

# OCTO MK2 – Datasheet

eDMX to SPI pixel controller with standalone mode and an added overdrive feature capable of transmitting up to 16 universes of SPI data in a compact 4-module DIN-rail form factor.



Take your projects to the next level with the ENTTEC OCTO MK2. This robust SPI LED controller efficiently converts up to 16 universes of DMX over Ethernet to pixel data (8U per output), with auto activation of Overdrive mode when configured to output more than 4U per port.

Make LED strip and pixel dot system deployment a breeze with the OCTO MK2. With network chaining and direct power from the LED pixel source, fast installation has never been easier.

The user-friendly OCTO MK2 comes equipped with convenient features such as an identity button for wiring checks and a wide input voltage range (4-60VDC) all packed into a slim 4 DIN form factor.

The OCTO MK2 supports over 20 pre-listed pixel output protocols and supports immediate custom pixel protocol creation (criteria apply, see user manual).

With the inbuilt Fx engine, the OCTO MK2 allows you to create and edit gradient effects with real-time preview effortlessly. The device's web interface offers a seamless editing experience and can be configured to run standalone upon power-up, eliminating the need for a DMX source.

**Note:** OCTO does not provide power to lighting fixtures.

## Features

- **Dual pixel outputs with Data and Clock support.**
- **Supports up to 16 universes of Art-Net, sACN, ESP and KiNet.**
- **Multiple pixel output protocols supported.**
- **Ability to create custom pixel output protocols (criteria apply, see user manual).**
- **Expandable network with daisy-chaining through Ethernet connections.**
- **DHCP or Static IP address support.**
- **Grouping functionality to reduce input channel count.**
- **Surface or TS35 DIN rail mounting options.**
- **Identify/Reset button for quick wiring verification without a network connection.**
- **Intuitive device configuration and updates through the built-in web interface.**
- **Inbuilt Fx engine allowing gradient effect in standalone operation without a DMX source.**

## Specification

<b>Connectors</b>	2* Network (RJ45)	
	2* SPI Output (4-Pin Phoenix)	
	1* Power (2-Pin Phoenix)	
<b>IP rating</b>	IP20	
<b>LED indicators</b>	Forward-facing LED indicator	
	Network link/activity (integrated into RJ45 ports)	
<b>eDMX input protocol</b>	Art-Net	sACN
	ESP	KiNet
<b>Data output type</b>	SPI (NZR)	
<b>Max. eDMX -&gt; pixel conversion per device</b>	16 Universes (8,192 channels)	
<b>Max. pixels controllable per device</b>	RGB	1360 (680 per port)
	RGBW	1024 (512 per port)
<b>Network speed</b>	10/100Base-T	
<b>Network discovery</b>	ENTTEC's EMU software	
<b>Network configuration</b>	Static (Default 192.168.0.10) / DHCP	
<b>Recommended network device quantity per chain</b>	Chains of up to 8 devices give optimum synchronization between outputs	
<b>Firmware updates</b>	V4.0 onwards <sup>1</sup>	
<b>Input voltage</b>	4-60V DC	
<b>Max. power draw</b>	5W	
<b>Max. heat dissipation</b>	4.5 W	
<b>Max. output voltage</b>	5V	
<b>Max. output current</b>	50mA	
<b>Cooling method</b>	Convection	
<b>Operating temperature</b>	-20°C to 50°C / -4°F to 122°F	
<b>Operating humidity</b>	5 to 95% (non-condensing)	
<b>Body material</b>	ABS plastic	
<b>Mounting options</b>	Surface & TS35 DIN Rail mount	
<b>Unit dimensions</b>	100.5*72.25*34 mm	
<b>Unit weight</b>	0.11kg / 0.24lbs	
<b>Shipping Dimensions</b>	160*140*40 mm	
<b>Shipping weight</b>	0.18kg / 0.39lbs	
<b>Warranty</b>	3-year return to the base manufacturer warranty	

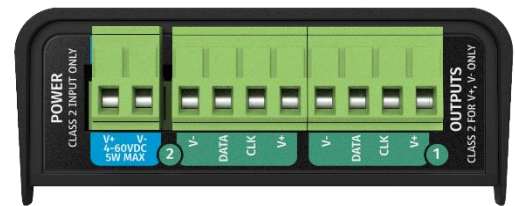
## Certification



## Box Content

- OCTO MK2
- 2 x WAGO connectors
- 1 x Din mounting clip & screws
- 1 x ELM Promo Code - 8 Universes (Promo Code sticker on the device)<sup>2</sup>

## Phoenix Connector



### Supported Pixel Protocols (Pre-listed):

APA 102, APA 104, GS8208B, SJ1221 (16bit & 8bit), SPXL (16bit & 8bit), SK6812, TLC5973 (16bit & 8bit), TM1804, TM1812, TM1814, UCS1903\*, UCS2903\*, UCS2904\*, UCS8903\* (16bit & 8bit), UCS8904\* (16bit & 8bit), WS2811, WS2812, WS2812B, WS2813, WS2815, WS2818\*, 9PDOT\* (16bit & 8bit).

\* IMPORTANT: If you wish to control a protocol marked with a \* and the option to do so is missing in the current firmware interface for your product, please select WS2811 or WS2812b instead for your LEDs to work properly.

## Safety

- Please refer to the OCTO MK2 User Guide for wiring diagrams & Installation guidance.
- Always refer to this product's safety notes before handling or specifying it on your project.

## Ordering information

For further support and to browse ENTTEC's range of products visit the [ENTTEC website](https://www.enttec.com).

Item	SKU
OCTO MK2 <sup>2</sup>	71521

<sup>1</sup> This datasheet is for OCTO MK2 (SKU: 71521) units released after SN: 2374307 that only compatible with firmware V4.0 onwards.

<sup>2</sup> Use the Serial Number to claim a free license for ELM software unless there is a Promo Code sticker on the device.

See the latest User Manual from the website for revision history regarding the ELM Promo Code and the appropriate firmware version of your device.