

# MS-PoE Injector User Manual





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**Regulatory  
information**



**Manufacturer**

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**Contact information**

For contact information see our Web site: [www.gesecurity.com](http://www.gesecurity.com).

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# Chapter 1

## Overview



The GE Security MS-PoE is an **IEEE 802.3af Power over Ethernet** Injector that provides 48VDC power over Ethernet cables (PoE).

### Package Contents

Your MS-PoE injector carton should contain the following items:

- The Power over Ethernet Injector x 1
- User's Manual x 1

If any item is missing or damaged, please consult the dealer from whom you purchased your MS-PoE injector module.

# Introduction

The GE Security MS-PoE IEEE 802.3af Power over Ethernet Injector inserts DC Voltage into Cat.5 cable, allowing the cable between the Injector (MS-PoE) and Splitter (SP-PoE) to transfer data and power simultaneously. The maximum distance between the Injector (MS-PoE) and Splitter (SP-PoE) is 100 meters. With MS-PoE installed, it combines the Ethernet digital data with power over the twisted pair cables as an IEEE 802.3af Power over Ethernet Injector. The IEEE 802.3af Power over Ethernet splitter can separate the digital data and power into two outputs.

With IEEE 802.3af Power over Ethernet devices installed, the system administrator only has to use a single RJ-45 Ethernet cable to carry both power and data to each device.

## Product Features

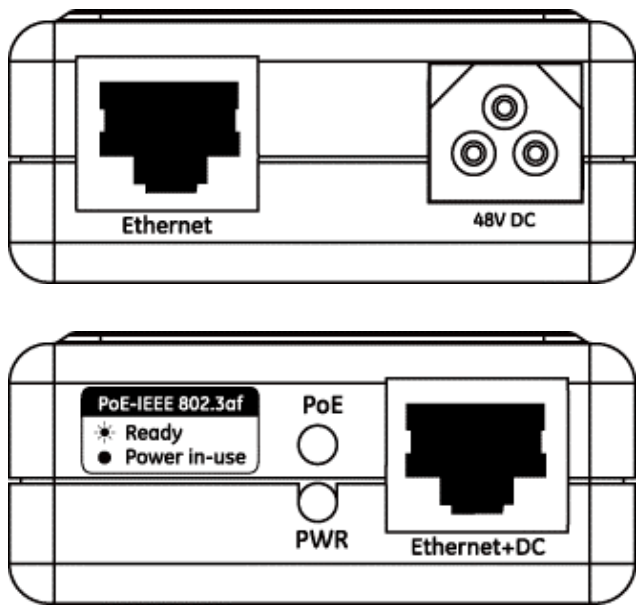
- Complies with IEEE 802.3af Power over Ethernet, IEEE 802.3/802.3u 10/100Base-TX
- Provide DC 48V power over RJ-45 Ethernet cable to device with Ethernet port
- LED indicators power input indication
- Distance up to 100 meters
- Auto-detect of PoE IEEE 802.3af equipment, protects devices from being damaged by an incorrect installation
- Work with EIA568, category 5,4-pair cables for 10Base-T or 100Base-TX
- EMI standards comply with FCC, CE class B
- Saves time and reduces installation costs
- Easy plug-and-play installation.



# Product Overview

Figure 1 shows the right and left side views of the MS-PoE injector.

Figure 1: MS-PoE right and left side panels



## LED Indicators

LED	Color	Function
Power	Yellow	Lights to indicate that the MS-PoE has power.
PoE ready / in-use	Green	Lights to indicate the port is providing 48VDC in-line power.

## Product Specifications

Model	MS-PoE
Interface	
Ethernet Copper Port	1 x 10/100Base-TX for data in RJ-45 connector
Ethernet + DC Copper Port	1 x 10/100Base-TX with IEEE 802.3af PoE PSE for data + DC out RJ-45 connector
Power over Ethernet	
PoE Standard	IEEE 802.3af Power over Ethernet / PSE
PoE Power Supply Type	Mid-Span / Type B
Power PIN Assignment	4/5(+), 7/8(-)
PoE Power Output	PoE 48V DC, Max. 15.4 watts, 350mA
Number of device can be powered	1
Hardware Specification	
Ethernet Data rate	10/100Mbps( vary on Ethernet device attached)
Throughput(Packet per second)	148810@64Bytes
Input Power	48V DC, 0.38A max.
LED indicator	1 x Power 1 x PoE ready / in-use
Installation	Standalone or wall mount
Material	Plastic
Standard Conformance	
Standard Compliance	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3af Power over Ethernet
Ethernet cable	TIA/EIA-568, Category 5/5e cable

## Physical Specifications:

### Dimensions (W × D × H):

2.87" × 2.17" × 0.94" / 73 × 55 × 24mm

### Weight:

0.22 lbs / 50g

## Environmental Specification

### Operating:

**Temperature:** 0°C ~ 50°C

**Relative Humidity:** 5% ~ 90% (non-condensing)

### Storage:

**Temperature:** -20°C ~ 70°C

**Relative Humidity:** 5% ~ 90% (non-condensing)

## Electrical Specification

### Input Voltage:

DC 48V, 0.38A

**NOTE:** This product is intended to be supplied by a UL Listed Direct Plug-In Power Unit marked "Class 2" or "LPS" and output rated 48 VDC, 3 Amp minimum.



# Chapter 2

# Hardware Installation

This product provides two different running speeds - 10Mbps, 100Mbps in the same device and automatically distinguishes the speed of the incoming connection.

