



Microsemi.

Microsemi 9001GO/12-24VDC

**1-Port 802.3at Gigabit PoE Outdoor
Midspan**

12-24VDC Input

Notice

It is Microsemi's policy to improve its products as new technology, components, software, and firmware become available. Microsemi, therefore, reserves the right to change specifications without prior notice.

Technical Support

If you encounter problems when installing or using this product, please consult the Microsemi website at:

<http://www.Microsemi.com>

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Email: sales.support@microsemi.com.

Product overview

The Microsemi 9001GO 12-24VDC 1-Port 802.3at Gigabit PoE Outdoor Midspan injects power over data-carrying Ethernet cabling. They maintain IEEE802.3at and IEEE802.3af standards. These power levels allow usage by a new range of Ethernet-based applications such as video phones, 802.11n Access Points, WiMAX Transmitters, PTZ cameras, and more. PD-9001GO/12-24VDC **DATA PWR OUT** port is designed to carry Gigabit Ethernet data & power over a standard CAT5e cable, delivered through 2-pairs (Alt B: pins 4,5 (+) and 7,8 (-)).

PD-9001GO EMC Compliance:

- CE:
 - EN55024, EN61000-4-5 Class 5 (6KV CM)
 - EN55022 class B
- FCC Part 15 class B
- ITU-T K.20, 6KV on DC lines
- VCCI

PD-9001GO Safety Compliance:

- UL60950-1
- EN60950-22
- GS mark

PD-9001GO/ Lightning Protection:

- Designed to meet GR-1089-CORE lightning protection demands

Other Standards and Approvals:

- IEEE 802.3at & IEEE 802.3af (PoE) standards
- RoHS Compliant
- WEEE Compliant
- REACH Compliant
- Dust & Water Intrusion
 - IEC60529, level IP66
 - NEMA 250, level 4x

WARNING

- Do not use cross over cable between PoE Midspan output port and load device
- Take extra care when connecting the power inlet terminals, so that '+' and '-' will not be connected to an opposite polarity.
- Ensure correct DC power is applied to the PoE Midspan

Mounting Instructions

Installation

Note: Before mounting PoE Midspan to a fixed location:

- Ensure cable length from Ethernet network source to the terminal does not exceed 100 meters (333 feet). PoE is not a repeater and does not amplify Ethernet data signal.
- For non AF/AT compliant unit - use a splitter; ensure splitter is connected close to the terminal and not on the Midspan!
- PoE Midspan DC power plug shall be connected to a sealed box in order to meet EN60529 level IP66
- There is no "On-Off" switch; simply plug the PoE Midspan into a 12/24VDC power source.

