


1 Installation and Startup Guide

This document covers the installation of cMT3102X Series HMI, for the detailed specifications and operation, please refer to Datasheet, Brochure and EasyBuilder Pro User Manual. Please read all warnings, precautions, and instructions on the device carefully before use.

Install Environment:

NEMA Rating	The HMI product is NEMA 4 rated (indoor use only).
Electrical Environment	The HMI product has been tested to conform to European CE requirements. This means that the circuitry is designed to resist the effects of electrical noise. This does not guarantee noise immunity in severe cases. Proper wire routing and grounding will insure proper operation.
Environmental Considerations	<ol style="list-style-type: none"> (1) Make sure that the displays are installed correctly and that the operating limits are followed. Avoid installing units in environments where severe mechanical vibration or shocks are present. (2) The HMI product is certified in accordance with ATEX zone 2/22 categories 3 G/D. The unit has to be installed in an additional enclosure ensuring a minimal protection level for 3G/D equipment. The enclosure equipped with the unit has to be certified and shouldn't be opened when an explosive atmosphere is present. (3) Do not install the unit where acid gas, such as SO₂ exists. (4) This device should be mounted in the vertical position and for use on the flat surface enclosure. (5) For use in Pollution Degree 2 Environment and dry location. (6) Relative Humidity: 10% ~ 90% (non-condensing)
Operating Altitude (Atmospheric Pressure)	Below 3,000 m (9842.52 ft.), atmospheric pressure is 70.1 kPa.
IP Rating	IP 66
Cleaning Considerations	Clean the device using dry cloths. Do not use liquid or spray detergents for cleaning.
 Warning	Protection impairment if used in a manner not specified by the manufacturer. Déficit de protection si utilisé d'une manière non spécifiée par le fabricant.

2 Unpacking the Unit

Unpack and check the delivery. If damage is found, please contact the supplier.

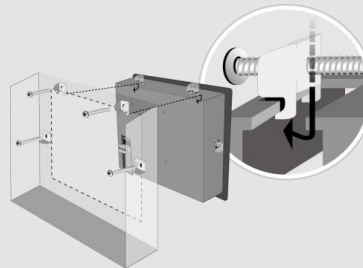
NOTE: Place the operator panel on a stable surface during installation. Dropping it or letting it fall may cause damage.

The package includes:

- (1) Installation Instruction, 2-sided A4 *1
- (2) Human Machine Interface *1
- (3) Power Connector *1
- (4) Brackets & Screws *1 pack
- (5) USB Stick Clamp & Tying Strap *1

3 Installation Instructions

Use a control box that provides enough stiffness. Cutout Dimension: 260 mm x 202 mm. Secure the operator panel in position, using all the fastening holes and the provided brackets and screws. Screw Torque: 2.6 ~ 3.9 lbf.in. (For reaching waterproof effect and preventing the panel from being deformed.)



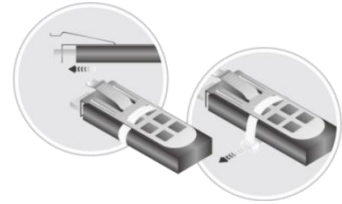
Plan for adequate space around the unit to dissipate the heat from other devices inside the enclosure.
Maximum ambient temperature: 50°C

Minimum required clearances (along the panel):
Maximum panel thickness: 4.5 mm

USB Stick Clamp Usage

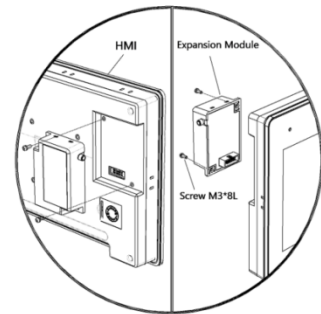
Combining the USB Stick with the clamp can protect the USB stick with HMI when strong vibration is present.

1. Insert the USB connector to the clamp.
2. Press the spring and insert the USB stick.




Expansion Module and Magnetic Mounting

1. Connect the expansion module by inserting it into the HMI's rear panel.
 2. Tighten the module to HMI's rear panel.
 3. Lock the antenna's SMA connector.
- Please reserve space for installing the expansion module in order to prevent physical damage to the HMI.




4 Power Connections

-  Power Connector Specifications:
- Wire AWG: 24~12
 - Wiring Conductor Minimum Temperature: 0°C
 - Screw Torque: 4.5 lbf-in (max.)
 - Copper conduct only.

NOTE:

1. Connect positive DC line to the '+' terminal.
2. When downloading project using EasyBuilder Pro with PLC and PC simultaneously, the power supply must be turned off to prevent damage to HMI or PC.

