

WECON Product Installation Manual

Part 1 General Notes

- ALL communication ports of PI series HMI support RS232 and RS485 .
- The power ground must be connected to make the HMI run correctly .
- The communication ground must be connected to make the HMI communicate correctly.

Part 2 Safety Precautions

Notice following safety precautions at any moment when installing, wiring, operating, vindicate and examine.

Installation

- Please setup the HMI according to this manual otherwise it may cause device damage.
- It's Forbid to uncover the product in the environment that has water vapor, Corrosive gas or combustible gas ,otherwise it may cause short circuit or fire.

Wiring

- Please connect the grounding terminal with class-3 ground, otherwise it may cause short circuit or fire.
- PI series HMI use 24-volt power supply. Any connection of non-standard power supply will lead to machine damage.

Operation

- PI series HMI need PI Studio editor software to design project picture. HMI not designed may lead to run abnormally.
- Do not change wiring while the power is ON, otherwise it may cause short circuit or device damage.
- Please do not touch panel with sharp objects, otherwise it may lead to panel depressed, there by make HMI run abnormality.

Maintenance

- It's forbidden to touch inside HMI, or else it may lead to short circuit or device damage.
- When power, It's forbidden to dismantle HMI panel, otherwise it may lead to short circuit or device damage.
- Do not touch connection terminal in 10 minutes of turning off power, otherwise residual voltage may lead to short circuit or device damage.
- When operating , exhaust vent should not be sealed, otherwise it may lead to failure easily.

Communication

- Please connect to the communication wire according to this manual.
- The length of communication wire should meet the requirement.
- Use the correct ground loops in order to avoid abnormal communication.

Part 3 Work Environment

The product must be placed in the pack box before installation, if not used for a while , in order to make the product accord with the warranty of our company and future maintenance, be sure to notice the following items when stored.

- Must be placed place of no dust and dryness.
- The environment temperature of deposited place should in the range of -20°C to +70°C.
- Relative humidity of deposited place should in the range of 10% to 90% and be non-condensing.
- Avoid storing at the environment of caustic gas and liquid.
- It had better be packed propriety in the carcase or table-board.

Part 4 Basic Inspection

Please do following basic checking before using PI series HMI.

General

- Check if each screw is loose.
- The vent hole should be protected from oil, water and metal powder, and the chip powder of the drill should be prevented from falling into the HMI.
- If there are harmful gases or dust in the HMI operating environment, please take protective measures.

Checking before installation (Unpowered)

- Please deal with connection division of wiring terminal insulated.
- Communication wiring should be correct, otherwise abnormal operation may occur.
- Check for foreign matter entering the interior of the HMI, especially for flammable substances and conductive materials such as screws, metal sheets, etc.
- Please regulate instrument to reduce electromagnetism interference.
- Check HMI supply voltage.

Checking before running (powered)

- Check the status of the power indicator.
- Check if the communication between the HMI and the device is normal.
- If there is any abnormality in the HMI interface, please contact the manufacturer.

Part 5 Product standard

Module Content	PI 3070 / PI3102 / PI3102H / PI 3102HE	PI 8070 / PI 8070C /PI 8070H/ PI 8102 / PI 8102H /PI 8104
Power voltage	DC24V	
Power voltage range	DC12V-DC28V	
Instantaneous stop time	Below 5ms	
Power	Below 8W	Below 10W
Temperature	-10°C~+60°C	
Store temperature	-20°C~+70°C	
Humidity	10%~85%RH , non-condensing	
Store humidity	10%~85%RH , non-condensing	
Anti-jamming	Interference voltage : AC1000VP-P pulse period:11μs,duration:1ns	
Pressure	AC500V 20mA below 1 minute between power terminal and FG terminal	
Insulation impedance	DC500V above 20MΩ between power terminal and FG terminal	
Vibration resistance	Accord with IEC61131-2 standard: continuous vibration occasions:10Hz~57Hz 0.0755mm,57Hz~150Hz 9.8m/s ² discontinuous vibration occasions:10Hz~57Hz 0.0035mm,57Hz~150Hz 4.9 m/s ² each of X、Y、Z 10 times in 80 minutes	
Static resistance	Accord with IEC61000-4-2standard:contact discharge:4KV,air discharge:8KV	
Corrosion	Avoid corrosive gas	
Protection level	Equal in IP65(surface)	
Cooling	Natural air cooling	
HMI fuse rating	1.6A/250V	

