

# INSPEXTOR

## PRODUCT SERIES SPEC SHEET

### MHTi-NODE-90

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-90 product family supports a variety of applications, offering options for Constant Current (CC) or Constant Voltage (CV) 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 and tunable white 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 Voltage	40-60Vdc
Peak Operating Power	80W max
Nominal Standby Power	1.35W
PoE Input Connection	Unshielded female RJ45 jack for CAT5e/6/6A cable to PoE PSE device
Device Type	Class 2 electrical device



#### OUTPUT CHANNEL SPECIFICATIONS

Output Channels	Flexible power and control options are available for either up to eight individual fixtures using the <i>MHTi-SPLT-1x4</i> splitter or for two-channel fixtures.
Driver Design	The LED driver design varies depending on the node version. It can be common anode constant current ( <b>CC</b> ), or constant voltage ( <b>CV</b> ), or a combination of constant current and constant voltage ( <b>CCCV</b> ).
Output Voltage Range	<b>CC</b> : 34V-44VDC for constant current version
	<b>CV</b> : 12V-48VDC for constant voltage version
Rated Output Power	<b>CCCV</b> : 34V-44VDC and 12-48VDC for constant current/constant voltage version
	72W with Dual Channel loading and 60W Single Channel loading on the CC Variant.
	70W with Dual Channel loading or Single Channel loading @ 36V or 48V constant voltage driver configuration.
Protection	60W with Dual Channel loading or Single Channel loading 24 constant voltage driver configuration.
	40W with Dual Channel loading or Single Channel loading 12V constant voltage driver configuration.
Protection	Each individual LED driver channel has current limit and short circuit protection
Connections	Unshielded female RJ45 jack for CAT5e/6/6A cable to PoE PSE device.



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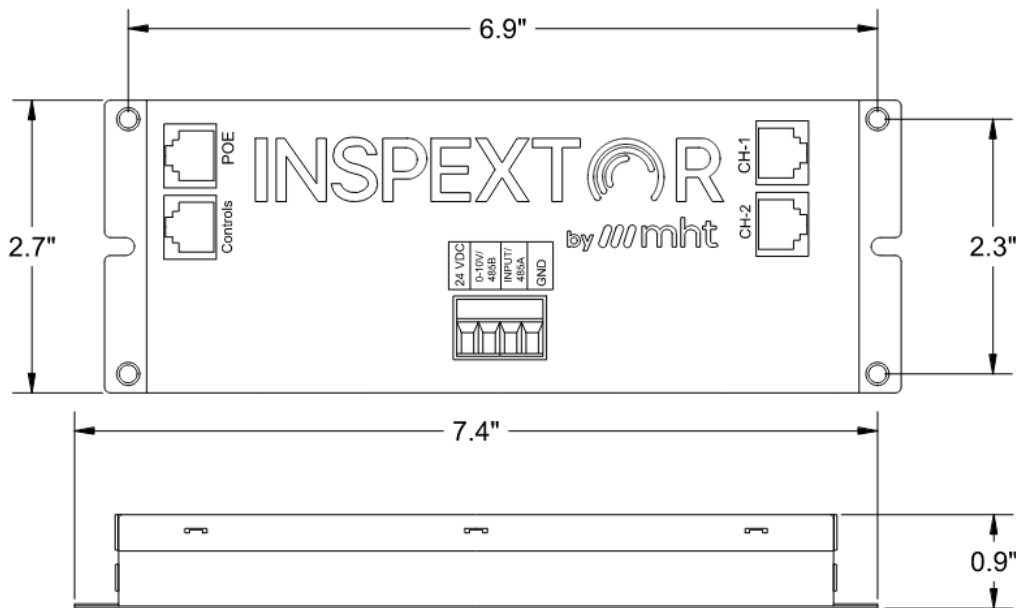
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## PRODUCT DIMENSION



