

# FAQ



## MP8000 Bluetooth Overload Relay



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## MP8000 BLUETOOTH OVERLOAD RELAY



Patented

## MP8000 SPECIFICATIONS

### What can I protect with the MP8000?

The MP8000 has a wide voltage and current range, and operates on 50/60 Hz to protect nearly any motor or pump. It can also be used to retrofit older current-only based electronic overloads.

### In what voltage range can the MP8000 operate?

90–690 V ac

### What ampere range does the MP8000 have?

0.5–1,000 A

### Do I need external current transformers for the current measurement?

For less than 100 A, conductors can be passed through the built-in current transformers on the MP8000. For applications above 100 A, external current transformers are required.

### What does the MP8000 protect against?

- Overload (Overpower) (49)
- Underload (Underpower) (37P)
- Overcurrent (51)/Jam
- Undercurrent (37)
- Current Unbalance/Phase Loss (46)
- Phase Reversal (47)
- Overvoltage (59)
- Undervoltage (27)
- Voltage Unbalance (47)
- Rapid Cycling/Jog
- Contactor Failure
- Zero-Sequence Ground Fault (50Ns)
- PTC Motor Overtemperature (49)

**There are many models of the Littelfuse 777, including separate versions for motors and pumps. Are there also many versions of the MP8000?**

No, the MP8000 is compatible with all of these applications except for the 777-HVR 480 V ac applications.

**Are there different versions of the MP8000 for single-phase versus 3-phase?**

No, the MP8000 can be used in both single-phase and 3-phase applications.

**Can the MP8000 be used without the voltage protection functions?**

Yes, the MP8000 can be put into current-only mode which will disable voltage-based protection functions. However, Littelfuse strongly recommends utilizing the voltage-based protection functions for superior protection especially prior to motor startup. The current-only mode is intended for retrofit applications on voltages above 690 V ac.

**How was Littelfuse able to design a single unit to work in so many applications?**

The small amount of space available on the front of a traditional relay limits the number of settings that can be displayed on the screen. By using an app to provide this information, we were no longer restricted when providing details about each setting.

We also took advantage of our long history with pump protection (single and 3-phase), to add unique capabilities useful for pump applications.

**What is the temperature range within which the MP8000 can operate?**

–40 °C to 70 °C (–40 °F to 158 °F)

**What size is the MP8000?**

The MP8000 is 74.4 mm high, 103.6 mm wide, and 121.7 mm deep.

## INSTALLATION AND OPERATION

**How do I install the MP8000?**

The MP8000 can be surface or panel mounted, or installed on a DIN rail.

**Do I need to physically access the MP8000 to view information and modify settings?**

No, the MP8000 uses Bluetooth\* to connect to iPhone\*, iPad\*, and Android\* smartphones and tablets via the Littelfuse app. This enhances the user's safety as it allows remote access.

**How can I reset the relay to get my motor or pump running?**

Resetting the MP8000 can be done through the Littelfuse MP8000 app, through an optional pushbutton, or remotely through the MP8000 network supported interfaces.

**Do I need to purchase separate displays to connect to the MP8000?**

No, the MP8000 leverages the smartphone or tablet that you already own. This alleviates the expensive purchase of multiple displays.

## CONNECTIVITY

**Can I connect to the MP8000 through Bluetooth?**

Yes, the MP8000 communicates using Bluetooth Low Energy (BLE).

**What is the maximum Bluetooth range?**

The distance is affected by the type of smartphone or tablet used, the location of the MP8000 installation, and potential attenuation of the Bluetooth signal due to the enclosure type. In general, the distance is up to 10 meters. This enables the user to be located near the motor and pump, which may be useful in troubleshooting any issues.

**Do I need to have cellular service to connect to the MP8000?**

No, Bluetooth connections do not use cellular signals. This features enables older smartphones that are out of service to be used by workers to connecting to the MP8000.

**Can I connect to the MP8000 remotely?**

Yes, you can access the information remotely through the Littelfuse MP8000 PC software or through other software programs communicating with the MP8000 through the Ethernet interface. The MP8000 PC software can be downloaded for free by visiting the [MP8000 product page](#) and completing the registration form.

**What type of protocol do you use to network the MP8000?**

Ethernet Modbus TCP and EtherNet/IP\*

**Is the IP address dynamic or static?**

Each MP8000 unit has a dynamic IP address. The IP address can be changed to static by connecting to the embedded user interface on the MP8000. Firmware version 3.11.20.20 and newer, when used with phone app version 6.0.0 or newer, allows the user to also configure the static IP, subnet mask, and gateway IP through the phone app.

**Can multiple devices be connected to the MP8000 at one time?**

The MP8000 can be connected to one Littelfuse app at a time through Bluetooth, as well as up to two Modbus TCP servers at the same time. This was designed to support redundant server operations. If two servers are connected at the same time, it is up to the user to be aware of which server is making modifications. If one server makes a modification and the second then changes that value, the MP8000 will use the second server's modifications or the last modification value.

