

15 inch HMI Installation Guide

Thank you for purchasing FATEK 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.

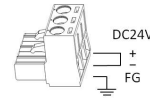
1.2 Installation

- 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.

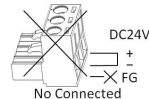
**Caution**

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

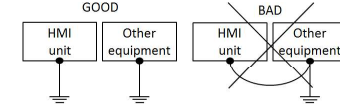
Recommended



Prohibited



- HMI unit and other equipment should have the same electrical grounding (reference voltage level), otherwise communication errors may occur.



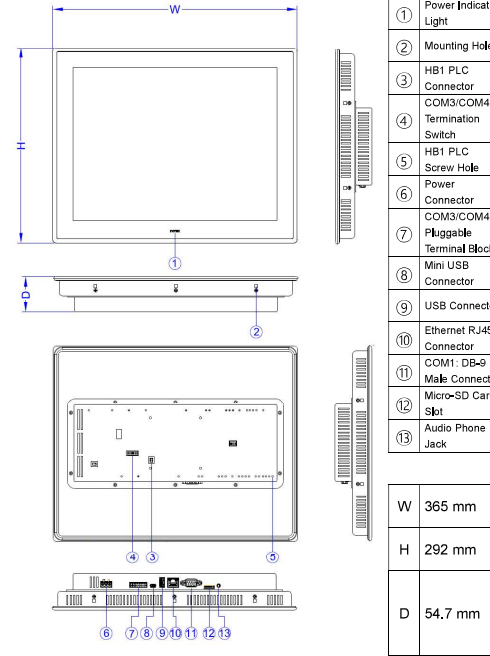
1.3 Operation

- Do not use sharp objects or excessive force to press the touch screen. This may damage the touch screen.
- 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.

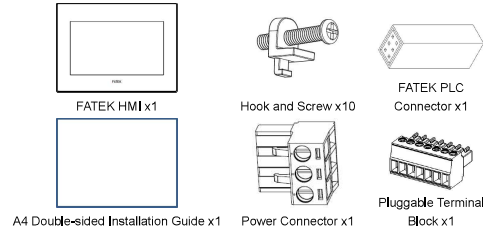
1.4 Maintenance and Service

- 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.

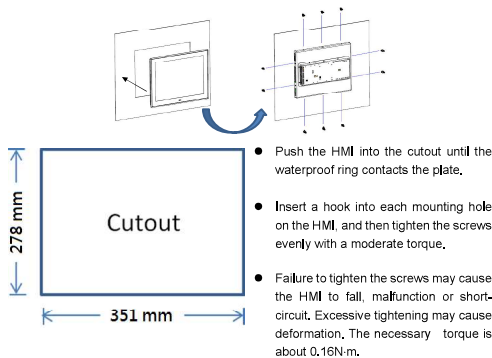
2. Part Names and Dimensions



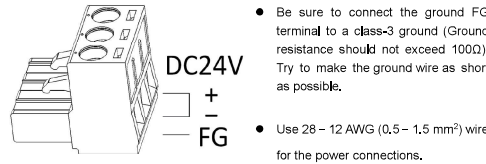
4. Unpacking the Unit



5. Installation Procedures



6. Power Connection

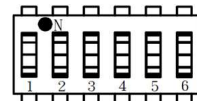


7. Termination Switch

- 15 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
6	OFF	OFF	OFF	OFF	ON	OFF
5	OFF	OFF	OFF	OFF	ON	OFF
4	ON	OFF	ON	OFF	OFF	OFF
3	ON	OFF	ON	OFF	OFF	OFF
2	ON	OFF	OFF	OFF	OFF	OFF
1	ON	OFF	OFF	OFF	OFF	OFF



8. Pin-out of COM Ports

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

3. Specifications

	Model	15" model
UL 61010-1 Technical Consideration	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
I/O Port	Overall size	365 x 292 x 54.7 (mm)
	Weight	2950 (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
	Serial 1	Connector: D-Sub 9-Pin COM1: RS-232 (4W)
	Serial 2	Connector: Pluggable Terminal Block COM3: RS-422/485 COM4: RS-485
	LAN	10M/100M
	USB	USB2.0 Type-A (Host)x1 USB2.0 Type mini-B (Device)x1
Power	Micro SD	Yes
	Audio	Yes
	PLC Extension	HB1 main units + B1 extension modules
	Termination Switch	Yes (For RS-422/485)
	Power Input	14V~32V±20% (Isolated Power)
	Consumption	833mA@24VDC 50mA at 50VDC
Environment	Insulation	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: 10times (IEC61131-2 complaints)
	Noise Suppression	1000V-p-p, width 1us, rising time 1ns
Dimension	Grounding Resistance	Below 100Ω
	Cut-out	351 x 278 (mm)

9. PLC Extension Tips

- For compact size and saving space, using FATEK HB1 main units + B1 extension modules is recommended.
- To connect FATEK PLC main unit, first use the FATEK PLC connector to connect the main unit and then insert into the HB1 connector hole on the back cover of the HMI to complete the connection.

