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mPower Electronics MP883 Dual Channel VOXI Controller

mPower Electronics MP883 Dual Channel VOXI Controller User Guide

mPower Electronics
Making Powerful Senses

mPower Electronics MP883 Dual Channel VOXI Controller

Product Information

Specifications:

- Brand: VOXI Controller
- Model: MP883 Dual Channel
- Manufacturer: mPower Electronics Inc.
- Address: 2910 Scott Blvd. Santa Clara, CA 95054
- Website: **www.mpowerinc.com**
- Email: **info@mpowerinc.com**
- PN: M028-4010-000
- Version: v1.0

Product Usage Instructions

Mounting:
Using the four mounting feet, attach the VOXI Controller to any solid surface in a non-hazardous-gas location. For hazardous locations, ensure appropriate cabling connecting to the MP883 Controller outside the hazardous area.

Wiring Connections:
The MP883 supports relay board, 4-20 mA channels, and RS-485 Modbus connections for alarms and relay output/load.

SD Card Usage:
A user-provided 32GB SD card can be used for event logging. Insert the SD card into the slot on the back side of the main circuit board. Data can be downloaded on a PC using mPower
Suite.

Start Up:
Connect 12-24V power to the MP883 Controller. It will enter a 60-second warm-up period where various functions are tested and parameters displayed.

Frequently Asked Questions (FAQ):

1. **Q: What type of battery is used for backup in case of power loss?**

   A: The VOXI Controller uses a CR2032 3V button cell battery for backup.

2. **Q: How can I test the alarm/relay functions?**

   A: Press and hold the Test button for 5 seconds to test the alarm/relay functions.

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Read Before Operating

The VOXI Controller full User's Guide must be carefully read by all individuals who have the responsibility of using, maintaining, or servicing this product. The product will perform as designed only if it is used, maintained, and serviced in accordance with the manufacturer's instructions.

Warnings

- The MP883 Controller is NOT certified for use in hazardous gas locations. VOXI gas transmitters in hazardous locations may be connected to it with appropriate cabling.

- Never operate the Controller when the cover is removed.

- Remove the Controller cover only in a non-hazardous area.

- Use only mPower's sensors and accessories. Substitution of components will impair intrinsic safety and void warranty.

Mounting

Using the four mounting feet and attach to any solid surface in a non-hazardous-gas location. The VOXI transmitters may be mounted in hazardous locations with appropriate cabling connecting to the MP883 Controller outside the hazardous area.
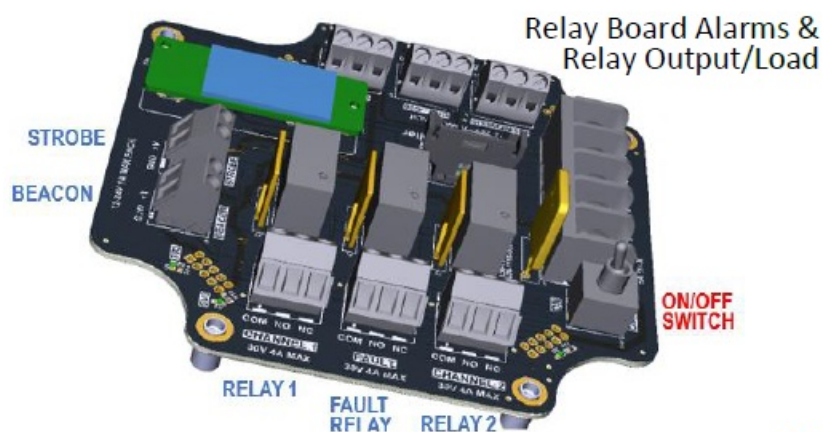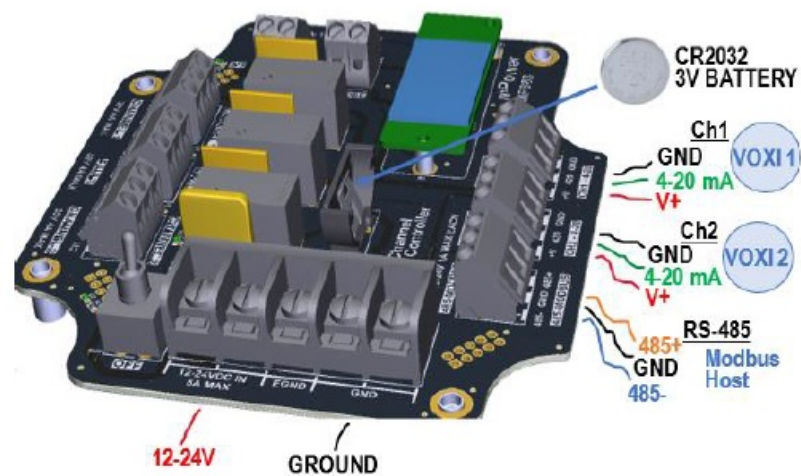
User Interface

