SOLARIS™

Mozart LR
User Manual

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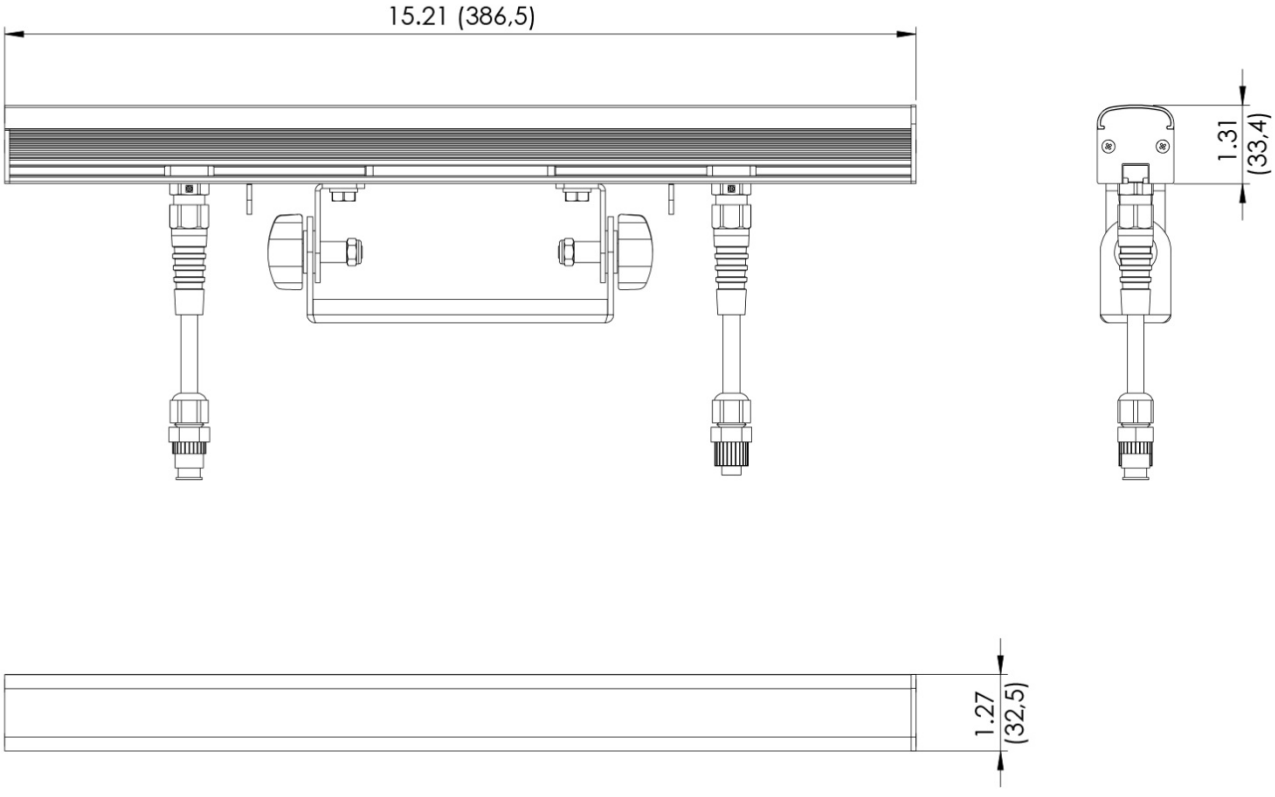
Rev. 1.0 080919

Fixture Specifications	
LED Light sources	64 CREE®
Pixels per fixture	1, 4, or 16
DMX Channels per fixture	3, 12, or 48
Beam Spread	120°
Color LEDs	RGB
Average color wavelength (manufacturer rated)	red: 625 nm
	green: 530 nm
	blue: 460 nm
Refresh rate	38400 Hz
Intensity Control	8bit
Control	DMX-512A, RDM
DC Power	48V
Power Consumption	20W
Cooling	Convection
IP Rating	IP40
Operating Temperature	-20°C - +40°C
Control/Power Connectors	In/Thru - Amphenol Sensor M12
Unit Dimensions (HxWxD)	1.27 x 15.21 x 1.31 in [32.5 x 386.5 x 33.4 mm]



