



YX Series Human Machine Interface(HMI)

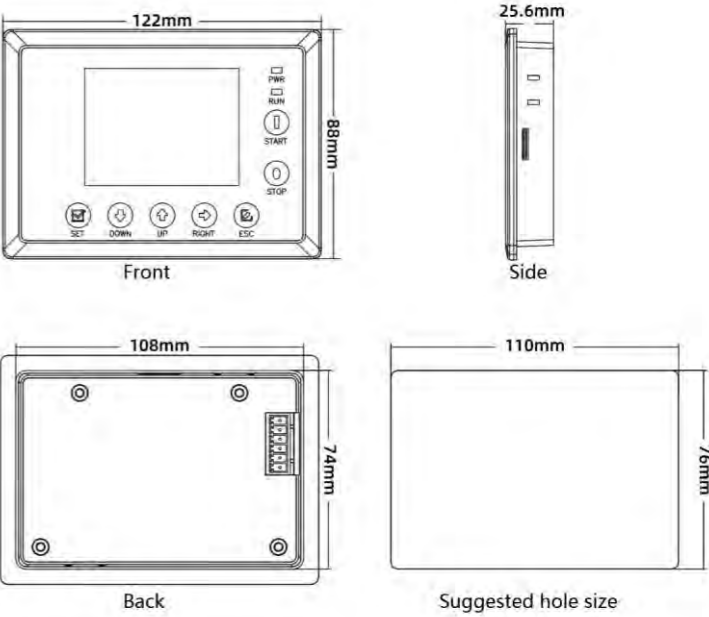


YX series 2.8 inch touch screen

Product characteristics

- ✘ Power supply: Wide input DC10-30V;
- ✘ Backlight adjustment: LED;
- ✘ Touch: Supports 4-wire resistive touch screen;
- ✘ LCD screen resolution: 480X272;
- ✘ LCD screen: normal viewing angle, 250cd/m2;
- ✘ Storage: 16Mbyte SPI NOR Flash;
- ✘ Power supply: anti reverse connection, distinguishing between positive and negative poles of the power supply; Equipped with overvoltage protection, voltage exceeding 33V, automatic protection;
- ✘ RTC clock: supported;
- ✘ Download: SD card download.

Overall dimensions



Key Description

Pin	Name	Illustrate	
		Check the option to use an external keyboard on the software	Use external keyboard without checking on software
①	SET	Confirm button (select the control and click SET to confirm, open keyboard input, switch screens, set bit registers, etc.)	LB104 setting
②	DOW	Move Down Button (Move Selection Control Down)	LB105 setting
③	UP	Move Up Button (Move Selection Control Up)	LB106 setting
④	RIGHT	Move Right button (moves the selected control to the right)	LB107 setting
⑤	ESC	Default binding key ESC, or directly corresponding to Lb103	LB103 setting
⑥	STOP	Default binding number key 2, or directly corresponding to Lb102	LB102 setting
⑦	START	Default binding number key 1, or directly corresponding to Lb101	LB101 setting



Product parameters

Project	Content	
Hardware performance	Display screen	2.8" TFT LCD
	Resolution ratio	480×272
	Colour	65535
	Brightness	250cd/m ²
	Backlight	LED
	LED lifespan	20000 小时
	Touch Screen	4-wire industrial resistance touch screen (surface hardness 4H)
	CPU	96MHz M0
	Storage	16Mbyte SPI NOR Flash
	RTC	Real time clock built-in
	Ethernet	No
	Saving power down data	Not Supported
	USB Port	No
	Program download method	SD card download
U disk	Not Supported	
Communication Port	RS485 serial communication	
Electrical specifications	Rated power	1.5W
	Rated voltage	DC 10~30V
Environment	Operation temperature	-10~50°C
	Storage temperature	-30~70°C
	Ambient humidity	10~90%RH(No condensation)
	Seismic resistance	10-25 Hz (2g/30 minutes in X, Y, Z directions)
Other	Cooling method	Natural air cooling
	Dimensions	122mm×88mm
	Shell opening size	108mm×74mm
	Suggested hole size	110mm×76mm
	Net weight	40g

