

English

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# Installation Guide

## cMT3152X

### 1 INSTALLATION AND STARTUP GUIDE

This document covers the installation of cMT3152X 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:

<b>NEMA Rating</b>	The HMI product is NEMA 4 rated (indoor use only).
<b>Electrical Environment</b>	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.
<b>Environmental Considerations</b>	(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) Do not operate the unit in areas subject to explosion hazards due to flammable gases, vapors or dusts. (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) Conform to UL 61010-1 safety requirement for use in Pollution Degree 2 Environment and dry location. (6) Relative Humidity: 10 % ~ 90 % (non-condensing).
<b>Cleaning Considerations</b>	Clean the device using dry cloths. Do not use liquid or spray detergents for cleaning.
<b>IP Rating</b>	IP 66
<b>Warning!</b>	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 A3 \*1.
- (2) Human machine Interface \*1.
- (3) Power connector \*1.
- (4) Brackets & screws \*1 pack.
- (5) Fuse 1.6A/250V 5\*20mm \*1.

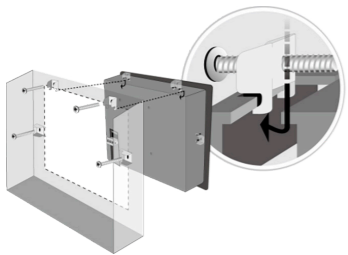
### 3 INSTALLATION INSTRUCTIONS

Use a control box that provides enough stiffness. Cutout dimension: 352 mm x 279 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 and inside the enclosure, for ventilation and cables. Consider the heat from other devices inside the enclosure. The ambient temperature around the unit must be 0 ~ 50 °C.

Minimum required clearances (along the overlay): Top / Bottom / Sides 15 mm.

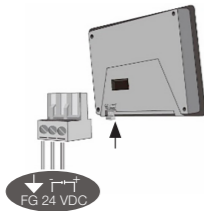
Maximum panel thickness: 4.5 mm.



### 4 POWER CONNECTIONS

- Warning!** Power connector specifications:  
Wire AWG: 24 ~ 12.  
Wiring conductor minimum temperature: 75 °C.  
Screw torque: 4.5 lbf-in (max.).  
Copper conduct only.
- Spécifications du connecteur d'alimentation:  
AWG de fil: 24 ~ 12.  
Température minimale du conducteur de câblage: 75 °C.  
Couple de vis: 4.5 lbf-in (max.).  
Conducteur en cuivre seulement.

**NOTE!**  
1. Connect positive DC line to the "+" terminal and the DC ground to the "-" terminal.  
2. When downloading project using a USB cable, do not connect HMI with PLC and PC simultaneously, for electric potential difference may result in damage to HMI or PC.



### 5 SYSTEM SETTINGS

When HMI is powered up and displays image, press the round Start Button in the upper-left corner of the screen to open the Setting dialog box. Tap the lock icon and log in. (Default System Password: 111111).

Go to the Network tab, and setup your network.

In Setting dialog box 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 RS-232 when COM3 RS-232 is also used.  
2. COM1 / COM3 RS-485 2W Supports MPI 187.5 K, please use one at a time.  
3. COM1 RS-485 / COM3 RS-485 / CAN Bus with isolation protection.  
4. To communicate properly, the CAN Bus has to be terminated at both ends by two 120 Ω terminal resistances.

COM1/COM3 [RS232] 9 Pin, Male, D-sub			COM1/COM3 [RS485] CAN Bus 9 Pin, Female, D-sub				
PIN#	COM1 [RS232] 4 W	COM3 [RS232] 2 W	PIN#	COM1 [RS485] 2 W	COM1 [RS485] 4 W	COM3 [RS485] 2 W	CAN Bus
1			1	Data-	Rx-		
2	RxD		2	Data+	Rx+		
3	TxD		3		Tx-		
4			4		Tx+		
5		GND	5	GND (isolation)			
6			6			Data-	
7	RTS	TxD	7				CAN_L
8	CTS	RxD	8				CAN_H
9		GND	9			Data+	

### 8 DIP SW SETTINGS & RESTORE FACTORY DEFAULT

SW1	SW2	SW3	SW4	Mode
ON	OFF	OFF	OFF	Reset Factory Default
OFF	ON	OFF	OFF	Hide HMI System Setting Bar
OFF	OFF	ON	OFF	Update OS
OFF	OFF	OFF	ON	Reserved
OFF	OFF	OFF	OFF	Normal

#### Restore Factory Default:

Follow Step 5 to open the Setting dialog box. Go to "Reset options" tab, press the button of "Reset HMI to default". An Attention window shows, enter "yes".

Another way to restore factory default is entering "default111111" when logging in. An Attention window shows, enter "yes".

Please note that the projects and data stored in the unit are all cleared after pressing this button.