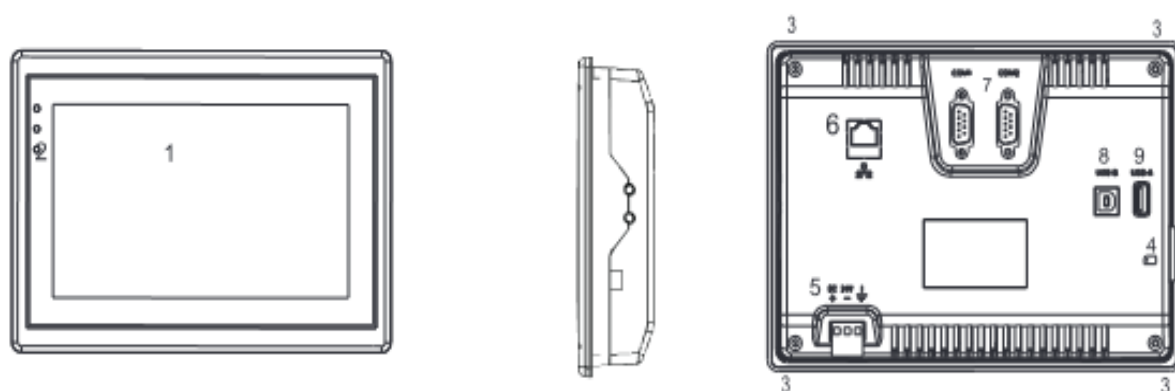
Part 6 Packing List

Sequence number	Component	Quantity
1	PI series HMI	1
2	HMI fixed buckle	4
3	Power plug	1
4	PI series HMI manual(this file)	1

The HMI type of PI series

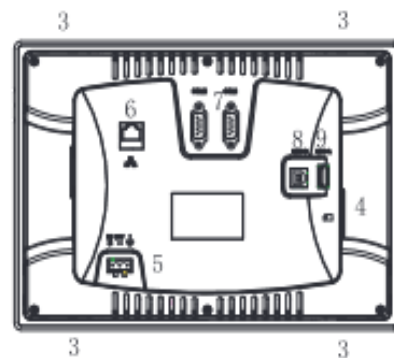
Model	Shape	Ports	Installation size (mm)	Shape size (mm)
PI 3070	7 inch	2	192.0±0.5W×138±0.5H	201W×146H×37
PI 3102	10.2 inch	2	260.0±0.5W×179±0.5H	272W×191H×42
PI 3102H	10.2 inch	2	260.0±0.5W×179±0.5H	272W×191H×42
PI 3102HE	10.2 inch	1	260.0±0.5W×179±0.5H	272W×191H×42
PI 8070	7 inch	2	192.0±0.5W×138±0.5H	201W×146H×37
PI 8070C	7 inch	2	192.0±0.5W×138±0.5H	201W×146H×37
PI 8070H	7 inch	2	192.0±0.5W×138±0.5H	201W×146H×37
PI 8102	10.2 inch	2	260.0±0.5W×179±0.5H	272W×191H×42
PI 8102H	10.2 inch	2	260.0±0.5W×179±0.5H	272W×191H×42
PI 8104	10.4 inch	2	288.0±0.5W×212±0.5H	298W×223H×54