Interface Description



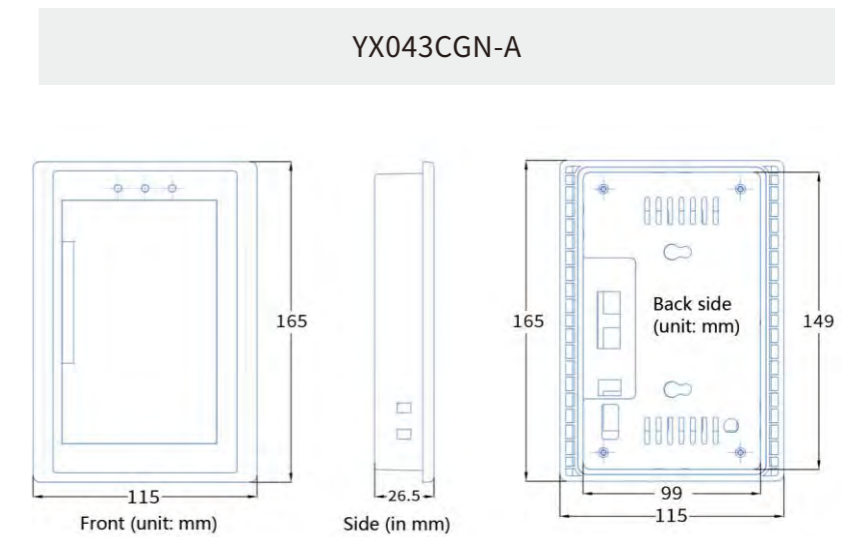
Identifying	Name	Illustrate
①	0V	Negative pole of power supply
	NC	--
	GND	RS485 ground
	RS485B1	RS485B1(-)
	RS485A1	RS485A1(+)
②	+24V	Positive pole of power supply
②	Sd card holder	Support SD card download configuration or upgrade of underlying programs



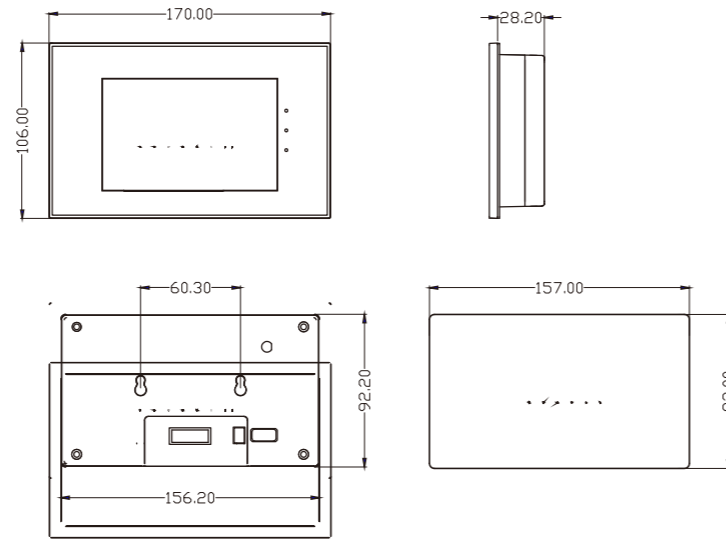
YX series 4.3 inch touch screen

Product characteristics

- Power supply: Wide input DC10-30V;
- Backlight adjustment: LED;
- Touch: Supports 4-wire resistive touch screen;
- LCD screen resolution: 480X272;
- 1 USB 2.0 Device port/1 USB 2.0 Host port;
- LCD screen: normal viewing angle, 400cd/m²;
- COM1 communication: RS422; RS232; RS485 communication (one out of three);
- COM2 communication: RS485 communication;
- Storage: 128MB SLC FLASH;
- Power supply: anti reverse connection, distinguishing between positive and negative poles of the power supply; Equipped with overvoltage protection, voltage exceeding 33V, automatic protection;
- RTC clock: supported;
- Power down data storage: supported;
- Download: USB download, USB drive download.