### 9 BATTERY REPLACEMENT

Battery replacement shall be performed by qualified personnel 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:

<https://static.weg.net/medias/downloadcenter/h04/h84/WEG-IHM-battery-replace-guide-10009199877-en-es-pt.pdf>

**NOTE!**  
Make sure that all local and national electrical standards are met when installing the unit. Contact your local authorities to determine which codes apply.

**ATTENTION! Power**  
Use power output that meets SELV (Safety Extra-Low Voltage) requirements. The unit can be powered by DC power only, voltage range: 24 ± 20 %, compatible with most controller DC systems. The power conditioning circuitry inside the unit is accomplished by a switching power supply. The peak starting current can be as high as 2 A.

**ATTENTION! Fusing Requirements**  
Fuse min. rating: 1.6 A/250 V. Use the fuse only in DC circuit. If the display does not come on within 5 seconds of power up, remove power. An internal fuse will prevent damage if the polarity of the DC power is incorrect. Check wiring for proper connections and try to power up again. Replacing fuse shall be performed by qualified personnel only.

**ATTENTION! High Voltage**  
An Internal fuse will prevent damage for overcurrent condition however it isn't guaranteed. DC voltage sources should provide proper isolation from main AC power and similar hazards.

**ATTENTION! Emergency Stop**  
A Hard-wired EMERGENCY STOP should be fitted in any system using an HMI to comply with ICS safety recommendations.

**ATTENTION! Supply Voltage Condition**  
Do not power the unit and inductive DC loads, or input circuitry to the controller, with the same power supply.  
**Note:** The 24 VDC output from some controllers may not have enough current to power the unit.

**ATTENTION! Wire Routing**  
a. Power wire length should be minimized (Max: 500 m shielded, 300 m unshielded).  
b. Please use twisted pair cables for power wire and signal wire and conform to the impedance matching.  
c. If wiring is to be exposed to lightning or surges, use appropriate surge suppression devices.  
d. Keep AC, high energy, and rapidly switching DC power wiring separated from signal wires.  
e. Add a resistor and capacitor in the parallel connection between the ungrounded DC power supply and the frame ground. This provides a path for static and high frequency dissipation. Typical values to use are 1 M Ohm and 4700 pF.

**DANGER! Hardware Considerations**  
The system designer should be aware that devices in Controller systems could fail and thereby create an unsafe condition. Furthermore, electrical interference in an operator interface can lead to equipment start-up, which could result in property damage and/or physical injury to the operator. If you use any programmable control systems that require an operator, be aware that this potential safety hazard exists and take appropriate precautions. Although the specific design steps depend on your particular application, the following precautions generally apply to installation of solid-state programmable control devices, and conform to the guidelines for installation of Controllers recommended in NEMA ICS 3-304 Control Standards.

**DANGER! Programming Considerations**  
To conform to ICS Safety Recommendations, checks should be placed in the controller to ensure that all writable registers that control critical parts of plant or machinery have limit checks built into the program, with an out-of-limit safe shut down procedure to ensure safety of personnel.



Español

# Guía de Instalación

## cMT3152X

### 1 GUÍA DE INSTALACIÓN E INICIO DE OPERACIÓN

Este documento contiene instrucciones para la instalación de la IHM serie cMT3152X, para obtener información detallada sobre la operación y las especificaciones, consulte la Hoja de Datos, Catálogo y Manual del Usuario EasyBuilder Pro. Por favor, lea atentamente todas las advertencias, cuidados e instrucciones sobre el dispositivo antes de usarlo.

#### Ambiente de Instalación:

<b>Clasificación NEMA</b>	Esta IHM tiene clasificación NEMA 4 (solamente uso interno).
<b>Ambiente Eléctrico</b>	La IHM fue probada para conformidad con los requisitos europeos CE. Eso significa que el circuito es concebido para resistir a los efectos de ruido eléctrico. Eso no garantiza inmunidad al ruido en casos graves. El cableado y la puesta a tierra correctos garantizarán su funcionamiento adecuado.
<b>Consideraciones Ambientales</b>	(1) Asegúrese de que las IHMs estén instaladas correctamente y que los límites operacionales sean cumplidos. Evite instalar las unidades en ambientes donde haya vibración mecánica severa o impacto. (2) No opere la unidad en áreas sujetas a riesgos de explosión, debido a gases, vapores o polvos inflamables. (3) No instale la unidad donde exista gas ácido, como el SO2. (4) Este dispositivo debe ser montado en la posición vertical y debe ser utilizado en compartimiento de superficie plana. (5) En conformidad con la exigencia de seguridad UL 61010-1 para el uso en ambiente con grado 2 de contaminación y local seco. (6) Humedad relativa: 10% ~ 90% (sin condensación).
<b>Consideraciones sobre la Limpieza</b>	Limpie el dispositivo usando un paño seco. No use detergentes líquido ni spray para la limpieza.
<b>Grado de Protección IP</b>	IP 66.
<b>¡Atención!</b>	Perjuicio de la capacidad de protección si es usado de manera no especificada por el fabricante.

