: dust proof, moisture proof, anti-corrosion, avoid electric shock and external shocks etc.

### Functional Modules (-e : Built-in Ethernet port)

Ethernet Model	Model						
24V DC	24V DC	Туре		Conversion Accuracy	Communication	WxHxD	
	H01WG	Load Cell	1 channel weighing	24 bits	RS485, supports remote function		
	H02WG	Module	2 channels weighing	24 bits	1	30×95×82mm	

#### **Load Cell Module**

- The design of industrial grade standard applies to different kinds of harsh industrial environments.
- Provide 24 bits high resolution and support multi-segment calibration.
- Supporting 4 or 6-wire weighing sensors with multiple eigenvalues, customers can adjust their reaction speed according to their requirements, so that accurate weighing can easily meet most of the demands of the current weighing application market.
- Provide the current weighing status bit flag, asisit on-site automatic weighing control.
- It has the functions of standstill check and zero point detection to effectively restrain zero drift of load cell.
- Weighing module can be widely used in packaging, food, chemical industry, metallurgy, building materials, feed processing and other fields.



Item	Specification	
Power supply	24VDC±20%, 0.2A	
A/D conversion method	24Bits Δ Σ	
A/D conversion speed	6.25/12.5/25/50/100/200/500Hz	
Internal resolution	24bits	
linearity error	Static weighing≤ 0.02% FS	
Excitation Voltage	5VDC ±5% , 125mA (it can connect with 4 load cells each 350 $\Omega)$	
Sensor sensitivity	1mV/V~5 mV/V	
Measurement pulse	0~2000Hz 24VDC	
Load cell form	4- line connection or 6-line connection load cells	
Maximum distance to connect the sensor	100 meters	

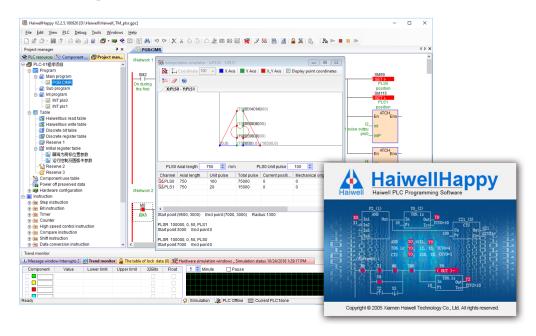
### **Communication Modules**

Model	Specification	Dimension WxHxD	
S01RS	With isolation ,1 RS232/RS485 communication port, Modbus RTU/ASCII protocol, freedom communication protocol, Haiwellbus high speed communication protocol, Baud rate 1200~57600bps		
S01GL	With isolation ,Modbus RTU/ASCII protocol, freedom communication protocol, Haiwellbus high speed communication protocol, Baud rate 1200~115200bps	30×95×82mm	
H01ZB	Zigbee wireless communication	00.00.02.	
PC2ZB	PC to Zigbee module	48x70x24mm	

- 4 models, communication port extension module and the wireless communication module;
- Power supply: internal 24VDC;
- Baud rate 1200 ~ 115200bps, master/slave mode can be used well;
- Support Modbus RTU/ASCII protocol, free communication protocol, HaiwellBus high-speed communication protocol;
- It can be used as extension module for any host, except C series PLC, increasing the number of communication ports;
- Single communication port module can be extended to two or three communication ports, RS485/RS232 port optionally.



# HaiwellHappy



HaiwellHappy is the programming software for Haiwell PLC. It accordance with IEC 61131-3 standard, supports built-in simulator and three kinds of programming languages (LD-Ladder Diagram, FBD-Function Block Diagram and IL-Instruction List). It can run on the systems of Windows 98, Windows 200X, Windows XP and the later Windows versions.

You can get the latest version from http://en.haiwell.com Download center for free.

### **HaiwellHappy Features**

### Haiwell Cloud Programming

Support Haiwell Cloud platform, can use Haiwell cloud to do remote programming for Haiwell PLC as upload/download, firmware upgrading, self-diagnosis, monitoring and debugging. Easy for remote connection and real-time data monitoring of the site. Also you can do local programming through a HMI which supports built-in cloud engine.

### Built-in PLC simulator

Haiwell PLC programming software supports internal simulator, realizing the PLC program run in the simulation. During programming or the programming is completed, you can run PLC program in the simulation without online to check the program execution is correct or not. It can reduce on-site commissioning time greatly, reduce debugging difficult and improve debugging efficiency.

### Communication simulator

It is used to the debug communication instruction simulation tools. It can be manually input simulately response message returned from salve, or you can use the computer's serial port to communicate with salve really, Simulate the process that PLC executes communication instruction really and process the return data from the salve.

### Interpolation simulator

Track and draw the trajectory generated from motion control instructions such as the linear interpolation, circular interpolation, listing parameters of the pulse output channel of the motive plane and corresponding to each axis, display the current position of the channel, the mechanical home position, output mode, you can set shaft length, unit pulses.

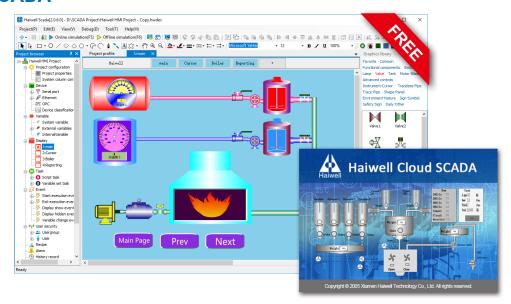
#### PLC executable file Generation

PLC program can be generated to executable file which is released and executed independently. So you do not need to send the PLC program to the user, it can be very easy, very safe to put the PLC excutable file to the user to download, but do not worry the user would can see the program content.

### Modular project structure

Create 63 blocks total (main program, sub program, interrupt program) and chose any programming language to program. The execution order of block can be adjusted at random. Each block can be imported and exported independently and has the same password protected of program projects. So we can fully realize the modular programming and program reuse dreams.

# **Cloud SCADA**



Haiwell Cloud SCADA is NET-Framework based industrial automation monitoring and management platform developed by Xiamen Haiwell Technology Co., Ltd. Also it is the programming&management software for Haiwell HMI.

