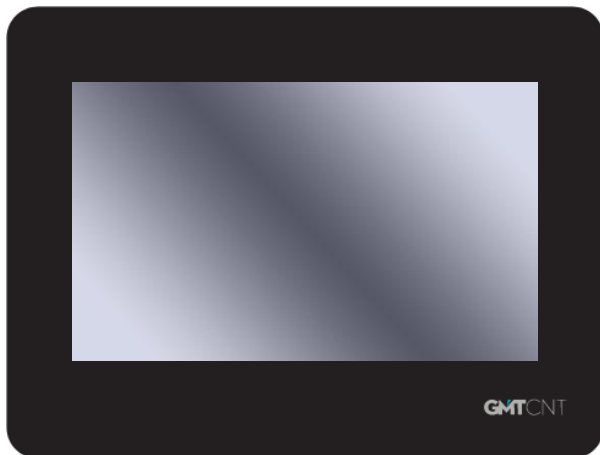**GMTCNT**

GHS-070 / GHS-070E Series HMI Installation Instruction

GMTCNT

Some features of GMTCNT Operator panels;

- 16,77 M Color
- TFT Screen
- ARM Cortex-A7 Dual Core 1 GHz Processor
- 256 MB Flash Memory +128 MB Memory
- RTC
- USB Slave port
- USB Host port
- RS232 and RS232/RS485 port
- VNC feature on models with Ethernet port
- Front panel IP65 protection
- C macro
- Defining the security level
- FTP feature on models with Ethernet port

1.Installation Notes

1.1 Environmental conditions

Working environment temperature: 32 ° F with 122 ° F (0 ~ 50 ° C)

NEMA protection: GHS-070 / GHS-070E HMI front panel has Nema1 protection. While assembling the device, care should be taken to install AC power cables, PLC output modules, contactors, relays and other similar electrical products away from the rear area of the device.

Do not use the HMI under the following conditions;

- Direct sunlight is received,
- Where there is rapid temperature change or high humidity,
- There is a danger of explosion or flash,
- Where flammable gases are present,
- Dusty and steamy environments,
- Do not use in jarring or vibrating environments.

**Use protection when used in the following areas;**

- Places that exist electrostatic or other kinds of noise,
- Places of strong electromagnetic,
- Places that may be exposed to rays,
- Places near the power supply.

1.2 Power Requirement

- Input voltage: DC 10.8V ~ DC 28V
- Particularly note that there must be enough distance between this product and converters or switch mode power supply. Make sure that the input and output cables of that kind equipment are shield cable and the shielding network is connected with the ground.
- Make sure that the DC power and AC power is isolated.
- An internal fuse will prevent damage for over voltage condition, however it isn't guaranteed the internal electronic components are not damaged.
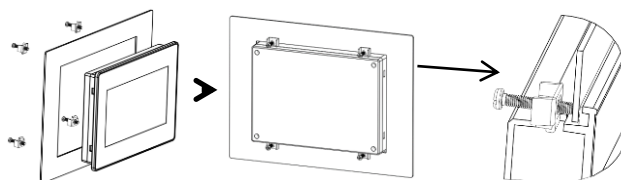
2.Assembly Information

### 2.1 Dimensions (mm)
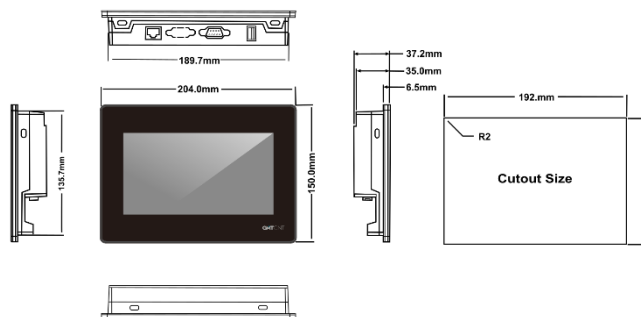
2.2 Assembly instructions

Place the device within the housing cutout. Slide the 4 fasteners around the box. Tighten the screws evenly until the operator is sure it is securely attached to the inside of the panel.

2.3 Power Connection

-Before connecting power, please ensure all local and national electrical standards are met. For power cables, please select cables with dielectric strength values and current values that comply with safety specifications.

-First, find the power terminal on the back of the product and loosen the terminal screw counterclockwise, then insert the power cables and tighten the screw.

-Connect the positive DC line to the '+24VDC' terminal, the DC ground to the 'GND' terminal and the ground line to the 'FG' terminal.

3.Connection Ports
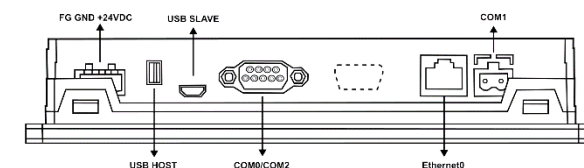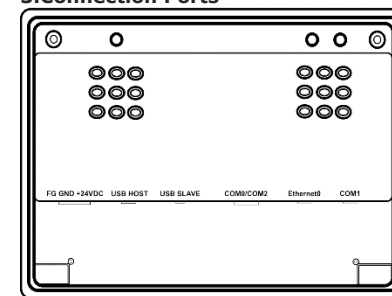
3.1 USB SLAVE Port

It has a MicroUSB interface

Description	It is used for PC connection. It is used to upload or download the project designed by the user from the HMI. Also system settings, software update simulation etc. operations can be done through this port.

3.2 USB HOST Port

Description	This interface can be connected with USB keyboard, mouse and printers, and the U disk can be used for user's configuration uploading/ downloading as well as data storage.

3.3 Ethernet Port (GHS-070E)

10M/100M adaptive RJ45 port

Description	CAT5 cable is used. It is used to upload or download the project designed by the user from the HMI. Also system settings, software update simulation etc. operations can be done through this port. Additionally, this port can be set to communicate with a PLC or other HMI via Ethernet infrastructure.

3.4 COM0/COM2

9 pin male D-SUB communication port COM0: Supports RS232/485/422. The COM2 port only supports the RS232 communication protocol.

Pin	Signal	COM0 [RS-422]	COM0 [RS-485]	COM0 [RS-232]	COM2 [RS-232]
1	Rx-(B)	RS422 R-	RS485 B		
2	RxD_PLC			RS232 RxD	
3	TxD_PLC			RS232 TxD	
4	Tx-	RS422 T-			
5		GND			
6	Rx+(A)	RS422 R+	RS485 A		
7	RxD_PC				RS232 RxD
8	TxD_PC				RS232 TxD
9	Tx+	RS422 T+			

3.5 COM1

2-pin teminal blocks, RS485 protocol supports

Pin	Signal
1	A+
2	B-