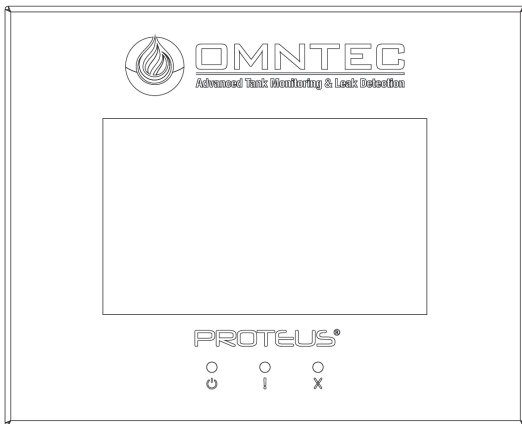




1. Open the camera app
2. Focus the camera on the QR code by gently tapping the code
3. Follow the instructions on the screen to view PDF file

# M<sup>PROTEUS</sup><sup>®</sup> Mini-ME<sup>™</sup>

## INSTALLATION MANUAL (INDOOR VERSION)



## PROTEUS<sup>®</sup> Series UNIVERSAL REMOTE DISPLAY

Revision 1.1

Document No. DI00008

OMNTEC<sup>®</sup> Mfg., Inc. has been certified  
by DQS Inc. to ISO 9001:2015

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## DESCRIPTION

The Mini-Me™ is a 7" color-graphic display providing automatic tank gauge (ATG) users the freedom to gain access to current tank gauging, leak detection, and alarm status from compatible ATG consoles.

Automatic tank gauges monitor storage vessels for level, temperature, volume, and potential leaks. Typically, ATG's are located where audiovisual alarms and level information are not conveniently accessible due to installation constraints. These tank gauges are often difficult to use or understand. They are installed in locations that are outside the operator's normal work area, therefore allowing potential alarms to go unnoticed.

The PROTEUS® Mini-Me™ allows the user to gain remote access easily and intuitively to these alarms and level information anywhere throughout a facility. It provides both wired and wireless access to industry-standard ATG's, providing easily accessible information where required.

The Mini-Me™ features standard RS-232 and Ethernet communication. The Mini-Me™ also has an optional RS-485 communication, wireless communication, and external USB and 12V for printer functions.