Introduction

PRODUCT OVERVIEW

The Solaris Mozart LR is an extremely versatile, creative pixel-mapping and decorative lighting tool that can be placed almost anywhere. Blazing fast (38,400Hz), with Cree™ LEDs, Mozarts are ideal for high-speed photography and video. Modes include 1, 4, or 16 pixels (3 to 48 DMX channels) per fixture.

The ProPlex Mozart Drive PortableMount in a rugged ProPlex enclosure is designed for portable use or truss-mounting with yoke included.

- Great for low weight load-bearing structures and surfaces.
- Approx. 11,000 NITS! Brighter than nearly all outdoor LED walls!
- Ultra-high refresh rate – 38,400Hz! Great for high-speed photography and videography.
- Single cable, simple power-data connections, daisy-chain or split – easily place a Mozart almost anywhere
- Easy remote addressing and mode switching via RDM

UNPACKING INSTRUCTIONS

Upon receipt of the fixture, carefully unpack the carton and check the contents to ensure that all parts are present and in good condition. Notify the shipper immediately and retain packing material for inspection if any parts appear to be damaged from shipping or if the carton itself shows signs of mishandling. Save the carton and all packing materials. If a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

POWER REQUIREMENTS

Before powering the unit, make sure the line voltage is within the range of accepted voltages. This fixture accommodates 100-240VAC, 50/60Hz. All fixtures must be powered directly from a switched circuit and cannot be operated with a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel is used solely for a 0-100% switch.

When powered up, Solaris performs a preprogrammed internal test. On initial power-up the factory default DMX address appears on the display screen and Solaris is ready for operation. After initial power-up, the last-saved DMX address will appear.

SAFETY INSTRUCTIONS

Please read these instructions carefully. This user guide contains important information about the installation, usage and maintenance of this product.

- Please keep this User Guide for future reference. If unit is sold to another user, make sure they also receive this instruction booklet.

- Ensure fixture is connected to proper voltage, and that line voltage is not higher than that stated on the fixture.
- Make sure there are no flammable materials close to the unit while operating.
- Always disconnect from the power source before servicing or fuse replacement. Always use the fuse specified in this manual.
- Always use a safety cable when hanging fixture overhead.
- Maximum ambient temperature (Ta) is 40°C (104°F). Do not operate fixture at temperatures above this rating.
- In the event of a serious operating problem, stop using the unit immediately. Repairs must be carried out by trained, authorized personnel. Contact the nearest authorized technical assistance center. Only OEM spare parts should be used.
- Do not connect the device to a dimmer pack.
- Make sure power cord is never crimped or damaged.
- Never disconnect power cord by pulling or tugging on the cord.
- Avoid direct eye exposure to the light source during operation.

Caution! There are no user serviceable parts inside the unit. Do not open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please contact your distributor.

Disconnect the power cord before replacing a fuse and always replace with the same type fuse.

FUSE REPLACEMENT

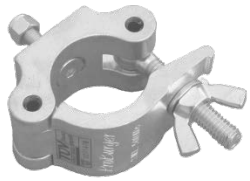
The ProPlex Mozart Drive PortableMount uses a 4A, 250V, slow-blo, 5x20mm (0.2x0.8 in.) fuse. Mozart fixtures have no fuse. To replace fuse:

1. With a screwdriver turn the fuse cap counter-clockwise to remove fuse cap with fuse.
2. Replace fuse attached to fuse cap.
3. Reinsert fuse cap with new fuse and tighten clockwise.

