

# TOP SE Series HMI Installation Manual

## 1 General Precautions

Thank you for purchasing the TOP SE Series HMI. Please read this installation manual carefully to ensure correct usage before installing or operating the device. The following items must be strictly observed before reading this manual:

- Do not disassemble, modify, or alter the device by yourself; otherwise, the supplier shall not be held responsible.
- Only qualified professionals are permitted to install, inspect, and maintain this equipment.
- The installation environment must be free from moisture, corrosive gases, and flammable gases.
- The liquid crystal inside the LCD panel is a hazardous substance. In case of panel damage, avoid contact with any leaked liquid crystal. If it gets on clothing or skin, wash it off thoroughly with soap. If the liquid crystal contacts the eyes, keep them open, flush with plenty of clean water for at least 15 minutes, and seek medical attention immediately.
- Do not allow liquids or any conductive particles to enter the HMI. Failure to comply may damage the device, cause fire, or result in malfunction.
- Do not disassemble the HMI or alter the wiring while the power is on.
- Disconnect the power supply before performing installation, wiring, maintenance, or equipment inspection. Failure to comply may result in damage or electric shock.

## 2 Safety Precautions

Always observe the following safety precautions during installation, wiring, operation, maintenance, and inspection!

### Installation Precautions

- To avoid product damage, strictly follow the relevant provisions of this manual during installation.
- To prevent electric shock, fire, and explosion, always install the product within the operating environment specified in the datasheet.
- It is strictly prohibited to install the HMI in environments exceeding the temperature range specified in the datasheet. Failure to comply may result in improper operation or damage to the product.
- DANGER** ➤ This product is designed according to EMC (Electromagnetic Compatibility) standards and is suitable for industrial environments. Please observe relevant specifications during use.
- Do not use this product as a warning system in applications involving personal safety, equipment damage, or emergency stop systems.

### Operation Precautions

- The screen configuration of HMI products must be performed using SE Design Studio software. Use of any other software to operate the screen may result in unpredictable behavior.
- WARNING** ➤ When performing programming and communication settings, be sure to take all necessary safety precautions to prevent personal injury or equipment damage caused by improper operation or signal interruption.
- Be sure to properly back up the HMI project files to prevent data loss caused by hardware damage, accidental deletion, or other unforeseen circumstances.

- To prevent personal injury and electric shock risk, do not touch, operate, or disassemble the device while it is running.
- DANGER** ➤ Do not touch the panel with sharp objects, as this may cause equipment damage or malfunction.

### Maintenance Precautions

- To prevent electric shock risk, do not touch internal components of the HMI with bare hands.
- DANGER** ➤ To prevent electric shock risk, it is strictly forbidden to disassemble the HMI panel while the power is on.

- After disconnecting the HMI power supply, before performing any operations (such as disassembly, installation, opening the casing, wiring, or disconnecting wires), be sure to wait for a period until any residual dangerous voltage on the device is completely discharged.
- Ensure that the HMI is installed in a well-ventilated environment. Otherwise, high temperatures and inadequate ventilation may cause damage to the HMI.

### Wiring Precautions

- It is strictly forbidden to apply voltages exceeding the specified range to the HMI product. Failure to comply may result in electric shock or fire.
- WARNING** ➤ Complete the wiring of the HMI connector externally first, then plug it back into the HMI port.
- Use the correct tools for terminal connections. Do not over-tighten the screws, and ensure they are not loose. Otherwise, abnormal HMI operation may occur.
- Before the first power-on, always double-check all wiring for correctness.

### Communication Precautions

- Use communication wiring cables that comply with standard specifications.
- WARNING** ➤ The length of communication cables must be within the specified limits.
- Use correct grounding circuits to avoid poor communication.
- To avoid the influence of electromagnetic noise (interference), power cables and signal cables should be routed separately.

## 3 Packing List

When you open the product packaging for the first time, please check and confirm that the following items are included. If any item is found damaged or missing, contact your supplier for assistance.

