

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

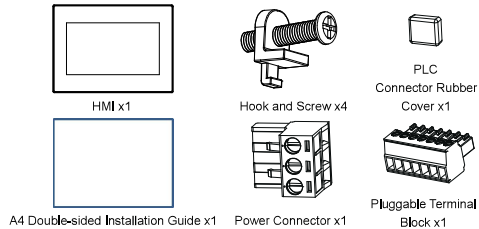
- Unpack and check the delivery for transportation damage. If any damage or deformation is found, please notify the supplier.
- The supplier is not responsible for the disassembled, altered or modified device.
- Never allow fluid or any conductive particles to enter into the HMI. Otherwise, it may damage 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 with 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

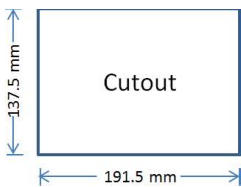
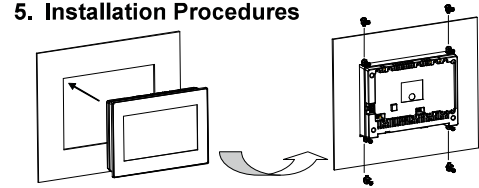
- The installation may be carried out by qualified personnel only.
- Install the HMI according to the installation procedures.
- Check the power source voltage is within the specified range and the polarity is correct before connecting the HMI.
- Keep signal and power supply cables away from high-voltage,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

1

4. Unpacking the Unit



5. Installation Procedures

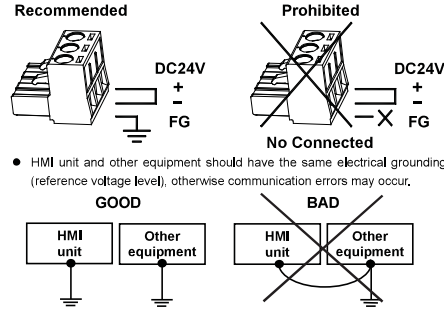


- Push the HMI into the cutout until the waterproof ring contacts the plate.
- Insert a hook into each mounting hole on the HMI, and then tighten the screws evenly with a moderate torque.
- Failure to tighten the screws may cause the HMI to fall, malfunction or short-circuit. Excessive tightening may cause deformation. The necessary torque is about 0.2N·m.

5

Caution Please use solid wires between 22AWG and 14AWG. Maximum 300V and rated temperature to 105°C for input power pins.

Caution Make sure the HMI is properly grounded to prevent electrical shock, fire or malfunction.



1.3 Operation

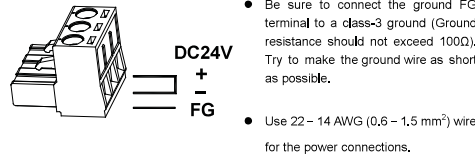
- HMI unit and other equipment should have the same electrical grounding (reference voltage level), otherwise communication errors may occur.
- Do not use sharp objects or excessive force to press the touch screen. This may damage the touch screen. Screen protector can be applied to the HMI screen to 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

6. Power Connection

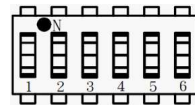


7. Termination Switch

- 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].

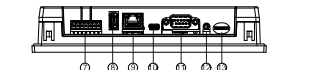
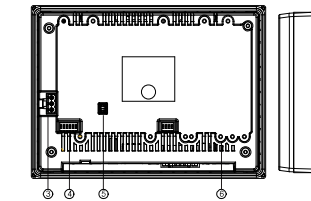
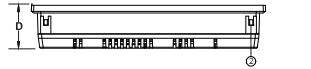
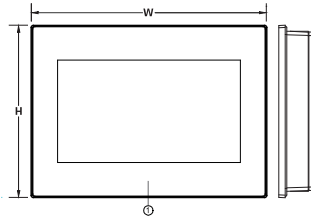
- Configuration of Termination Resistor Switch.

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



6

2. Part Names and Dimensions



①	Power Indicator Light
②	Mounting Hole
③	Power Connector
④	COM3/COM4 Termination Switch
⑤	HB1 PLC Connector
⑥	HB1 PLC Screw Hole
⑦	COM3/COM4 Pluggable Terminal Block
⑧	USB Connector
⑨	Ethernet RJ45 Connector (for Ethernet/Multifunction model)
⑩	Mini USB Connector
⑪	COM1 DB-9 Male Connector*
⑫	Audio Phone Jack (for Multifunction model)
⑬	Micro-SD Card Slot (for Multifunction model)

W	201.0 mm
H	147.0 mm
D	38.3 mm

*This series HMI do not support COM2.

3

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

7

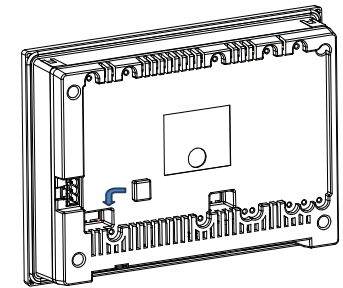
3. Specifications

Model	7" Serial model	7" Ethernet model	7" Multifunction model
Type of item tested	Control		
Product Description	Operator Panel		
Connections to mains supply	Permanent		
Overvoltage category	II		
Pollution degree	2		
Means of Protection	Class III		
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	201.0 x 147.0 x 38.3 (mm)		
Weight	610 (g)	630 (g)	650 (g)
Marked degree of protection	Front panel: IP65 / Rear Case: IP20 to IEC 60529 Type 1 to UL50E		
Equipment classification	Industrial, Professional, Commercial		
Equipment class	Class III		
Equipment type	Permanently connected, Fixed		
Serial 1	Connector: D-Sub 9-Pin COM1: RS-232 (TXD, RXD)		
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 mini-B (Device)x1		
Micro SD	---	---	Yes
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		
Insulation	50MΩ at 500VDC		
Relative Humidity	10%~90%@ 40°C (non-condensing)		
Withstand Voltage	AC500V/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: 10Hzms (IEC61131-2 complaints)		
Noise Suppression	1000Vp-p, width 1us, rising time 1ns		
Grounding Resistance	Below 100Ω		
Dimension	Cut-out 191.5 x 137.5 (mm)		

4

9. PLC Extension Tips

- For compact size and saving space, using HB1 main units + B1 extension modules is recommended.
- The rubber cover of the PLC connector can be taken off and placed into the termination switch slot.



8