You can get the latest Haiwell Cloud SCADA software from http://en.haiwell.com Download center for FREE.

### **Product Features**

Powerful displaying function

The industrial site condition can be observed directly to do real-time monitoring through the various primitives and bitmaps of the picture.

- Powerful Connectivity
  - Communicate with all kinds of industrial control equipments, monitor by acquisition of production signal from the industrial site.
- Rich function modules

The alarm notice about the industrial site can be sent by picture, computer voice, Wechat,, SMS, mail, ect to the relevant

The network engineering enables that different projects can be client or server to each other, by sharing the data, the distributed control can be realized.

- Strong Database
  - Record and store data. Make an analysis of real-time data and historical data to solve the production problems, improve production efficiency and improve product quality, etc.
- Programmable command language

Provide to the user with the JavaScript programming language function.

System Security

Available to set security control level for project(such as security level, user level,etc), which can improve the security of the project.

Simulation function

Available to run in simulation, which ensures the project not to be affected by the actual devices. And it can be tested in the software, shortening the development cycle.

### **Hardware Requirement**

CPU: 1.2 GHz PC or higher version, 2.4 GHz PC or compatible version.

Memory: 512MB or higher, suggested 1GB. Hard Drive: 20GB or higher, suggested 80GB.

Mouse: Microsoft.

Display: Resolution 800 x 600 high color 16-bit or higher, suggested 1024 x 768 high color 32-bit.

### **Software Requirement**

OS: Windows XP SP2 or higher version. Operating Platform: Net Framework 2.0/3.0/3.5.

# **Human Machine Interface - HMI**

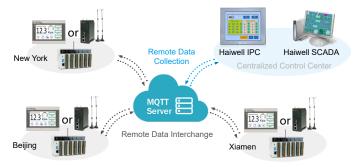


Model	Specification	Panel Cutout WxH	G.W.	Dimension WxHxD
C7	7" TFT, 800*480, 4G Flash, 512M RAM	193*138mm	0.7kg	- 000 - 000
C7-W	7" TFT, 800*480, 4G Flash, 512M RAM, built-in Wifi	193°138mm		200*146*37mm
C10	10.1" TFT, 1024*600, 4G Flash, 512M	260*202mm	1.2kg	
C10-W	10.1" TFT, 1024*600, 4G Flash, 512M, built-in Wifi	200 20211111	1.2Kg	270*212*35mm

- 7" and 10.1" sizes optional. LED backlight, fashion, splendid, elegant. 4G FLASH + 512M DDR3
- Serial port/ U disk / SD card / Ethernet port/ Haiwell cloud. Supports cloud / mobile terminal access control, strong operability
- HMI directly uses Haiwell Cloud SCADA Software for programming and management
- Supports A/B Key security mechanism, Multi-language automatic translation, mobile payment, weather forecast display
- Integrate Haiwell cloud service, built-in Haiwell cloud engine
- Standard RJ45 port, 2 serial ports (232/422/485), 2 USB ports, SD card. WiFi is optional
- Support multiple customized terminal display, and mutual management. Innovatie network mode, easy, convenient and pratical
- Support MQTT protocol, support access to the database server, easily achieve data collection and reporting, connects to ERP/ MES and other systems

### Remote centralized control of device

- Haiwell HMI /Cloud box /IPC can achieve data interaction between remote devices through the MQTT server.
- Haiwell Cloud configuration software can flexibly call variable data of devices in different places to realize centralized control of devices, making remote centralized control more convenient for engineers.



## **Mobile Payment**

- Access to Alipay and WeChat pay system.
- Haiwell Cloud configuration software can quickly complete the configuration of the payment system, which is widely used in vending machine, self-service refueling machine, automatic car washer, automatic express cabinet and other unattended scenes.





- 256M Flash+256M DDR3, small size, multi-function, cost-effective
- Built-in Haiwell cloud engine, integrated Haiwell cloud service, support cloud/mobile access control
- Integrated HMI function, it can monitor the display screen directly by mobile phone /PC instead of HMI screen, which is flexible and convenient to control
- Support A/B Key security mechanism, multi-unit network, database, multi-screen interaction, cloud camera remote monitoring and other functions
- Support Haiwell Could SCADA cloud configuration software
- Connect to Haiwei Cloud via Ethernet/WIFI/4G (Full Netcom), viewing and monitoring equipment remotely in real-time
- Two Ethernet interfaces, support star, tree, and bus Ethernet networking
- Standard 2xRJ45 interface, 2xUSB, 2x serial port, WIFI, SD card, SIM card, optional 4G, rail mounting
- Support MQTT protocol, support access to the database server, easily achieve data collection and reporting, connects to ERP/ MES and other systems

Model	Configuration	Dimension (mm) W x H x D
CBOX	512M Flash, 256M RAM, 2*RJ45 (10/100MB), RS232+RS485, 2*USB, with wifi, support SD card	50x120x85

### **Haiwell Cloud Integration**

- Through mobile phones APP provided by Haiwell cloud and Haiwell cloud website easily achieve the remote viewing and control of HMI and SCADA.
- Support to send alarm information by mobile phone APP, SMS, E-mail and other ways of communication, and using the powerful alarm mechanism makes you feel at ease wherever you are.





### Support MQTT protocol & Database

- Support MQTT protocol, support access to the database server, easily achieve data collection and reporting, connects to ERP/MES and other systems.
- By Haiwell MQTT Client, support to save real-time&history data to database as MySQL/SQL Server etc, and data dissemination.
- With the Haiwell data visualization system, it is easy to generate various data reports, realize data analysis and large-screen data presentation, and provide various data support for management decisionmaking.