Part7 Components and Functions



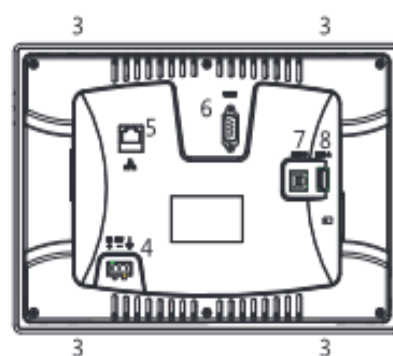
PI 3070 Components description

1	LCD and touch screen	2	Indicator light	3	Fixed buckle	4	SD card slot	5	Power slot
6	Network port (optional)	7	COM port	8	USB-B	9	USB-A		



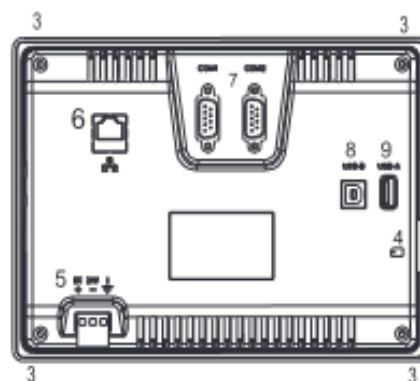
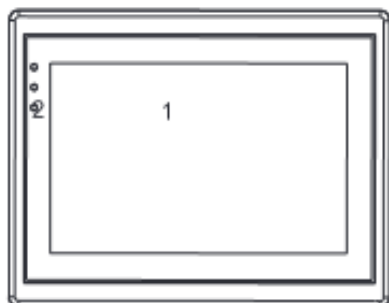
PI 3102/PI3102H Components description

1	LCD and touch screen	2	Indicator light	3	Fixed buckle	4	SD card slot	5	Power slot
6	Network port (optional)	7	COM port	8	USB-B	9	USB-A		



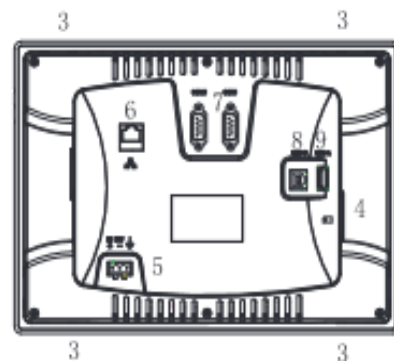
PI 3102HE Components description

1	LCD and touch screen	2	Indicator light	3	Fixed buckle	4	Power slot	5	Network port (optional)
6	COM port	7	USB-B	8	USB-A				



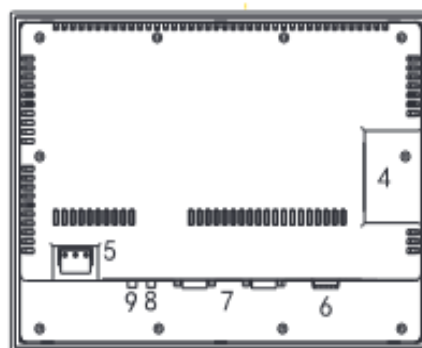
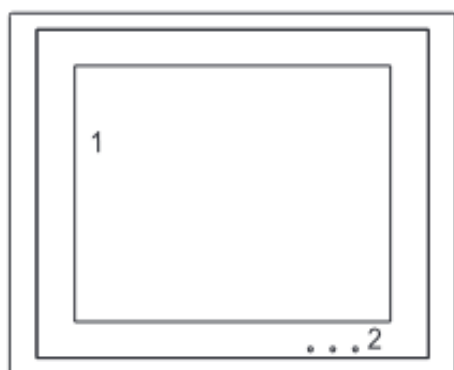
PI 8070/PI 8070C/PI8070H Components description

1	LCD and touch screen	2	Indicator light	3	Fixed buckle	4	SD card slot	5	Power slot
6	Network port (optional)	7	COM port	8	USB-B	9	USB-A		



PI8102/PI8102H Components description

1	LCD and touch screen	2	Indicator light	3	Fixed buckle	4	SD card slot	5	Power slot
6	Network port (optional)	7	COM port	8	USB-B	9	USB-A		



PI 8104 Components description

1	LCD and touch screen	2	Indicator light	3	Fixed buckle	4	SD card slot	5	Power slot
6	Network port (optional)	7	COM port	8	USB-B	9	USB-A		

