

M-View® - TC and - TCM Series

7-inch and 10-inch Display Installation Guide

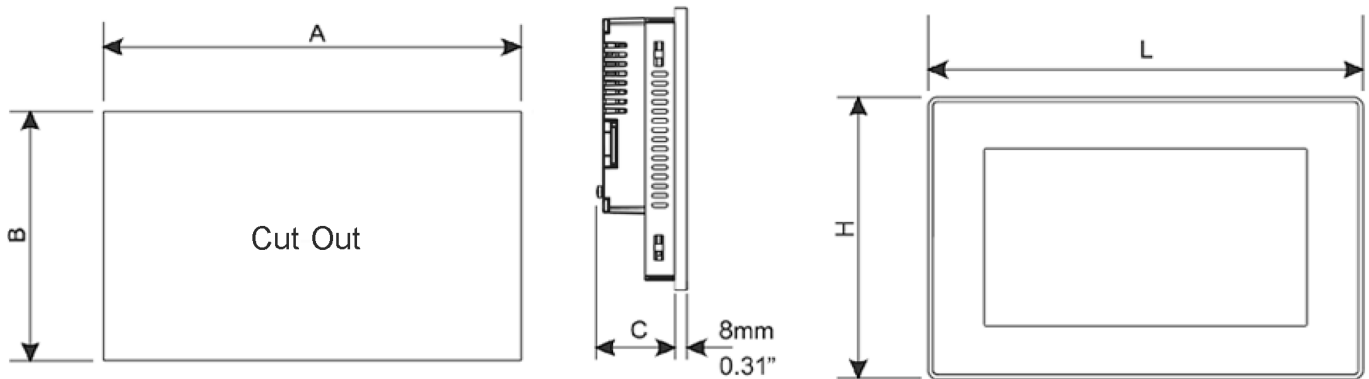
Product Identification

The product model can be identified from a decal on the back side.

Model and Order Name	Decal Text
MV-07-TC	eX707
MV-07-TCM	eX707M
MV-10-TC	eX710
MV-10-TCM	eX710M



Dimension Cut Out



Model	A	B	C	H	L	CSD	CSD2
	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm
MV-7-TC	6.90 / 176	5.35 / 136	1.85 / 47	5.79 / 147	7.36 / 187	33.46 / 850	16.75 / 400
MV-7-TCM							
MV-10-TC	10.66 / 271	7.32 / 186	2.20 / 56	7.75 / 197	11.10 / 282	45.28 / 1150	29.53 / 750
MV-10-TCM							

CSD = Minimum Compass Safe Distance of standard compass

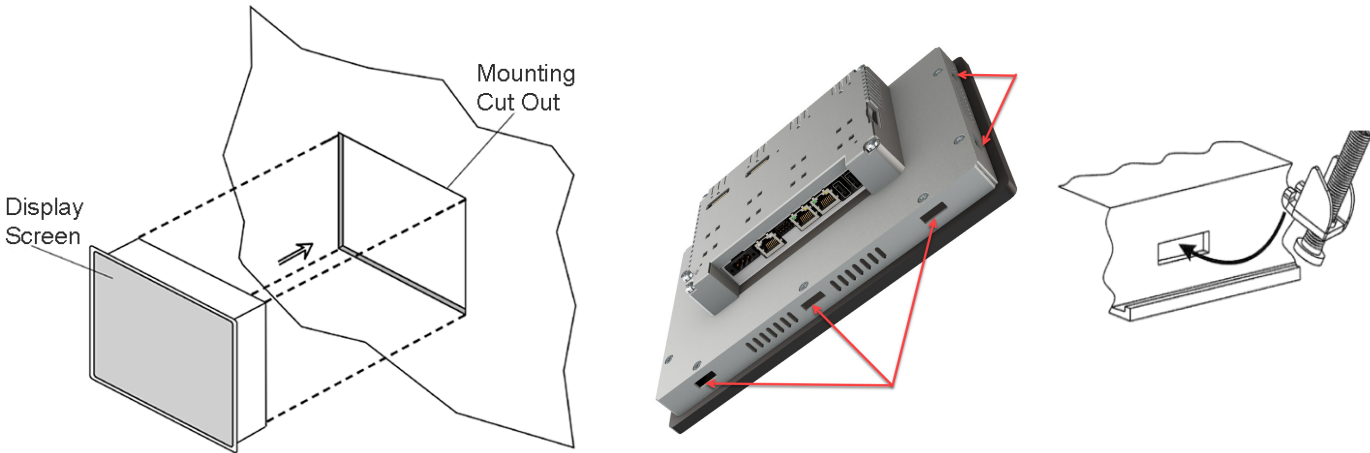
CSD2 = Minimum Compass Safe Distance of steering compass, standby steering compass, emergency compass

