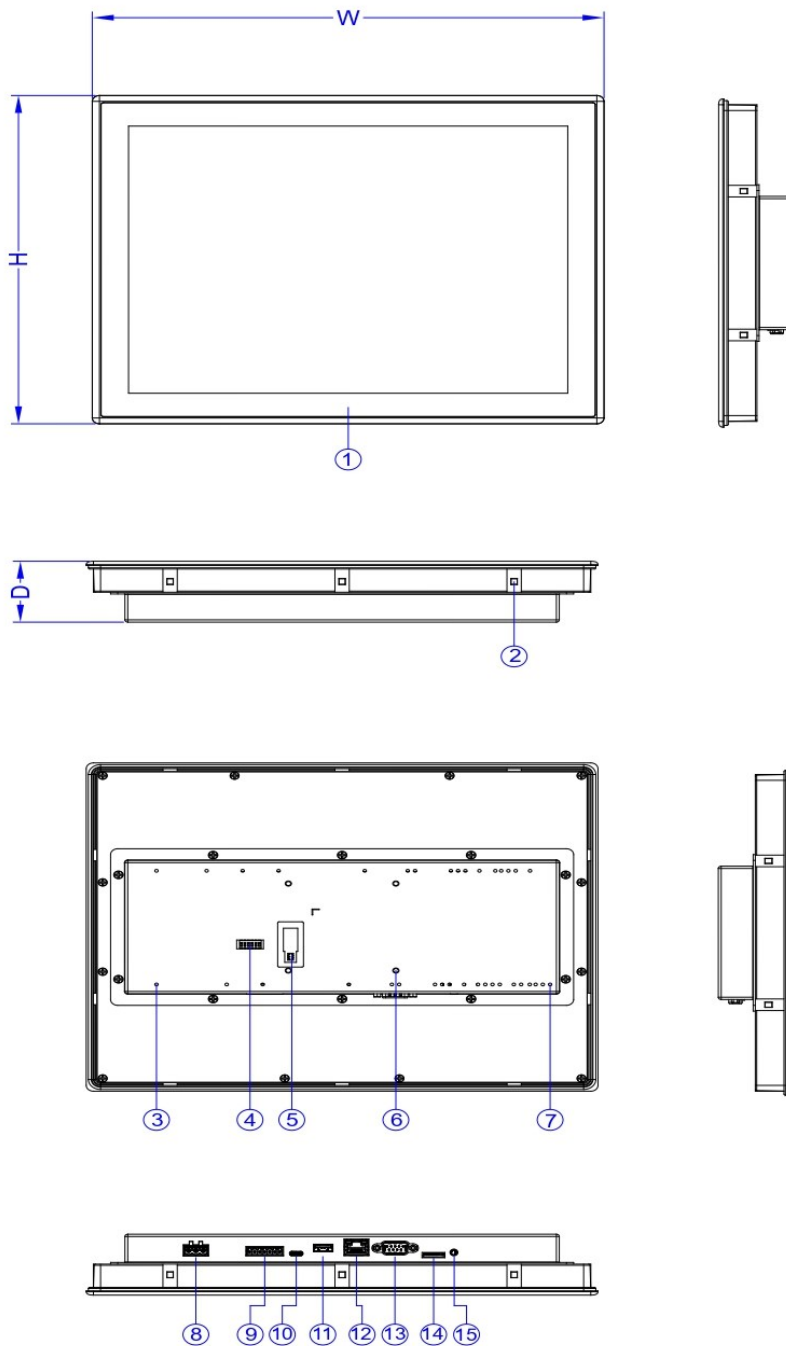# FATEK®

The Brand You Can Rely On

P5150ZB

HMI with 15" TFT LCD display

- ✧ Cortex 1GHz Processor
- ✧ Built-in Power Isolation
- ✧ Built-in PLC Expansion Function
- ✧ PCB coating for Stability in Harsh Environment
- ✧ Fan-less Design for Cooling Method
- ✧ High Noise Immunity Design for Industrial Application

Display	Panel Size	15" TFT (4:3)	I/O Port	Serial 1 (DB-9)	RS-232 (4W)
	Panel Resolution	1024 x 768		Serial 2 (Terminal Blocks)	RS-422/485 (4W) RS-485 (2W)
	Brightness	300 (cd/㎡)		RS-422/485 Isolation	–
	Contrast Ratio	700		Ethernet	10M / 100M
	Backlight Type	LED		USB HOST	USB2.0 x 1
	Backlight Life Time	50,000 Hrs		USB Device	USB2.0 x 1(USB Type C)
	Colors	16.2M		Micro-SD Slot	Yes
	LCD Viewing Angle	70/70/80/80 (T/B/L/R)		Audio Output	Yes
Touch	Type	4-wire Resistive Type		Video Input	–
	Accuracy	X axis±2%; Y axis±2%		Termination Switch	Yes
Memory	Flash	256MB	I/O Extension	PLC Extension	Yes
	RAM	256MB		HMI Extension	Yes
System	CPU	32 bit RISC Cortex 1GHz		Wireless Module	Yes
	RTC	Yes	Power	Power Input Range	14 ~ 32VDC
Dimension /Weight	Dimensions W x H x D	357.0 x 283.0 x 52.5 (mm)		Power Isolation	Yes
	Cut-out	348.0 x 274.0 (mm)		Isolation Resistance	Exceed 50MΩ at 500VDC
	Weight	3165 (g)		Power Consumption	20W (@24VDC)
Environment	Protection Structure	Front panel：IP65 / Rear Case：IP20			
	PCB Coating	Yes			
	Enclosure	Metal			
	Operating Temp	0~50℃			
	Storage Temp	-20 ~ 60℃			
	Relative Humidity	10%~90% (40°C Non-condensing)			
	Withstand Voltage	500VAC/20mA/1 Min. (between charger & FG terminals)			
	Vibration Endurance	5 to 9Hz Half-amplitude: 3.5mm ; 9 to 150 Hz Constant acceleration: 19.6m/s2 (2G) ; 3 directions of X, Y, Z: 10times (IEC61131-2 complaints)			
Software		FvDesigner V1.5.99 or later versions			
Certification		CE , UL			