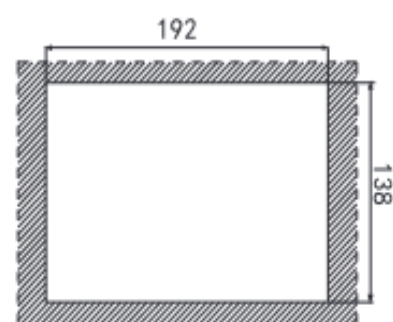
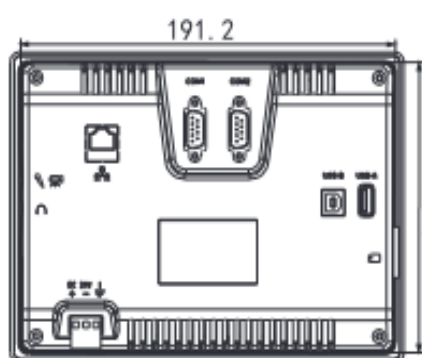
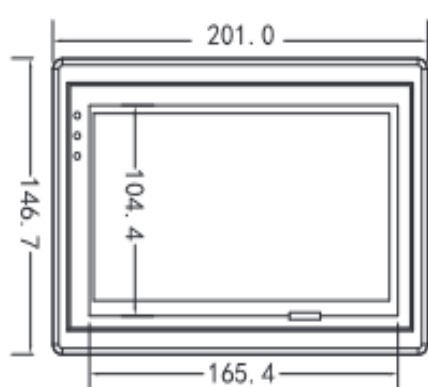
Power supply interface is defined as the following according to view above from left to right:

DC 24V anode

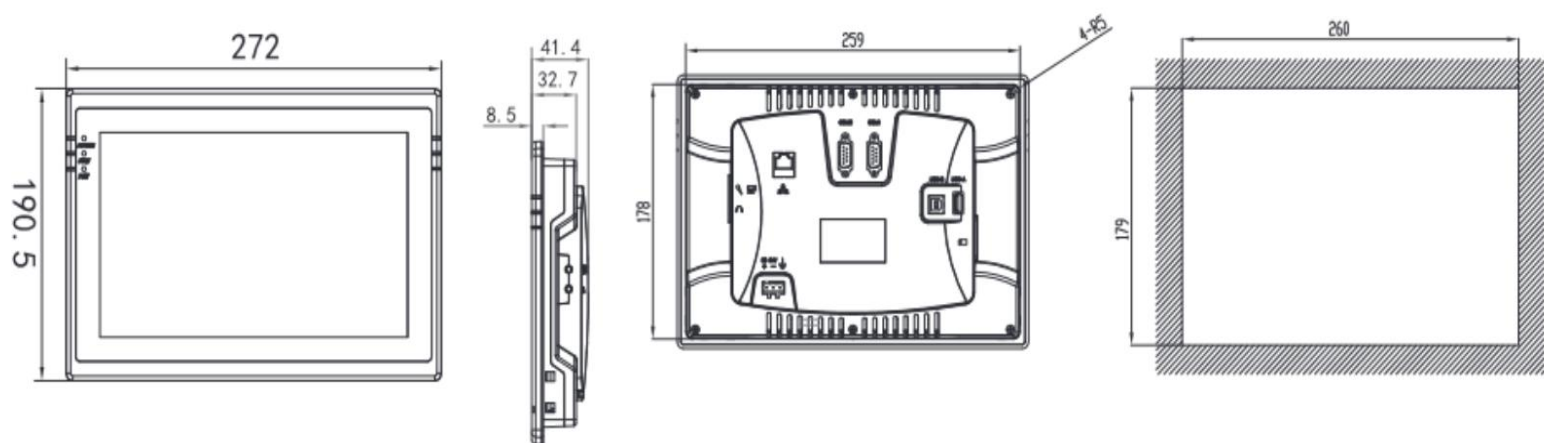
DC24V cathode

ground

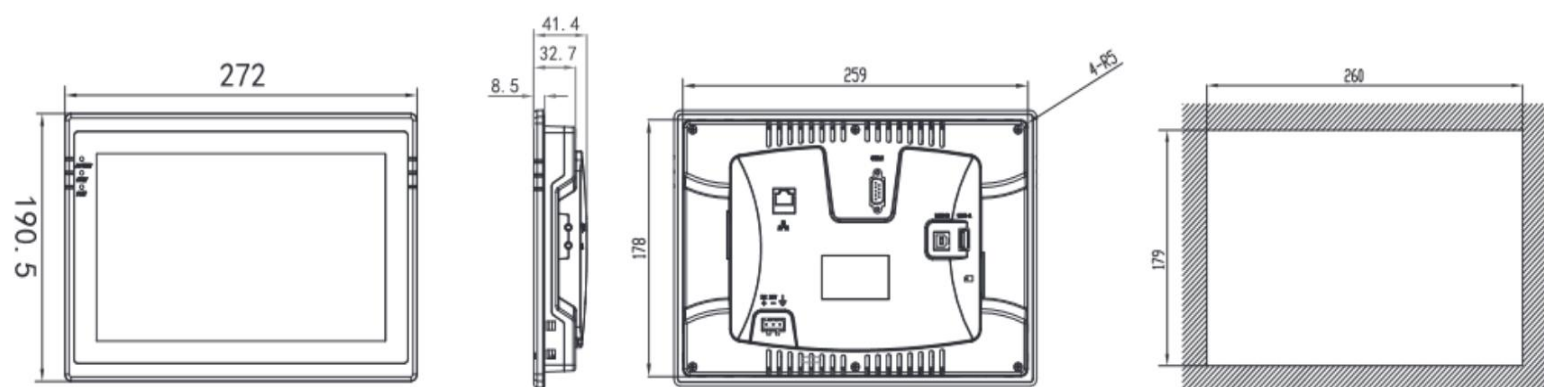
Part8 Size of Interface



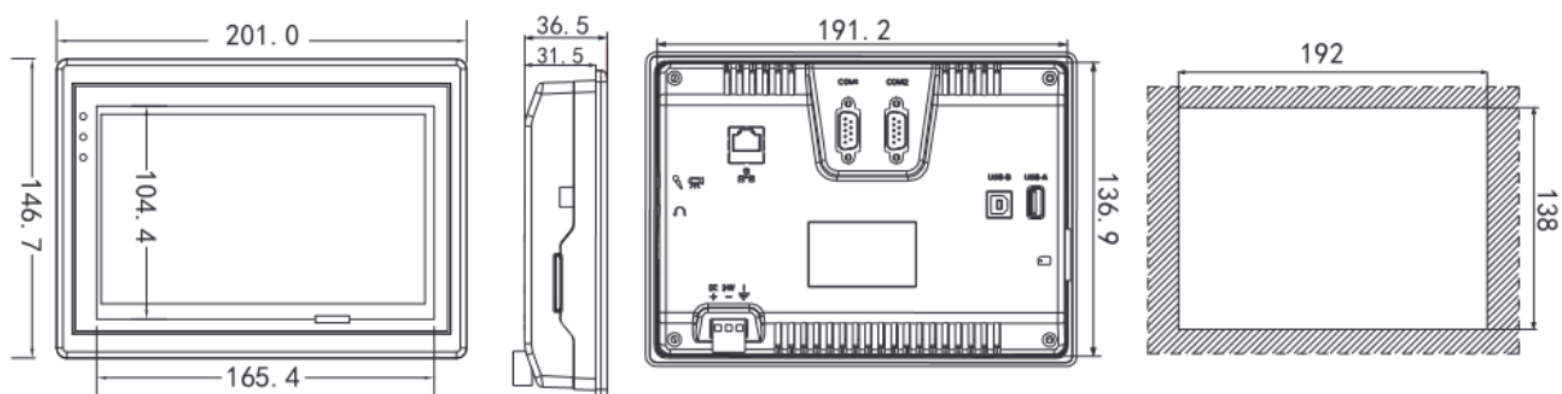
PI 3070 installation size



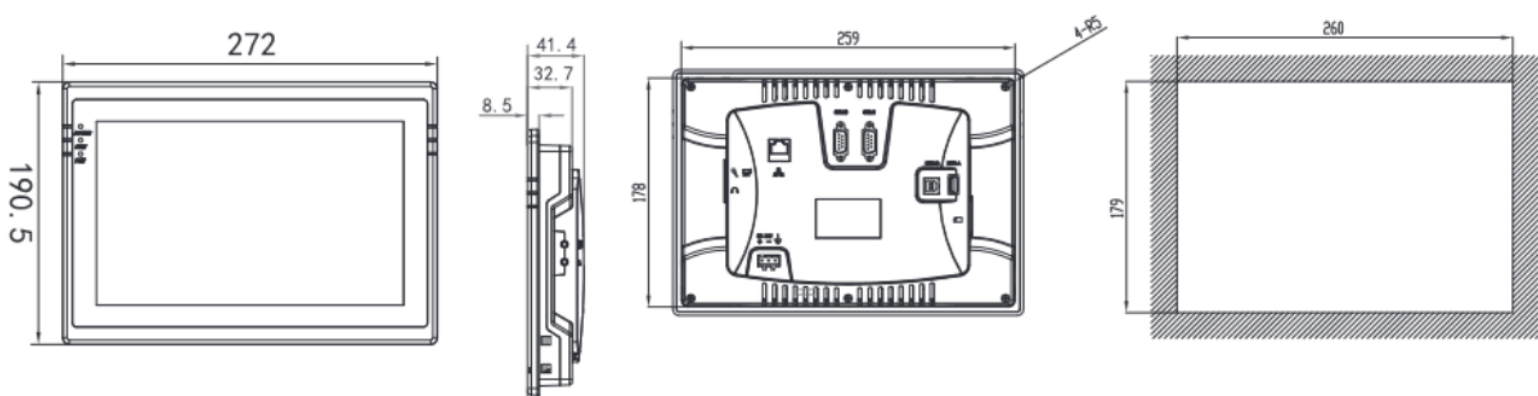