MOUNTING/RIGGING – Mozart Drive PortableMount

Orientation

The Mozart Drive PortableMount may be mounted on truss or pipe, in any position, using the yoke supplied with the unit. Always make sure there is adequate room for ventilation.



Rigging – *Always consult a certified rigging engineer before suspending any fixture overhead!*

Use ProBurger® couplers or equivalent C- or O-type clamps for attaching to truss. After establishing the desired position, retighten both knobs.

- *Always use safety cables!*
- When selecting installation location, consider routine maintenance.
- Never mount Mini enclosure where it will be exposed to moisture, high humidity, extreme temperatures, or restricted ventilation.

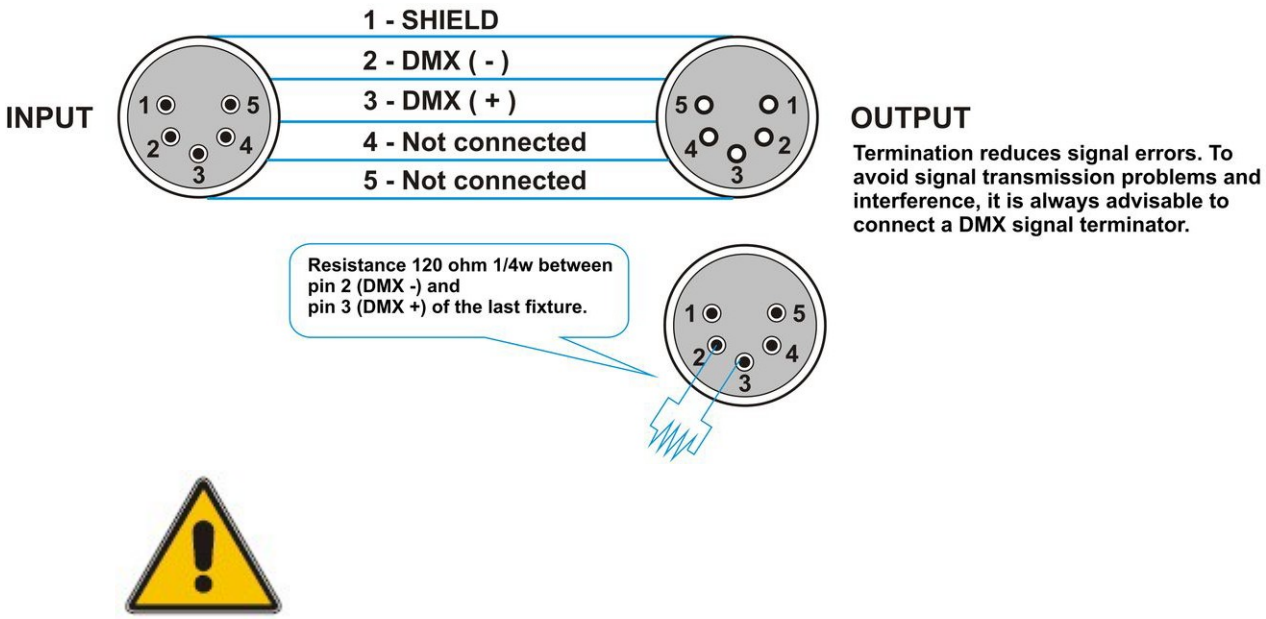
Setup

A DMX data link is needed to run light shows of one or more fixtures using a DMX-512 lighting console. The combined number of channels required by all of the fixtures on the DMX data link will determine the number of fixtures the DMX data link can support.

Important: Fixtures on a DMX data link must be daisy-chained in one single line. To comply with the EIA-485 standard, no more than 32 devices should be connected on one data link. Connecting more than 32 fixtures on one serial data link without the use of a DMX optically isolated splitter may result in deterioration of the digital DMX signal.

Maximum recommended DMX data link distance between fixtures: 300 meters (984 ft.)