YX043CGN-T

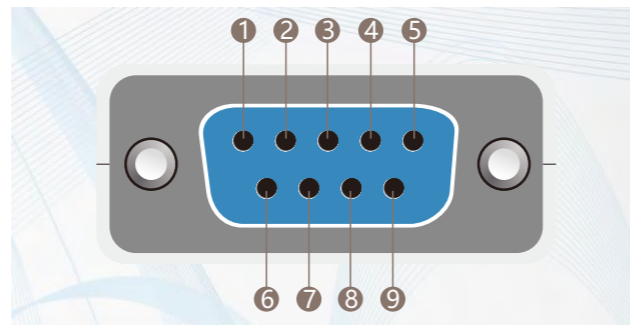


Model	Opening size
YX043CGN-A	149mm×99mm
YX043CGN-T	157mm×93mm

Product parameters

Project	Content
Display screen	4.3" TFT LCD
Resolution ratio	480×272
Colour	260 thousand
Brightness	400cd/m ²
Backlight	LED
LED lifespan	20000 小时
Touch Screen	4-wire industrial resistance touch screen (surface hardness 4H)
CPU	32-bit240MHz ARM9
Storage	128MB SLC FLASH
RTC	Real time clock built-in
Ethernet	No
Saving power down data	Not Supported
USB Port	1 USB2.0 Device port/1 USB2.0 Host port
Program download method	USB download/USB drive download
U disk	Support USB drive upgrade and data import and export
Communication Port	COM1 supports RS232/RS485/RS422 communication, while COM2 only supports RS485 communication
Rated power	<1.5W
Rated voltage	DC 10~30V
Operation temperature	-10~50°C
Storage temperature	-30~70°C
Ambient humidity	10~90%RH(No condensation)
Seismic resistance	10~25 Hz (2g/30 minutes in X, Y, Z directions)
Cooling method	Natural air cooling
Dimensions	95mm×54mm
Installation dimensions	149mm×99mm/130mm×78mm/130mm×80mm
Overall dimensions	165mm×115mm×26.5mm
Net weight	220g

Interface Description



Pin	Signal	COM1、RS222	COM1、RS485
1	TX2-		
2	RTD		
3	TXD		
4	TX2+		
5	SG	Signal ground	
6	RX1-	RS422 reception-	
7	RX1+	RS422 reception+	
8	TX1-	RS422 send-	RS485B(-)
9	TX1+	RS422 send+	RS485A(+)
Applicable model	YX043 series, YX070 series, single serial port screen only has COM1, dual serial port screen has COM1 and COM2		

Pin	Signal	COM1、RS232	COM2、RS485
1	TX2-		RS485B(-)
2	RTD	RS232 reception	
3	TXD	RS232 transmission	
4	TX2+		RS485A(+)
5	SG	Signal ground	
6	RX1-		
7	RX1+		
8	TX1-		
9	TX1+		
Applicable model	YX043 series, YX070 series, single serial port screen only has COM1, dual serial port screen has COM1 and COM2		

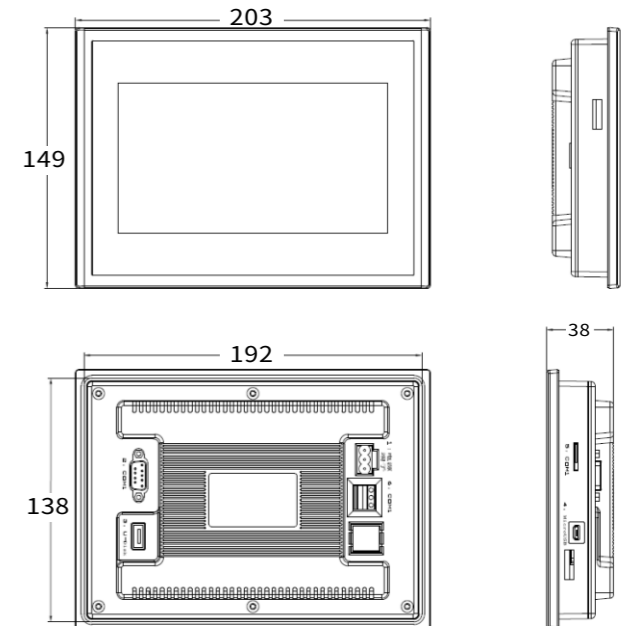


YX series 7 inch touch screen

Product characteristics

- Power supply: Wide input DC10-30V;
- Backlight adjustment: supported;
- Touch: Supports 4-wire resistive touch screen;
- LCD screen resolution: 800X480;
- USB 1: Micro USB, download port;
- USB2: TYPE-A type, USB port;
- LCD screen: normal viewing angle, 600cd/m²;
- COM1 communication: RS422; RS232; RS485 communication (one out of three);
- COM2 communication: RS232; RS485 communication (optional);
- Storage: 128Mbyte SPI NAND FLASH;
- Power supply: anti reverse connection, distinguishing between positive and negative poles of the power supply; Equipped with overvoltage protection, voltage exceeding 33V, automatic protection;
- RTC clock: supported;
- Power down data storage: supported;
- Download: SD card download, USB download, USB drive download.