## SAFETY

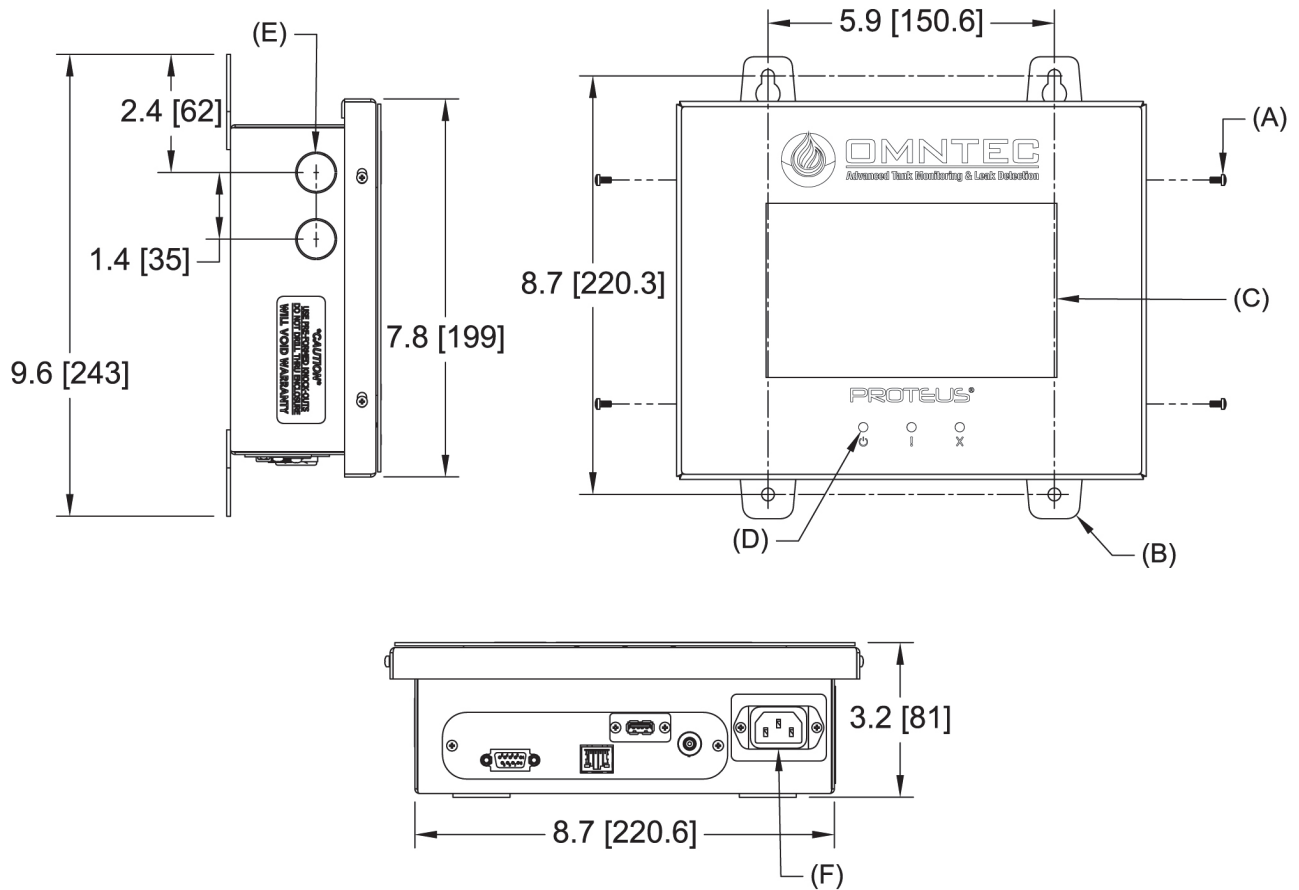
- Do not perform any installation or service procedures if you are not familiar with the National Electrical Code® and all other federal, state, and local codes and regulations pertaining to this installation.
- Do not perform any installation or service procedures until you have read and understood this entire manual.
- Do not install the controller in a hazardous location.
- Do not drill through the enclosure.
- Do not mount outdoors without a weatherproof enclosure (heater and thermostat may be required). Contact OMNTEC sales for details and options.
- Always turn off power to the controller before servicing.
- Take all safety precautions to avoid accidents.
- Keep the entire work area clean.

## SPECIFICATIONS

<b>Input Power:</b>	100-240 VAC +/-10% 50/60 Hz 25 watts (12VDC available upon request)
<b>Input Signal:</b>	RS-485 RS-232 Ethernet
<b>Distance to Console:</b>	RS-232: 75 feet (extender options available; see Accessories) RS-485: 3,000 feet Ethernet: 300 feet (open communication to network devices)
<b>Audiovisual Controls:</b> Display: Audible Alarm: System Status:	7-inch color graphic display with touch-screen 85 dB piezoelectric horn 3 LEDs (POWER, WARNING, ALARM)
<b>Operating Temp:</b>	-10 °C to 70 °C / 14 °F to 158 °F
<b>Accessories:</b> (Contact OMNTEC sales for more details)	RS-232 to RS-485 Converter RS-232 to 422 Booster Kit (C232-422-RD7CTS) WRS-232 (Wireless) MB-232-485 (RS-232/485 option board)
<b>Weight:</b>	7 pounds
<b>Dimensions:</b>	(h) 7.83" x (w) 9.72" x (d) 3.11"
<b>Compatible Consoles:</b>	PROTEUS®-K (OEL8000IIK) or PROTEUS®-X (OEL8000IIX) or any compatible ATG with industry-standard protocol

- **Screen:** 7-inch color touch-screen display
  
- **Cables:**
  - RS-232 (optional; OMNTEC EC-4)
  - RS-485 (optional; OMNTEC EC-4)
  - Ethernet (optional)
  - Power cable (Included in Configuration 2; see page 8)
  