5 System Settings

When the HMI powers up and displays an image, tap the round Start Button in the upper-left corner to open the Setting page. To configure the network, go to the Network tab. If the OS version is 20231201 or later, tap "configure", and a login window will appear. The settings can be modified by entering the system password (default: 111111). If the OS version is earlier than 20231201, tap the lock icon  and log in to make changes. In the Setting page, you can see device information, configure general settings, set HMI Time/Date/Name, and more.

6 EasyBuilder Pro Software Settings

Launch EasyBuilder Pro software, select your project file, press F7 shortcut key to open the download dialog box: Select Ethernet > IP tab > Enter your HMI IP > Click Download to download this project file to HMI. Using screensaver and backlight saver is recommended in order to avoid image persistence caused by displaying the same image on HMI for a long time.

(Please refer to EasyBuilder Pro User Manual for software operation details.)

7 Communication Connections

NOTE:

1. Only Tx & Rx (no RTS/CTS) may be used for COM1 RS232 when COM3 RS-232 is also used.
2. COM2 and COM3 RS-485 2W support MPI 187.5K, please use one at a time.
3. To ensure proper communication, the CAN bus must be terminated at both ends with two 120Ω terminal resistances.

1 2 3 4 5
6 7 8 9 **Con.B**

COM1/COM3 [RS232] 9 Pin, Male, D-sub

PIN#	COM1 [RS232] 4W	COM3 [RS232] 2W
1		
2	RxD	
3	TxD	
4		
5	GND	
6		
7	RTS	TxD
8	CTS	RxD
9	GND	

5 4 3 2 1
9 8 7 6 **Con.A**

COM2/COM3 [RS485]/CAN Bus 9 Pin, Female, D-sub

PIN#	COM2 [RS485]2W	COM2 [RS485]4W	COM3 [RS485]2W	CAN Bus
1	Data-	Rx-		
2	Data+	Rx+		
3		Tx-		
4		Tx+		
5	GND			
6			Data-	
7				CAN_L
8				CAN_H
9			Data+	

8 Touchscreen Calibration & Restore Factory Default

Touchscreen Calibration: Press and hold anywhere on the screen during HMI startup.

Restore Factory Default: There are two methods to restore factory default, both of which will erase all project files and data stored on the device.

1. Follow the instructions in section 5 of this manual to open the Setting page and select the appropriate page based on the OS version before pressing "Reset HMI to default":
For OS versions 20231201 or later, select the "System Properties" page, press "Reset HMI to Default," and select "Reset".
For OS versions before 20231201, select the "Reset Options" page, press "Reset HMI to default", and enter "yes".
2. Alternatively, perform the operation based on the OS version:
For OS versions 20231201 or later, after pressing "Reset HMI to Default", enter "default111111" or the default password "111111", and then select "Reset".
For OS versions before 20231201, enter "default111111" during login, and then enter "yes".

9 Battery Replacement

Battery Specification: Type CR2032, Rated 3V

Battery replacement shall be performed by qualified personnel (engineer) only and care must be taken when handling lithium batteries. For more information on battery replacement and disposal considerations, please refer to the following link:

http://www.weintek.com/download/MT8000/eng/FAQ/FAQ_103_Replace_Battery_en.pdf

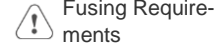
CAUTION



Power

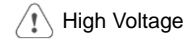
NOTE: Make installing the u

Use power output powered by DC p systems. The pow supply. The peak s



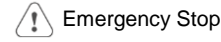
Fusing Require-
ments

If the display does will protect against of time. Check wiri



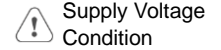
High Voltage

A resettable fuse DC voltage source



Emergency Stop

A Hard-wired EME ICS Safety Recom



Supply Voltage
Condition

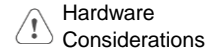
Do not power the power supply. Note power the unit.



Wire Routing

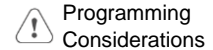
- a. Power wire ler
- b. Please use tw impedance ma
- c. If wiring is to b devices.
- d. Keep AC, high
- e. Add a resistor supply and the dissipation. Ty

DANGER



Hardware
Considerations

The system desig thereby create an interface can lead physical injury to th If you use any pr potential safety ha steps depend on installation of soli installation of Cont



Programming
Considerations

To conform to ICS ensure that all wr checks built into th personnel.

Limited Warranty

This product is limited warranted ag The proven defective product will e This warranty shall not cover any p

- (a) Out of warranty period which is 12 month
- (b) Damage caused by Force Majeure, acci
- (c) Product has been repaired or taken apar
- (d) Products whose identification markings h