INSPEXTOR

PRODUCT SERIES SPEC SHEET

MHTi-NODE-MINI

The Inspextor platform is a PoE Lighting Management System that enables building automation and data collection. It utilizes Power over Ethernet (PoE) technology for safe and efficient low voltage operation. The MHTi-NODE-MINI supports a variety of applications, offering options for Constant Current (CC), Constant Voltage (CV) and Constant Power (CP) lighting and other DC power needs from 12V to 48VDC. These network nodes receive power and data from the PoE switch and seamlessly integrate with other devices in the network, such as sensors, shades, and wall switches, all controlled by the Inspextor system. They support advanced lighting controls features such as dimming, tunable white, and RGBW color-controlled lights. They are designed for easy installation and setup, automatically obtaining an IP address from the local network.

ELECTRICAL SPECIFICATIONS

MHT PD Interface	IEEE 802.3bt PD Type 4, Class 8 compliant input with LLDP extensions for negotiating power above 30W using all four pairs
Input	50-60VDC / 1.8A / 90W maximum
Output	12-48VDC / 3.0A / 80W maximum - 1 Channel Linear CC/CV/CP - 4 Channel PWM common anode
Sensors	24VDC / 0.1A - WS: 1 MHTi Wall Switch (~15V) - IN: Analog Input (0-10V or dry contact 10-24V) internal pull-down
Nominal Standby Power	2W
PoE Input Connection	RJ45 jack for CAT5e/6/6A cable to PoE PSE device
Device Type	Class 2 electrical device

MHT Technologies

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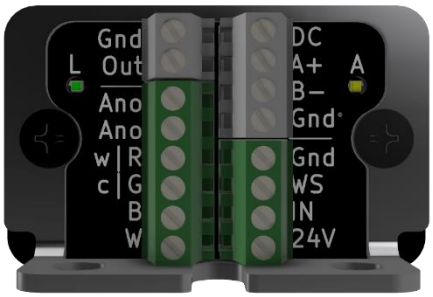
PRODUCT FEATURES

- 90W PoE Gateway + 80W RS-485 Driver
- Ethernet Stack – UDP/TCP-IP, TLS, CoAP/MQTTS/HTTPS
- USBC Serial Console for Gateway and Driver
- Linear CC/CV/CP Output
- 4 Channel PWM
    - 1 Channel CV PWM Dimming
    - 2 Channel Tunable White Light
    - 4 Channel RGBW Color Control Light
- Sensors
    - 24VDC / 0.1A output
    - WS – digital input/output for MHTi 4 and 7 Button Wall Switches
    - IN – Analog input for 0-10V sensors and 10-24V dry contacts
- Daisy Chaining – connected additional nodes by DC and RS-485 A+/B-
    - Minimize PoE PSE ports
    - Minimize category cable wiring
    - Extra nodes can drive at point of load

Applications

- Suitable for LED related fixture or appliances
- Installed remotely or inside luminaire



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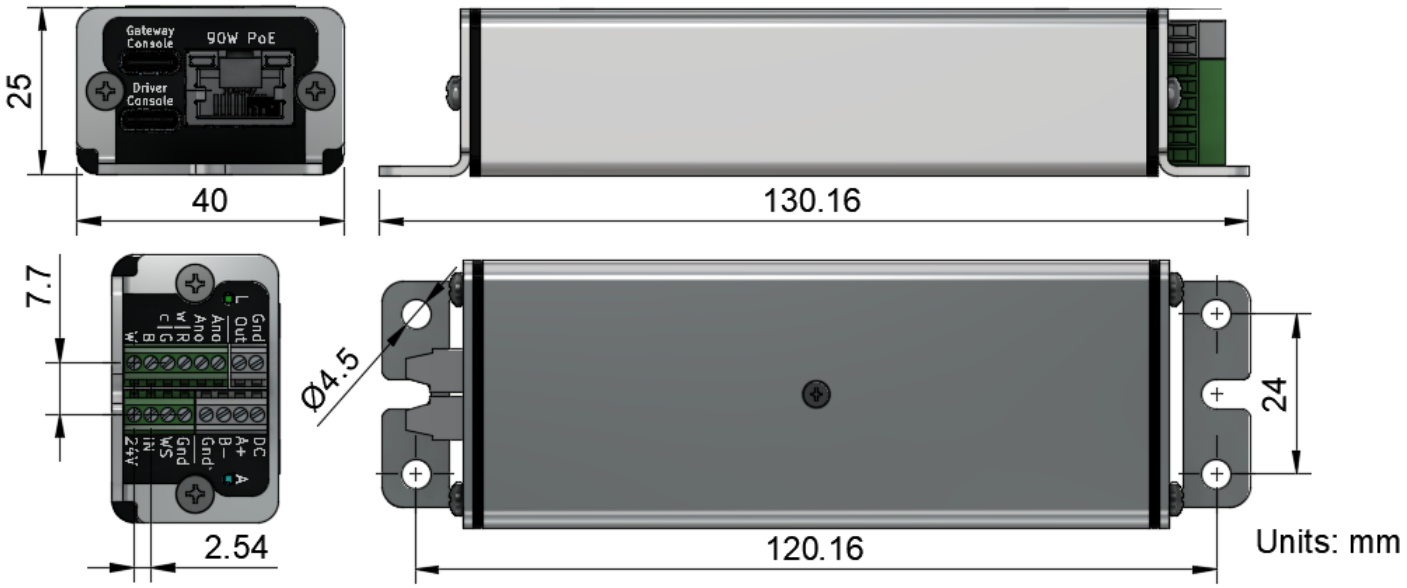
PRODUCT DIMENSIONS