Product View

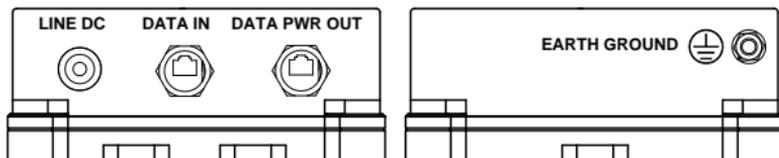


Figure 1

Installing the unit

Step 1: Connect the chassis bolt to earth ground

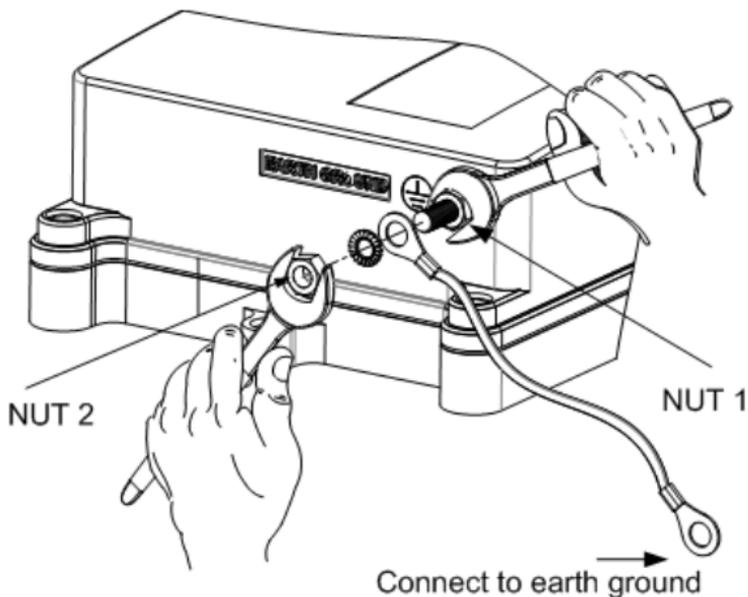


Figure 2

Step 1.1: Tighten Nut 2 while preventing rotation of Nut 1.

Step 1.2: Apply between 10lb-in. (1.1Nm) and 15lb-in. (1.7Nm) of torque to Nut 2.

Step 2: There are two options for the installation of PD-9001GO:

- A. **Wall installation** - PoE Midspan can be mounted on a wall/bench (all kind of flat surfaces: wood, brick, concrete etc.) using the mounting holes.
- B. **Pole installation** - using optional mount kit (sold separately)

Step 2A: Wall installation

Fasten the PD-9001GO using three screws, See figure 3

(Screw holes are marked 1, 2 & 3):

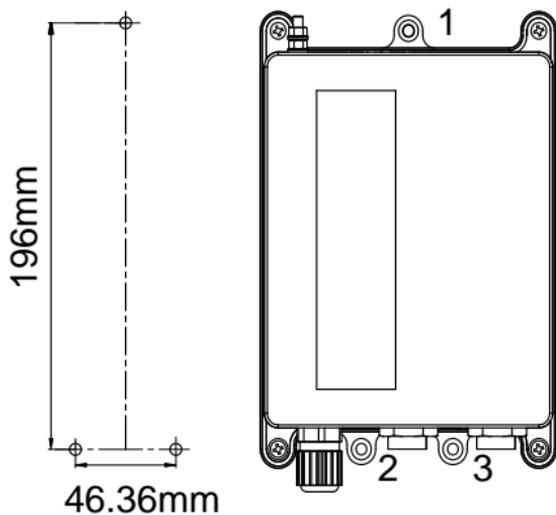
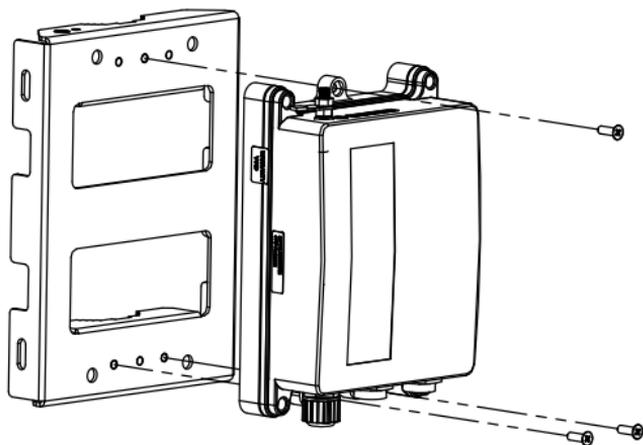


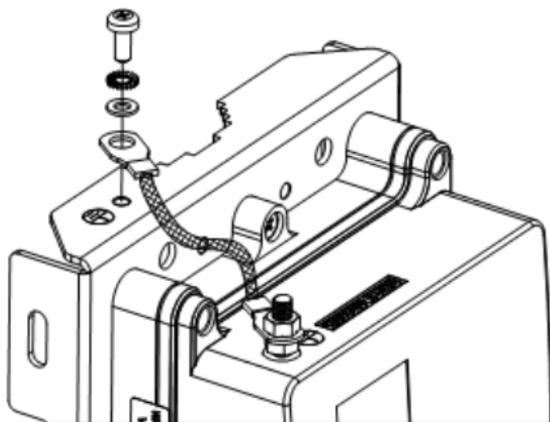
Figure 3

Step 2B: Pole installation using optional mount kit (sold separately)

1.