- **Other Inputs and Outputs:**
  - External USB
  - External 12VDC
  - MicroSD card

## DIMENSIONS AND EXTERNAL COMPONENTS



(A) Panel Screws (x4)

(D) Indicator Lights

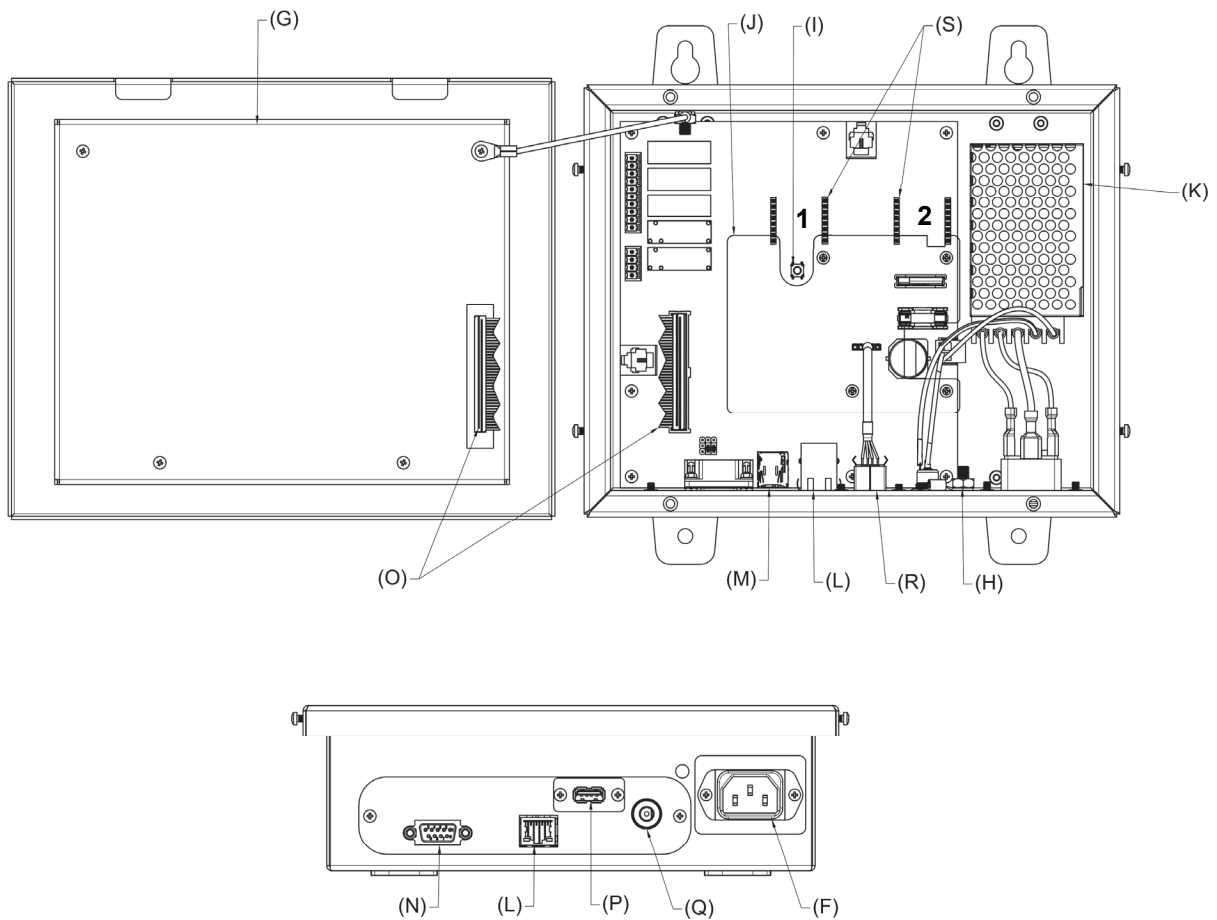
(B) Mounting Flanges

(E) Additional Knockouts

(C) Touch-Screen Display

(F) EMI Filter

## INTERNAL COMPONENTS



(F) EMI Filter

(G) Display Board Cover

(H) Grounding Stud

(I) Reset Button

(J) MCU Cover (optional)

