

7 inch HMI Installation Guide

Thank you for purchasing HMI. Before installing or operating the unit, please read this installation guide carefully to ensure correct use.

1. Safety Precautions (Read these precautions before use.)

1.1 General

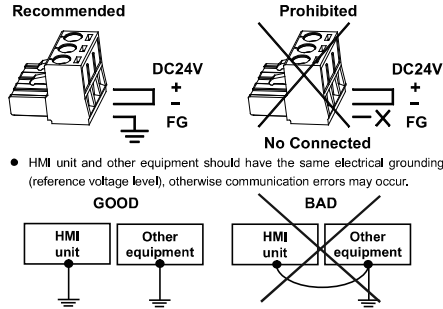
- Unpack and check the delivery for transportation damage. If any damage or deformation is found, please notify the supplier.
- The supplier is not responsible for the disassembled, altered or modified device.
- Never allow fluid or any conductive particles to enter into the HMI. Otherwise, it may damage the HMI, cause fire or malfunction.
- Only qualified personnel may install the HMI, perform maintenance and inspection.
- The liquid crystal inside the LCD panel is a hazardous substance. If the panel is damaged, avoid contact with the leaked liquid crystal. If the liquid crystal spills on clothing or skin, use soap and wash off thoroughly. In case of eye contact the liquid, hold the eye open, flush with plenty water and get medical attention as soon as possible.
- Do not touch any terminals while the power is on. Otherwise, it may cause injury due to electrical shock.
- Disconnect the power supply before installing the HMI, do wiring operation, perform maintenance or inspection. Otherwise, it may cause damage or electrical shock.

1.2 Installation

- The installation may be carried out by qualified personnel only.
- Install the HMI according to the installation procedures.
- Check the power source voltage is within the specified range and the polarity is correct before connecting the HMI.
- Keep signal and power supply cables away from high-voltage, large-current carrying cables.

Caution	Please use solid wires between 22AWG and 14AWG. Maximum 300V and rated temperature to 105°C for input power pins.
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Caution	Make sure the HMI is properly grounded to prevent electrical shock, fire or malfunction.
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- HMI unit and other equipment should have the same electrical grounding (reference voltage level), otherwise communication errors may occur.

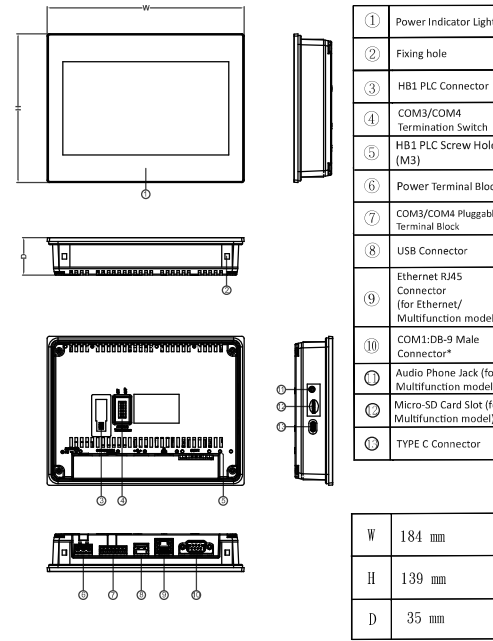
1.3 Operation

- Do not use sharp objects or excessive force to press the touch screen. This may damage the touch screen. Screen protector can be applied to the HMI screen to protect it from damage, for ordering information, please contact our sales department.
- Do not use the output signal of the device as any safety function or system emergency stop. It may result in personal injury or equipment damage if a malfunction of the touch occurs.

1.4 Maintenance and Service

- The agreed guarantee applies.
- Only qualified personnel should make repairs and perform maintenance.
- Disconnect the device from the power supply before carrying out cleaning or maintenance.
- Clean the front panel with a soft cloth and mild detergent.
- Please use original replacement spare parts or accessories.