**How does a Bluetooth-enabled relay enhance personnel safety?**

Traditional relays require the user to open the electrical cabinet's (where relays are typically installed) panel door in order to use the relay, whether it's to modify the settings, or to review the cause of a trip event.

Opening the panel door exposes the worker to shock hazards. Bluetooth, however, enables remote access to these settings, metering, and data log information which prevents personnel from unnecessarily having to open the door, and thus unnecessarily expose themselves to shock hazards.

## MP8000 APP

**Which smartphones and tablets are compatible with the MP8000**

Apple iPhone 5th generation and higher  
Apple iPad 4th generation and higher  
Android Smartphones with Bluetooth 4.0 – BLE  
Android Tablets with Bluetooth 4.0 – BLE

**What is the minimum operating system required for my smartphone or tablet to run on?**

IOS version 10.0 and higher, or Android version 8.0 and higher.

**Where can I obtain the Littelfuse app?**

The Littelfuse app is available in the [Apple App Store](#) and in [Google Play](#).

**How much does the Littelfuse app cost?**

The Littelfuse app is free.

**Do I need to pair to an MP8000 every time I want to use it?**

No, the pairing process is one-time per MP8000 unit for each smartphone or tablet used.

**How do I disconnect from an MP8000?**

You can disconnect your device from the MP8000 by pressing the back arrow until the initial app screen is displayed, by exiting the app, or by moving out of range of the MP8000 signal.

**I have multiple MP8000 units. How can I tell which one I want to connect to?**

The MP8000 units are displayed in the app based on signal strength, with the strongest signal at the top. The strongest signal is most likely the closest.

**Can I rename the units?**

Yes, you can rename the units with up to 12 characters.

**This is my first time connecting to my MP8000, and it is prompting me to configure it. Do I need to?**

Yes, the MP8000 must be configured prior to its first use to properly protect the motor. The high voltage setting's default is set to be below the low voltage setting and must be changed to remove the prompt.

**What is the difference between “Basic” and “Advanced” settings?**

“Basic” settings are more typically used while “Advanced” settings are less commonly used.

**If I need more information while inputting settings, where can I find it?**

The full MP8000 product manual can be found on the [MP8000 product page](#).

**How can I tell what the most recent fault is?**

Faults are listed on the “Fault” screen with the most recent at the top. Faults are time and date stamped to help with troubleshooting.



## What information is included in a fault?

The MP8000 provides an expansive set of information on the electrical conditions at the time the fault is detected, such as:

- voltage
- current
- current unbalance
- voltage unbalance

Please consult the [MP8000's datasheet](#) for a complete list of all the information it provides.

## How many faults are stored on the MP8000?

The most recent 1,000 faults are stored on the MP8000.

## SECURITY

### What security is built into the MP8000 to prevent unauthorized people from connecting to it?

The MP8000 has two levels of security. The first is a pairing code that is required to connect to the unit and view real-time information, settings and faults. The second level of security is a password, which is required to modify any settings on the unit. This allows customers to segment personnel to those that can view only, and those that can make modifications.

### Where can I find the pairing code?

The pairing code is located on a label on the MP8000. An extra label is provided that can be placed in a separate area, such as a log book.

### Will I be asked for the pairing code each time I want to connect to the MP8000?

You will only be asked once for the pairing code for each MP8000 for each smartphone or tablet used.

### Where can I find the default password to change the settings?

The default password is located on a label on the MP8000. The MP8000 comes with an extra label that can be placed in a separate area, such as a log book.

### Can I change the password?

Yes, the password can be changed.

### Do I need to enter the password each time I change a setting?

When changing settings, you are only asked for a password once per session. If you disconnect from the MP8000, which can occur if you move out of range, you will be prompted to enter the password the next time you connect to the MP8000 and attempt to change a setting.

### What happens if I lose my pairing code or password?

Obtain the MAC address from the label on the unit and contact Littelfuse relay technical support at [relays@littelfuse.com](mailto:relays@littelfuse.com) or 1-800-832-3873 for assistance to obtain the original settings.

## AVAILABILITY

**Where can I purchase the MP8000?**

Please contact your local Littelfuse relay distributor, which can be found on the [Littelfuse website](#).

**Can a Littelfuse account manager contact me so I can see a demo of the MP8000?**

Yes, please contact your local Littelfuse representative. Your local representative can be found on the [Littelfuse website](#).

## REGULATORY APPROVALS

**What regulatory approvals does the MP8000 have?**

UL, cUL, CE, FCC, and RCM

A decorative horizontal band consisting of a grid of squares. The first three squares on the left are green, while the remaining squares are light gray.

For more information, visit  
[Littelfuse.com/MP8000](https://www.littelfuse.com/MP8000)

Additional technical information and application data for Littelfuse protection relays, fuses and other circuit protection and safety products can be found on **[Littelfuse.com/protectionrelays](https://www.littelfuse.com/protectionrelays)**. For questions, contact our Technical Support Group (**800-832-3873**).

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