No.	Item	Quantity
1	HMI	1
2	Installation Manual (This Manual)	1
3	Mounting Kit (Clips)	4 or 8 sets

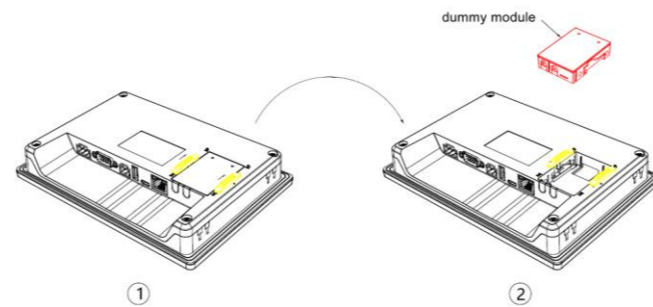
## 4 Installation

### 4.1 Installing TOPSE-IOT

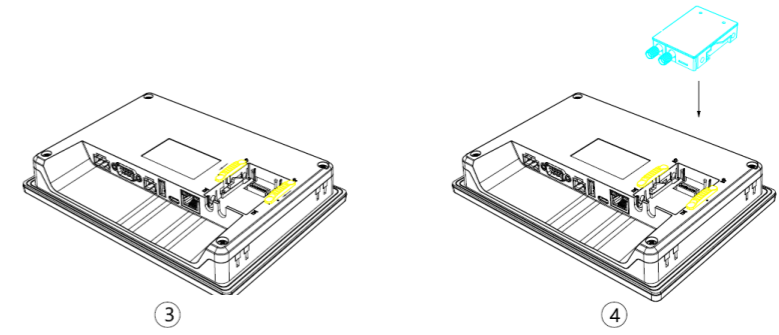
The TOP SE Series HMI expands its IoT capabilities by connecting with the TOPSE-IOT IoT module. TOPSE-IOT can access the Internet via Ethernet, 4G, or WiFi, enabling remote monitoring and management of the equipment.

The procedure for installing TOPSE-IOT is as follows:

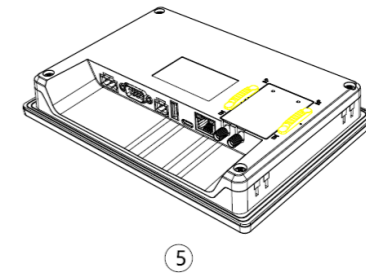
1. Pull both locking latches upward.
2. The pre-installed dummy module will pop out; remove it.



3. Push both locking latches down to the middle position.
4. Fully align the plug with the connector, and insert the TOPSE-IOT module vertically into the unit.



5. Push both locking latches back into place.



### 4.2 Installing the HMI

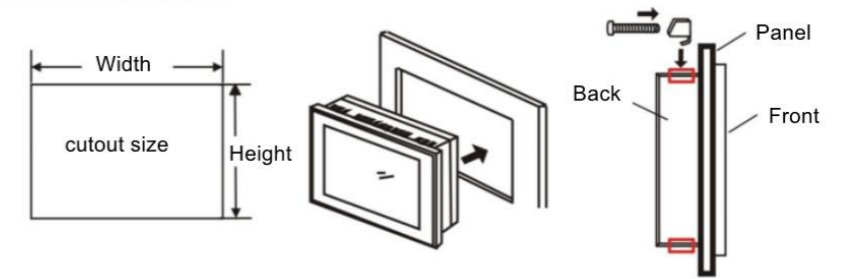
#### 4.2.1 Flush Mounting

Install the HMI product by embedding it into the control panel of the cabinet. Use a Phillips screwdriver and the supplied panel mounting clips.

Follow the steps below for installation.

1. Cut a mounting hole on the control panel surface according to the HMI cutout dimensions specified in this manual. Then, insert the HMI into the prepared hole from the front of the panel.
2. Insert the metal mounting clips into the four mounting slots located on the top and bottom of the HMI's rear side. Fit the supplied fixing screws into the clips. Use a Phillips screwdriver to tighten the screws clockwise (recommended torque: 3–4.5 kgf • cm) until the HMI is securely fixed.

#### Flush Mounting Diagram



Cutout Dimensions (mm)		
HMI Model	Width (W)	Height (H)
TOPSE0700WD	190	136


### 4.3 Power Connection

When installing the product, ensure compliance with all local and national electrical standards.

#### 4.3.1 Power Requirements and Precautions

- Input Voltage: DC 24V
- Do not apply power voltages outside the specifications of the product's technical data.
- The power terminal can be gently pried up and removed using a screwdriver.
- The power terminal features a non-destructive plug-in/out design. Before removing the latch, you can gently pry it up using a standard screwdriver to release the lock.