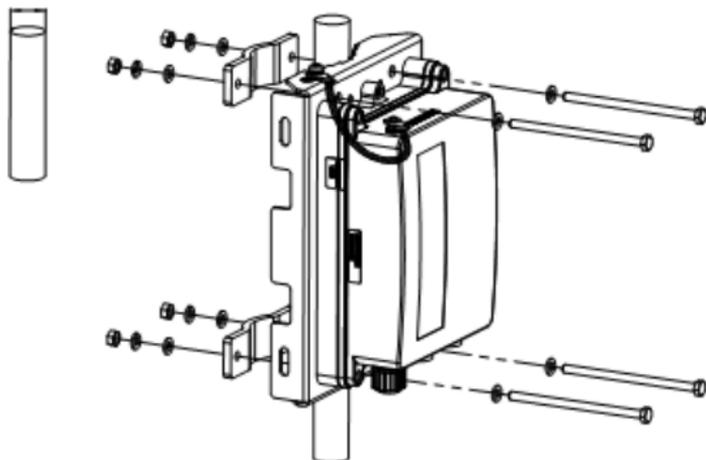


2.

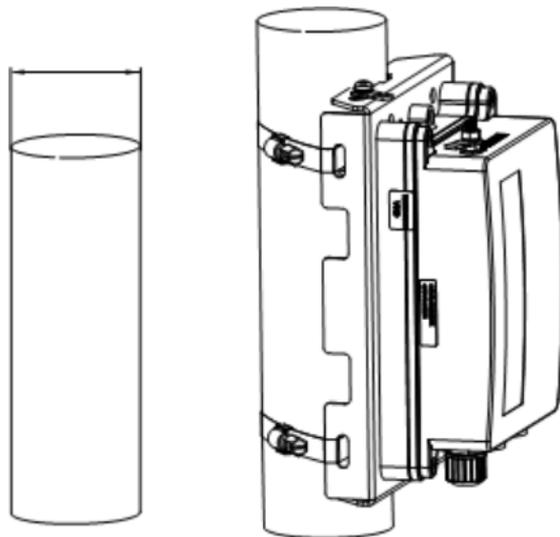


Note: Mounting bracket must be connected to earth ground!

3A. Pole of: 1" (25.4mm) < ϕ < 3" (76.2mm)



3B. Pole of: 3" (76.2mm) < ϕ < 8" (203.2mm)



