

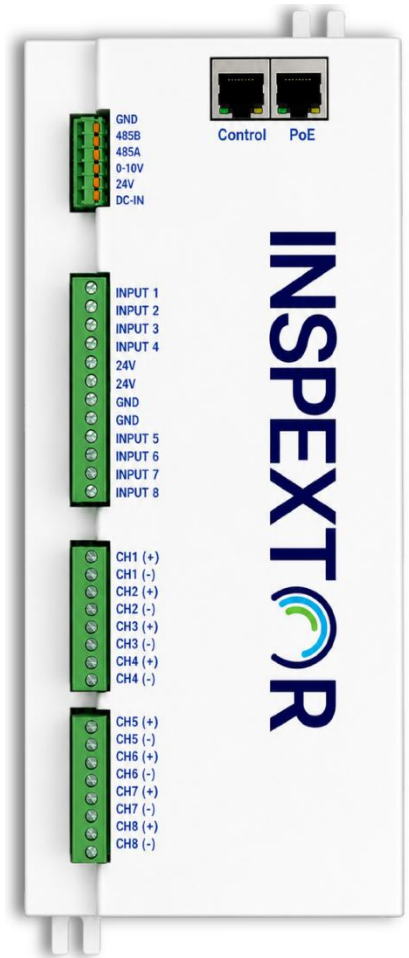
INSPEXTOR

PRODUCT SERIES SPEC SHEET

MHTi-SUPERNODE

The **Inspextor platform** is a **Power over Ethernet (PoE) Lighting Management System** designed to enable intelligent building automation and real-time data collection. The **MHTi-SUPERNODE**, a UL 2108 and UL924 -compliant PoE device built on the IEEE 802.3bt standard, capable of delivering up to 80W maximum for Constant Current (up to 2A) or Constant Voltage (12VDC - 48VDC) applications. Designed for seamless integration, the SUPERNODE powers and controls dimmable, tunable white and RGBW LED fixtures, and other low-voltage devices. It supports **dual input power—PoE and/or 24-60VDC**—with an **intelligent power sharing option** and interface effortlessly with sensors, PoE shades, and wall switches; all managed through the Inspextor system. Advanced features include short-circuit protection, overvoltage protection, thermal protection, fault detection, and automatically obtaining an IP address, ensuring robust performance, simplified infrastructure, and scalable deployment.

The SUPERNODE also incorporates **eight analog inputs** for flexible input to output mapping and can operate as an **emergency power node** during outages. Additional features include **0-10V dimming**, **24VDC auxiliary output**, and **MHTi peripheral network support** and **RS485 communication***.



ELECTRICAL SPECIFICATIONS

MHT PD Interface	IEEE 802.3bt Type 4, Class 8 compliant input with LLDP extensions for negotiating power above 30W using all four pairs
Input Voltage	PoE Input: 40-60VDC DC IN: 24VDC to 60VDC**
Peak Operating Power	80W max.
Nominal Standby Power	1.35W
PoE Input Connection	Shielded female RJ45 jack for CAT5e/6/6A cable to PoE PSE device
Device Type	Class 2 electrical device

MHT Technologies

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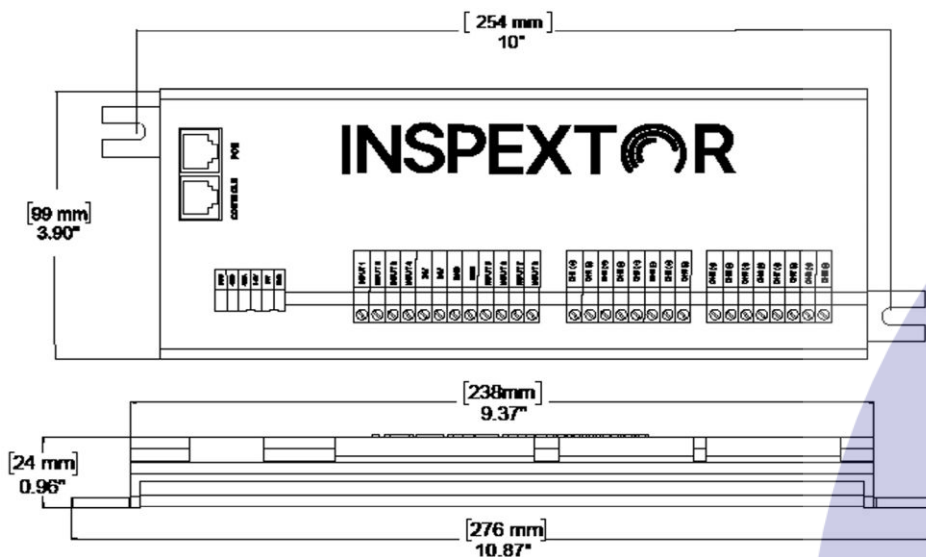
OUTPUT CHANNEL SPECIFICATIONS