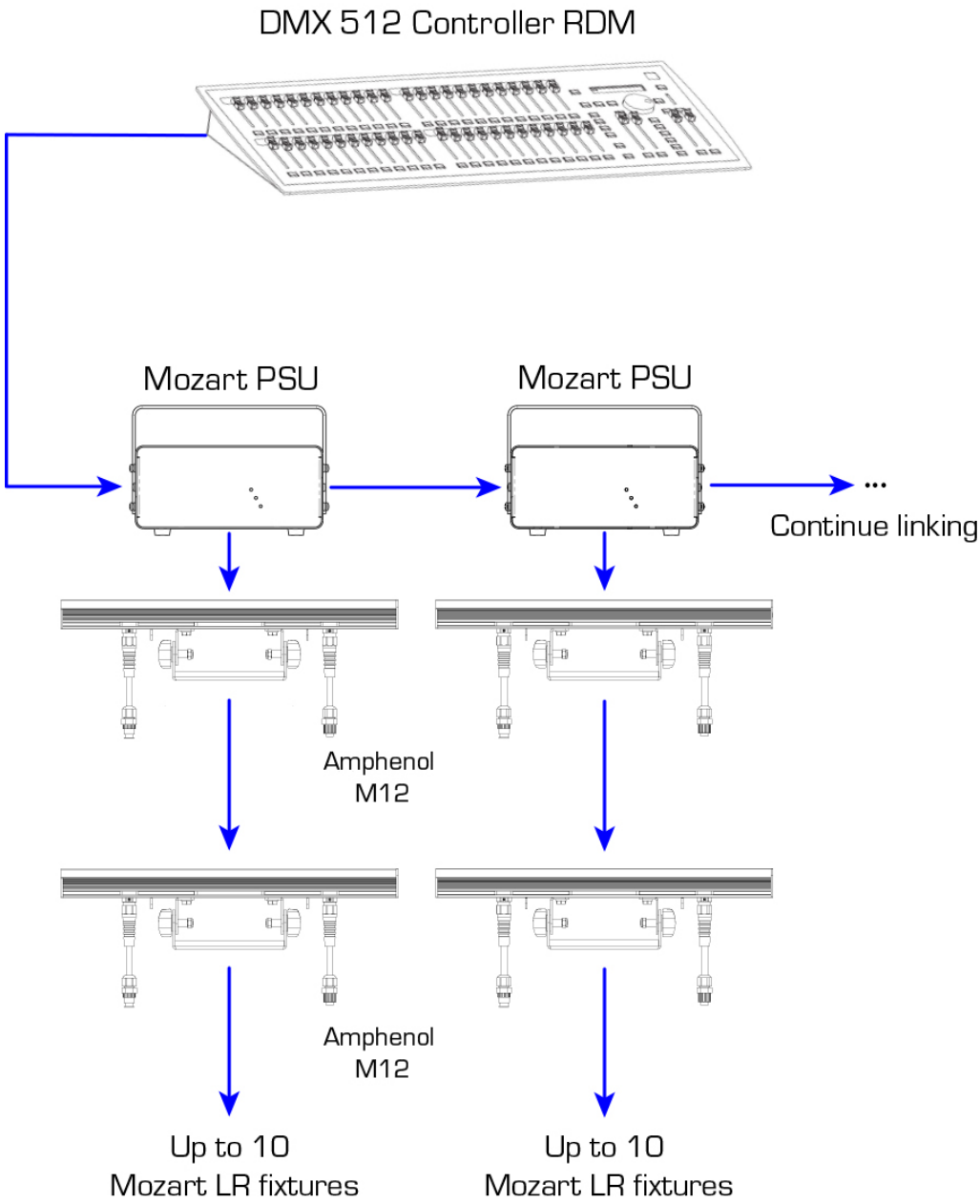
DMX Connector Configuration for Mozart Drive



SETTING UP A DMX SERIAL LINK

1. Connect the (male) 5-pin connector side of the DMX cable to the output (female) 5-pin connector of the DMX console.
2. Connect the opposite end of the cable (female) to the input connector of the Mozart Drive consisting of a (male) 5-pin connector.
3. Proceed to connect from the Mozart Drive output as stated above to the input of the following Drive, etc.
4. Continue linking until the last fixture is connected in your DMX chain.