(K) Power Supply

(L) Ethernet

(M) MicroSD (internally under plate)

(N) RS-232

(O) Display Cable

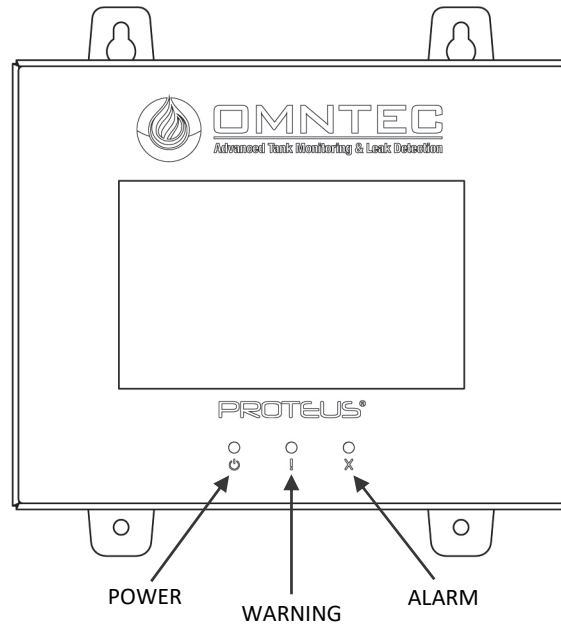
(P) USB

(Q) 12V DC Power (output or input)

(R) Micro USB (below USB; and internally under plate)

(S) Option Bus (1 and 2)

## FRONT PANEL INDICATOR LIGHTS



## INSTALLATION

**IMPORTANT:** Read all instructions prior to starting the installation process. Do not apply power to the Mini-Me™ until the unit has been mounted and all wiring connections have been made. All work must be performed by authorized installers in accordance with local and National Electric Code®.

120 VAC power wires must be combined in a separate (isolated) conduit.

**Use and select the proper conduit types and sizes in accordance with applicable codes. Even in situations where they are not required by code, it is recommended that conduit is used to protect wiring.**

*Note: Make certain that all conduits and junction boxes are dry and watertight. Wet wires can result in the faulty operation of the system.*

All wires should enter the controller via proper conduit.

Reference pages 5 and 6 in this document for (lettered callout) components detailed below. RS-232

1. Measure base mounting dimensions and fasten the supplied wall anchors. Install screws for the top two mounting flange holes (B) leaving a minimum of ¼-inch of thread exposed.
2. Mount the base onto the top two flange screws (B) then tighten and secure.
3. Fasten the two bottom flange screws (B) to the base mounting holes and secure.
4. Bring power wires (100-240 VAC) through the right-side preformed knockout (F) and secure on the power supply (K) as illustrated.

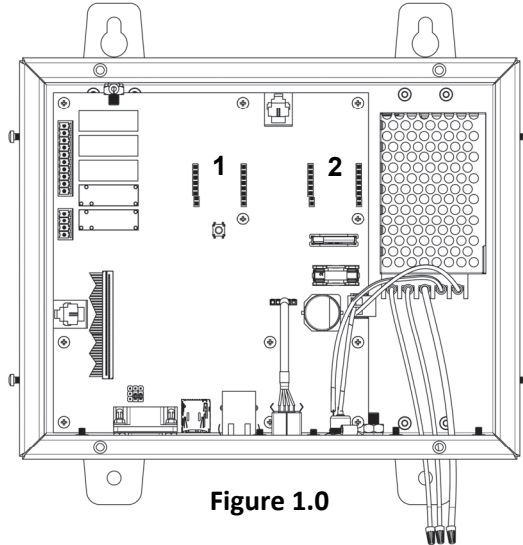


FAILURE TO COMPLY CAN CREATE AN ELECTRIC SHOCK OR EXPLOSION HAZARD  
CAUSING DEATH, PERSONAL INJURY, OR PROPERTY DAMAGE.