Power	Flexible power and control options are available for either up to eight individual fixtures, four tunable-white fixtures or two RGBW fixtures.
Driver Design	The LED driver design varies depending on the node version. It can be common anode constant current (CC), or constant voltage (CV), or a combination of constant current and constant voltage (CCCV).
Output Voltage	12V or 24V or 36V or 48Vdc.
Rated Output Power	80W maximum with Multiple Channel loading and 60W Single Channel loading on the CC Variant. 80W maximum with Multiple Channel loading or Single Channel loading at 36V or 48V constant voltage driver configuration. 67W maximum with Multiple Channel loading or Single Channel loading at 24V constant voltage driver configuration. 60W maximum with Multiple Channel loading or Single Channel loading at 12V constant voltage driver configuration.
Protection	Each individual LED driver channel has current limit, short circuit, and thermal protection
Connection	2 TERM BLOCKS HDR 8POS VERT 5MM (4 channels each).

INPUTS SPECIFICATIONS

Power Supply	24VDC at 1A for powering devices. Supports analog sensors, dry contacts, and analog wall switches. Power drawn from 24VDC to GND counts toward the output channel power budget.
Termination Style	Screw Terminal/Plug to Board.
Termination Summary	<ul style="list-style-type: none"> • 8 Inputs • 2 GND • 2 24VDC
Input Programming	8 Individual programmable input allows for localized output controls, or cluster oriented scene controls utilizing the inspector software.

PRODUCT DIMENSION



Dimension Overall	10.87" (276mm) L x 3.90" (99mm) W x 0.96" (24mm) H
Mounting Dimensions	2x 10" offset mounting tabs
Origin	Made in USA

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MHT Technologies, reserves the right to make any Design changes for continues improvement which will not affect the overall appearance or performance.

MODEL SELECTION TABLE

Model Number	Variant/Mode	Output Voltage	Maximum Current	Maximum Power	Spring Cage Connector
MHTi-SUPERNODE-CCCV-DCin***	Constant Current/ Constant Voltage/ DC Input	12 - 48V	5A	80W	GND, 485A, 485B, 0-10V, 24V, DC-IN

Note: * For **RS485 communication** will require a dedicated firmware to enable full functionality.

** For **24-60VDC**—with an **intelligent power sharing option**, contact MHT Technologies regarding this special SUPERNODE model.

***The **CCCV** Supernode offers on-demand configuration between **Constant Current (CC)** and **Constant Voltage mode (CV)**, with a selectable output range from **12V/5A** or **24V/2.8A** or **36V/2.22A** or **48V/1.67A**. If any channel in CH1-4 or CH5-8 is set to CV or CC, the whole group follows that mode

CONTROL PORT CHARACTERISTICS

MHTi-Wall Switch	The <i>MHTi-WS-100 (4-button)</i> and <i>MHTi-WS-200 (7-button)</i> can be used as master switches when connected via an unshielded female RJ45 jack with CAT5e/6/6A cabling.
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SPRING CAGE CONNECTOR SPECIFICATIONS

DC-IN	24-60VDC input with optional intelligent power-sharing alongside PoE and support for use as an emergency DC input source.
24 VDC	24VDC/1 Amps for powering devices. The power consumed from a device connected from 24VDC to GND is part of the output channels power budget.
0-10V Dimming Control	Connecting 0-10V signal to GND, allowing integration with line voltage lighting fixtures that support 0-10V dimming. When paired with the MHTi-EM-EXT, it ensures the fixture remains powered via an emergency (EM) line voltage source in the event of PoE power loss.
485A and 485B	RS-485, half-duplex, 230.4k baud, 120 ohms impedance. Allows communication with compatible devices using this protocol, such as RS-485 sensors, controller, and automation modules.
GND	Circuit ground connection.

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NODE ENVIRONMENTAL REQUIREMENTS

Operating Ambient Temperature	-20°C to 50°C
Operating Environmental	For dry or damp locations
Operating Humidity	10% to 80% RH non-condensing
Storage Temperature	-20°C to 85°C
Storage Humidity	5% to 95% RH non-condensing

ORDERING INFO: Sample Code -MHTi-SUPERNODE-CCUV-DCin

Series	Type	Description
MHTi-SUPERNODE	CCCV-DCin	Constant Current and Constant Voltage
	CV-DCin	Constant Voltage

OUTPUT POWER CHANNEL TABLE 50°C AMBIENT

MODE	CH1-8 (W)	Single Channel (W)
CC	80	60
CV (48V)	80	80
CV (36V)	80	80
CV (24V)	67	67
CV (12V)	60	60

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