Mica

User Guide

Please read these instructions before using the product.

This product has been designed & manufactured for professional use only.
It should only be installed by a suitably qualified technician and in accordance with electrical regulations in the country of use.

Unless directed in the instructions there are no user serviceable parts inside the outer case of this product.

Always disconnect from the power supply when not in use.

Any specific IP rating, where appropriate, is given in the instructions. Unless otherwise stated this product is designed for indoor use only. If used outdoors it MUST be installed in an appropriate IP rated cabinet. Do not allow this product to be exposed to rain or moisture. Do not allow liquid to penetrate the product.

Please recycle all packaging.

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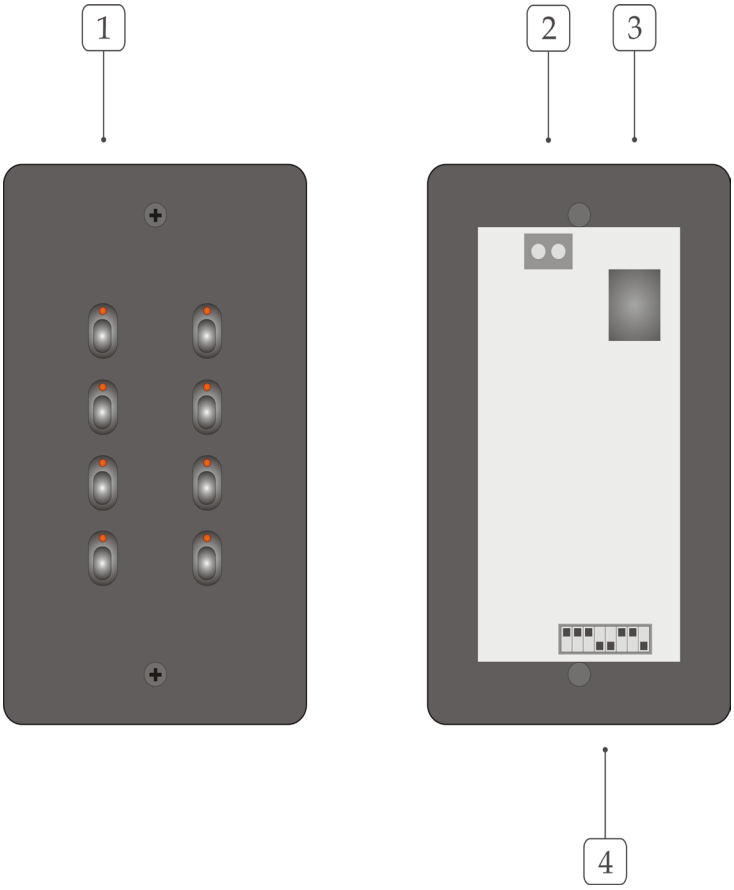
Download the user guide by scanning the following QR code:

Connections

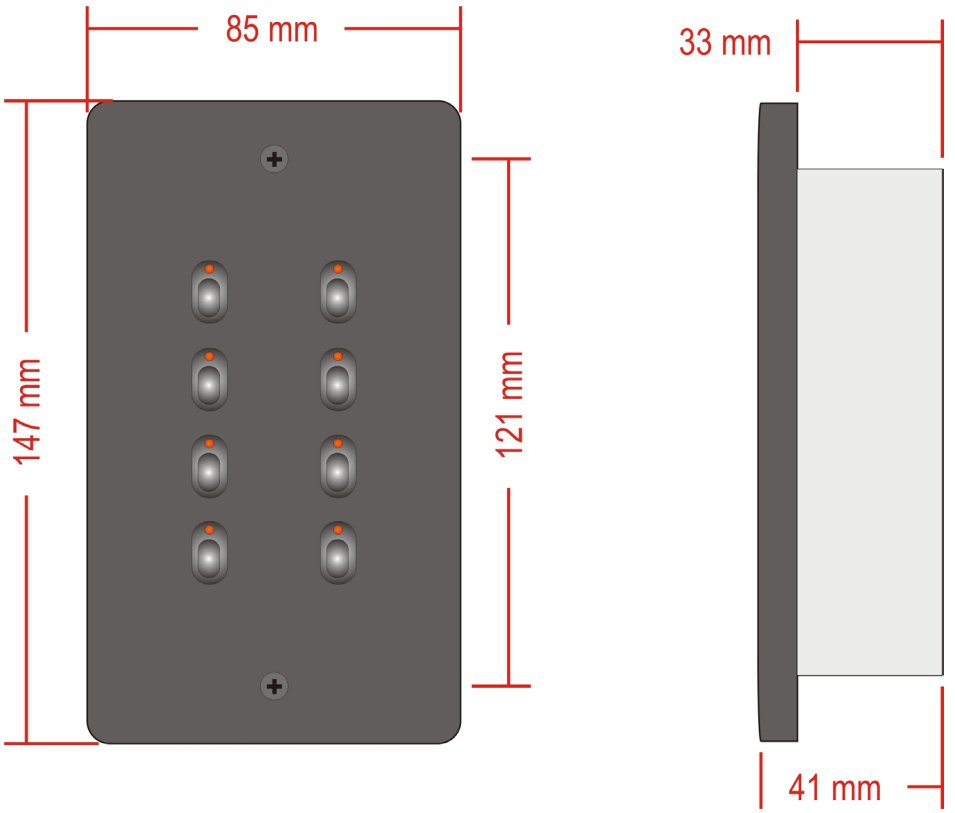


Label	Type	Description
1	Switch	User Interface
2	Connection	DC Power In
3	Connection	Art-Net & PoE
4	Configuration Switch	See below