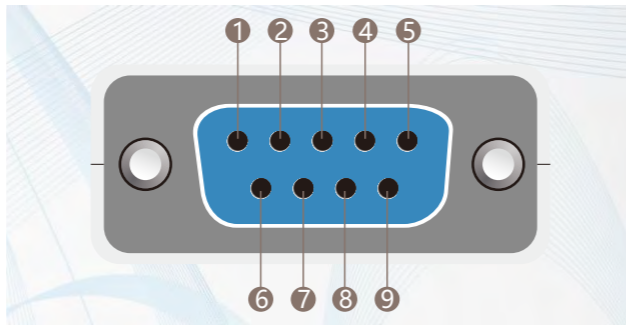
Overall dimensions



Product parameters

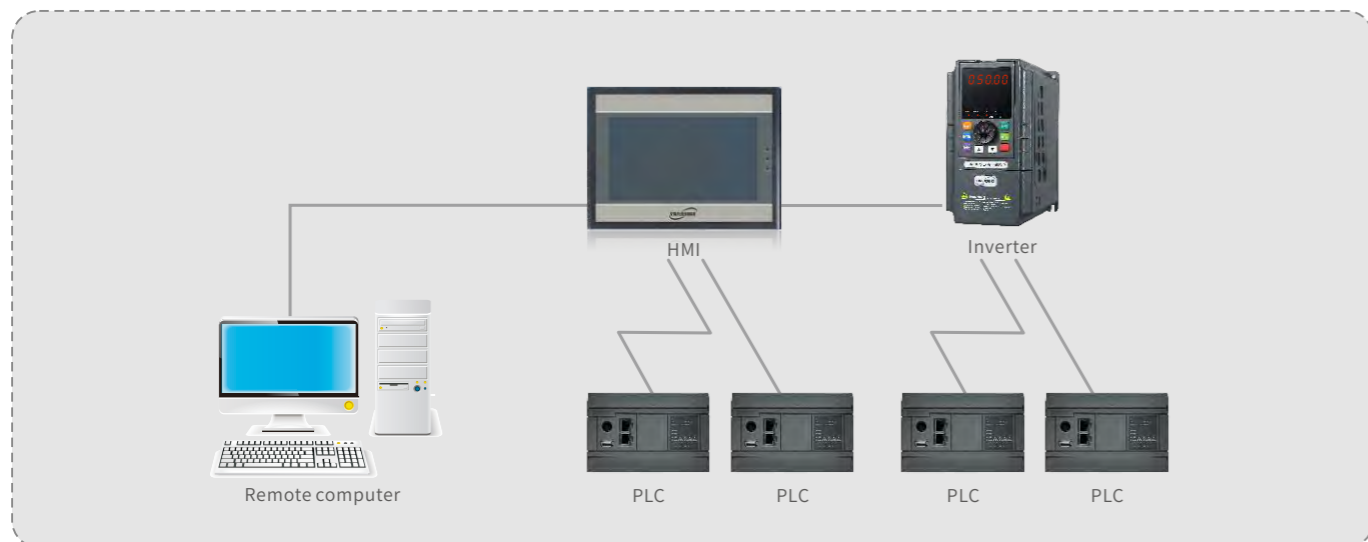
Project	Content
Display screen	7" TFT LCD
Resolution ratio	800×480
Colour	260 thousand
Brightness	600cd/m ²
Backlight	LED
LED lifespan	20000 小时
Touch Screen	4-wire industrial resistance touch screen (surface hardness 4H)
CPU	32 bit 600MHz main frequency ARM9 with built-in 32MB DDR memory
Storage	128Mbyte SPI NAND FLASH
RTC	Real time clock built-in
Ethernet	No
Saving power down data	Not Supported
USB Port	1 USB2.0 Device port/1 USB2.0 Host port
Program download method	USB download/USB drive download
U disk	Support USB drive upgrade and data import and export
Communication Port	COM1: Choose one of three options: RS232, RS485, and Rs232 COM2: RS232, RS485 optional
Electrical specifications	
Rated power	<3.5W
Rated voltage	DC 10~30V
Environment	
Operation temperature	-10~50°C
Storage temperature	-30~70°C
Ambient humidity	10~90%RH(No condensation)
Seismic resistance	10-25 Hz (2g/30 minutes in X, Y, Z directions)
Cooling method	Natural air cooling
Other	
Effective display area	154.1mm×85.9mm
Dimensions	203mm×149mm
Installation dimensions	192mm×138mm
Net weight	400g

Interface Description



Pin	Signal	COM1, RS222	COM1, RS485
1	TX2-		
2	RTD		
3	TXD		
4	TX2+		
5	SG	Signal ground	
6	RX1-	RS422 reception-	
7	RX1+	RS422 reception+	
8	TX1-	RS422 send-	RS485B(-)
9	TX1+	RS422 send+	RS485A(+)
Applicable model	YX043 series, YX070 series, single serial port screen only has COM1, dual serial port screen has COM1 and COM2		

Pin	Signal	COM1, RS232	COM2, RS485
1	TX2-		RS485B(-)
2	RTD	RS232 reception	
3	TXD	RS232 transmission	
4	TX2+		RS485A(+)
5	SG	Signal ground	
6	RX1-		
7	RX1+		
8	TX1-		
9	TX1+		
Applicable model	YX043 series, YX070 series, single serial port screen only has COM1, dual serial port screen has COM1 and COM2		