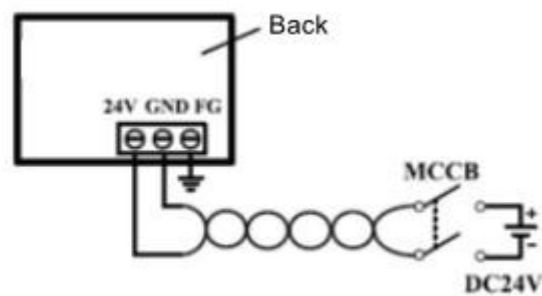
### 4.3.2 Power Terminal

Power Terminal (Pin 1-3 from left to right)	Pin	Description
	1	FG
	2	0V
	3	DC 24V

### 4.3.3 Connecting the Power Cable

Select conductors that meet safety standards and have appropriate voltage and current ratings. The power terminal is included in the package as a standard accessory. For additional power terminals, please contact your supplier.

Note: As shown in the figure below, connect the positive pole of the power supply to the "+" or "DC24V" terminal of the HMI, and connect the DC ground (negative pole) to the "-" or "GND" terminal of the HMI.



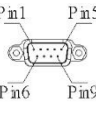
### 4.4 Grounding

The product housing must be grounded. The internal DC ground of the product is not connected to the chassis ground. To prevent external noise interference from entering the system due to a virtual ground point, it is recommended not to connect the DC ground and the chassis ground to the same grounding point. However, if the power ground must be connected to a star grounding point, the grounding conductor should be as short as possible, have as large a cross-sectional area as possible, and be capable of withstanding the maximum short-circuit current.

The grounding conductor should be connected directly to the star grounding point to ensure it does not carry current from other branches. Connect the grounding wire to the FG terminal of the HMI, using either individual grounding or star grounding methods.

## 5 Communication Interface Pin Definitions

### 5.1 DB9 Serial Port


DB9 serial port	Pin	COM1	COM1	COM1	COM3
		RS-485	RS-422	RS-232	RS-232
	1	B-	RX-		
	2			RXD	
	3			TXD	
	4		TX-		
	5	GND	GND	GND	GND
	6	A+	RX+		
	7				RXD
	8				TXD
	9		TX+		

Note: Do not connect to unused pins.


To avoid communication failures, the cable length for devices connected via RS-485/RS-422 must not exceed 150 meters, and for RS-

232, it must not exceed 15 meters.

### 5.2 COM2

COM2 (Pin 1-2 from left to right)	Pin	Description
	1	A+(RS-485)
	2	B-(RS-485)

### 5.3 Ethernet Interface

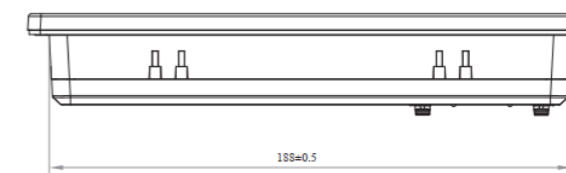
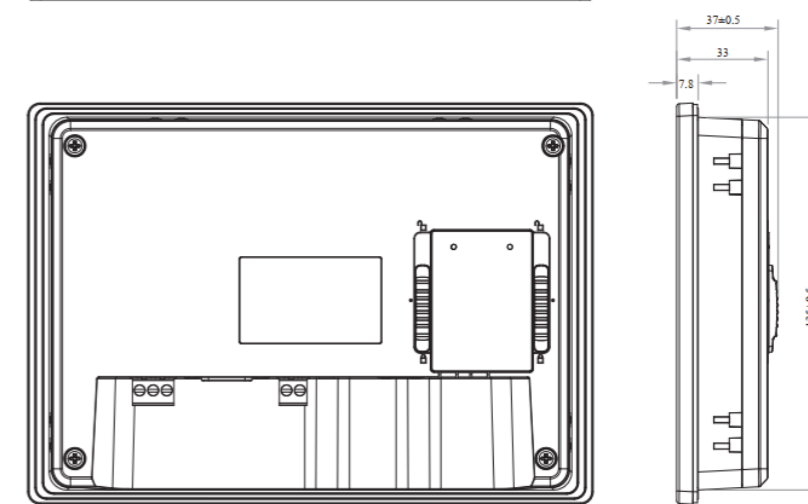
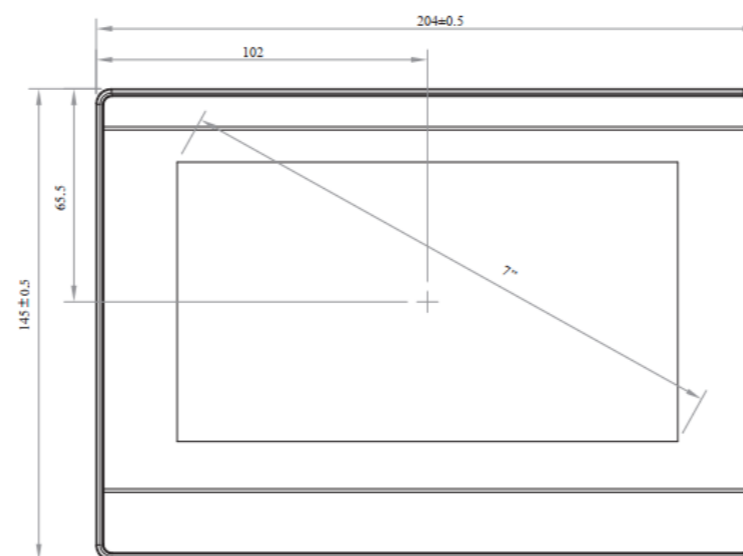
Ethernet Interface	Pin	Description
	1	TX+
	2	TX-
	3	RX+
	4	
	5	
	6	RX-
	7	
	8	