Table: Configuration Settings

Ref.	On	Off
1	Tx: Art-Net Macros	Tx: ArtDMX Channels
2	Macros Sub-Key 1 - 8 DMX Channels 1 - 8	Macros Sub-Key 101 - 108 DMX Channels 101 - 108
3	IP Address: DHCP	IP Address: Static
4	Not Used	Not Used
5	Not Used	Not Used
6	Not Used	Not Used
7	Not Used	Not Used
8	Not Used	Not Used

Mounting Diagram



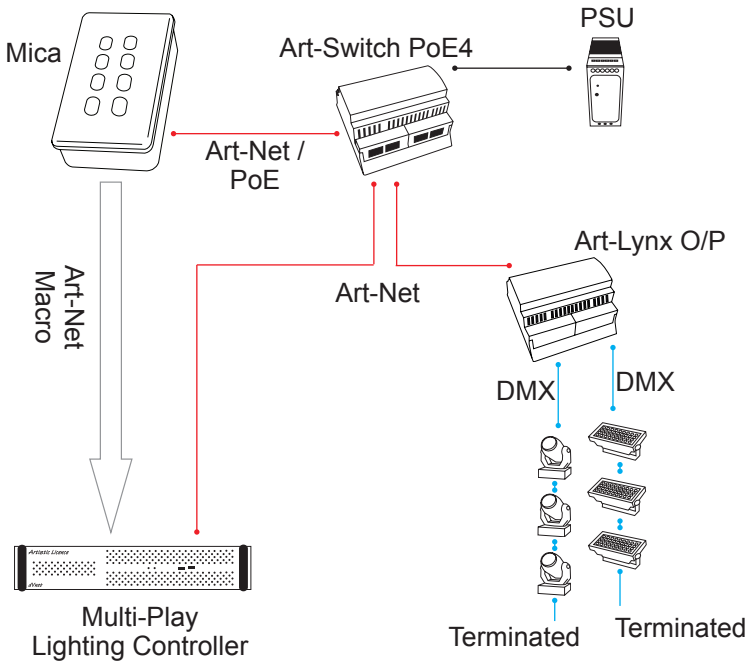
Overview

Mica is a wall mounted trigger panel designed to provide a user interface for larger systems.

It is capable of transmitting either ArtDMX (DMX over Ethernet) or Art-Net Macro trigger packets to controllers such as dVnet, Colour-Tramp, or Multi-Play.

Configuration is achieved using the internal DIP switch with options for Packet Type, Channels/Keys used and IP address assignment.

Application Diagram



Electrical Connection

Mica can be powered either by a 9V DC connection or using PoE on the Ethernet connection. This unit has been designed to be permanently powered due to its low power consumption.

DC Power In

This option allows the use of a good 9V DC PSU. The connection must be made with the correct polarity. This is indicated on the PCB.

PoE

Power-over-Ethernet is a method of powering devices on an Ethernet line . The power is supplied usually within the switch. The PoE Switch will check to see if there is a compatible node on the output and if there is it will apply 48V.

An example of a PoE Switch is Art-Switch PoE4.

Ethernet Connection

Mica is a fully compliant Ethernet based product and the protocol it uses is Art-Net V1.4. It can be used with all standard Ethernet devices, for example a standard Ethernet Switch.

The Ethernet connection is made using a standard RJ45 connector. As with all Ethernet based products there are two cable choices:

- Connecting Mica to an Ethernet Switch - A 'Patch' cable must be used.
- Connecting Mica to an Art-Net Node - A 'Cross-Over' cable must be used.

Configuration

For the Art-Net and Art-DMX configuration settings, please refer to page 3.

IP Address

Mica can be configured to have either a static IP address or one assigned by a DHCP server.

Static IP Address

If this option is selected Mica will use its default IP address which is in the 2.x.x.x range. The actual address is calculated based on its MAC address value to ensure there are no two devices using the same IP address.

The static IP address can be changed by using DMX-Workshop. This will allow the use of any legal IP address and Sub-Net value.

DHCP Assigned IP Address

If Mica is being used on a dynamically addressed system that uses a DHCP server, it can be configured to have its IP address assigned by the server.

Output

Mica has the option of sending out two different packets.

ArtDMX Packets

An ArtDMX packet contains a full universe of DMX data that can be used to trigger a controller. Please see the table below regarding channel use.