FIXTURE LINKING



Operating instructions

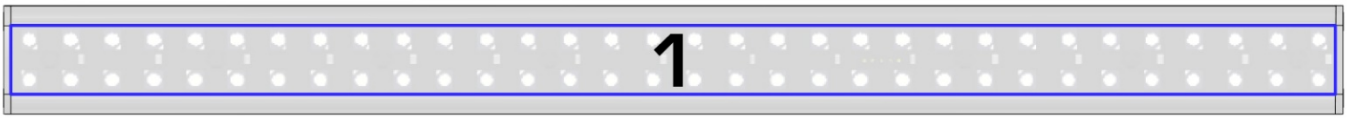
PIXEL MAP

Mozart consists out of **64 RGB 1 chip engines** which are located in **2 rows** and **32 columns**. There are 3

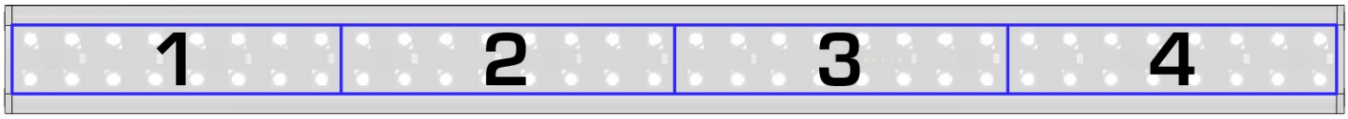
control modes for Solaris Mozart fixtures:
1) As **1-pixel** unit (**3** channel mode)
2) As **4-pixel** unit (**12** channel mode)
3) As **16-pixel** unit (**48** channel mode)

These modes can only be changed using the RDM protocol and an RDM-enabled controller.

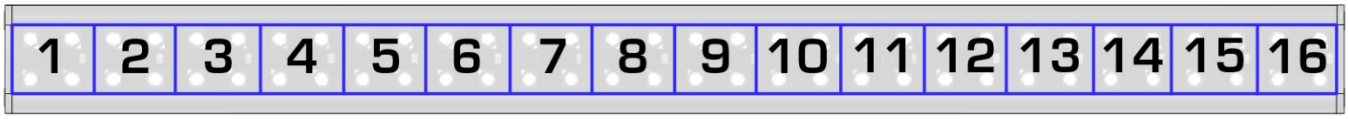
1 pixel (3 ch)



4 pixels (12 ch)



16 pixels (48 ch)



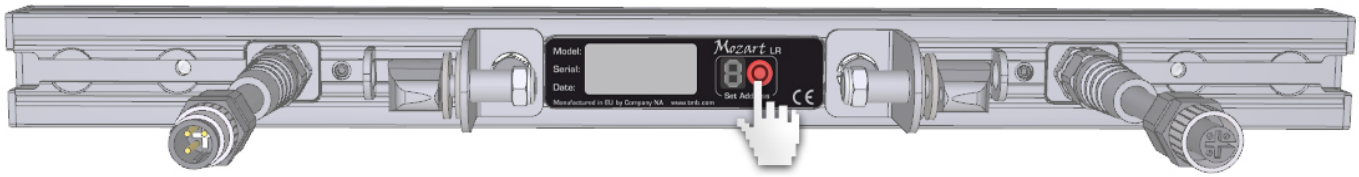
Internal address set

To keep the Mozart LR as small as possible, external ProPlex Mozart Drives are used and RDM settings are set accordingly.

To set fixture ID Nr. for Mozart LR, first set the DMX address for the Mozart Drive. For instance: DMX address for the Mozart Drive is set to the DMX channel 1.