Tolerance = ± 0.5 mm

Installation

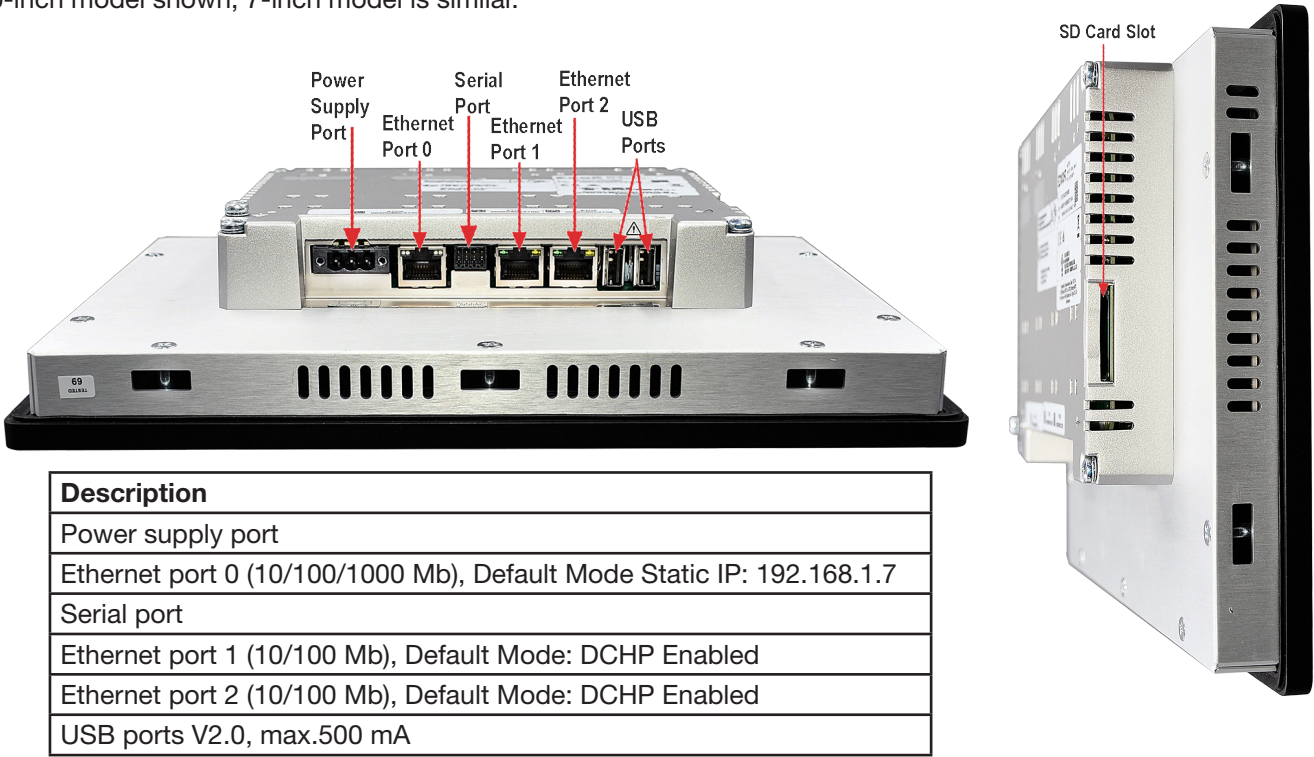
Cut, Mount and Secure

- 1. Cut out the mounting hole on a flat panel surface with a minumum wall thickness of 1.2 mm.
- 2. Push the back side of the display through the panel opening so all connections are inside the panel.
- 3. Install 10 mounting clips to secure the display.
 - a. Position the hook of the mounting clip into the opening on the display case as shown and tighten the screw until it makes contact with surface to hold the display secure.
 - b. Evenly tighten and torque screws to 11 in. lbs (130 Ncm ±5 Ncm).



Display Ports

10-inch model shown, 7-inch model is similar.



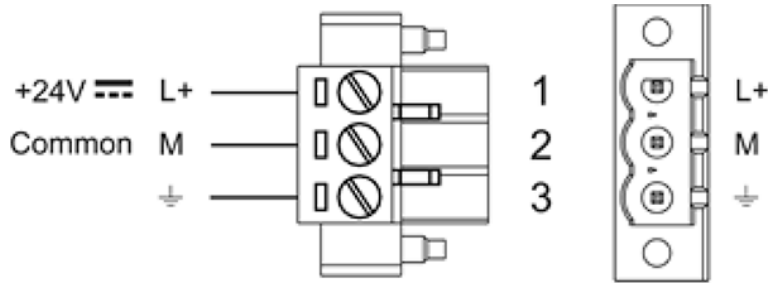
Description
Power supply port