◆ Dimensions Drawing

W	357.0 mm
H	283.0 mm
D	52.5 mm

①	Power Indicator Light
②	Mounting Hole
③	Ground Screw Hole (M4)
④	COM3/COM4 Termination Switch
⑤	Expansion Module Connector
⑥	VESA Screw Hole (M4)
⑦	HB1 PLC Screw Hole (M3)
⑧	Power Connector
⑨	COM3/COM4: Pluggable Terminal Block
⑩	USB Type-C Connector
⑪	USB Connector
⑫	Ethernet RJ45 Connector
⑬	COM1: DB-9 Male Connector
⑭	Micro-SD Card Slot
⑮	Audio Phone Jack

Cutout: 274.0 mm × 348.0 mm
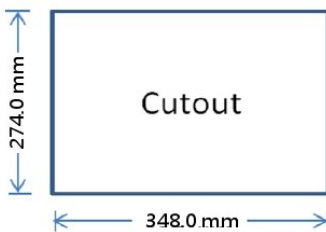
Pluggable Terminal Block

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

DB-9 Male Connector

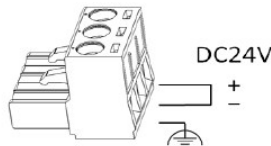| PIN#	COM1 [RS-232]
1	-*
2	RX
3	TX
4	-
5	GND
6	-
7	RTS
8	CTS
9	-

*: No Connection
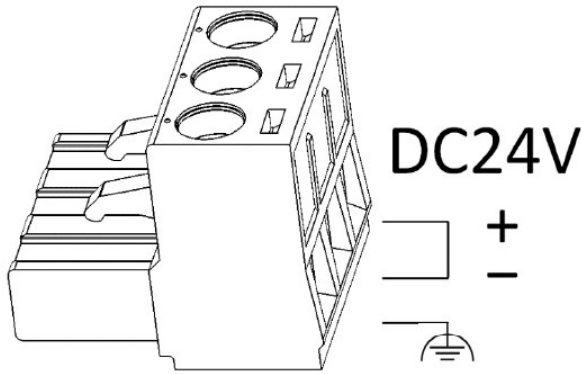
● Be sure to connect the ground FG terminal to a class-3 ground (Ground resistance should not exceed 100Ω). Try to make the ground wire as short as possible.

● Use 24 – 12 AWG (0.201 – 3.24 mm^2) wire for the power connections.

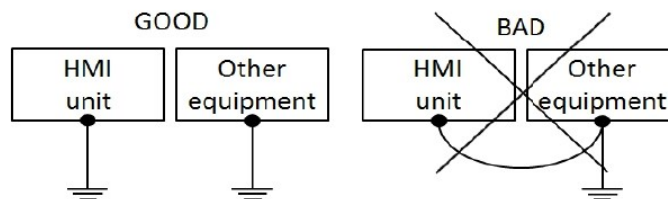| ⚠ **Caution**	Make sure the HMI is properly grounded to prevent electrical shock, fire or malfunction.

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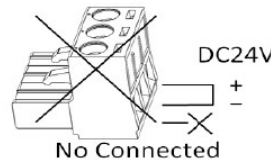
● HMI unit and other equipment should have the same electrical grounding (reference voltage level), otherwise communication errors may occur.

● Wire Routing

a .Use cable type - AWG (American Wire Gauge) 24 or better and the corresponding pin type cable terminals. Tighten terminal screws with a torque value of 4.42 lb-in. Do not use excessive force when fixing wiring.

a.Utilisez le type de câble - AWG (American Wire Gauge) 24 ou supérieur. Valeur de couple de 4.42 lb-in.

b.The rating of the power wire used must be at least 105°C. And for copper conductor.

b.Le calibre du fil d'alimentation utilisé doit être d'au moins 105 ° C. Et pour Conducteur en cuivre.

- The product is open type, intended to be installed in and industrial control panel or an enclosure.

- Altitude up to 2000 m. The product is indoor use only, in Pollution Degree 2 environment.

● The power supply must comply with UL60950 or UL61010-1 and 61010-2-201.

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.

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.