Now the user has to set fixture ID for Mozart LR sequence.
To set internal Fixture ID of Mozart fixtures, follow these steps:

Press and hold **<Set Address>** button located at the back of the Mozart.



The current internal fixture ID will appear (1-10).
To **change** this number, press **<Set Address>** button. The next ID number will appear. Repeat until the wanted ID number is shown on the 7-segment display.

Using a starting address of DMX 1 on the Mozart Drive, this chart is an example of the Mozart fixture addresses.

DMX CH		FIXTURE ID		
		1 PIX	4 PIX	16 PIX
1 2 3	R G B	1	1	1
4 5 6	R G B	2		
7 8 9	R G B	3		
10 11 12	R G B	4		
13 14 15	R G B	5	2	
16 17 18	R G B	6		
19 20 21	R G B	7		
22 23 24	R G B	8		
25 26 27	R G B	9	3	
28 29 30	R G B	10		
31 32 33	R G B	1		
34 35 36	R G B	2		
37 38 39	R G B	3	4	
40 41 42	R G B	4		
43 44 45	R G B	5		
46 47 48	R G B	6		

…continue as necessary

Temperature

To check the temperature of the Mozart LR, tap the address set button and the 7-segment display will show the temperature. (For example: 28 °C)

Note! Characters indicating temperature on the 7-segment display is shown one at a time.

Appendix

RDM Functionality

Mozart Drives have RDM Functionality. Below are the RDM functions available in these devices. TMB has many options for RDM control of your devices: ProPlex RDMigo and IQ RDM Manager Software; ProPlex Striker; and ProPlex MasterFade. Additionally, ProPlex RDM Opto-Splitters and the ProPlex IQ product range offer many means of RDM over DMX data distribution.

Main	Display	Voltage (V)	Current (A)
Mode	Display invert	Present value	Present value
DMX address	Display level	Highest value	Highest value
RDM version		Lowest value	Lowest value
Software version			

General Maintenance

To maintain optimum performance and minimize wear fixtures should be cleaned frequently. Usage and environment are contributing factors in determining frequency. As a general rule, fixtures should be cleaned at least twice a month. Dust build up reduces light output performance and can cause overheating. This can lead to reduced lamp life and increased mechanical wear. Be sure to disconnect power to the fixture before conducting maintenance.

Unplug fixture from power. Use a vacuum or air compressor and a soft brush to remove dust collected on external vents and internal components. Clean all glass when the fixture is cold with a mild solution of glass cleaner or Isopropyl Alcohol and a soft lint free cotton cloth or lens tissue. Apply solution to the cloth or tissue and drag dirt and grime to the outside of the lens. Gently polish optical surfaces until they are free of haze and lint.

The cleaning of internal and external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or

particularly dirty surroundings can cause greater accumulation of dirt on the unit's optics. Clean with soft cloth using normal glass cleaning fluid. Always dry the parts carefully. Clean the external optics at least every 20 days. Clean the internal optics at least every 30 to 60 days.

LIMITED WARRANTY

Solaris LED fixtures (the Product) are warranted by TMB against defective materials or workmanship for a period of two (2) years from the date of original sale by TMB.

TMB's warranty shall be restricted to the repair or replacement of any part that proves to be defective and for which a claim is submitted to TMB before the expiration of the applicable warranty periods.

This Limited Warranty is void if the defects of the Product are the result of:

- Opening the casing, repair, or adjustment by anyone other than TMB or persons specifically authorized by TMB
- Accident, physical abuse, mishandling, or misapplication of the product.
- Damage due to lightning, earthquake, flood, terrorism, war, or act of God.

TMB will not assume responsibility for any labor expended, or materials used, to replace and/or repair the Product without TMB's prior written authorization. Any repair of the Product in the field, and any associated labor charges, must be authorized in advance by TMB. Freight costs on warranty repairs are split 50/50: Customer pays to ship defective product to TMB; TMB pays to ship repaired product, ground freight, back to Customer.