PI 3102/PI 3102H installation size



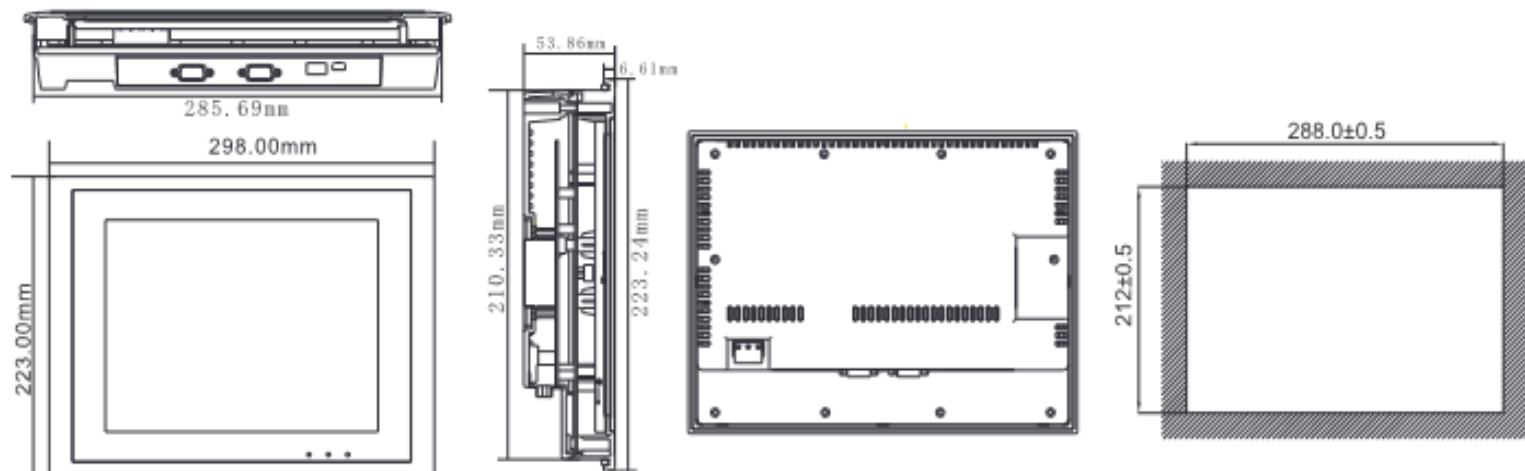
PI 3102HE installation size



PI 8070/PI 8070C/PI 8070H installation size



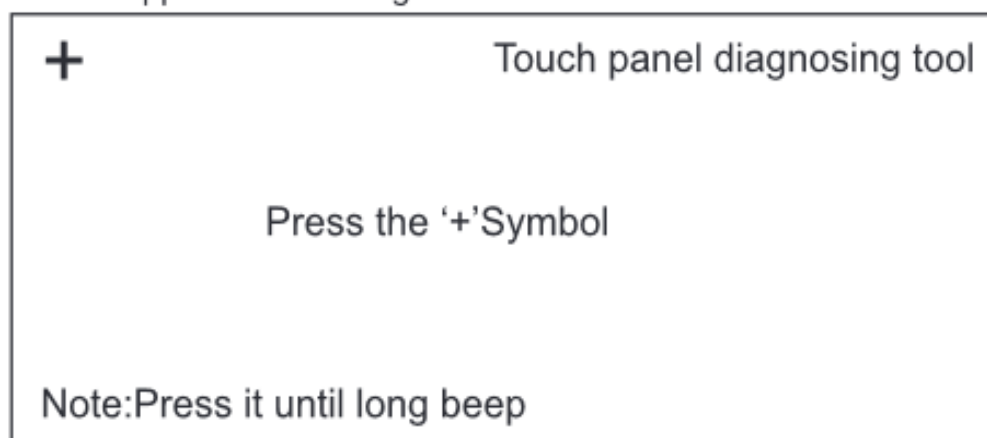
PI 8102/PI 8102H installation size



