



Kinco MT100E HMI Touch Screen Instruction Manual

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Kinco MT100E HMI Touch Screen



Product Information

The MT100/MT100E HMI is a human-machine interface manufactured by Kinco Electric (Shenzhen) Ltd. It is designed for use in industrial environments and provides various external interfaces for connectivity.

- Operating temperature: The MT100/MT100E HMI can work stably in most industrial environments.
- **Installation Note:**
 - Avoid using the HMI in places with direct sunlight, extreme temperature and humidity, temperature changes causing condensation, corrosive or combustible gases, excessive dust, dirt, salt, iron powder, water, oil, drugs, direct vibration, or shock.
 - Shielding measures should be taken in places with electrostatic or other noise, strong electromagnetic fields, exposure to rays, or proximity to power sources.
- Power Requirement:
 - **Input voltage:** DC10.8 V to DC28V.
 - Ensure sufficient distance between the HMI and converters or switch mode power supplies.
 - Use shielded cables for input and output connections of related equipment and connect the shielding network with the ground.
 - Isolate the DC power and AC power.
 - Do not use common power with perceptual load or input circuit of the controller.
- Installation Description:
 - The HMI is mounted in a well-mounted hole of the machine control box's panel using mounting screws inserted from the back of the panel.

- Recommended lock torque for the screws is 0.5N.m to ensure waterproofing and avoid shell deformation.
- External Interfaces:
 - **POWER:** DC24V input and GND and FG terminals.
 - **COM0/COM2:** 9-pin male, D-SUB interface supporting RS232/485/422 communication functions.
 - **COM1:** 2-pin male, D-SUB interface supporting RS485 communication functions.
 - **USB HOST:** USB interface for connecting USB keyboard, mouse, printers, and U disks for configuration uploading/downloading and data storage.
 - **USB SLAVE:** MicroUSB interface for connecting a PC to download user configuration program and set HMI system parameters.
 - **Note:** USB HOST interface and USB SLAVE interface are time-sharing.

Product Usage Instructions

To use the MT100/MT100E HMI, follow these instructions:

1. Ensure the operating temperature is within the specified range and avoid using the HMI in unsuitable environments (as mentioned in the installation note).
2. Provide the required power input by connecting the DC power supply within the voltage range of DC10.8 V to DC28V. Make sure to maintain sufficient distance from converters or switch mode power supplies. Use shielded cables for input and output connections and ensure proper grounding.
3. Install the HMI by mounting it securely in a well-mounted hole on the machine control box's panel using the recommended lock torque of 0.5N.m for the fixing screws.
4. Connect external devices or systems to the appropriate interfaces:
 - For POWER connection, connect the DC24V input to Pin 1, GND to Pin 2, and FG to Pin 3.
 - For COM0/COM2 connection, refer to the provided pin assignment table and connect the required signals accordingly.
 - For COM1 connection, refer to the provided pin assignment and connect the required signals.
 - For USB HOST connection, use the USB interface to connect USB keyboard, mouse, printers, or U disks for configuration uploading/downloading and data storage.
 - For USB SLAVE connection, use the MicroUSB interface to connect a PC for downloading user configuration programs and setting HMI system parameters.

Please refer to the complete user manual for detailed information on configuring and operating the MT100/MT100E HMI.

Installation Note

Environmental Requirement

- Operating temperature: MT100/MT100E HMI can work stably in most industrial environments that the temperature between 32°F to 122°F (0~50°C).
- **NEMA rating:** This Series HMI frontpanel is NEMA 1 rated.