# **Industrial Panel PC**

### **Q Series Industrial Panel PC**





Model	Specification	Weight (KG)	Hole Size (W x H )	Product Dimension (W x H x D)
Q15	15" TFT, 1024×768 pixel, Intel i3 CPU, 4G DDR3, 32G SSD 4*COM (1*RS485), 1*RJ-45 (1000MB) 4*USB, 1*VGA. 1*HDMI, WIFI is optional Aluminum alloy shell, Industrial ATX power supply	N.W.: 4.3kg G.W.: 5.4kg	365x275 mm	380x290x55 mm
Q17	17" TFT, 1280×1024 pixel, Intel i3 CPU, 4G DDR3, 32G SSD 4*COM(1*RS485), 1*RJ-45 (1000MB) 4*USB, 1*VGA. 1*HDMI, WIFI is optional Aluminum alloy shell, Industrial ATX power supply	N.W.: 5.4kg G.W.: 6.6kg	397×316 mm	413×333×55 mm
Q19	19" TFT, 1280×1024 pixel, Intel i3 CPU, 4G DDR3, 32G SSD 4*COM(1*RS485), 1*RJ-45 (1000MB) 4*USB, 1*VGA. 1*HDMI, WIFI is optional Aluminum alloy shell, Industrial ATX power supply	N.W.: 6.5kg G.W.: 7.8kg	440×354 mm	453×369×55 mm
Q22	21.5" TFT, 1920×1080 pixel, Intel i3 CPU, 4G DDR3, 32G SSD 4*COM(1*RS485), 1*RJ-45 (1000MB) 4*USB, 1*VGA. 1*HDMI, WIFI is optional Aluminum alloy shell, Industrial ATX power supply	N.W.: 6.6kg G.W.: 8.0kg	532×316 mm	548×331×55 mm

- 15"/17"/19"/21.5" optional. Intel j1900/i3/i5 CPU, 2G/4G/8GDDR3, 32G/64G/128G SSD optional. Lower power consumption, better experience
- High strength aerospace aluminum panel, brushed oxidation treatment casing is made of aluminum alloy brushed, and the rear cover sheet metal baking paint is integrally die-casted, high-end and elegant
- High quality stainless steel metal switch button design front panel, hundreds of thousands of mechanical life
- Built-in Haiwell Cloud SCADA Cloud configuration software
- IP65 rated dustproof and waterproof front panel for easy adaptation to complex and varied industrial environments
- Original resistive touch screen dustproof and oilproof sensitive touch, precise positioning touch
- Standard 4\*COM (1\*RS485), 4\*USB, 1\*RJ45 port (1000MB), 1\*VGA, 1\*HDMI, 1 LINE-OUT, optional WIFI
- Flexible application in industrial automation, intelligent equipment, industrial control, HMI and other upper computer control, etc.
- Support embedded panel, VESA standard cantilever, wall hanging and other installation way
- Support MQTT protocol, support access to the database server, easily achieve data collection and reporting, connects to ERP/MES and other systems



# **Haiwell Data Visualization System**



Block	Function	Configuration	
	Multiple data source association		
	Multiple sheet report design		
	Multiple report running environment		
	Enhanced Analysis Statistics block		
Basic report	Parameter query interface	Default	
	block permission integration		
	Print export		
	H5 Dynamic chart		
	Advanced chart interaction		
Portal	Decision platform		
Мар	Мар		
Dash board	Decision report		
Fill in	Aggregate report	Optional	
	Data Entry	Ориона	
1 111 111	Excel Import		
Mobile	Mobile report display		
Remote design	Remote design		



### Data map

Built-in data maps based on GIS layers, Very fine granularity of, The style is rich.



### Interaction analysis

Chart linkage, Data linkage, Multidimensional data drilling, Any combination of drilling, Unlimited levels of drilling, Multidimensional data analysis, Instant analysis, Control query.



### Data fill in

Support multi-style data entry, Check, Multistage circulation Support offline fill in, multi sheet fill in,paging fill in,batch excel Import etc.



### Access control

Rich permission authentication method and detailed permission granularity control scheme, convenient for single sign-on.



### Decision platform

For reports, user, Uniform access to permissions, Centralized management, Classification maintenance.

### **Product Features**



### Excel type design patterns

Excel type Designer, Remote design, Multi-person collaboration, Multiple working directory.



### Data support

Support for multiple databases and types, Provide heterogeneous data source model, Make the data of the same report available from multiple different tables in the same database,Or multiple different databases.



### Complex report processing

Provide row symmetry, Grouping, paging, columnization, Dynamic inter-lattice operation, Aggregate reports and a series of functions.



### Chart

H5 Chart, more than 20 types, more than 100 styles.



### **Decision report**

Responsive layout, Form an independent free refresh, Suitable for building a management cockpit.



### Parameters control

Visual parameter configuration, Rich parameter controls, Customize all kinds of advanced data screening.



### **Printout**

Support all major printing methods and file output types, Support attribute customization.



# Large screen application

Data management cockpit on the large screen.



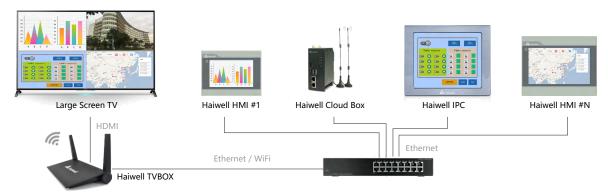
#### Timing schedule

For routine tasks, Set timing schedule, The server automatically generates the report and sends it.

# **Large Screen Controller TVBOX**

Haiwell large-screen controller TVBOX can realize the large-screen display of HMI images in the LAN. User can select, switch and view multiple touch screen images on the TV screen, and realize the function of large traditional electronic display board in the most costeffective way.

Through TVBOX, different sizes of touch screen images can be displayed on the TV screen. The scada, curve, formula, user rights and other functions on the HMI can be displayed on the large screen. Users can use remote controller or mouse by USB interface of TVBOX to realize the remote operation and monitoring of the HMI.



Model	Specification	Dimensions
TVBOX	Supprots 4K/1080P/1080i/720P dispaly. A7 CPU, 8GB flash Supports HDMI/ WiFi/ USB/ Internet interface	180x30x115mm

### **Products Features**

Combined-Screen Display

Through TVBOX, the pictures of multiple devices can be combined and shown on a large screen and monitored simultaneously in the form of 4/6/9 squares. Haiwell HMI, cbox, IPC and other equipments support this function.

• Big electronic display board function

One TVBOX, one TV, and multiple HMIs can easily realize the function of big electronic display board, which is widely used in agricultural greenhouses, aquaculture, libraries, production workshops and other large screen data monitoring and display applications.