This section describes the hardware installation of MS-PoE. Before connecting any network device to the MS-PoE, read this section carefully.

## **Before Installation**

Before your installation, it is recommended that you check your network environment. If there are any IEEE 802.3af devices that you need to power. The MS-PoE can provide you a way to supply power for this Ethernet device conveniently and easily. The MS-PoE works with an AC-DC adapter (not supplied) with DC 48V input and injects this DC power into the pin of the twisted pair cable (pair 4, 5 and pair 7, 8 for Fast Ethernet).

If it is very difficult to find a power socket for an AC-DC Adapter of your non IEEE 802.3af networked device, the MS-PoE and SP-POE can provide you a way to supply DC power for this Ethernet device conveniently and easily.

**Note:** The MS-PoE and SP-POE can be installed in pair. However, the use of third-party device is allowed if the device complied with IEEE 802.3af standard.

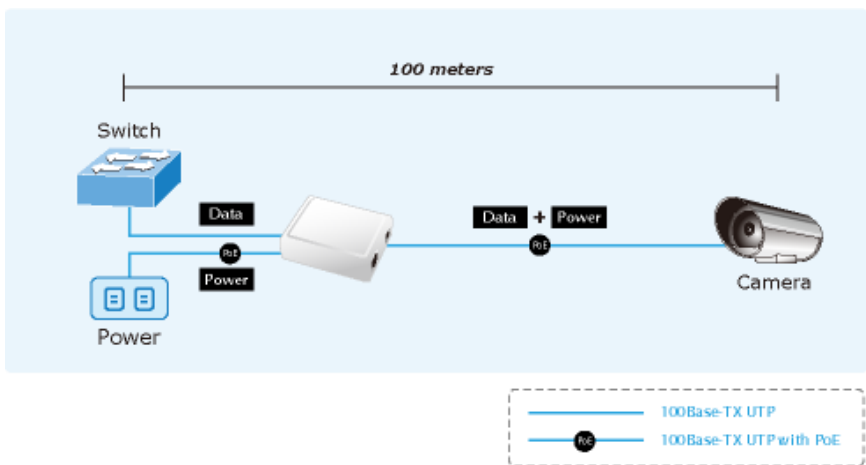
## Installing the MS-PoE

1. Connect a standard network cable from Switch/workstation to "Ethernet" port of MS-PoE.
2. Connect the long cable that will be used to connect to the remote device to the port "Ethernet + DC".
3. Connect an AC adapter to "DC 48V" of MS-PoE. The power LED will be steady on.

**NOTE:** This product is intended to be supplied by a UL Listed Direct Plug-In Power Unit marked "Class 2" or "LPS" and output rated 48 VDC, 3 Amp minimum.

4. Connect with IEEE 802.3af devices, due to the capability of IEEE 802.3af standard, the MS-PoE can directly connect with any IEEE 802.3af end-nodes like wireless access point, VoIP phones and Internet camera where support IEEE 802.3af In-line Power over Ethernet port.

Figure 2: Connection to the IEEE 802.3af device



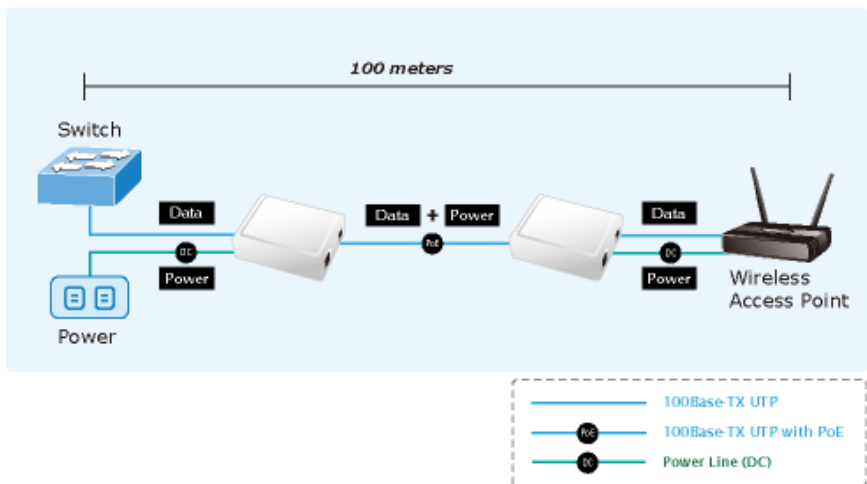
Once MS-PoE detects the existence of an IEEE 802.3af device, the LED indicator will stay steady, ON to show it is providing power.

**Note:** If the connected device is not fully complying with IEEE 802.3af standard or in-line power device, the LED indicator of MS-PoE will not be steady on.

## Installing an MS-PoE and a SP-POE, Injector and Splitter

1. Connect a standard network cable from "Ethernet+DC" of MS-PoE to "Ethernet+DC" of SP-POE. The POE LED of MS-PoE / SP-POE will light on continuance.
2. Connect the UTP cable in the package from "Ethernet" of SP-POE to the RJ-45 port of remote device.
3. Connect proper DC plug from "DC OUT" of SP-POE to remote device.
4. Power on the remote device and the LED indicator on SP-POE will remains on.

Figure 3: Connection architecture over MS-PoE / SP-POE



**Note:** According to IEEE 802.3af standard, the MS-PoE will not inject power to the cable if not connecting to IEEE 802.3af devices.

Please ensure the output voltage is correct before applying power to remote device.