Dip Switch 1: OFF

Button	DIP Switch 2 OFF	DIP Switch 2 ON
1	DMX Ch 1 @ 255	DMX Ch 101 @ 255
2	DMX Ch 2 @ 255	DMX Ch 102 @ 255
3	DMX Ch 3 @ 255	DMX Ch 103 @ 255
4	DMX Ch 4 @ 255	DMX Ch 104 @ 255
5	DMX Ch 5 @ 255	DMX Ch 105 @ 255
6	DMX Ch 6 @ 255	DMX Ch 106 @ 255
7	DMX Ch 7 @ 255	DMX Ch 107 @ 255
8	DMX Ch 8 @ 255	DMX Ch 108 @ 255

Art-Net Macros

Art-Net Macros are used specifically for triggering within an Art-Net Network. Each packet is made up of a Key and a Sub-Key to allow for unique triggering messages. Mica uses a Key value of 1. The Sub-Key value can change. Please see the table below for more details.

The specification of an Art-Net Macro packet can be found in the Art-Net spec.

Dip Switch 1: ON

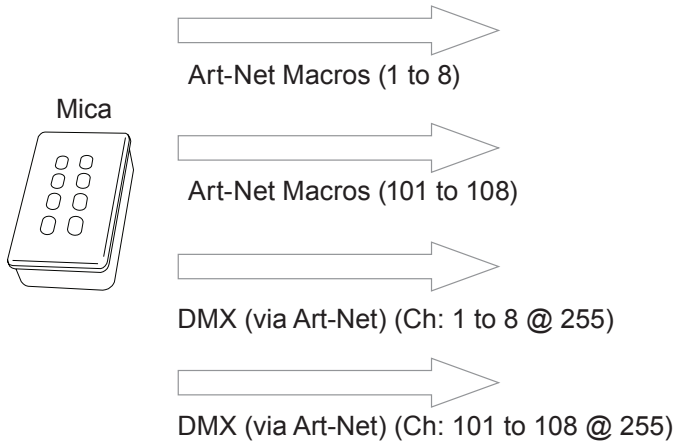
Button	DIP Switch 2 OFF	DIP Switch 2 ON
1	Key 1 Sub-Key 1	Key 1 Sub-Key 101
2	Key 1 Sub-Key 2	Key 1 Sub-Key 102
3	Key 1 Sub-Key 3	Key 1 Sub-Key 103
4	Key 1 Sub-Key 4	Key 1 Sub-Key 104
5	Key 1 Sub-Key 5	Key 1 Sub-Key 105
6	Key 1 Sub-Key 6	Key 1 Sub-Key 106
7	Key 1 Sub-Key 7	Key 1 Sub-Key 107
8	Key 1 Sub-Key 8	Key 1 Sub-Key 108

Operation

When a Front Panel button on Mica is pressed it performs two functions:

1. The LED on the button pressed illuminates
2. The selected packet is sent

When this packet is received by a controller it can be used to trigger a response, such as starting a show.



Mica Specification

Mechanical

- Housing: 2-gang style panel (portrait or landscape)
- Material: metal
- Overall dimensions: 85mm (H) x 147mm (W) x 41 mm (D)
- Weight: 0.25 kg
- Mounting: -gang back box (47mm deep)
- Country of manufacture: UK

Environmental

- Operating temperature: 0°C to 40°C
- Storage temperature: -10°C to +50°C
- Operating relative humidity (max): 80% non-condensing
- IP rating: IP20 indoor use only
- Certification: CE, FCC, WEEE, RoHS
- Warranty: 2-year (return to base)

Power & Electrical

- Input voltage: 9 VDC
- Input connector: 2-pin pluggable screw terminal (1 no.)
- Input power (max): 2 W
- Duty cycle: 80% @ 25°C
- DC input: reverse voltage protection

Ethernet

- Isolation: 1 kV
- PoE: supported

Control

- Output Protocols: Art-Net macros, ArtDMX triggers

Data Connections

- RJ45 ethernet (1 no.)

User interface

- 8 push-buttons with LED indication

Configuration

- DIP switch (8-way)
- Configurable settings include:
  - Art-Net macro or ArtDMX packet
  - Sub-Key or DMX channel (1-8 or 101-108)
  - Static/Dynamic IP addressing

Package Contents

- Mica
- Back box (screws included)
- User guide

Ordering Info

- Product code: Mica

Accessories (not included)

- PSU-9-1.5-DCJ
- Art-Switch PoE4 & PSU-48-1-DR (powers up to 4 units)

CE Compliance CE

Mica is CE compliant when installed in a shielded and earthed metal back box

Warranty

All products are covered from date of purchase by a two-year return to base warranty.

By return to base, we mean that the customer is responsible for all costs of transport to and from Artistic Licence.

Returns will not be accepted without prior authorisation. In order to discuss a request to return goods, please email:

Sales@ArtisticLicence.com

Compliance

All Products manufactured or sold by Artistic Licence Engineering Ltd are fully compliant with the appropriate CE, FCC, and RoHS regulations. Product specific information is available on request.

Waste Electrical & Electronic Equipment (WEEE)

Artistic Licence is a member of a WEEE compliance scheme and will happily recycle any of our products that you, at your expense, return to us.

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specifications are subject to change without notice