

DMX Splitter IP65



USER MANUAL



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1. BEFORE YOU BEGIN

What is included

- ▶ 1 x DMX Splitter IP65 unit
- ▶ 1 x Warranty Card
- ▶ 1 x Users Manual

Unpacking Instructions

Immediately upon receiving a unit, carefully unpack the carton, check the contents to ensure that all parts are present, and have been received in good condition. Notify the shipper immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton it self shows signs of mishandling. Save the carton and all packing materials. In the event that a unit must be returned to the factory, it is important that the unit be returned in the original factory box and packing.

AC Power

The only thing necessary to do before powering on the unit is to make sure the line voltage you are applying is within the range of accepted voltages. This unit will accommodate 85-265V AC, 47 / 63 Hz. All units must be powered directly off a switched circuit and cannot be run off a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel is used solely for a 0% to 100% switch.

Contact Us

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Safety Instructions



Please read these instructions carefully, which includes important information about the installation, usage and maintenance of this product.

- Please keep this User manual for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.
- Always make sure that you are connecting to the proper voltage, and that the line voltage you are connecting to is not higher than that stated on the decal or rear panel of the unit.
- Make sure there are no flammable materials close to the unit while operating.
- Always disconnect from power source before servicing or replacing fuse and be sure to replace with same fuse source.
- Secure unit to fastening device using a safety chain.
- Maximum ambient temperature (Ta) is (40°C). Do not operate unit at temperatures higher than this.
- In the event of a serious operating problem, stop using the unit immediately. Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type spare parts.
- Don't connect the device to a dimmer pack.
- Make sure the power cord is never crimped or damaged.
- Never disconnect the power cord by pulling or tugging on the cord.
- Avoid direct eye exposure to the light source while it is on.

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 „Company NA” at: +371 6780 1111.*

2. INTRODUCTION

Features

- DMX-512 IP65 signal splitter
- DMX inputs: 1
- DMX outputs: 1+4
- IP65 protected housing
- There are 2 LED status indicators