- Dual-band wireless WIFI
  - The dual-frequency 2.4G /5G WIFI chip is equipped, so the network speed is faster and more stable.
- Innovation of the project

HMI Image can be displayed according to the size of the TV screen. Support remote controller button, wired keyboard and mouse three modes of operation, easy and convenient operation.

- Remote management
  - Supports display, access, and remote control of HMI within the LAN.
- Firmware upgrading function
  - Support online and offline version update.



Specifications	Large-screen controller TVBOX				
Operating system	Support Android 6.0, built-in multi-screen real-time control system				
TV Resolution	4K/ 1080P/ 1080i/	720P			
The processor	CPU A7				
	RAM 1GB DDR3				
Memory	Flash	8GB EMMC			
	HDMI2.0	18Gbps, 4096x2160p, 32track/1536KHz			
	Ethernet port	10/100M			
	USB HOST	2xUSB2.0			
External interface	TF card	support			
	WIFI	2.4G/5G			
	AV interface	R,L,CVBS			
	The input power	5VDC/2A			
	Shell material	ABS plastics			
Others	Accessories	Power cable, HDMI cable, remote controller			
Others	Size(W*H*D)	180x30x115mm			
	Weight	0.6kg			

# **Text Display**

TP300 is a Human-Machine Interface that is used with many kinds of PLC (or the other intelligent controllers with communication ports). With TP300, both the values of the PLC inner registers and the relays status of PLC can be monitored or changed through texts or LEDs. So the operation of the machines or the devices is more easy and convenient.

Model	Specification	Hole Size W x H	Dimension WxHxD
TP300	Text display, 4.3" STNBlue LCD display, 192 × 64 Pixel resolution	165×86mm	172×95×30mm



#### **Product Features**

- The windows are made with the editor TP300 on PC. Text including Chinese characters can be input and the PLC address can be set. The windows are downloaded with
- The PLC communication protocols are downloaded to the TP300 with the data of the windows, so the engineer needn't program of communication.
- It can work with most popular PLC, including SIEMENS, Mitsubishi, OMRON, Schneider, FACON, LG, Delta, AB ,SAIA and etc. It supports some general protocols like Modbus RTU, Free communication and ECOSTEP protocol applied in KINCO servo motor driver.
- Password protecting function.
- Alarm List function. The current alarm information is displayed one by one.
- · Optional clock module is available. They can provide a realtime clock.
- It has 19 keys, which can be defined as function keys, there is a keyboard for numeric input. The manipulation is simple. Some of the mechanic buttons on the controlling cabinet can be substituted with them.
- · Various communication modes can be selected. Any of RS232 and RS485 is OK.
- STN LCD with background lights. 4 rows (24 English or 12 Chinese characters in every row) of characters can be displayed at the same time.
- The front panel of the TP300 accords with IP65 standard. It is water-proof and oil-proof.

Model	TP300
Shell	Gray color
Display	4.3" STNBlue LCD
Resolution	192 × 64 Pixel
Color	Monochrome
Brightness	60 cd/m²
Contrast	Potentiometer adjustment
Backlight	Long-life bright white LED
LCD life	≥50000 @25±2°C, 65±10%RH
Touch screen	Non-touch
CPU	8-bit MCU
Memory	64KB Flash ROM
Recipe memory	Non-touch
Clock	YES (30PPM Accuracy)
Function keys	19, can be freely defined (Containing 10 number input buttons)
Communication port	PC RS232 & PLC RS485 & PLC RS232
Print Port	NO
Power supply	21~28 VDC
Current consumption	MAX150mA@24VDC
EMC Test	DC EFT:±3000V
Withstand Voltage Test	500 V AC 1minute
Insulation Impedance	≥10MΩ @ 500V DC
Vibration Resistance	10~25 Hz (X-axis, Y-axis and Z-axis 2G/ 30 minutes)
Protection class	IP65(Front Panel)
Operating temperature	0~50°C
Humidity	20~90 % RH (Non-condensing)
Storage temperature	-20°C~70°C
Shell material	ABS+PC
Dimensions	172 × 95 × 30mm
Display Size	101 × 36 mm
Mounting area	165 × 86 mm
Cooling	Natural cooling
Weight	0.3 Kg

## Inverter

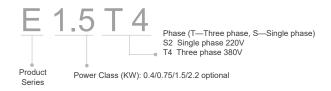
### **E Series Economic Inverter**

- Built-in PID function
- Support international standard RS485 communication (Modbus RTU)
- V/F curve diversification, V/F can be separated
- · Automatic stabilization (AVR), keep the output voltage constant voltage



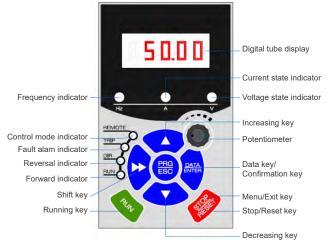
#### **Products List**

Model	G type (KW)	Output rated current (A)	Wire Diameter (mm2)	Weight (Kg)	Dimension HxWxD (mm)				
	Single-phase 220V								
E0.4S2	0.4KW	2.3	2						
E0.7S2	0.75KW	4	2	1.25	166*82.6*118.5				
E1.5S2	1.5KW	7	2	1.25	100 02.0 118.5				
E2.2S2	2.2KW	9	4						
		Three-phas	se 380V						
E0.4T4	0.4KW	2	2						
E0.7T4	0.75KW	2.5	2	1.25	166*82.6*118.5				
E1.5T4	1.5KW	3.8	2		100 02.0 118.5				
E2.2T4	2.2KW	5.5	4						



### **Technical Specifications**

- Voltage level: support single-phase 220V, 3-phase 380V
- Motor type: support 3-phase AC asynchronous motor VF, open loop vector control
- Communication type: support Modbus RTU
- Vector Control: Super speed sensorless vector control algorithm. With high response, strong low frequency capacity, and support SVC torque control