This warranty DOES NOT cover consequential damages or costs of any kind.

A Return Merchandise Authorization (RMA) Number must be obtained from TMB prior to return of any defective merchandise for warranty or non-warranty repair. For all repairs please contact TMB Tech Support Repair using the contact information below or email TechSupportRepairNA@tmb.com.

527 Park Ave., San Fernando, CA 91340
Tel: +1 818.899.8818
Fax: +1 818.899.8813
tmb-info@tmb.com
www.tmb.com

RETURN PROCEDURE

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Merchandise Authorization Number (RMA #). Products returned without an RMA # will be refused. Please contact TMB and request RMA # prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. TMB reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

Note: If you are given an RMA #, please include the following information on a piece of paper inside the box:

1) Your name
2) Your address
3) Your phone number
4) The RMA #
5) A brief description of the symptoms

PROPLEX MOZART PORTABLEMOUNT – TECHNICAL SPECIFICATION

DIMENSIONS / WEIGHT

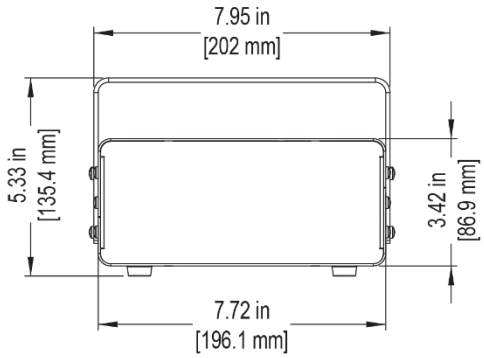
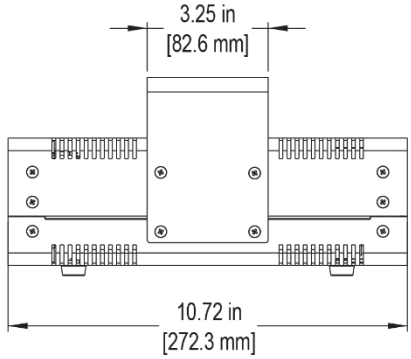
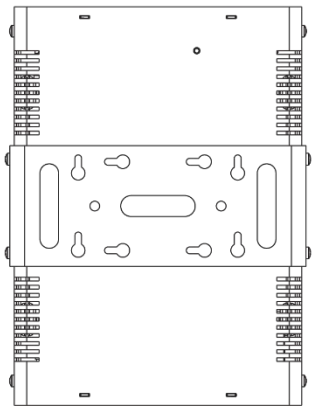
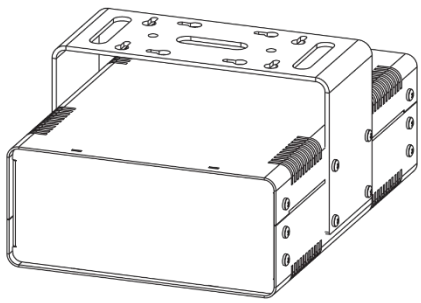
Depth ..... 10.72 in / 272.3 mm
Width (with yoke) ..... 7.95 in / 202 mm
Height (with yoke) ..... 5.33 in / 135.4 mm
Weight .....9.85 lb / 4.46 kg

POWER

AC power IN.....100-240V
AC power IN connector.....user specified
Power consumption ..... 200W max. (with 10 Mozarts)
DMX/ power OUT connector..... Amphenol Sensor M12
DC power OUT 24V

THERMAL

Operating temperature.....-4° to +104°F / -20° to +40°C
Cooling ..... Convection
IP rating …… IP20

CONTROL & PROGRAMMING

Control ..... DMX-512 with RDM
DMX Channels 3, 12, 48
DMX input ..... locking 5-pin XLR male socket
DMX output for further linking .....locking 5-pin XLR female socket
DMX output for Mozart..... 10 max.