The MP883 is a remote controller, display and alarm for one or two VOXI transmitters. The user interface has an LCD graphic display, LED indications and 4 push-buttons for programming.
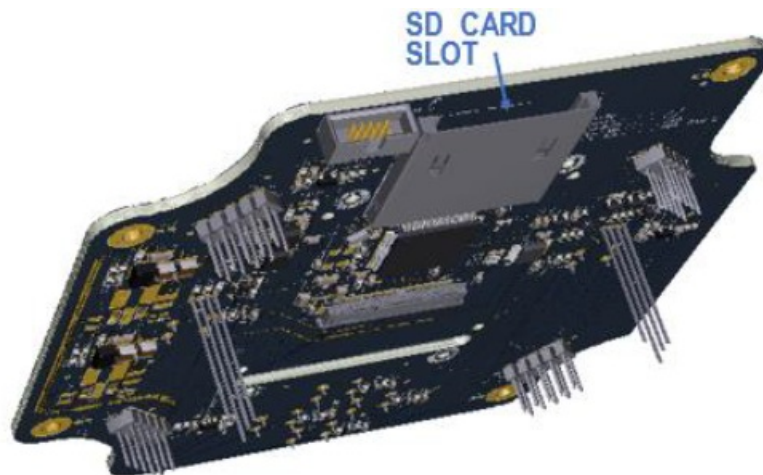
Wiring Connections

Relay Board 4-20 mA Channels and RS-485 Modbus

SD Card

A user-provided 32GB SD card can optionally be used to log events such as power on/off, calibration, alarms, and faults. Insert the card in the slot on the back side of the main circuit board. If no SD card is present, the Channel 2 LED will show solid red during the 60-sec power on warmup period. Data can be downloaded on a PC using mPower Suite.
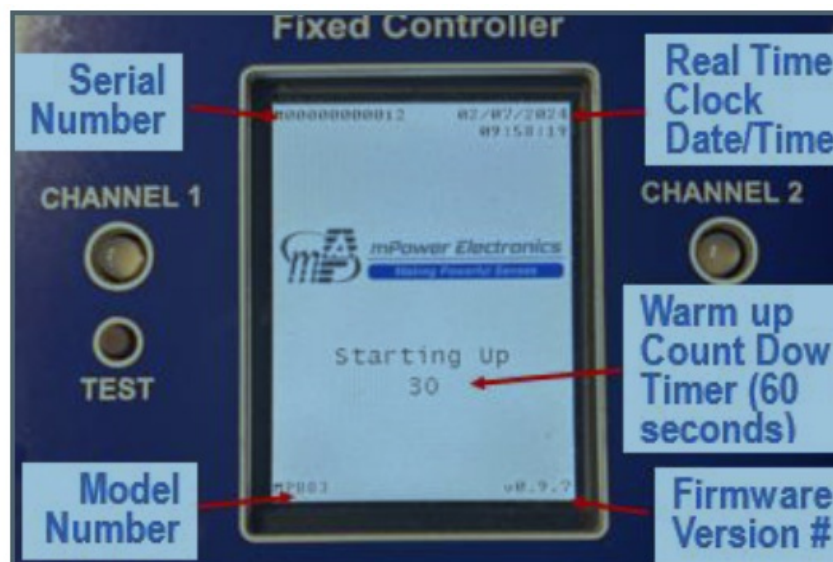