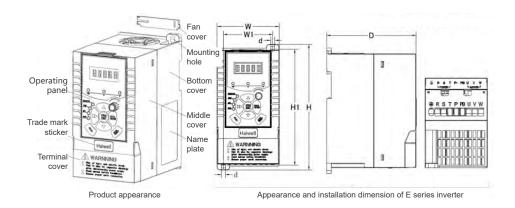


### **Product Appearance and Installation Dimension**

Model	Appearance and installing dimension (mm)							
Wiodei		W1		H1	D	Фd	(kg)	
		Si	ngle-phas	e 220V				
E0.4S2								
E0.7S2	00.0	CF F	100	154	118.5	Ф5.2	4.05 km	
E1.5S2	82.6	65.5	166	154	110.5	Ψ5.2	1.25 kg	
E2.2S2								
		Th	ree-phase	e 380V				
E0.4T4								
E0.7T4	82.6	65.5	166		154 118.5	Ф5.2	4.05 1	
E1.5T4	82.6	05.5		104			1.25 kg	
E2.2T4								

### **Environmental Characteristics**

- Usage scenario: indoors, not exposed to direct sunlight. No dust, corrosive gases, flammable gases, oil mist, water vapor, dripping or salt, etc.
- Altitude: less than 1000M
- Environment temperature: -10°C ~ +40°C(ambient temperature is 40°C ~ 50°C please derating use)
- Humidity: less than 95% RH, no water condensation
- Vibration: less than 5.9m / s (0.6g)
- Storage temperature: 20°C~ + 60°C



Operating panel Braking Resistor PB Single-phase TT 220V input power М V η W (1) To match
with ON OFF
restitor 485+ **O** DI1 Default MODBUS interface irput term irud 1 DI2 Defenik 485- 💿 Multi-runo.co... irgust term irusl 2 DI3 AO1 output-0~10V.0~20mA A01 0 DI4 **\*\*** S2 DI5 , LAGND Q Select AO1 as voltage or current type by S2 ⊣Ó GND DO +10V ¥₹ Multi-functional AI1 GND Analog input 0~10V/0~20mA d AI2 GND TO TΑ TB output 1 Select voltage or TC current giving by S1 (1)

Braking Resistor (P+) PB 380V input power S M ν W (1) +5V on Off 485+ DI1 Default as FWD MODBUS interface ¥¥4 isputteminal l 485- 💿 DI2 Default as REV **\***\*\*( DI3 AO1 output: **\* \*** 2( 0~10V/0~20mA A01 O DI4 **\***¥:( input terminal 4 Multi-functional S2 DIS i Tognd o Select AO1 as voltage GND +10V **₽**₹ o Multi-functional AI1 • AI2 GND T Analog .... 0~10V/0~20mA TA Relay O TB output 1 Select voltage or b TC current giving by S1

Control Circuit and Main Circuit Wiring of Three-phase 380V Inverter

### **Electrical Characteristics**

- Maximum frequency: vector control 0~300Hz, V/F control 0~3000Hz
- Carrier frequency: 0.5KHz~16KHz,the carrier frequency can be automatically adjusted according to the load characteristics.

Control Circuit and Main Circuit Wiring of Single-phase 220V Inverter

- Input frequency: digital setting 0.01Hz
- Resolution: simulation settings=Maximum frequency x0.025%
- Control mode: open loop vector control (SVC), V/F control
- Speed adjustable range: 1:100 (SVC)
- Speed stabilizing accuracy: ±0.5% (SVC)
- Overload capability: 150% rated current 60s ,180% rated current 30s

### **Horizontal Air Duct Design**

Haiwell E-series economical converter that uses dualchannel horizontal air duct heat dissipation technology, which uses forward and backward to keep the wind flowing horizontally. At the same time, the upper exhaust fan cooperates with the air flow speed to achieve the most ideal heat dissipation effect, and take away the IGBT module and the heat of the radiator.

### **Applied Range**

Small machinery such as fans/pumps, mixers/squeezers/noodle machines, agricultural machinery/woodworking machinery, small handling machines such as garage/rolling doors, conveyor belts/transportation, rotary machine such as fitness equipment, small lifting machines, centrifugal separators/grinders, etc.

### **H Series Vector Inverter**

- The highest frequency can reach 3200HZ
- The carrier frequency can be automatically adjusted according to the load characteristics.
- Automatic torque limit to prevent frequent overcurrent trip
- Automatic stabilization (AVR), keep the output voltage constant voltage
- Support international standard RS485 communication (Modbus RTU)
- Vector control (SVC), V/F curve diversification, V/F can be separated
- Built-in PID function, easy to control (can manually correct the number keys)

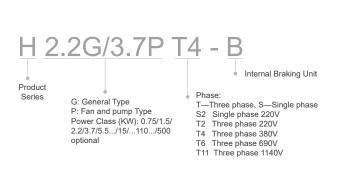


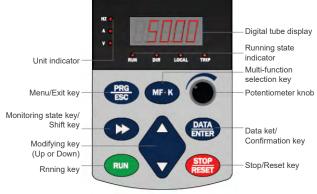


#### **Products List**

Model	G type (KW)	P type (KW)	Output Rated Current (A)	Wire Diameter (mm2)	Weight (kg)	Dimension HxWxD (mm)
			Three-phase 38	0V		
H0.7G/1.5PT4-B	0.75KW	1.5KW	2.5	2	2.2	185*118*157
H1.5G/2.2PT4-B	1.5KW	2.2KW	3.8	2	2.2	185*118*157
H2.2G/3.7PT4-B	2.2KW	3.7KW	5.5	4	2.2	185*118*157
H3.7G/5.5PT4-B	3.7KW	5.5KW	9	4	2.2	185*118*157
H5.5G/7.5PT4-B	5.5KW	7.5KW	13	4	4.7	247*160*177
H7.5G/011PT4-B	7.5KW	11KW	17	6	4.7	247*160*177
H011G/015PT4-B	11KW	15KW	24	10	4.7	247*160*177
H015G/018PT4-B	15KW	18.5KW	30	10	8.4	350*220*177
H018G/022PT4-B	18KW	22KW	39	16	11	400*225*184.7
H022G/030PT4-B	22KW	30KW	45	16	11	400*225*184.7
H030G/037PT4	30KW	37KW	60	18	15	455*290*218
H037G/045PT4	37KW	45KW	75	18	15	455*290*218
H045G/055PT4	45KW	55KW	91	24	22	555*320*240
H055G/075PT4	55KW	75KW	112	24	22	555*320*240
H075G/090PT4	75KW	90KW	150	36	31	635*410*239
H090G/110PT4	90KW	110KW	176	36	31	635*410*239
H110G/132PT4	110KW	132KW	210	45	45	654*420*303
H132G/160PT4	132KW	160KW	253	45	45	654*420*303
H160G/200PT4	160KW	200KW	310	60	82	848*560*403
H200G/220PT4	200KW	220KW	380	60	82	848*560*403
H220G/250PT4	220KW	250KW	426	90	82	848*560*403
H250G/280PT4	250KW	280KW	470	90	160	1018*720*403
H280G/315PT4	280KW	315KW	520	120	160	1018*720*403
H315G/350PT4	315KW	355KW	600	120	160	1018*720*403
H355G/400PT4	355KW	400KW	650	160	160	1018*720*403
H400G/450PT4	400KW	450KW	690	160	160	1018*720*403
H450G/500PT4	450KW	500KW	800	160	160	1018*720*403