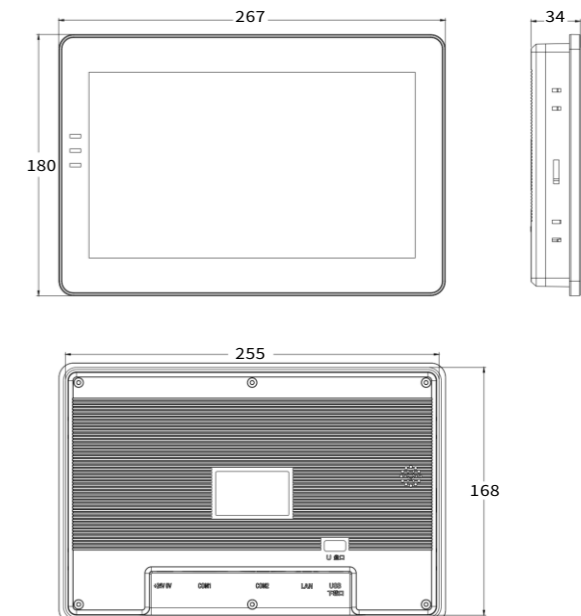


YX series 10 inch touch screen

Product characteristics

- Power supply: Wide input DC10-30V;
- Backlight adjustment: supported;
- Touch: 4-wire industrial electronic touch screen (surface hardness 4H), supporting capacitive touch screen;
- LCD screen resolution: 1024X600;
- USB1: TYPE-C type, download port;
- USB2: TYPE-A type, download port;
- LCD screen: normal viewing angle, 250cd/m²;
- COM1 communication: RS422; RS232; RS485 communication (one out of three);
- COM2 communication: RS232, RS485 communication (optional);
- Storage: 128Mbyte SPI NAND FLASH;
- Power supply: anti reverse connection, distinguishing between positive and negative poles of the power supply;
- RTC clock: supported;
- Power down data storage: supported;
- Download: SD card download, USB download, USB drive download.

Overall dimensions



Product parameters

Project		Content
Hardware performance	Display screen	10" TFT LCD
	Resolution ratio	1024×600
	Colour	260 thousand
	Brightness	600cd/m ²
	Backlight	LED
	LED lifespan	20000 小时
	Touch Screen	4-wire industrial resistance touch screen (surface hardness 4H)
	CPU	32 bit 600MHz main frequency ARM9 with built-in 32MB DDR memory
	Storage	128Mbyte SPI NAND FLASH
	RTC	Real time clock built-in
	Ethernet	No
	Saving power down data	Not Supported
	USB Port	1 USB2.0 Device port/1 USB2.0 Host port
	Program download method	USB download/USB drive download
U disk	Support USB drive upgrade and data import and export	
	Communication Port	COM1: Choose one of three options: RS232, RS485, and RS232 COM2: RS232, RS485 optional
Electrical specifications	Rated power	<3.5W
	Rated voltage	DC 10~30V
Environment	Operation temperature	-10~50°C
	Storage temperature	-30~70°C
	Ambient humidity	10~90%RH(No condensation)
	Seismic resistance	10-25 Hz (2g/30 minutes in X, Y, Z directions)
	Cooling method	Natural air cooling
Other	Effective display area	225mm×128mm
	Overall size	267mm×180mm
	Hole Size	255mm×168mm
	Net weight	745g

Description

Model	Description
YX101CDN-A	YX series 10.1 inch, 10-30V, Single serial port: RS232/RS485/RS422/128Mbyte SPI Nand, resistive touch
YX101CDN-D	YX series 10.1 inch, 10-30V, Serial port 1: RS232/RS485/RS422, Serial port 2: RS485/128Mbyte SPI Nand, resistive touch
YX101CDN-E	YX series 10.1 inch, 10-30V, Serial port 1: RS232/RS485/RS422, Serial port 2: RS232/128Mbyte SPI Nand, resistive touch

Interface Description

Port Definition	
Port	Explanation
1	Power interface
2	COM1 communication D-SUB9 interface
3	USB A-type USB port
4	TYPE C USB download port
5	SD card interface
6	COM2 communication D-SUB9 interface

Power interface - ①		
Pin	Definition	Explanation
1	24V	Positive input of power supply, DC10-30V
2	GND	Power negative input

COM1 D-SUB9 interface - ②		
Pin	Definition	Explanation
1	N.C.	
2	RXD	RS232 receiving, connected to the sending end of controller RS232
3	TXD	RS232 transmission, connected to the receiving end of controller RS232
4	N.C.	
5	GND	RS232/RS422/RS485 ground
6	RX-	RS422 receiving -, connected to TX of controller RS422-
7	RX+	RS422 receiving+, connected to TX of controller RS422+
8	TX-	RS485 B -; RS422 sending -, connected to controller RS422 sending-
9	TX+	RS485A+; RS422 sending+, connected to controller RS422 sending+