Step 3: RJ45 Ethernet Cable Assembly

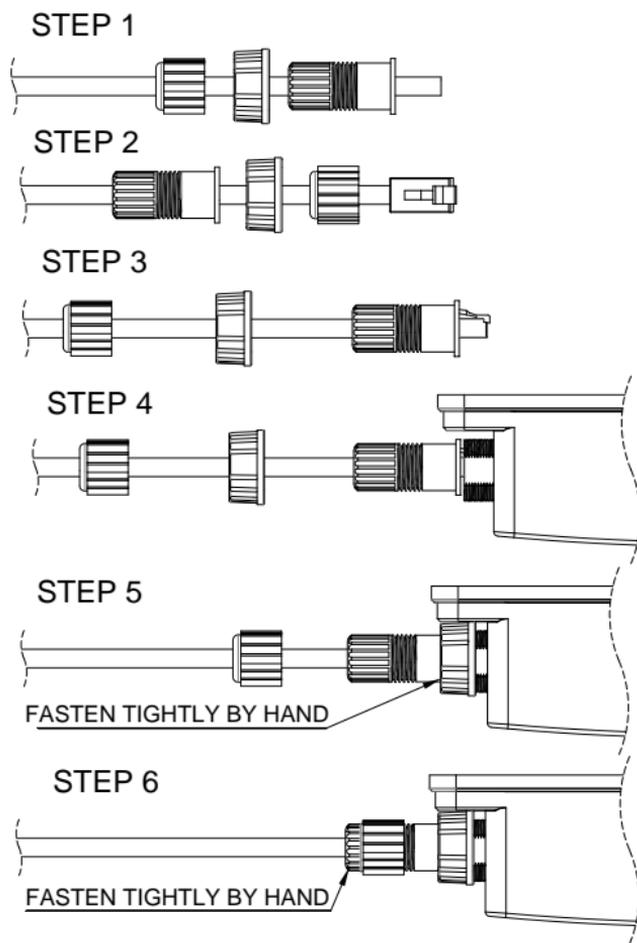


Figure 4

Step 4: DC IN Cable Assembly

Wiring Instruction

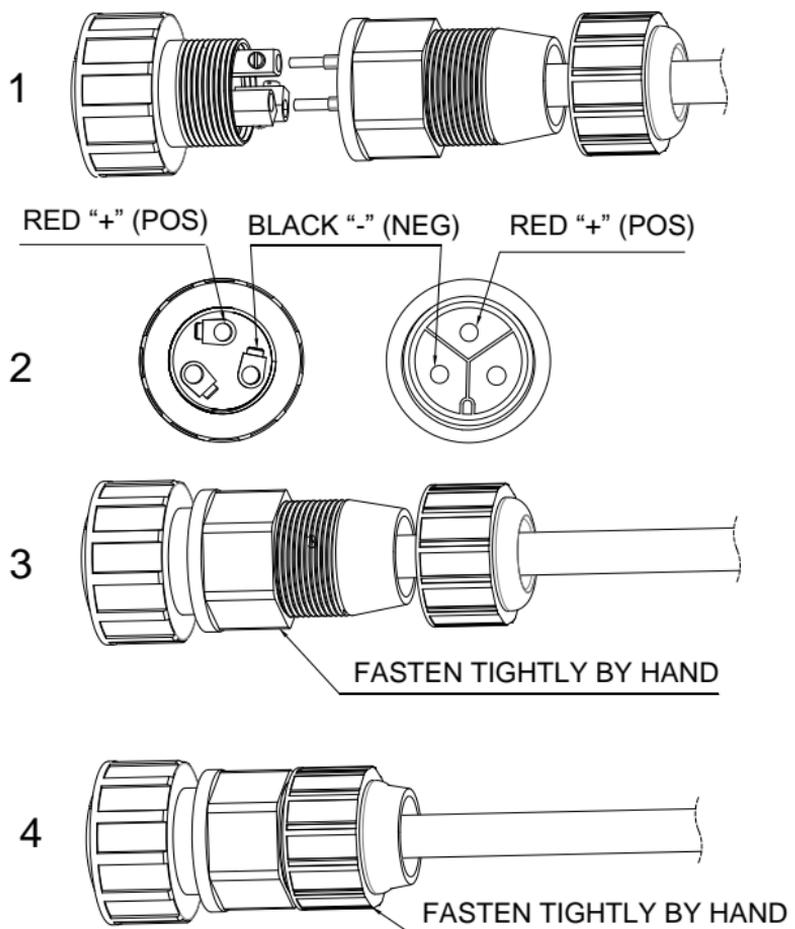


Figure 5

Step 5: Connect “**DATA IN**” jack (input) to the remote Ethernet network switch’s Patch panel and “**DATA PWR OUT**” jack (output) to the terminal.

Step 6: Verify the **12/24VDC** power source is turned off.

Step 7: Connect the PoE midspan input connector to a minimum 4 Amps rated input cable, make sure to assemble the inlet connector as shown in figure 5.