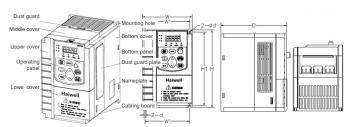
Note: G=General Type P=Fan and pump Type -B=Internal Braking Unit





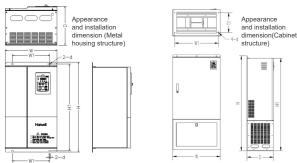
### **Product Appearance and Installation Dimension**

	Appearance and installing dimension (mm)						Weight	
Model		W1		H1	D	D1	Фd	
		Three	e-phase	380V				
H0.7G/1.5PT4-B								
H1.5G/2.2PT4-B	118	106.5	185	175.5	157		Ф4.5	2.2
H2.2G/3.7PT4-B		106.5	100	175.5	157	-	Ψ4.5	2.2
H3.7G/5.5PT4-B								
H5.5G/7.5PT4-B								
H7.5G/011PT4-B	160	148	247	235	177	-	Ф5.5	4.7
H011G/015PT4-B								
H015G/018PT4-B	220	140	350	336	177	-	Ф7	8.4
H018G/022PT4-B	225	140	400	379	184.7		Ф7	11
H022G/030PT4-B	225	140	400	3/9	104.7	-	Ψ	11
H030G/037PT4	290	230	455	440	218	_	Ф7	15
H037G/045PT4	290	230	455	440	210	_	Ψί	15
H045G/055PT4	320	230	555	540	240		Ф10	22
H055G/075PT4	320	230	555	340	240	_	Ψ10	22
H075G/090PT4	410	320	635	610	239	_	Ф12	31
H090G/110PT4	410	320	033	610	239	-	ΨΙΖ	31
H110G/132PT4	420	320	654	630	303		Ф12	45
H132G/160PT4	420	320	004	030	303	_	ΨΙΖ	45
H160G/200PT4								
H200G/220PT4	560	420	848	820	403	-	Ф12	82
H220G/250PT4								
H250G/280PT4								
H280G/315PT4	720	600	1018	980	403	-	Ф14	160
H315G/350PT4								
H355G/400PT4								
H400G/450PT4	840	720	1129	1100	423	-	Ф14	160
H450G/500PT4								

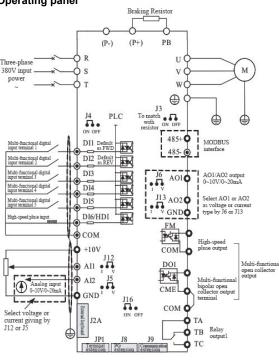


Product appearance(With potentiometer)

Appearance and installation dimension (Plastic housing structure)



#### Operating panel



### **Personalized Function**

- Outstanding performance: Asynchronous motor and synchronous motor control with high performance current vector control
- Instantaneous stop but not stop: when the power is off, the inverter can be kept running for a short time by compensating voltage reduction through load feedback energy
- Fast current limiting: avoid frequent overcurrent faults in the inverter
- Virtual IO: Five sets of virtual DI/DO for simple logic control
- Timing control: timing control setting time range 0.0min~6500.0min
- Multi-motor switching: two sets of motor parameters can realize two motor switching control
- Multi-threading bus: support RS485 bus, subsequent buses such as profibus-dp and CanOpen
- Motor overheat protection: The motor temperature analog quantity can be input in the PG card interface to realize motor overheat protection.
- Multi-encoder: encoders supporting differential, open collector, UVW, resolver, sine and cosine
- Powerful background software: support inverter parameter operation and virtual oscilloscope function. A virtual oscilloscope can be used to monitor the internal state of the converter

### **Environmental Characteristics**

- Usage scenario: indoors, not exposed to direct sunlight. No dust, corrosive gases, flammable gases, oil mist, water vapor, dripping or salt, etc.
- Altitude: less than 1000M
- Environment temperature: -10°C ~ +40°C(ambient temperature is 40°C ~ 50°C please derating use)
- Humidity: less than 95% RH, no water condensation
- Vibration: less than 5.9m / s (0.6g)
- Storage temperature: 20°C~ + 60°C

# **Servo System**

### E Series Servo

Model	Power	Input voltage	Dimension(mm) WxHxD
E2S0.4G	0.4KW	Single-phase 220V	60×160×173.5
E2S0.75G	0.75KW	Single-phase 220V	60×160×173.5
E2S1.0G	1.0KW	Single-phase 220V	60×160×173.5
E2T1.5G	1.5KW	3-phase 220V	88×160×183
E2T2.0G	2.0KW	3-phase 220V	88×160×183
E4T0.75G	0.75KW	3-phase 380V	88×160×183
E4T1.0G	1.0KW	3-phase 380V	88×160×183
E4T1.5G	1.5KW	3-phase 380V	88×160×183