Note 1: Do not connect to unused pins.

Note 2: The default IP address for all HMI models is 192.168.0.200/24.

## 6 Product Dimensions (mm)

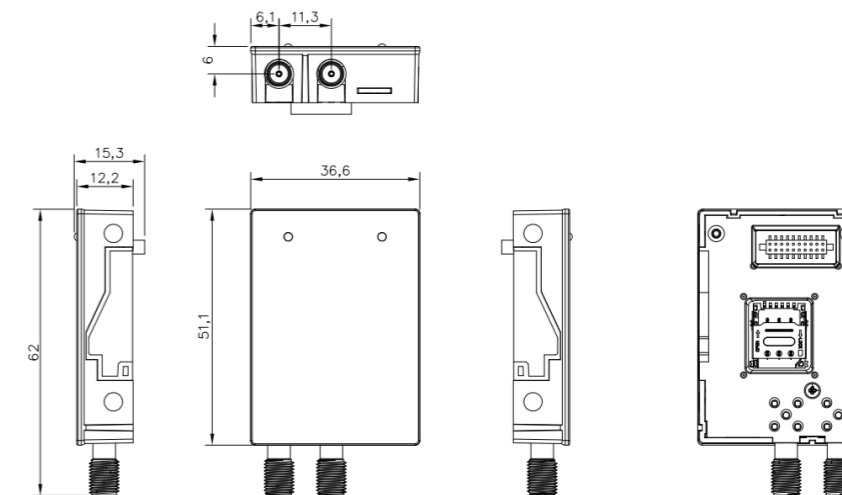
### 6.1 TOPSE0700WD



Flush Mounting Cutout Dimensions: 190mm × 136mm (+1.0mm/-0.5mm)

### 6.3 TOPSE-IOT

TOPSE-IOT-4G/TOPSE-IOT-WiFi/TOPSE-IOT-4G-WiFi/TOPSE-IOT-4G-WiFi-EU



## 7 Main Specifications

Item	TOPSE0700WD
Size	7 inch
Rated Voltage	DC 24V, Operating Range DC 9V~28V
Rated Power	<10W
Operating Temp	0~50°C
Ambient Humidity	10%~90%RH (Non-condensing)
IP Rating	Front Panel complies with IP65 (when mounted on a flat panel/cabinet), Rear Housing complies with IP20
Cutout Dimensions	190mm × 136mm

Head Office

Address : 11-35, Simin-daero 327 beon-gil, Dongan-gu, Anyang-si, Gyeonggi-do, Republic of Korea

TEL : +82-31-465-3366

FAX : +82-31-465-3355

Email: [sales@mxon.co.kr](mailto:sales@mxon.co.kr)

Website : <https://www.mxon.co.kr/eng/>

LinkedIn: <https://www.linkedin.com/company/mxoncorp/>

Youtube : [https://www.youtube.com/@MXON\\_DX](https://www.youtube.com/@MXON_DX)



Follow MX On LinkedIn



Subscribe to MX On YouTube