Please do not use in the following places:

- Places direct in sunlight

- Surrounding temperature and humidity beyond the specifications
- Places of temperature changes sharply and easily cause condensation
- Places that exist corrosive gas and combustible gas
- Places of much dust, dirt, salt and iron powder
- Places that will be splashed water, oil and drugs
- Places that bring direct vibration and shock to host

Please take shielding measures in the following places:

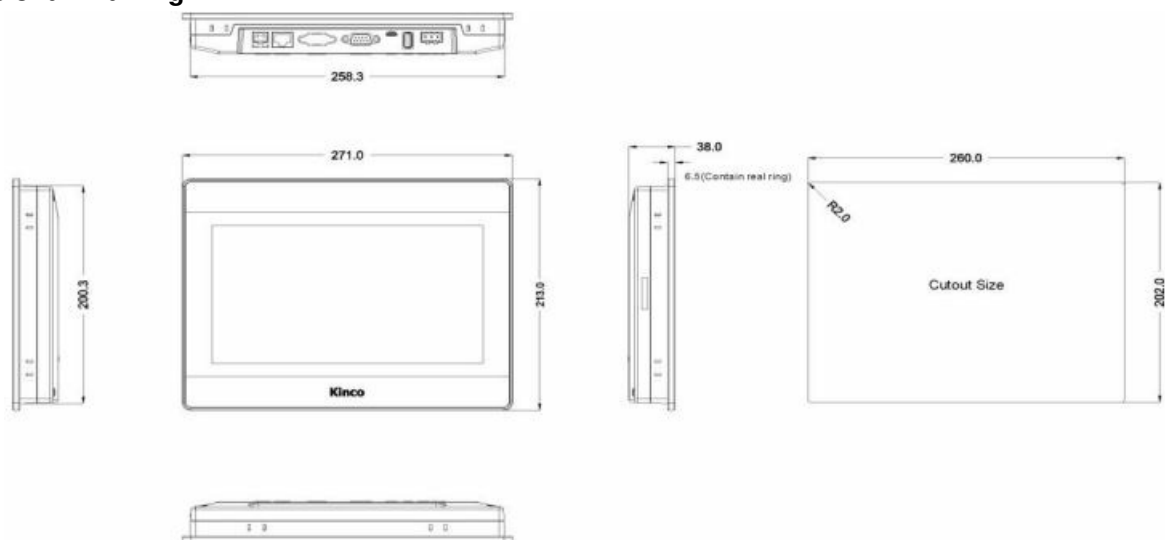
- Places that exist electrostatic or other kinds of noise
- Places of strong electromagnetic
- Places that may be exposed to rays
- Places near the power

Power Requirement

- Input voltage:DC10.8 V DC28V.
- Particularly note that there must be enough distance between this product and converters or switch mode power supply. Make sure that the input and output cables of that kind equipment are shield cable and the shielding network is connected with the ground.
- Make sure that the DC power and AC power is isolated.
- Do not use common power with perceptual load or input circuit of the controller.
- **Note:** An Internal fuse will prevent damage for over voltage condition, however it isn't guaranteed the internal electronic components are not damaged.

Installation Description

Dimensional Drawing



Fixed Screw Installation Instructions

- The product is put into the well mounted hole of the machine control box's panel, and the mounting screws are inserted into the fixing holes around the HMI shell from the back of the control box's panel.

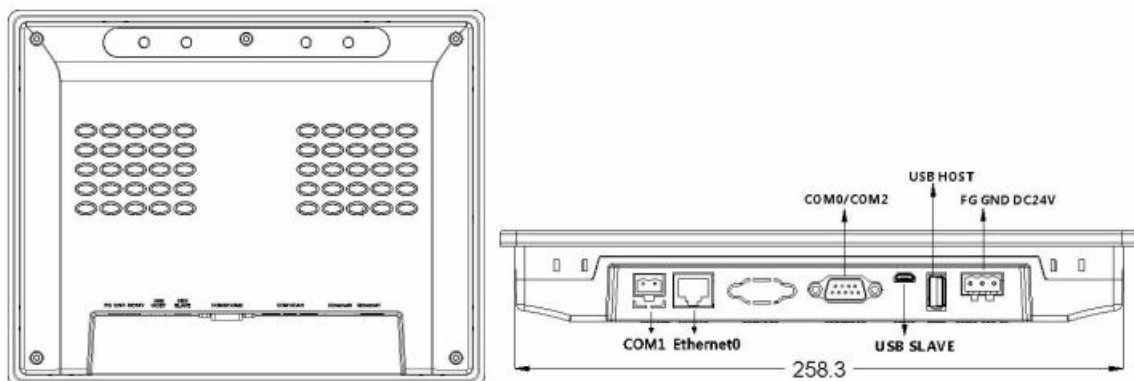
- Recommended lock torque: 0.5N.m (to waterproof effect and avoid shell deformation)



