

HV01 Series Touch Screen Installation Guide

(HV01-070SE/HV01-070NW/HV01-101SE/HV01-101NW/
HV01-102SE/HV01-102NW)

Version and Revision Records

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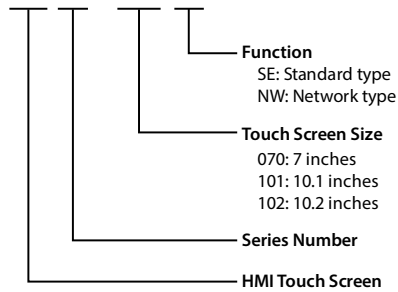
Revised Chapter	Revised Contents
	<ul style="list-style-type: none">• Model added: HV01-101SE, HV01-101NW• Touch screen calibration

Safety Precautions

Note	<ul style="list-style-type: none"> • The communication interfaces of HV01 series touch screen support RS232, RS422, RS485, CAN bus, RS422/RS485 of COM2 are complex communication interfaces. When downloading the project, please use the USB communication wire to communicate with the download port. The download port defaults to USB-B. • In order to make the touch screen work normally, please connect the chassis according to the requirements of this manual when installing and using. • In order to make the touch screen work properly, please connect the signal interface of the communication interface according to the requirements of this manual.
Installation Requirements	<ul style="list-style-type: none"> • Please install the touch screen in accordance with the Installation Guide in order to avoid the possible damage to the device. • Do not expose this product to places with moisture, corrosive gases, or human gases, etc., to avoid possible electric shock or fire.
Wiring Requirements	<ul style="list-style-type: none"> • Connect the ground terminal to CLASS-3 (below 100Ω) to avoid electric shock or fire caused by poor grounding. • The HV01 series touch screen uses a 24V power supply. Access to other ranges of power supplies may result in instability of some parameters or performance, which may cause damage to the machine.
Operational Requirements	<ul style="list-style-type: none"> • HV01 series touch screen needs to match up HVTouch edition software to design project images, without secondary development design, it may cause abnormal operation. • Do not change the wiring when the power is turned on, otherwise it may cause electric shock or personal injury. • Do not touch the keypad with sharp objects. Otherwise, it may cause the keypad to sag, so that the touch screen will not work properly.
Maintenance and Inspection	<ul style="list-style-type: none"> • Do not touch the inside of the touch screen, otherwise it may cause equipment damage and electric shock. • When the power is turned on, it is forbidden to remove the touch screen keypad, otherwise it may cause equipment damage and electric shock. • When the power is off for 10 minutes, the terminal should not be contacted. The residual voltage may cause electric shock. • When the touch screen is in operation, do not touch the terminals, otherwise it may cause malfunction.
Communication Wire Requirements	<ul style="list-style-type: none"> • Please use the communication wiring wire according to the standard specifications. • The length of the communication wire must meet the requirements. • Use the correct grounding loop to avoid poor communication.