COM2 communication interface - ③		
Pin	Definition	Explanation
1	RXD	RS232 receiving, connected to the sending end of controller RS232
2	TXD	RS232 transmission, connected to the receiving end of controller RS232
3	GND	RS232 or RS485 GND
4	TX-	RS485 B-
5	TX+	RS485 A+

Upper configuration software description

The upper configuration software is a set of upper software that the customer can edit arbitrarily, and the customer's application. The application programs are all developed based on the upper software. The upper software is composed of a wealth of controls, which can be combined in any combination to achieve the functions desired by the customer. The controls include:

- ☒ Switch button: including "bit button", "word button", "indicator", "screen button", "function button" and "multi-state button" for touch operation of connected equipment and monitoring status;
- ☒ Numerical value input and display: including multiple hexadecimal input and display, ASCII code input and display, used to display the value of the monitored address; another time display, used to display real-time time;
- ☒ Flow block: animated graphics that simulate the flow of liquid in the pipeline. Static text/table/scale, a variety of basic graphics, including straight lines, circles, ellipses, rectangles, etc;
- ☒ Picture display and gif animation: a picture display box that displays one or more pictures;
- ☒ Meter: bar graph, meter, circle, display a certain state value of the data. Message display: display the pre-set message;
- ☒ Alarm display: Display the alarm information (divided into digital alarm and analog alarm) of the current equipment. The alarm setting must be configured before using this control;
- ☒ Dynamic alarm: used to display the current alarm, which is different from the alarm control in that the dynamic alarm bar displays the current alarm content in the form of text scrolling;
- ☒ XY curve: display the data of the data collector dynamically in real time;
- ☒ Historical curve: display the data saved by the historical record collector in the form of a curve;
- ☒ Formula: create a menu similar to prescriptions;
- ☒ Multi-function button: a switch button, through which various functional requirements can be easily and quickly achieved;
- ☒ Trend chart: Draw the reference curve of multiple data, accurately and intuitively trend chart: Draw the reference curve of multiple data, accurately and intuitively judge the change trend of a certain value over a period of time;
- ☒ Drop-down box: used to select the corresponding status function. Data group: display the data changes from register address N to register address N in a curve way. Moving track: Drag the scroll block to control the address data;
- ☒ Two-dimensional code: dynamically generate a two-dimensional code, scan to enter the website, payment and other functions.



Programmable Logic Controller(PLC)



Programmable Logic Controller

Yuanxin PLC is mainly divided into high-order, bus, standard, customized, compact, and motion control types, fully meeting the various needs of different industries, customers, and equipment. PLC programmable controllers not only have the functions of traditional PLCs on the market, but also have unique functions such as downloading programs from USB flash drives, electronic cams, command customization, built-in special algorithm customization, and special hardware interface customization.

Product characteristics

- ✦ U disk download program;
- ✦ Special functions such as electronic cam, command customization, built-in special algorithm customization, and special hardware interface customization;
- ✦ Rich expansion modules, stable performance, meeting various application scenarios;
- ✦ Pulse control method and EtherCAT bus control, combined with bus and pulse, can be flexibly and freely allocated;
- ✦ Support multiple communication technologies for easy connection;
- ✦ Advanced power-off storage technology, permanently saving programs.



Electrical specifications of the host

Host type	Total number of I/O points	Digital quantity (high-speed)	Digital quantity (high-speed)	Output	Output rated current	Power source
YS2-16T-D	16	8 (2)	8 (1)	NPN	0.3A	DC24V
YS-24T-D	24	12 (2)	12 (2)	NPN	0.3A	DC24V
YS-24T-A	24	12 (2)	12 (2)	NPN	0.3A	AC100V-240V
YS-32T-D	32	16 (2)	16 (4)	NPN	0.3A	DC24V
YS-32T-A	32	16 (2)	16 (4)	NPN	0.3A	AC100V-240V
YS-32P-D	32	16 (6)	16 (4)	NPN	0.3A	DC24V
YS-40T-D	40	24 (6)	16 (4)	NPN	0.3A	DC24V
YS-40T-A	40	24 (6)	16 (4)	NPN	0.3A	AC100V-240V
YS-60T-D	60	36 (6)	24 (4)	NPN	0.3A	DC24V
YH-24T-E-D	24	14 (6)	10 (4)	PNP	0.3A	DC24V
YH-32T-2E-D	32	16 (8)	16 (4)	PNP	0.3A	DC24V
YH-40T-2E-D	40	24 (8)	16 (4)	PNP	0.3A	DC24V