PI 8104 installation size

Part 9 Touch Screen Calibration

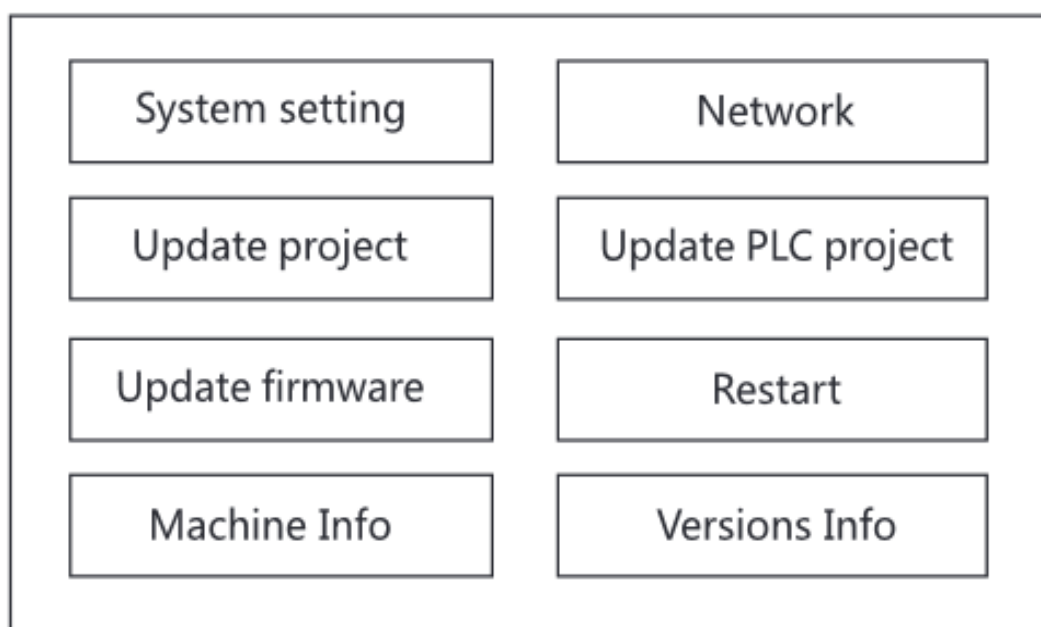
After starting HMI ,keep on pressing top left corner of screen about 3 to 5 seconds , an interface will appear as following :