Step 8: Turn ON the **12/24VDC** power source

Notes:

- Two RJ45 male plug waterproof connectors covers are supplied with the unit.
- DC in plug is supplied with the unit
- Ethernet cable and RJ45 male connectors are not supplied with the unit.
- **This unit is designed for outdoor use.**

Troubleshooting

Symptom	Corrective Steps
<i>The PD does not operate</i>	<ol style="list-style-type: none">1. Ensure the DC input connector has been assembled according to step 4.2. Ensure that the power source voltage is between 10.8-26.4vDC and can carry out 40w.3. Verify PD is designed for PoE operation.4. Verify you are using a standard Category 5/5e/6, four pairs straight-wired cable.5. Verify PD is connected to the DATA PWR OUT port.6. If an external power splitter is in use, replace it with a splitter known as good.
<i>The end device operates, but there is no data link</i>	<ol style="list-style-type: none">1. If an external power splitter is in use, replace it with a known-good splitter.2. Verify that for this link, you are using standard UTP/FTP Category 5 straight (non-crossover) cabling, with all four pairs.3. Verify Ethernet cable length is less than 100 meters from Ethernet source to load/remote terminal.4. Ensure input Ethernet cable is connected to the DATA IN port.

Safety Information

- Installation and removal of the PoE Midspan must be carried out by qualified personnel only.
- If an AC/DC power source will be used to power up the PoE Midspan, it should be an isolated AC/DC source.
- DC Power inlet Set:
 - The power connector supplied with the PoE Midspan has 3 terminals; '+' (POS), '-' (NEG), and one which is not connected (See Figure5).
 - Assemble the inlet connector as shown at Figure 5
 - The inlet power cord needs to be weather resistant with working temperature range of -40C to +65C degrees.
 - The power cord must be rated for minimum capacity of 4 amps
 - Before connecting power inlet cables to the connector terminals verify that the power source is turned off.
- Connect chassis ground connection to "Earth/Ground" connection at the working area. – as figure 2
- The PoE injector "**DATA IN**" and "**DATA & POWER OUT**" ports are shielded RJ45 data sockets. They cannot be used as Plain Old Telephone Service (POTS) sockets. Only RJ45 data connectors may be connected to these sockets.
- The 12/24VDC power source must be situated near the PoE Midspan and easily accessible. To cut power from the PoE Midspan, disconnect the DC power inlet from either the 12/24VDC power source or the PoE Midspan power connector.
- The PoE Midspan "DATA IN" and "DATA & POWER OUT" interfaces are qualified as SELV (Safety Extra-Low Voltage) circuits according to IEC 60950-1. These interfaces can be connected only to SELV interfaces of other equipment parts.



Recycling and Disposal

Disposal instructions for old products. The WEEE (Waste Electrical and Electronic Equipment) national environmental initiatives has been put in place to ensure that products are recycled using available treatment, recovery and recycling to ensure human health and high environmental protection. Your product is designed and manufactured with materials and components, which can be recycled and reused. Do not dispose of your old product in your general Household waste bin. Inform yourself about the local separate collection system for electrical and electronic products marked by this symbol:



Use one of the following disposal options :

- Dispose of the complete product (including its cables, plugs and accessories) in the designated WEEE collection facilities.
- If you purchase a replacement product, hand your complete old product back to the retailer. He should accept it as required by the national WEEE legislation.

Specifications

Environmental Specifications

Mode	Temperature	Humidity
Operating	-40°C to 55°C for 30 Watts (-40°F to 131°F) -40°C to 65°C for 15.4 Watts (-40°F to 149°F)	10 to 95% (no condensation allowed)
Storage	-40 to 85°C (-40°F to 185°F)	10 to 95% (no condensation allowed)

Electrical Specifications

Input Voltage	12-24VDC +/- 10%
Input Current	4 Ampere (max)
Available Output Power (max.)	30 Watts
Nominal Output Voltage	53-55 VDC

Interface

Input (DATA IN): Ethernet 10/100/1000Base-T	RJ45 female socket
Output (DATA PWR OUT): Ethernet 10/100/1000Base-T, plus 55VDC	RJ45 female socket, with DC voltage on wire pairs 4-5 & 7-8.

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Ordering information:

- *Product Name:* **Microsemi 9001GO/12-24VDC**
- *Part Number:* **PD-9001GO/12-24VDC**
- *Description:* **1-Port 802.3at Gigabit PoE Outdoor Midspan**

Document P/N: PD9001GO_12-24_UGB Rev. B00