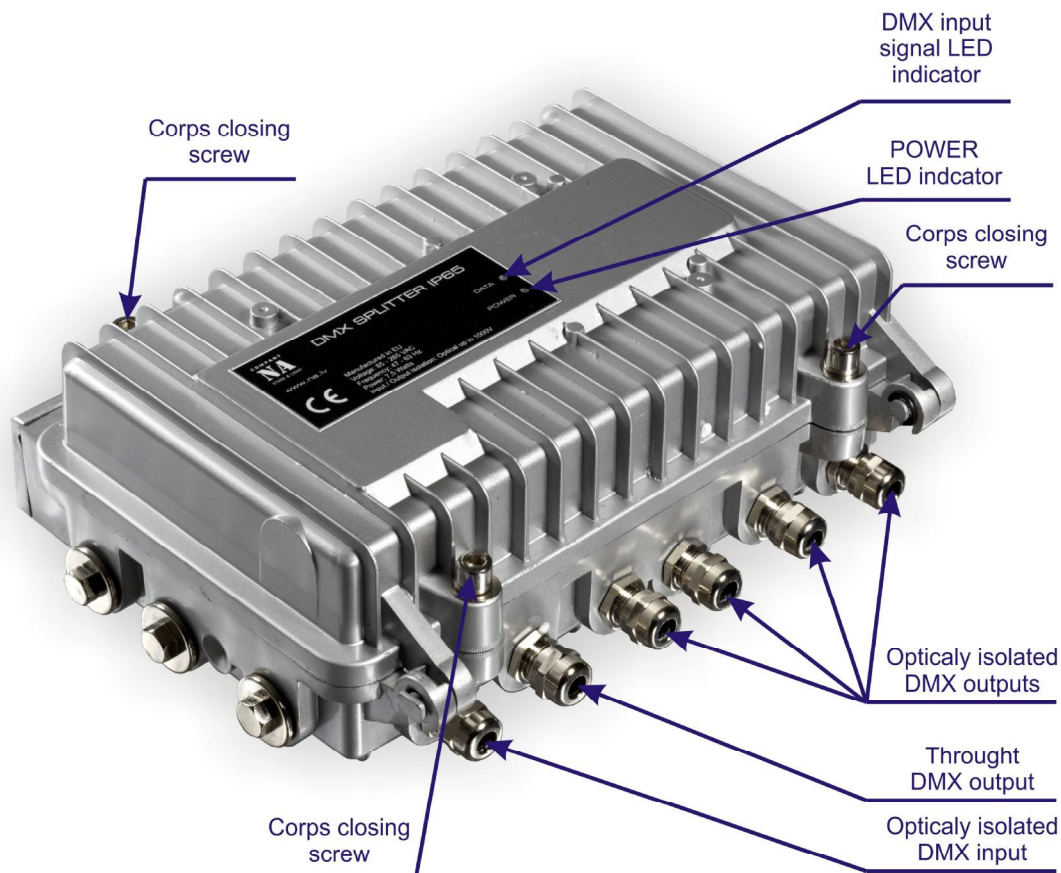
Additional Features

- Available in silver
- Optional IP65 protected DMX connectors: Neutrik NC5 F/M-HD

Description

The Company NA manufactured DMX IP65 signal splitter is designed for outdoor use from very cold to very hot conditions and it is IP65 rated. DMX signal splitter is used for standard DMX-512A signal amplification and splitting to multiple outputs. The splitter has 1 optically isolated DMX input, 1 through output and 4 optically isolated outputs. Available with hard wired data connectors.

Product Overview



3. SETUP



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



Fixture Linking

You will need a DMX data link to run light shows of one or more fixtures using a DMX-512 lighting console. The combined number of channels required by all the fixtures on a DMX data link determines 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 DATA CABLE

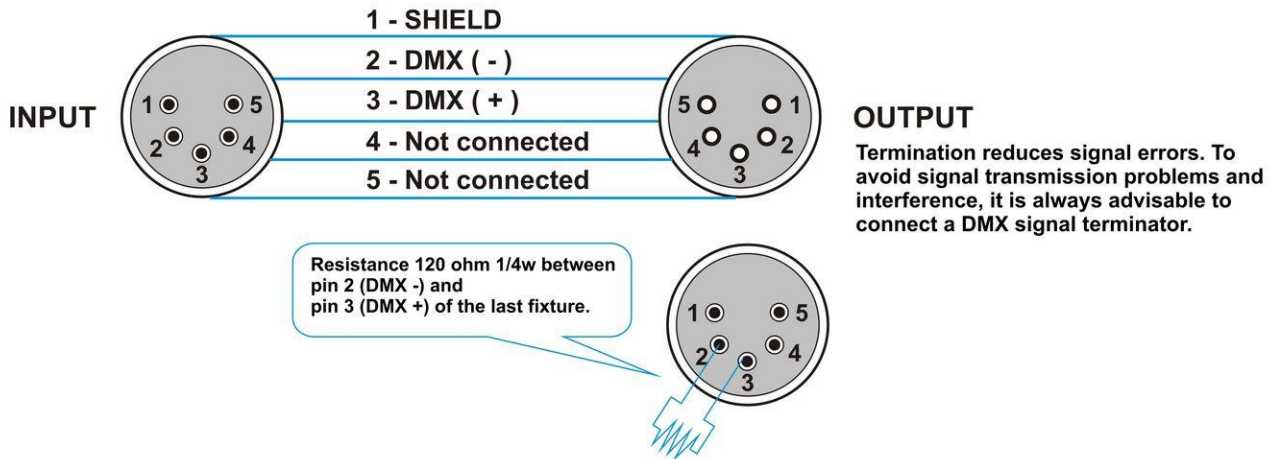
Use a Belden© 9841 or equivalent cable which meets the specifications for EIA RS-485 applications. Standard microphone cables cannot transmit DMX data reliably over long distances. The cable will have the following characteristics:

2-conductor twisted pair plus a shield
Maximum capacitance between conductors – 30 pF/ft.
Maximum capacitance between conductor and shield – 55 pF/ft.
Maximum resistance of 20 ohms / 1000 ft.
Nominal impedance 100 – 140 ohms

CABLE CONNECTORS

Cabling must have a male XLR connector on one end and a female XLR connector on the other end.

DMX connector configuration



CAUTION Do not allow contact between the common and the fixture's chassis ground. Grounding the common can cause a ground loop, and your fixture may perform erratically. Test cables with an ohm meter to verify correct polarity and to make sure the pins are not grounded or shorted to the shield or each other.