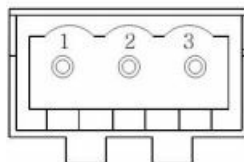
Power Connection

- Before connecting the power, please make sure all local and national electrical standards are met. For power cables, please select cables with their dielectric strength values and current values in compliance with the safety specifications.
- First find the power terminal at the back of the product and loosen the screw according to counterclockwise, then insert the power cables and tighten the screw up. Connect positive DC line to the 'DC24V' terminal, the DC ground to the 'GND' terminal and the ground line to the 'FG' terminal.

External Interface

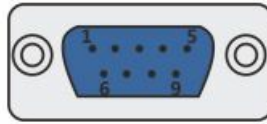


POWER



Pin#	Signal
1	DC24V
2	GND
3	FG

COM0/COM2

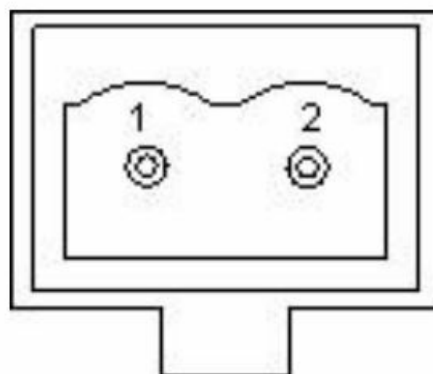


- Pin assignment of the 9-pin male, D-SUB, COM0/COM2
- **Note:** RS232/485/422 communication functions are supported by COM0.COM2 supports RS232 communication function.

Pin	Signal	PLC COM0 [RS-422]	PLC COM0 [RS-485]	PLC COM0 [RS-232]	PC/PLC COM2 [RS-232]
1	Rx- B	RS422 R-	RS485 B		
2	RxD_PLC			RS232 RxD	
3	TxD_PLC			RS232 TxD	
4	Tx-	RS422 T-			
5	GND	Signal ground			
6	Rx+(A)	RS422 R+	RS485 A		
7	RxD_PC				RS232 RxD
8	TxD_PC				RS232 TxD
9	Tx+	RS422 T+			

COM1

- Pin assignment of the 2-pin male, D-SUB,COM1
- **Note:** RS485 communication functions are supported by COM1



Pin	Signal
1	Rx+(A)
2	Rx-(B)

USB HOST

Connection	Connect with USB interface devices or U disks
Port Function	This interface can be connected with USB keyboard, mouse and printers, and the U disk can be used for user's configuration uploading/ downloading as well as data storage.

USB SLAVE

The interface type is MicroUSB

Connection	USB Slave port can be connected with a PC
Port Function	The port is only used to download user configuration program to the HMI and to set HMI system parameters.

Note: USB HOST interface and USB SLAVE interface are time-sharing multiplexing, and should not be used at the same time!

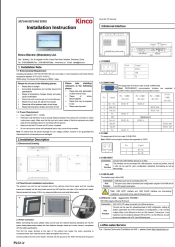
Ethernet only supported by MT100E
10M/100M adaptive Ethernet RJ45 port.

Connection	With CAT5 UTP cable connected to the Ethernet device.
Port Function	The port can be used for upload/download of HMI configuration, setting of system parameters and online simulations of configurations. It can connect multiple HMIs via the Ethernet to form an HMI network. Furthermore, it can implement communications between HMI and PLC via the Ethernet, as well as communications with a PC via the Ethernet port.

After-sales Service

For < Service Terms and Conditions for HMI >, please check: <http://www.kinco.cn>

Documents / Resources

	Kinco MT100E HMI Touch Screen [pdf] Instruction Manual PD0001, MT100E, MT100E HMI Touch Screen, HMI Touch Screen, Touch Screen, Screen
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References

- [Kinco](#)