Host type	Output maximum frequency	Drive motor	Interface
YS2-16T-D	200K	1 Unit	RS232
YS-24T-D	200K	2 Unit	RS232/RS485/USB
YS-24T-A	200K	2 Unit	RS232/RS485/USB
YS-32T-D	200K	4 Unit	RS232/RS485/USB
YS-32T-A	200K	4 Unit	RS232/RS485/USB
YS-32P-D	200K	4 Unit	RS232/RS485/USB
YS-40T-D	200K	4 Unit	RS232/RS485/USB
YS-40T-A	200K	4 Unit	RS232/RS485/USB
YS-60T-D	200K	4 Unit	RS232/RS485/USB
YH-24T-E-D	200K	4 Unit	RS232/RS485*2/Ethernet
YH-32T-2E-D	200K	4 Unit	RS232/RS485*2/USB/Ethernet*2
YH-40T-2E-D	200K	4 Unit	RS232/RS485*2/USB/Ethernet*2

PLC extension electrical specifications

Model	Function	Specifications
SE series expansion module		
SE-8XT	8-channel digital input extension	NPN input, DC24V power supply, no external power supply required, maximum frequency of input point 10KHz
SE-8YT	8-channel transistor output	DC24V power supply, no need for external power supply, maximum output current of 0.3A per point
SE-4AI2AOS	4-channel analog input, 2-channel analog output	Voltage range: (Input: 0V-5V; 0V-10V, Output: 0-10V) Current range: 0-20mA; 4-20mA Resolution: 12bit
HE series expansion module		
HE-8XT	8-channel digital input extension	NPN input, DC24V power supply, no external power supply required, maximum frequency of input point 10KHz
HE-8YT	8-channel transistor output	DC24V power supply, no need for external power supply, maximum output current of 0.3A per point
HE-4AI2AOS	4-channel analog input, 2-channel analog output	Voltage range: (Input: 0V-5V; 0V-10V, Output: 0-10V) Current range: 0-20mA; 4-20mA Resolution: 12bit

PLC General Specifications

Project	Range
Protection grade	IP20
Ambient Temperature	No condensation at 5~55 °C (41~131 °F)
Relative humidity	5~95%
Ambient temperature	-25~70°C(-13~158°F)
Vibration resistance	10M/s ²
Working altitude	0-2000M without capacity, above 2000M, ambient temperature<40 °C (104 °F)





Servo Driver



Servo Driver

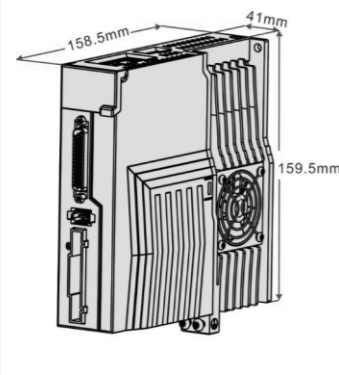
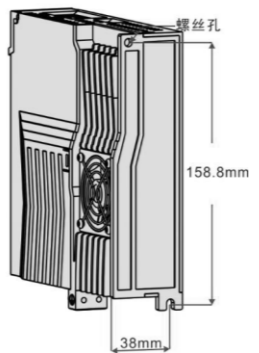
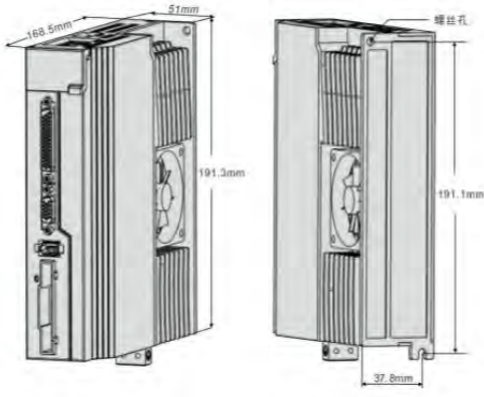
The GS10 series servo driver has powerful motion control functions and can complete control methods such as position, speed, torque, and zero return. It supports I/O control and standard ModbusRTU protocol, and can replace PLC or pulse modules in some situations, reducing application costs.