# TERMINAL BLOCK AND POWER SUPPLY WIRING

## **CONFIGURATION 1**

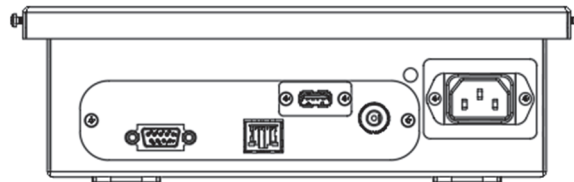
Uses a conduit with wires going straight into the power supply.



**Figure 1.0**

## **CONFIGURATION 2**

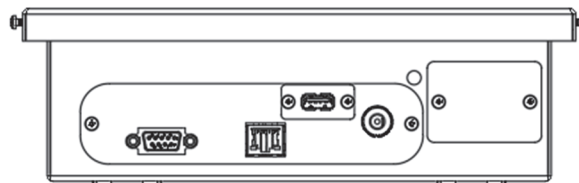
Uses a connector plug wired to the power supply.



**Figure 2.0**

## **CONFIGURATION 3**

Uses the 12VDC power input (Q; page 6).



**Figure 3.0**



Communication wiring and setup is either RS-232, RS485, or Ethernet depending on your preference of communication. The setup of these communication options follows below; RS-485 has two available setup options.

## RS-232 SETUP

1. Bring a low-voltage RS-232 DB9 male connector (Quabbin 7325 or 3-conductor 22 AWG with shield) and secure to the RS-232 DB9 female port connector (N).
2. Prepare the proper ATG connection for RS-232.
3. Configure the RS-232 port from the main ATG through the programming settings.
4. Power up the Mini-Me™ and view the programming guide to adjust system settings.

**When using an RS-232 connection, the Mini-Me™ can connect to ATG's using industry-standard protocol.**

## RS-485 SETUP - OPTION 1 (WITH RS-232 CONVERTER)

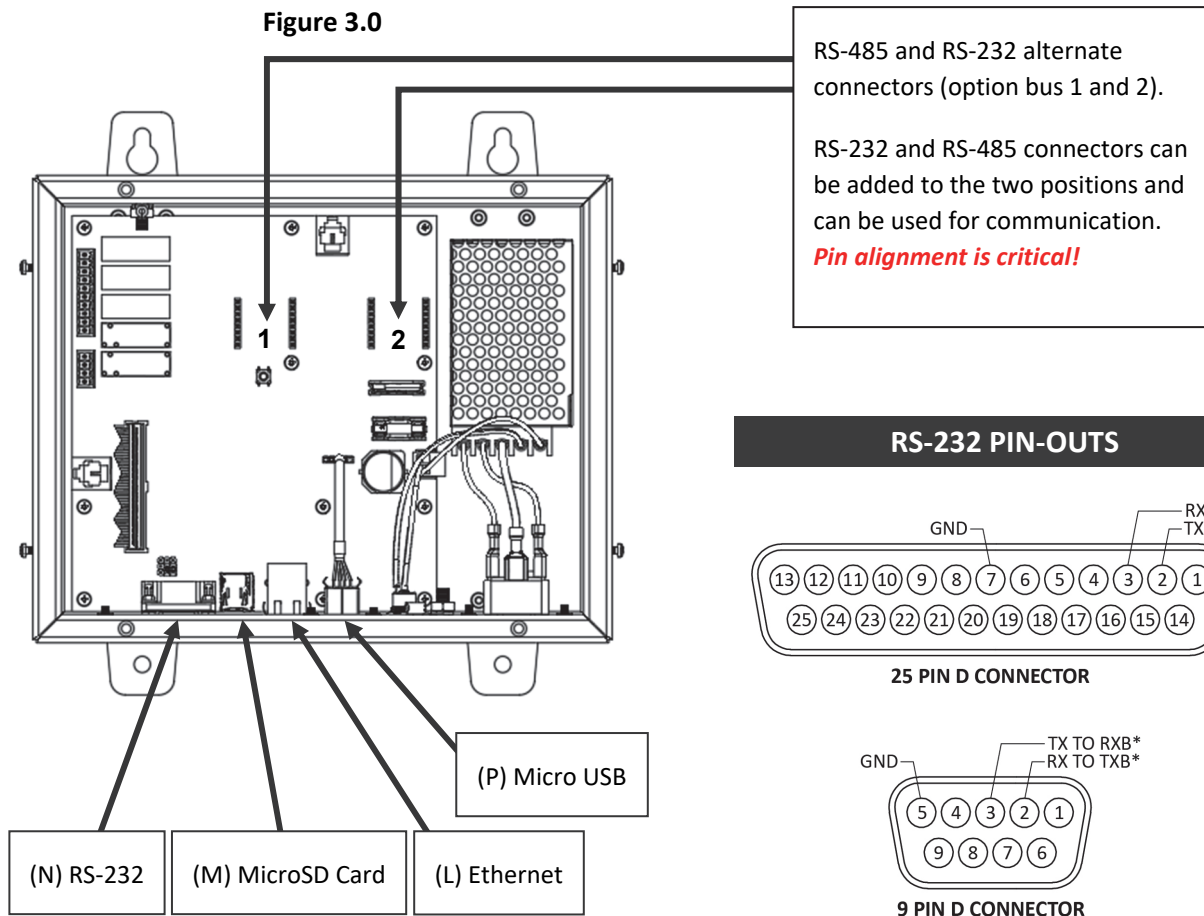
1. Bring a low-voltage RS-485 (Quabbin 7325 or 3-conductor, 22 AWG with shield) through one of the additional preformed knockouts (E) and secure to the RS-485 connector (N).
2. Prepare the proper ATG connection for RS-485.
3. Attach RS-485 to RS-232 converter (if option is required).
4. Configure the RS-232 port from the main ATG through the programming settings.
5. Power up the Mini-Me™ and view the programming guide to adjust system settings.