#### **E Series Servo Motor**

Model	Power	Motor Frame No.	Rated torque(N.m)	Rotation speed (r/min)	Encoder
60SFM-E00630	0.2KW	60	0.6	3000	Incremental
60SFM-E01330	0.4KW	60	1.3	3000	Incremental
60SFM-E01930	0.6KW	60	1.9	3000	Incremental
80SFM-E01330	0.4KW	80	1.3	3000	Incremental
80SFM-E02430	0.75KW	80	2.4	3000	Incremental
80SFM-E03520	0.73KW	80	3.5	2000	Incremental
80SFM-E04025	1.0KW	80	4.0	2500	Incremental
80SFM-E04030	1.2KW	80	4.0	3000	Incremental
90SFM-E02430	0.75KW	90	2.4	3000	Incremental
90SFM-E03520	0.73KW	90	3.5	2000	Incremental
90SFM-E04025	1.0KW	90	4.0	2500	Incremental
110SFM-E02030	0.6KW	110	2.0	3000	Incremental
110SFM-E04030	1.2KW	110	4.0	3000	Incremental
110SFM-E05030	1.5KW	110	5.0	3000	Incremental
110SFM-E06020	1.2KW	110	6.0	2000	Incremental
110SFM-E06030	1.8KW	110	6.0	3000	Incremental
130SFM-E04025	1.0KW	130	4.0	2500	Incremental
130SFM-E05025	1.3KW	130	5.0	2500	Incremental
130SFM-E06025	1.5KW	130	6.0	2500	Incremental
130SFM-E07725	2.0KW	130	7.7	2500	Incremental
130SFM-E10010	1.0KW	130	10.0	1000	Incremental
130SFM-E10015	1.5KW	130	10.0	1500	Incremental
130SFM-E10025	2.5KW	130	10.0	2500	Incremental
130SFM-E15015	2.3KW	130	15.0	1500	Incremental

Note: -B: Built-in braking unit T4: 3-phase 380V T2: 3-phase 220V

### **Servo Drive Model Discreption**

E 2S 0.4 G 1 2 3 4

 Servo Series E: E series servo H: H series servo

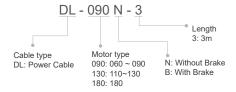
② Input voltage (V) 2S: AC220V Single / 3 phase 2T: AC220V Three phase 4T: AC380V Three phase

③ Power (kW) 0.4: 0.4kW 0.75: 0.75 kW 1.0: 1.0 kW 1.5: 1.5 kW 2.0: 2.0kW 3.0: 3.0kW 4.0: 4.0kW 5.5: 5.5kW 7.5: 7.5kW

4 Servo Type G: General C: CanOpen E: EtherCAT

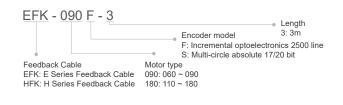
### **Power Cable**

Model	Motor Frame No.	Internal conracting brake	Length (m)
DL-090N-3	060~090	No	3
DL-130N-3	110~130	No	3
DL-180N-3	180	No	3
DL-090B-3	060~090	Yes	3
DL-130B-3	110~130	Yes	3
DL-180B-3	180	Yes	3



### **Feedback Cable**

Model	Motor Frame No.	Encoder Type	Servo type	Length (m)
EFK-090F-3	060~090	2500ppr	E Series	3
EFK-180F-3	110~180	2500ppr	E Series	3
HFK-090S-3	060~090	17/20bit	H Series	3
HFK-180S-3	110~180	17/20bit	H Series	3



#### **H Series Servo**

General Model	CanOpen Model	EtherCAT Model	Power	Input voltage	Dimension(mm) WxHxD
H2S0.4G	H2S0.4C	H2S0.4E	0.4KW	Single-phase 220V	60×160×173.5
H2S0.75G	H2S0.75C	H2S0.75E	0.75KW	Single-phase 220V	60×160×173.5
H2S1.0G	H2S1.0C	H2S1.0E	1.0KW	Single-phase 220V	60×160×173.5
H2T1.5G	H2T1.5C	H2T1.5E	1.5KW	3-phase 220V	88×160×183
H2T2.0G	H2T2.0C	H2T2.0E	2.0KW	3-phase 220V	88×160×183
H2T3.0G	H2T3.0C	H2T3.0E	3.0KW	3-phase 220V	110×230×214
H2T4.0G	H2T4.0C	H2T4.0E	4.0KW	3-phase 220V	110×230×214
H4T0.75G	H4T0.75C	H4T0.75E	0.75KW	3-phase 380V	88×160×183
H4T1.0G	H4T1.0C	H4T1.0E	1.0KW	3-phase 380V	88×160×183
H4T1.5G	H4T1.5C	H4T1.5E	1.5KW	3-phase 380V	88×160×183
H4T2.0G	H4T2.0C	H4T2.0E	2.0KW	3-phase 380V	110×230×214
H4T3.0G	H4T3.0C	H4T3.0E	3.0KW	3-phase 380V	110×230×214
H4T4.0G	H4T4.0C	H4T4.0E	4.0KW	3-phase 380V	110×230×214
H4T5.5G	H4T5.5C	H4T5.5E	5.5KW	3-phase 380V	120×230×235
H4T7.5G	H4T7.5C	H4T7.5E	7.5KW	3-phase 380V	120×230×235



Model	Power	Motor Frame No.	Rated torque (N.m)	Rotation speed (r/min)	Encoder
60SFM-A00630	0.2KW	60	0.6	3000	Multi-loop absolute
60SFM-A01330	0.4KW	60	1.3	3000	Multi-loop absolute
60SFM-A01930	0.6KW	60	1.9	3000	Multi-loop absolute
80SFM-A01330	0.4KW	80	1.3	3000	Multi-loop absolute
80SFM-A02430	0.75KW	80	2.4	3000	Multi-loop absolute
80SFM-A03520	0.73KW	80	3.5	2000	Multi-loop absolute
80SFM-A04025	1.0KW	80	4.0	2500	Multi-loop absolute
80SFM-A04030	1.2KW	80	4.0	3000	Multi-loop absolute
90SFM-A02430	0.75KW	90	2.4	3000	Multi-loop absolute
90SFM-A03520	0.73KW	90	3.5	2000	Multi-loop absolute
90SFM-A04025	1.0KW	90	4.0	2500	Multi-loop absolute
110SFM-A02030	0.6KW	110	2.0	3000	Multi-loop absolute
110SFM-A04030	1.2KW	110	4.0	3000	Multi-loop absolute
110SFM-A05030	1.5KW	110	5.0	3000	Multi-loop absolute
110SFM-A06020	1.2KW	110	6.0	2000	Multi-loop absolute
110SFM-A06030	1.8KW	110	6.0	3000	Multi-loop absolute
130SFM-A04025	1.0KW	130	4.0	2500	Multi-loop absolute
130SFM-A05025	1.3KW	130	5.0	2500	Multi-loop absolute
130SFM-A06025	1.5KW	130	6.0	2500	Multi-loop absolute
130SFM-A07725	2.0KW	130	7.7	2500	Multi-loop absolute
130SFM-A10010	1.0KW	130	10.0	1000	Multi-loop absolute
130SFM-A10015	1.5KW	130	10.0	1500	Multi-loop absolute
130SFM-A10025	2.5KW	130	10.0	2500	Multi-loop absolute
130SFM-A15015	2.3KW	130	15.0	1500	Multi-loop absolute
130SFM-A15025	3.8KW	130	15.0	2500	Multi-loop absolute
180SFM-A17015	2.7KW	180	17.0	1500	Multi-loop absolute
180SFM-A19015	3.0KW	180	19.0	1500	Multi-loop absolute
180SFM-A21520	4.5KW	180	21.5	2000	Multi-loop absolute
180SFM-A27015	4.3KW	180	27.0	1500	Multi-loop absolute
180SFM-A35010	3.7KW	180	35.0	1000	Multi-loop absolute
180SFM-A35015	5.5KW	180	35.0	1500	Multi-loop absolute
180SFM-A48015	7.5KW	180	48.0	1500	Multi-loop absolute