Ethernet port 0 (10/100/1000 Mb), Default Mode Static IP: 192.168.1.7
Serial port
Ethernet port 1 (10/100 Mb), Default Mode: DHCP Enabled
Ethernet port 2 (10/100 Mb), Default Mode: DHCP Enabled
USB ports V2.0, max.500 mA

NOTE—All ports are SELV (Safety Extra - Low Voltage) according to European Standards and Class 2 according to UL Standards.

WARNING—Explosion Hazard (Ethernet, USB connectors, memory card slot). Do not connect or disconnect unless the power has been disconnected or the area is known to be free of ignitable concentrations.

Power Supply

CAUTION—Extra low voltage power supply / Limited power source.



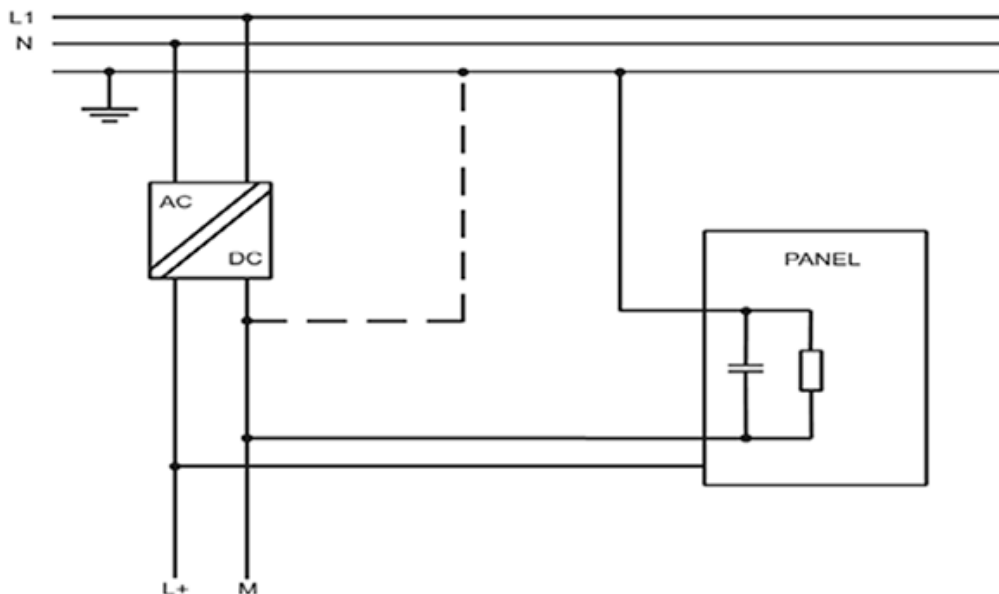
DC power connector, female — R/C terminal blocks (XCFR2), manufactured by Weidmuller Inc., cat no. BLZ 5.08, torque 4.5 lb-in.