### 2 RETIRADA DE LA UNIDAD DEL EMBALAJE

Retire el producto del embalaje y examínelo. Si fuera encontrado algún daño, entre en contacto con el proveedor.

**¡NOTA!**  
Coloque el tablero del operador en una superficie estable, durante la instalación. Su caída puede causar daños.

El embalaje incluye:

- (1) Instrucciones de instalación, frente y dorso en formato A3 \*1.
- (2) Interfaz hombre-máquina \*1.
- (3) Conector de alimentación \*1.
- (4) Soportes y tornillos \*1 paquete.
- (5) Fusivel 1.6A/250 V 5\*20 mm \*1.

### 3 INSTRUCCIONES DE INSTALACIÓN

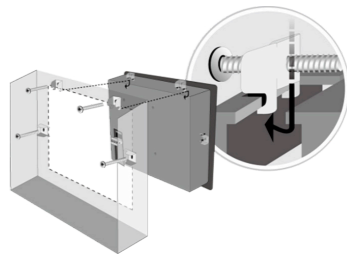
Use una caja de comando que presente la rigidez necesaria. Dimensión del Recorte: 352 mm x 279 mm. Fije el tablero del operador en la posición, usando todos los orificios de fijación y los soportes y tornillos suministrados. Torque del tornillo: 2.6 ~ 3,9 lbf.in. (Para conseguir estanqueidad e impedir que el tablero sufra deformaciones).

Mantenga un espacio adecuado alrededor de la unidad y dentro del gabinete, para ventilación y cables.

Considere el calor de otros dispositivos dentro del compartimento. La temperatura ambiente alrededor de la unidad debe ser de 0 ~ 50 °C.

Espaciamiento mínimo obligatorio (a lo largo de la sobreposición): 15 mm Superior / 50 mm Inferior / Laterales 80 mm.

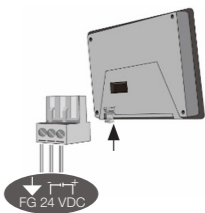
Espesor máximo del tablero: 4.5 mm.



### 4 CONEXIONES DE ALIMENTACIÓN

- Warning!** Especificaciones del conector de alimentación:  
Cable AWG: 24 ~ 12.  
Temperatura mínima del conductor: 75 °C.  
Torque del tornillo: 4.5 lbf-in (máx.).  
Solamente conductor de cobre.

**¡NOTA!**  
1. Conectar la línea CC positiva al terminal '+' y el tierra CC al terminal '-'.  
2. Cuando utilice un cable USB para bajar un proyecto, no lo conecte a HMI a PLC y PC simultáneamente para evitar que la diferencia de potencial se dañe puertos USB en la HMI o PC.

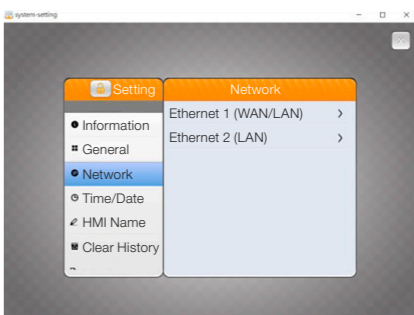


### 5 CONFIGURACIONES DEL SISTEMA

Cuando la IHM es encendida y exhibe la imagen, presione el botón redondo Iniciar en el ángulo superior izquierdo de la pantalla, para abrir la caja de diálogo configuración. Toque el icono de candado y realice el login. (Contraseña Estándar del Sistema: 111111).

Diríjase a la guía Network y configure su red.

En la caja de diálogo Setting, puede visualizar las informaciones del dispositivo, definir las configuraciones generales, ajustar la hora/fecha/nombre de la IHM y mucho más.



### 6 CONFIGURACIONES DEL SOFTWARE EASYBUILDER PRO

Inicie el software EasyBuilder Pro, seleccione su proyecto y presione la tecla de atajo F7 para abrir la pantalla de download: Seleccione Ethernet > Pestaña IP > digite el IP de su IHM > Haga clic en download para bajar este archivo de proyecto en la IHM.

El uso de la función de protección de pantalla y luz de fondo es recomendado para evitar la persistencia de la imagen causada por la exhibición de la misma imagen en la IHM por largos periodos. (Por favor, consulte el Manual del Usuario del EasyBuilder Pro para detalles sobre la operación del software).

### 7 CONEXIONES DE COMUNICACIÓN

**¡NOTA!**  
1. Solamente Tx y Rx (sin RTS/CTS) podrán ser usados para COM1 RS232 cuando COM3 RS232 también sea usado.  
2. COM1 / COM3 RS-485 2W Soporta MPI 187.5K; use uno a la vez.  
3. COM1 RS-485 / COM3 RS-485 / CAN Bus con protección de aislamiento.  
4. Para comunicarse correctamente, el bus CAN debe terminarse en ambos extremos con dos resistencias de terminación de 120 Ω.