Model

HV 01 - 070 SE

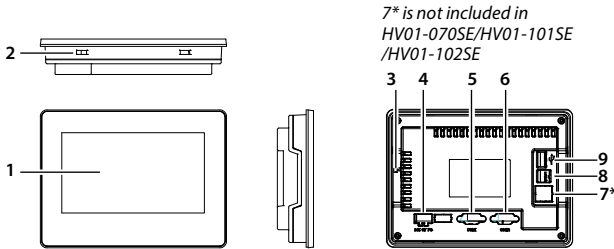


Specifications

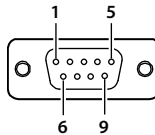
Model	HV01-070SE	HV01-070NW	HV01-101SE	HV01-101NW	HV01-102SE	HV01-102NW
Size	7 inches		10.1 inches		10.2 inches	
Resolution	800 × 480		1024 × 600		800 × 480	
Display Color	65536 colors					
Backlight	LED					
Backlight Life	30000 hours					
Power Supply Voltage	DC24V ± 20%					
Allowable Instantaneous Stop Time	Less than 5ms					
Power	Less than 8W					
Text Settings	Chinese&English					
Environmental Temperature	Run: -20 - +60°C			Storage: -20 - +70°C		
Environmental Humidity	Run: 10 - 85%RH, no condensation			Storage: 10 - 85%RH, no condensation		
Anti-interference	Interference voltage: AC1000AP, P-P pulse period: 11μs, duration: 1ns					
Withstand Voltage	DC1000V 20mA is less than 1 minute (power terminal and FG terminal)					
Insulation Resistance	Above DC500V 20MΩ (power terminal and FG terminal)					
Vibration Resistant	Meet the IEC67731-2 standard Vibration occasions: 10 - 57Hz 0.075mm, 57 - 150Hz 9.8m/s ² Vibration occasions: 10 - 57Hz 0.035mm, 57 - 150Hz 4.9m/s ² XYZ three directions 10 times each (80 minutes)					

Static Resistance	Comply with IEC standard, discharge 4kV, air discharge 8kV
Corrosion Resistance	Avoid corrosive gases
Protection Level	Equivalent to IP65 (surface)
Cooling Method	Natural air cooling
Touch Screen Fuse Rating	1.6A/250V

Structure Description



1	LCD and touch screen	4	Power slot	7	Internet interface (RJ45)
2	Fixed card slot	5	COM1, see table below	8	USB-B (connect to PC)
3	TF card slot	6	COM2, see table below	9	USB-A (connect to U disk)



COM1/COM2

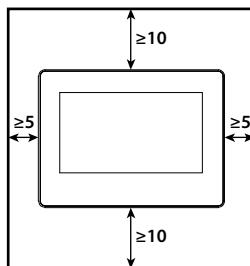
COM1 Interface Pin Definition					
4	RS485+	5	GND	7	RS485-

COM2 Interface Pin Definition					
1	RS422 TD+/RS485+	4	CAN-	7	CAN+
2	RS232 RXD	5	GND	8	RS422 RDD-
3	RS232 TXD	6	RS422 TD-/RS485-	9	RS422 RDD+

Installation

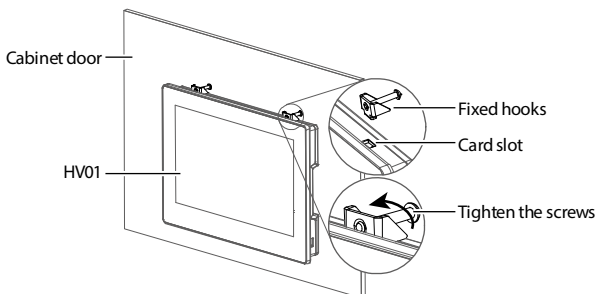
Precautions

- The installation direction must be in accordance with the instructions, otherwise it will cause a malfunction.
- In order to make the cooling cycle work well, when installing the HV01, sufficient space must be maintained with adjacent objects and baffles (walls) to avoid poor heat dissipation and equipment damage.
Shown as the picture on the right, unit cm.
- Applicable to type 4x indoor grade shell plane.