3 conductor 16 AWG wire size minimum, minimum temperature conductor rating 221° F (105° C).

CAUTION—Do not open the cabinet while the system is powered up.

WARNING—Do not separate when energized.

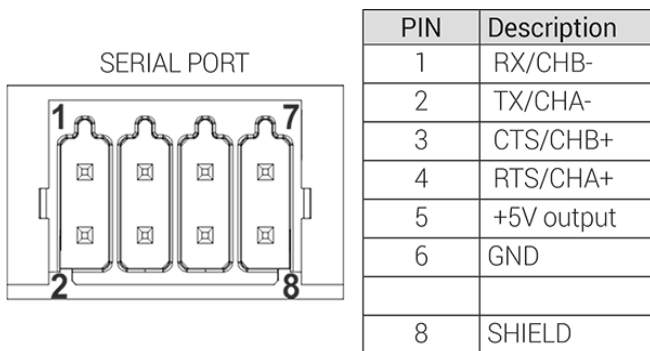
- This unit must always be grounded to earth with 16 AWG wire size minimum.
- Earth connection must be done using either the screw or the faston terminal, located near the power supply terminal block.
- Connect terminal 3 on the power supply terminal block to ground.
- All the electronic devices in the control system must be properly grounded.
- Grounding must be performed according to applicable regulations.



CAUTION—Ensure that the power supply has enough power capacity for the operation of the equipment.

Connections

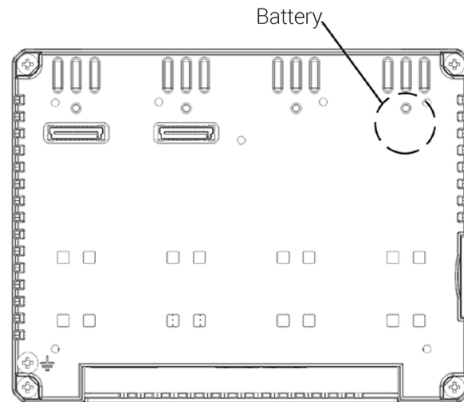
To operate in RS-485 pins, -2 and 4-3 must be connected externally.



Battery

These devices are equipped with a rechargeable lithium battery and are not user-replaceable.

WARNING—Explosion Hazard - Do not remove battery.



CAUTION— This device cannot be disposed of as a domestic waste but according to WEEE European Directive 2012/19/EU.

Specifications

Ambient Temperature Range:

-4° F (-20° C) ≤ Tamb ≤ +140° F (+60° C)

Display/Backlight: TFT color / LED

Colors: 16M

Dimming: Yes

SD Card Slot: Yes

Serial Port: RS-232, RS-485, RS-422 software configurable

Ethernet Port: 2 10/100 Mb, 1 10/100/1000 Mb

USB Port: 2 host interface version 2.0 max 500 mA

Expansion Slot: 2 optional plug in

Battery: Rechargeable

Real-Time Clock: Yes

Voltage: 24 VDC

Resolution:

MV-7-TC and MV-7-TCM, 800 X 480

MV-10-TC and MV-10-TCM, 1280 X 800

Diagonal (inches):

MV-7-TC and MV-7-TCM, 7" widescreen

MV-10-TC and MV-10-TCM, 10.1" widescreen

User Memory Flash: 4GB

Recipe Memory: 1GB

Current Rating 24 VDC:

MV-7-TC and MV-7-TCM, 0.7 A

MV-10-TC and MV-10-TCM, 1.00 A

Weight:

MV-7-TC and MV-7-TCM, 3.3 lbs (1.5 Kg)

MV-10-TC and MV-10-TCM, 4.4 lbs (2.5 Kg)

Usage in Explosion Hazardous Areas Zone 2 and Zone 22

CAUTION—The connection and installation must be done in conformity with ATEX Directive, IEC EN 60079-14 and must be performed by authorized, qualified personnel in possession of necessary skills.

CAUTION—Confirm that the location is free from explosively hazardous gases or dust before connecting or disconnecting equipment, replacing or wiring modules. Confirm that the power supply has been turned OFF before disconnecting, replacing or wiring modules.

CAUTION—Before turning ON, clean the front of the graphic panel with a damp cloth to avoid any electrostatic discharge.

CAUTION—The graphic panel must not be exposed to direct sunlight.

The vents in the panel casing must not be obstructed.

Do not allow layers of dust to form on the graphic panel. It should be cleaned regularly with damp cloth.

Check that graphic panels are mounted in enclosures satisfying minimum IP54 degree of protection for category 3G and IP6x for category 3D and the requirements relating to the 3G or 3D categories in Zones 2/22 (Category 3: normal level of protection - G: Gas - D: Dust).

Usage in Explosion Hazardous Areas Zone 2 and Zone 22 (continued)

CAUTION—End user is responsible to ensure that the maximum operating temperature is not exceeded in the end-use application.

CAUTION—Ensure that the labeling specifications are compatible with the conditions permitted for the hazardous area at the site where it is being used (Zones 2/22 Group II: degree of protection (protection against solids and liquids) - T: maximum surface temperature).

The products have been designed for use in industrial environment in compliance with the 2014/30/EU directive. Equipment group II, category 3 intended for use in potentially explosive atmospheres zones 2/22, G: gas and D: dust.

IECEX	ATEX
IEC 60079-0	EN 60079-0
IEC 60079-7	EN IEC 60079-7+A1
IEC 60079-31	CENELEC EN 60079-31

IECEX markings, applied models eX707 and eX710
IECEX: IECEX ULD 17.0019X
Ex ec IIC T5 T4 Gc 0°C ≤Tamb≤+50°C or
-20°C≤Tamb≤+60°C
Ex tc IIIC T95°C Dc

ATEX markings, applied models eX707 and eX710
DEMKO 17 ATEX 1871X / UL22UKEX2726X
II 3G Ex ec IIC T5 T4 Gc 0°C ≤Tamb≤+50°C or
-20°C≤Tamb≤+60°C
II 3D Ex tc IIIC T95°C Dc

WARNING—Power, input and output (I/O) wiring must be in accordance with Class I, Division 2 wiring methods, Article 501.10 (B) of the National Electric Code, NFPA 70 for installation in the U.S. or as specified in Section 18-1J2 of Canadian Electrical Code, for installations within Canada and in accordance with the authority having jurisdictions.

- A. WARNING—Explosion Hazard - Substitution of any component may impair suitability for Class 1, Division 2.
- B. WARNING—Explosion Hazard - When in hazardous locations, turn OFF power before replacing or wiring modules.
- C. WARNING—Explosion Hazard - Do not disconnect equipment while the circuit is live or unless the area is known to be free of ignitable concentrations.
- D. Suitable for use in Class 1, Division 2, Groups A, B, C and D Hazardous locations or nonhazardous locations only.
- E. WARNING—Explosion Hazard - Do not remove battery unless the area is known to be free of ignitable concentrations. Battery is not user-replaceable.
- F. This equipment, except for the front panel display, is an open-type device and is required to be installed in an enclosure suitable for the environment such that the internal part of the equipment is only accessible with the use of a tool.

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