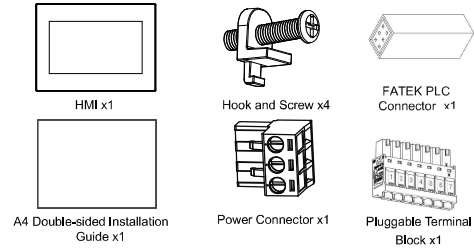
2. Part Names and Dimensions



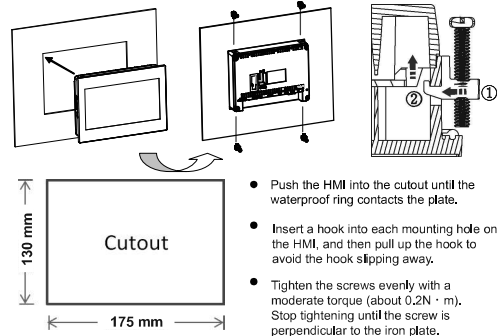
3. Specifications

Model	7" Serial model	7" Ethernet model	7" Multifunction model
UL 61010-1 Technical Consideration	Control		
	Operator Panel		
	Connections to mains supply		
	Permanent		
	Overvoltage category		
	II		
	Pollution degree		
	2		
	Means of Protection		
	Class III		
I/O Port	Environmental conditions		
	Operating Temp. 0~50°C Storage Temp. -20~60°C		
	For use in wet locations		
	No		
	Equipment mobility		
	Built in		
	Operating conditions		
	Continuous		
	Overall size		
	184 x 139 x 35 (mm)		
Power	Weight		
	465 (g) 485(g) 505 (g)		
	Marked degree of protection		
	Front panel: IP65 / Rear Case: IP20 to IEC 60529		
	Equipment classification		
	Industrial, Professional, Commercial		
	Equipment class		
	Class III		
	Equipment type		
	Permanently connected, Fixed		
Environment	Serial 1		
	Connector: D-Sub 9-Pin COM1: RS-232 (TX, RX)		
	Serial 2		
	Connector: Pluggable Terminal Block COM3: RS-422/485 COM4: RS-485		
	LAN		
	10M/100M 10M/100M		
	USB		
	USB2.0 Type-A (Host)x1 USB2.0 Type C (Device)x1		
	Micro SD		
	Yes		
Dimension	Audio		
	Yes		
	PLC Extension		
	HB1 main units + B1 extension modules		
	Termination Switch		
	Yes (For RS-422/485)		
	Power input		
	14V-32V (Isolated Power)		
	Consumption		
	520mA@24VDC		
Environment	Insulation		
	500MQ at 500VDC		
	Relative Humidity		
	10%~90%@ 40°C (non-condensing)		
	Withstand Voltage		
	ACS500V/20mA/1 Min. (between charger & FG terminals)		
	Vibration		
	5 to 9Hz Half-amplitude: 3.5mm 9 to 150 Hz Constant acceleration: 19.6m/s ² (2G) 3 directions of X, Y, Z, 10times (IEC61131-2 complaints)		
	Noise Suppression		
	1000Vp-p, width 1us, rising time 1ns		
Dimension	Grounding Resistance		
	Below 100Ω		
Dimension	Cut-out		
	175 x 130 (mm)		

4. Unpacking the Unit

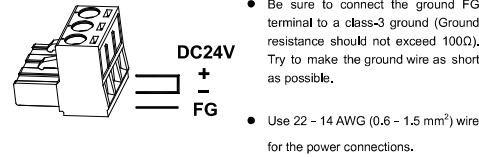


5. Installation Procedure



Caution	Do not lock too tightly when using fixing screws to avoid other problems.
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6. Power Connection

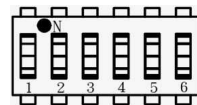


7. Termination Switch

- 7 inch HMI has a built-in termination resistor switch. To enable or disable the termination resistor please follow the configuration shown in the table below. The termination switch is for COM3 [RS-422 / RS-485] and COM4 [RS-485].

- Configuration of Termination Resistor Switch.

No.	Terminating Resistor					
	COM3 [RS-422]		COM3 [RS-485]		COM4 [RS-485]	
	Enable	Disable	Enable	Disable	Enable	Disable
1	OFF	OFF	OFF	OFF	ON	OFF
2	OFF	OFF	OFF	OFF	ON	OFF
3	ON	OFF	ON	OFF	OFF	OFF
4	ON	OFF	ON	OFF	OFF	OFF
5	ON	OFF	OFF	OFF	OFF	OFF
6	ON	OFF	OFF	OFF	OFF	OFF



8. Pin-out of COM Ports

- This series HMI do not support COM2.

DB-9 Male Connector	
PIN#	COM1 [RS-232]
1	NC ¹
2	RX
3	TX
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

*1 NC: No Connection

Pluggable Terminal Block			
PIN#	COM3 [RS-422]	COM3 [RS-485]	COM4 [RS-485]
1	NC	NC	DATA+
2	NC	NC	DATA-
3	GND	GND	GND
4	RX+	NC	NC
5	RX-	NC	NC
6	TX+	DATA+	NC
7	TX-	DATA-	NC

9. PLC Extension Tips

- For compact size and saving space, using HB1 main units + B1 extension modules is recommended.
- If you want to use the expansion module, you need to remove the expansion module sticker.