## RS-485 SETUP - OPTION 2

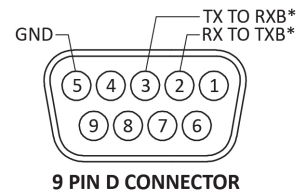
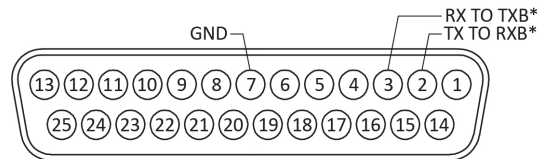
1. Follow instructions Step 1 from the **RS-485; Option 1** (above) section.
2. Prepare the proper ATG connection for RS-485 through the desired option bus.
3. Configure the RS-485 port from the main ATG through the programming settings.
4. Power up the Mini-Me™ and view the programming guide to adjust system settings.

## BOARD CONNECTOR LOCATIONS

Figure 3.0



### RS-232 PIN-OUTS



## ETHERNET SETUP

Reference pages 5 and 6 in this document for (lettered) components detailed below. See Figure 4.0 (page 10) for board connector locations.

1. Follow instructions (Step 1) from the **RS-485; Option 1** (page 9).
2. Bring an Ethernet cable and secure it to the Ethernet connector port (L).
3. Prepare the proper ATG connection for Ethernet through the Ethernet connector (L).
4. Configure the Ethernet port from the main ATG through the programming settings.
5. Power up the Mini-Me™ and view the programming guide to adjust system settings.

## WIRELESS

Optional wireless communication is available. Please contact OMNTEC for additional information.

## MICROSD CARD

A microSD card can be added into the microSD card slot (M). This can be used to upload new software to the device. Removal of the bottom plate is required. See the programming manual for more information.

## OPTIONAL HORN

A horn can be added and wired into one of the additional preformed knockouts (E) to sound an alarm condition.

## OPTIONAL EXTERNAL PRINTER

An additional printer can be added. The printer will allow you to print inventory and alarms. Connect the printer through the external USB (P) and 12V DC power (Q).

## ADDITIONAL OPTIONS

Additional components can plug into option bus 1 and 2. Please call OMNTEC for more details.

**Refer to supplemental document.**

**NOTE: Specifications are subject to change without notice.**

## MOUNTING TEMPLATE

See next page (page 12).