Product characteristics

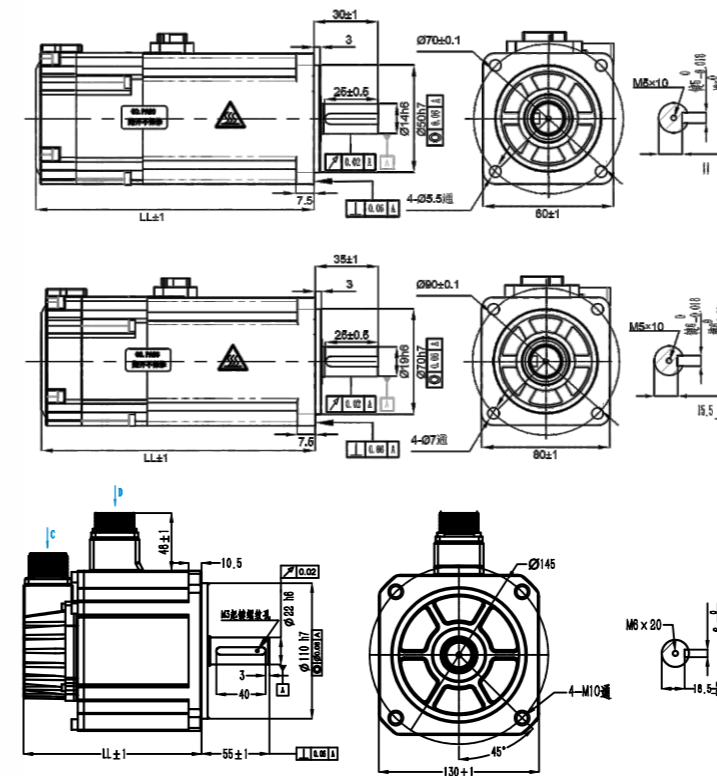
- Support multiple control methods such as digital pulse position mode, analog signal, and bus;
- The entire system supports RS485 communication and is easily connected to the touch screen (HMI) for use;
- Up to 6000 rpm at high speeds, with shorter time consumption for the same operating distance;
- Easy installation and simple debugging;
- The entire series of servo motors have an IP54/65 protection level design.



Servo specifications

Project	GS10-040	GS10-075	GS10-220
Size			
Output power	0.05KW~0.4KW	0.75KW~1KW	1KW~3KW
Main circuit input power supply	Single phase AC220V-15%~+10% 50/60Hz		
Control mode	0: Position control method; 1: Speed control mode; 2: Torque control method; 3: Hybrid control method for position and speed; 4: Position torque hybrid control method; 5: Speed torque hybrid control method		
Protection function	Overspeed/main power supply overvoltage/undervoltage/overcurrent/overload/encoder abnormality/control power supply abnormality/position deviation		
Monitoring function	Speed/current position/command pulse accumulation/position deviation/motor torque/motor current/operating status, etc		
Control input	1: Servo enable 2: Alarm clear 3: CCW Drive Inhibit 4: CW drive inhibit 5: Zero deviation counter 6: Command pulse suppression 7: CCW torque limit 8: CW torque limit		
Control output	Servo ready/servo alarm/positioning completed/mechanical braking		
Dynamic braking	Supports both built-in and external		
Applicable load	Less than 3 times the motor inertia		
Display Operations	5-digit LED digital tube display, 4 operation buttons		
Communication method	RS485		
Positioning	Input method	0: Pulse+direction	
		1: CCW/CW pulse	
Input electronic gear ratio	2: A/B two-phase orthogonal pulse		3: Internal position control
	Gear ratio numerator: 1-32767		Gear ratio denominator: 1-32767

Motor size

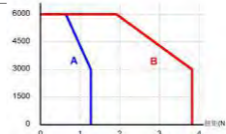
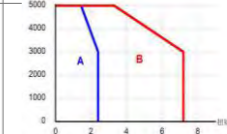

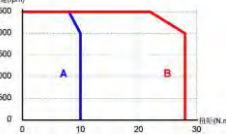


◀ 60 Motor mounting dimensions

◀ 80 Motor mounting dimensions

◀ 130 Motor mounting dimensions

Motor specification

Model		GT10M-0601A013	GT10M-0801A024	GT10M-1301A072	GT10M-1301A100
Rated speed	rpm	3000	3000	2000	2000
Maximum revolution	rpm	6000	5000	3000	2500
Rated torque	Nm	1.27	2.4	7.2	10
Peak torque	Nm	3.83	7.2	21	28
Rated current	A(rms)	2.8	4.8	8	8
Peak current	A(rms)	8.4	14.4	24	23
Reaction coefficient ±5%	X10 ⁻³ V/rpm	27.5	35	60.5	73.7
Torque coefficient ±5%	Nm/A(rms)	0.42	0.5	0.94	1.22
Moment of inertia	X10 ⁻⁴ Kg.m ²	0.68	1.72	10.3	12.7
Axial load	N	74	147	90	90
Radial load	N	245	392	480	480
weight	Kg	1.22	2.2	6.2	7.3
Length	LL	GT10M-0601A013N--96mm GT10M-0601A013B--123mm	GT10M-0801A024N--106mm GT10M-0801A024B--140mm	GT10M-1301A072N--170mm GT10M-1301A072B--204mm	GT10M-1301A100N--170mm GT10M-1301A100B--204mm
Speed - torque characteristic curve					
		A: Continuous use area B: Instant use area	A: Continuous use area B: Instant use area	A: Continuous use area B: Instant use area	A: Continuous use area B: Instant use area