Battery
A CR2032 3V button cell battery is used to back up the real time clock in case main power is lost.
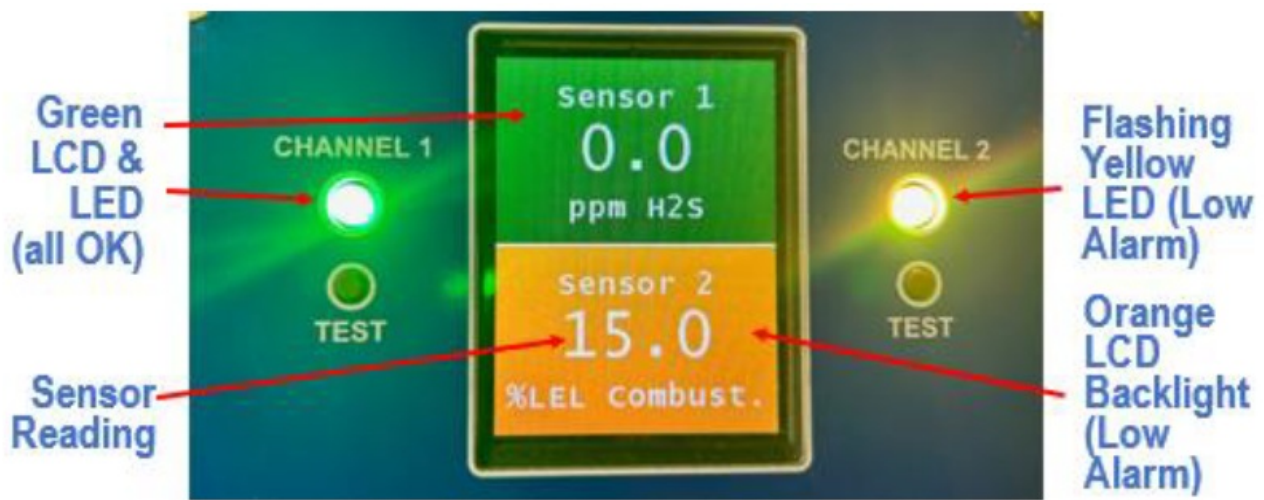
Start Up

Once 12-24V power is connected, the MP883 Controller enters a 60-sec warm up while various functions are tested, and parameters displayed.

Start Up Display

Operating Display

When the startup is complete, the gas concentrations are displayed. If any alarm level is exceeded, the Channel LED flashes and the display backlight changes color.

The operating displays include:

Condition	Panel Backlight	LED
Normal	Green	Green Steady
Low Alarm	Orange	Yellow Flashing
High Alarm	Red	Red Flashing
High High Alarm	Red	Red Flashing
Sensor Warm Up	Light Blue	Blue Steady
Cal in Progress	Light Blue	Blue Steady
No Signal	Dark Blue	Blue Flashing
Sensor Fault	Dark Blue	Blue Flashing

Alarm Test
Press Test for 5 seconds to test alarm/relay functions.

Programming

Enter Setup Menu
Press and hold the Escape button for 5 seconds and enter the password (if activated). The default is 0000.

Navigating Menus

- Up & Down keys move the cursor or increase & decrease numbers in editing mode (underline).
- Enter enters a sub-menu, enters/exits editing mode, or saves a change.
- Escape exits the sub-menu or main menu.

Main (Setup) Menu
The Setup Menu has 4 items – Channel 1, Channel 2, Device and Password.

Sub-Menus

The sub-menus are listed below

Channel 1 or Channel 2	
Configure	**Function**
Name	Channel name
Gas	Gas name
Measure	Gas unit
Span	Span value
Decimals	# of decimal point displayed
Enabled	Enable/disable channel
Alarm 1, 2 or 3	**Function**
Sub-Menu	
Enabled	Enable/disable alarm
Set Point	Set trigger value
Low Trip	Trigger above or below
Latching	Latching or no latching alarm
Strobe	Activate strobe light
Horn	Activate horn
Relay1	Activate relay 1
Relay2	Activate relay 2

Channel 1 or Channel 2	
Calibration	**Function**
Reading	Current reading
Gain	Channel gain adjustment
Offset	Channel offset adjustment

Device	
Clock	**Function**
Date	Change date
Time	Change time
Modbus	**Function**
Baud	Baud rate
Fault Relay	**Function**
Fail Safe	Yes or No
Serial Number	**Function**
Serial Number	View serial number
Password	
Password	**Function**
Lock	Need protection or not
Password	Change password

Documents / Resources

mPower Electronics MP883 Dual Channel VOXI Controller [pdf] User Guide
MP883 Dual Channel VOXI Controller, MP883, Dual Channel VOXI Controller, Channel VOXI Controller, VOXI Controller, Controller

References

- **User Manual**