### **Servo Motor Model Discreption**

110 SFM - E 040 25 - 2 A 1 A 1 2 3 4 5 6789

① Frame Number(mm) 60: 60x60 80: 80x80

90: 86x86 110: 110x110 130: 130x130

② Motor Code SFM: 3-phase AC Permanent-Magnet Servo Motor

3 Encoder Code E: Incremental optoelectronics A: Multi-circle absolute X: Rotary Transformer C: Magnetic Encoder

④ Constant Torque code (N.m) 006: 6x0.1 013: 13x0.1 019: 19x0.1

035: 35x0.1

20: 20x100

⑤ Rated speed code (r/min) 05: 5x100 10: 10x100 15: 15x100

6 Input Voltage Code 2: AC220V 3: AC380V 4: AC48V

Shaft End Structure Code (mm) A: flat key, key width 6mm B: flat key, key width 5mm C: flat key, key width 4mm

8 Optional accessory code 1: No optional accessory 2: With Oil Seal 3: with Electromagnetic brake 4: With permanent magnet brake 5: With Oil Seal + Electromagnetic 6: With Oil Seal + permanent magnet

9 Special requirement code Default : regular products A: Add a fan B: guide line Motor

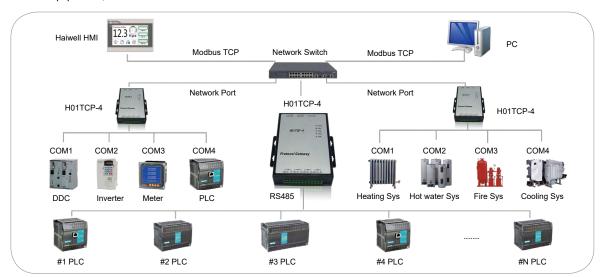
Note: -B: Built-in braking unit T4: 3-phase 380V T2: 3-phase 220V

- Fast response, 1.2KHz response frequency, only 7ms from -3000 to 3000rpm.
- High control precision. 4M command pulse input frequency, equipped with 20-bit encoder, 1 lap of 1.04 million pulses.
- Strong overload capability. The instantaneous torque up to 3 times overload.
- Automatic notch filter, it able to cope with changes in resonant frequency.

# **Protocol Gateway**

H01TCP-4 is a powerful gateway of hardware protocol, it can transform various protocols of the slave device into standard Modbus RTU protocol or Modbus TCP protocol.

Convenient for multiple protocols working in one network and convenient in monitoring equipments. Mainly used in the site which uses Non-Ethernet equipments, in which the PC uses Ethernet.



#### **Product Features**

- Support transforming different protocols into standard Modbus TCP protocol or Modbus RTU protocol simultaneously.
- Support multiple upper PC clients access the gateway to monitor the equipments simultaneously.
- Using Use address mapping mode in order to realize the rapid response to the TCP client request.
- Built-in WEB server, the user can use the browser to view real-time state of communication and the change of the data, convenient for debugging on site.
- Support analog linear transformation, fetch bit, high and low byte exchange, etc.
- 2 Ethernet ports, 4 isolated RS485 communication port.
- SupportS the following conversion agreement for the time being.

		H01TCP-4 Specification			
Operating Environment	Temperature & Humidity range	Working -30~75°C, storage -40~85°C, humidity 20~90%RH (non-condensing)			
	Earthquake resistance	10~25Hz (X/Y/Z direction 2G/30min)			
	Cooling Mode	Nature cooling			
	Protection grade	Passed with 48 hours salt spray testing			
Hardware parameters	CPU	Samsung S3C2416XH-40, ARM926EJ, 400MHZ CPU speed			
	Memory	64M DDR2			
	Storage	256M SLC Flash, compatible with MLC/SLC Nand Flash			
	Operating system	WINDOWS CE			
	Storage extension	None			
	Ethernet	2 Ethernet ports for 10M/100M, supports AUTO MDI/MDIX 2 RJ45 Interface and SD card interface			
	COM port	Isolated RS485 ports			
	Mechanical structure	Sheet metal shell, baking finish surface			
	Dimension	140*116*30mm			
	G.W.	500g			
Electrical specification	Rated power	< 5W			
	Voltage	DC 24V, available DC 9V~24V			
	Power protection	Use isolated power supply module, power surge, lightning protection			
	Electric lost time allowance	< 5ms			
	CE&ROHS	EN61000-6-2:2005, EN61000-6-4:2007, conform to ROHS. Lighting surge ±4KV, group pulse ±4KV, static contact 4K, air discharge 8K			









# Xiamen Haiwell Technology Co., Ltd.

Add: 7th F, Torch Hi-tech Building, No.3699 Xiangan North Road, Xiamen, Fujian, China. 361101 Tel: +86-592-2230312 Hotline: +86-400-036-0362

Email: service@haiwell.com