The product has an aluminum enclosure with mounting flanges. Secure with an M4 or #8 screw at least two locations. For proper heat transfer choose a target mounting surface suitable for heat dissipation. Compress the bottom of the enclosure tightly against the mounting surface.



Dimensions Overall	130.16mm (5.12in) L x 40mm (1.57in) W x 25mm (0.98in) H
Mounting Dimensions	4 Holes, 2 Slots: 4.5mm (0.177in) D 120.16mm (4.73in) L x 24mm (0.94in) W

NODE ENVIRONMENTAL REQUIREMENTS

The product should be used for indoor applications. Liquids and dust can ingress through small gaps around connections. Avoid installation locations that can become wet or are particularly dusty.

Operating Temperature	-20C to 40C
Operating Environment	For dry or damp locations
Operating Humidity	10% to 80% RH non-condensing
Storage Temperature	-20C to 70C
Storage Humidity	5% to 95% RH non-condensing

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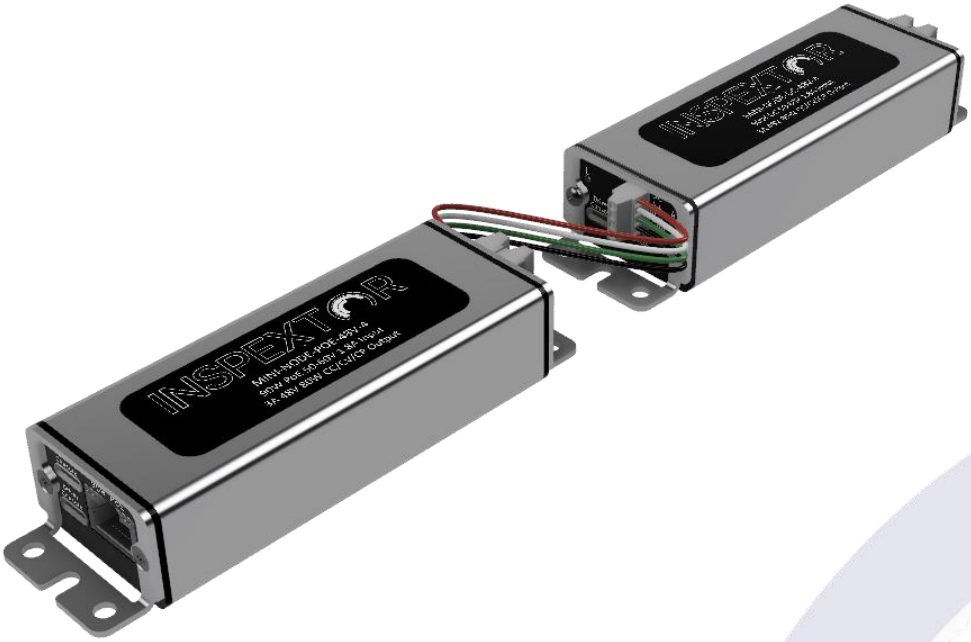
END CAP OPTIONS

The end caps can be selected appropriate for the external connections required. In some applications the PWM or daisy chaining features might not be required. The product can be ordered with these features removed.

1: 48V Driver, 2: 48V Driver + 4ch PWM, 3: 48V Driver + Daisy Chain,
4: 48V Driver + 4ch PWM + Daisy Chain

DAISY CHAIN

The product is offered as a driver only version. This could be daisy chained to one starting node with a gateway. The gateway provides the ethernet connection and power from PoE. The driver only nodes are powered after the PoE is rectified. They communicate via a proprietary RS-485 network.



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ORDERING INFO

Products can be ordered by SKU which specify the power source connection either PoE or DC and the end cap options.

Series	SKU	Description
MHTi-NODE-MINI	MINI-NODE-POE-48V-4	PoE Gateway + 48V Driver + 4ch PWM + Daisy Chain
	MINI-NODE-POE-48V-3	PoE Gateway + 48V Driver + Daisy Chain
	MINI-NODE-POE-48V-2	PoE Gateway + 48V Driver + 4ch PWM
	MINI-NODE-POE-48V-1	PoE Gateway + 48V Driver
	MINI-NODE-DC-48V-4	48V Driver + 4ch PWM + Daisy Chain
	MINI-NODE-DC-48V-3	48V Driver + Daisy Chain
	MINI-NODE-DC-48V-2	48V Driver + 4ch PWM
	MINI-NODE-DC-48V-1	48V Driver

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