Click top left corner , bottom left corner , bottom right corner , top right corner and the center of '+' in turn and restart.

Part 10 Parameter Setup

Keep on pressing top right corner of screen about 3 to 5 seconds , an interface will appear as following:



Part 11 Installation of Interface

Notes:

- The installation direction must be in accordance,Otherwise it may lead to fault.
- In order to make circle effcet greatly,adjacent objects and baffle should be kept on enough space when installation,otherwise it will cause bad cooling.
- Used in crust plane of Type 4X indoor grade.

Installation steps:

- Make sure the waterproof gasket is cased,and then install HMI to the adaptive crust.
- Make sure the fixed piece screw is cased,and then hitch front cover screw to withstand inside control box.
- Please tight screws aptly and remember not too strength,otherwise it will lead to crustaceous damage.Torque:6.17lb-inch(0.7N-M)

Part 12 Interface Definition

PI3070/PI3102/PI3102H series interfaces

COM1 definition:

Pin	Definition	Pin	Definition
1	RS422 TX+/RS485 A+	2	RS232 RXD
3	RS232 TXD	5	GND
6	RS422 TX-/RS485 B-	8	RS422 RX-
9	RS422 RX+		

COM2 definition:

Pin	Definition	Pin	Definition
1	RS485 A+	2	RS232 RXD
3	RS232 TXD	5	GND
6	RS485 B-		

- ▲ Note: You can be use only one communication of PI3070/PI3102/PI3102H series HMI at the same time .

PI3102HE series interfaces

COM1 definition:

Pin	Definition	Pin	Definition
1	RS422 TX+/RS485 A+	2	RS232 RXD
3	RS232 TXD	5	GND
6	RS422 TX-/RS485 B-	8	RS422 RX-
9	RS422 RX+		

- ▲ Note:RS422 and RS485 in COM port can not be used of PI3102HE series HMI at the same time.

PI8070/PI8070H/PI8070C/PI8102/PI8102H/PI8104 series interfaces

COM1 definition:

Pin	Definition	Pin	Definition
1	RS422 TX+/RS485 A+	2	RS232 RXD
3	RS232 TXD	4	CANL
5	GND	6	RS422 TX-/RS485 B-
7	CANH	8	RS422 RX-
9	RS422 RX+		

COM2 definition:

Pin	Definition	Pin	Definition
1	RS485 A+	2	RS232 RXD
3	RS232 TXD	5	GND
6	RS485 B-	7	COM3 RS485 A+
8	COM3 RS485 B-		

PI8070C COM2 definition

Pin	Definition	Pin	Definition
1	RS485 A+	2	RS232 RXD
3	RS232 TXD	4	CANL
5	GND	6	RS485 B-
7	CANH		

▲ Note:RS422 and RS485 in COM port can not be used of PI8070/PI8070C/PI8070H/PI8102/PI8102H/PI8104 series HMI at the same time.

Warranty Description

Please send this warranty card together with the product to our company's maintenance department for repair.

Note:

- 1.From the date of purchase of the product, if it is installed and used according to the product instruction manual, the company will repair It free of charge within 18 months. After 18 months, the company will only charge the maintenance cost.
- 2.Failures caused by non-product quality reasons, such as improper use, improper storage, unauthorized disassembly, etc., the company charges maintenance cost.

Notice

The contents of this manual are subject to change without notice.



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