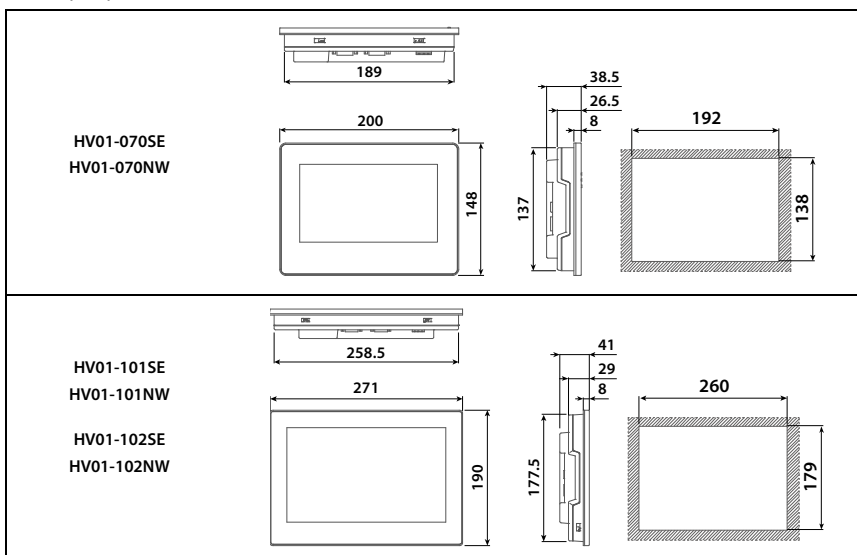


Installation Steps

1. Put the HV01 into the opening hole of the cabinet door, and install the four upper and lower fixed hooks into the card slot.
2. Please tighten the screws with a suitable torque, otherwise it will cause damage to the plastic case.
Torque: 6.17lb-inch (0.7NM).



Dimension (mm)



Basic Detection


Please do the following basic tests before using the HV01 series touch screen.

General Detection	<ul style="list-style-type: none">• Regularly check whether the screws at the connection between the touch screen interface and the device are loose.• Exhaust holes should avoid the invasion of foreign bodies such as oil, water or metal powder, and the cutting powder of electric drill should be prevented from falling into the touch screen.• If the touch screen is installed in a place with harmful gases or dust, prevent harmful gases and dust from entering.
Pre-operation Detection (No Control Power Supply)	<ul style="list-style-type: none">• Insulate the wiring part of the wiring terminal.• The communication wiring should be correct, otherwise abnormal operation may occur.• Check if foreign matter enters the inside of the touch screen, especially an isoelectric object such as a screw or a metal piece, and a flammable object.• When the electronic equipment used near the touch screen is subjected to electromagnetic interference, use the instrument to adjust to reduce electromagnetic interference.• Make sure that the supply voltage of the touch screen is correct.
Pre-operational Test	<ul style="list-style-type: none">• Whether the communication action with each device is abnormal.• If there is any abnormality in the touch screen interface, please contact the supplier or call Hpmont directly.

Touch Screen Calibration

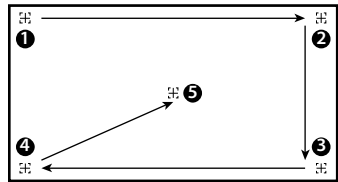
If the touch screen is insensitive or abnormal when using, the following steps can be used to calibrate the touch screen.

1. Enter the touch screen calibration program (3 ways, choose one)

Access Through System Menu	<ul style="list-style-type: none">After the HV01 is powered on, press and hold the top right corner of the touch screen for about 5s to enter the system menu interface, click the "Calibration" .
Access Through Host Computer	<ul style="list-style-type: none">Open the HVTouch editing software, use the USB cable to connect the computer to the USB-B of the HV01.Click the "Upload"  button on the HVTouch toolbar to open the upload window, select the "Touch Screen Calibration" function on the left, and click the "Start Calibration" button.
Access Through Function Button	<ul style="list-style-type: none">Open HVTouch editing software, create a new configuration project, click "Function button" in the control box, and draw the button in the interface.Double-click the button to open the settings window, select "Touch Calibration" for the function, and click "Yes".Download the configuration to HV01, and when finished, click the button on the touch screen to bring up the dialog box "Do you want to calibrate screen? Need to restart after calibration to work!", click "Yes".

2. Touch screen calibration

- The "+" cursor appears in the upper left corner of the touch screen, use the stylus or fingertip to tap on the middle position of the "+" cursor, when successful, the "+" cursor moves to the next position, the order of movement is upper left, upper right, lower right, lower left, center.
- Click the "+" cursor that appears on the touch screen in order, when finished, the "+" cursor disappears.



3. Restart

Automatically restart after touch screen calibration.