## MODEL SELECTION TABLE

Model Number	Variant/Mode	Output Voltage	Maximum Current	Output Power	Spring Cage Connector
MHTi-NODE-90-CC	Constant Current	34V to 44V	2A	72W*	
MHTi-NODE-90-CC010	Constant Current	34V to 44V	2A	72W*	0-10V, INPUT**
MHTi-NODE-90-CCRS485	Constant Current	34V to 44V	2A	72W*	485B, 485A***
MHTi-NODE-90-CV	Constant Voltage	12V to 48V	3.3A to 1.5A	40W to 70W^*	
MHTi-NODE-90-CVRS485	Constant Voltage	12V to 48V	3.3A to 1.5A	40W to 70W^*	485B, 485A***
MHTi-NODE-90-CCCV^***	CC and CV Modes Programmable	<b>CV:</b> 12V to 48V <b>CC:</b> 34V to 44V	<b>CV:</b> 3.3A to 1.5A <b>CC:</b> 2A	<b>CV:</b> 40W to 70W^* <b>CC:</b> 72W*	
MHTi-NODE-90-CCCV010^***	CC and CV Modes Programmable	<b>CV:</b> 12V to 48V <b>CC:</b> 34V to 44V	<b>CV:</b> 3.3A to 1.5A <b>CC:</b> 2A	<b>CV:</b> 40W to 70W^* <b>CC:</b> 72W*	0-10V, INPUT**
MHTi-NODE-90-CCCVRS485^***	CC and CV Modes Programmable	<b>CV:</b> 12V to 48V <b>CC:</b> 34V to 44V	<b>CV:</b> 3.3A to 1.5A <b>CC:</b> 2A	<b>CV:</b> 40W to 70W^* <b>CC:</b> 72W*	485B, 485A***
MHTi-NODE-90-CV-USBC^****	Constant Voltage	12V to 41V	3.3A to 1.5A	40W to 60W^****	485B, 485A***

Note: \* 72W with Dual Channel Loading (CH1 or CH2) or 60W with Single Channel Loading (either CH1 or CH2)  
 \*\* 0-10V dimming control option, event monitoring analog input  
 \*\*\* 485B, 485A are the RS-485 A and B pins 120 ohm termination  
 ^\* The CV node version can be configured anytime to be 12V/3.3A or 24V/2.5A or 36V/1.9A or 48V/1.5A on any channel individually  
 ^\*\*\* The CCCV node version can be configured anytime to be Constant Current or Constant Voltage on any output channel individually  
 ^\*\*\*\* The CV-USBC node version can be configured anytime to be 12V/3.3A or 24V/2.5A or 29V/2.1A or 41V/1.5A on any channel individually

## OUTPUT CHANNEL POWER TABLE

VERSION	CH1 (W)	CH2 (W)
CC	60	12
	36	36
	12	60
CV (36V/48V)	70	0
	35	35
	0	70
CV (24V)	60	0
	30	30
	0	60
CV (12V)	40	0
	20	20
	0	40

## CONTROL PORT CHARACTERISTICS

Power Supply	24VDC/0.5Amps for powering external sensors
Sensor Inputs	<i>MHTi-RJM-3WIRE</i> and <i>MHTi-RJF-3WIRE</i> adapter enables universal connections (24VDC, Trigger, GND) to Control Devices
MHTi-Wall Switch	<i>MHTi-WS-100</i> (4-button) and <i>MHTi-WS-200</i> (7-button) can use an unshielded female RJ45 jack with CAT5e/6/6A cable.
Sensor/Wall Switch	MHTi-SPLT-1X4 splitter allow to connect sensor and MHTi-WS 100 (4-button) and/or MHTi-WS-200 (7-button)

## SPRING CAGE CONNECTOR SPECIFICATIONS

24VDC	24VDC @ 1 Amps to power external devices such as the MHTi-EM-EXT to keep 0-10V line voltage fixture ON connected to an EM line voltage when there a PoE power lost. The power consumed from a device connected from 24VDC to GND is part of the output channels power budget.
0-10V	0-10V dimming control for line voltage fixtures
Input	Analog Input reads analog events from sensors or trigger devices, enabling the Node to take specific actions based on the received information.
485A and B	RS-485, half-duplex, 230.4k baud, 120 ohms impedance. Allows communication with compatible devices using this protocol.
GND	Circuit ground connection

## NODE ENVIRONMENTAL REQUIREMENTS

Operating 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

## OTHER SPECIFICATIONS

Dimension Overall	7.303" (185.5mm) L x 2.755" (70mm) W x 0.846" (21.5mm) K
Mounting Dimensions	4 Mounting holes Ø: .164" 6.948" (176.5mm) L x 2.125" (54mm) W
Origin	Made in USA

## ORDERING INFO: Sample Code - MHTi-NODE-90-CC

Series	Type	Description
MHTi-NODE-90	CC	Constant Current
	CV	Constant Voltage
	CCCV	Programmable CC/CV
	CC010	Constant Current, 0 to 10 reference
	CCRS485	Constant Current, RS485
	CVRS485	Constant Voltage, RS485
	CCCVRS485	Programmable CC/CV, RS485
	CCCV010	Programmable CC/CV, 0 to 10 reference
	CV-USBC	Constant Voltage for USBC Module

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