3-PIN TO 5-PIN CONVERSION CHART

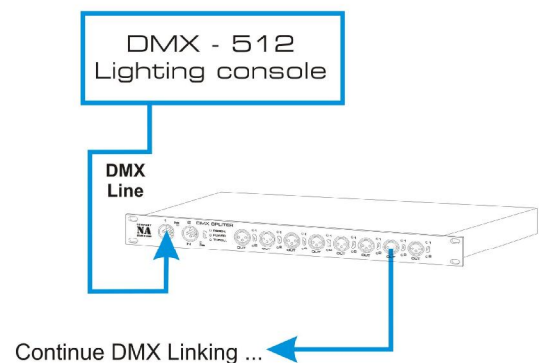
NOTE ! If you use a console with a 5 pin DMX output connector, you will need to use a 5 pin to 3 pin adapter. The chart below details a proper cable conversion:

3-PIN TO 5-PIN CONVERSION CHART

Conductor	3 Pin Female (output)	5 Pin Male (Input)
Ground / Shield	Pin 1	Pin 1
Data (-) signal	Pin 2	Pin 2
Data (+) signal	Pin 3	Pin 3
Do not use		Do not use
Do not use		Do not use

Setting up a DMX Serial Data Link

1. Connect the (male) connector side of the DMX cable to the output (female) connector of the lighting console.
2. Connect the end of the cable coming from the lighting console which will have a (female) connector to the input connector of the DMX Splitter consisting of a (male) connector.
3. Then, proceed to connect from the output as stated above to the input of the following fixture and so on.



Mounting

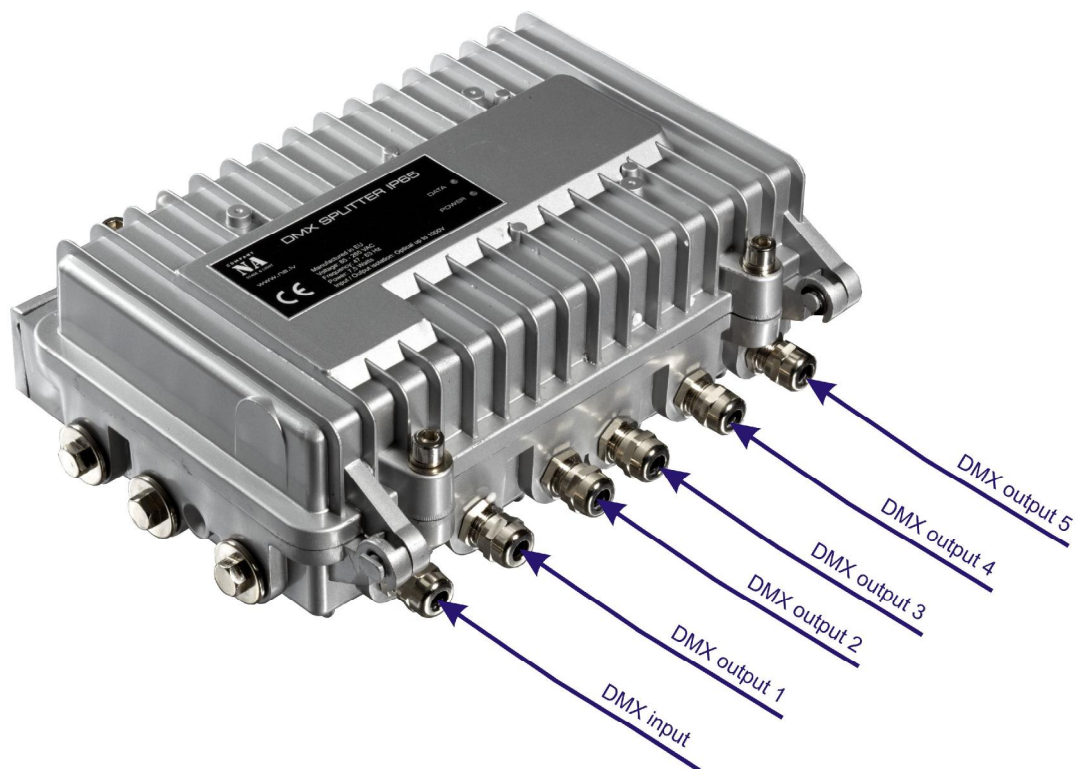
ORIENTATION

This unit may be mounted in any position.

4. OPERATING INSTRUCTIONS

Operating

DMX Splitter IP65 has two types of DMX outputs: one output without optical isolation; four outputs with optical isolation up to 1000V.



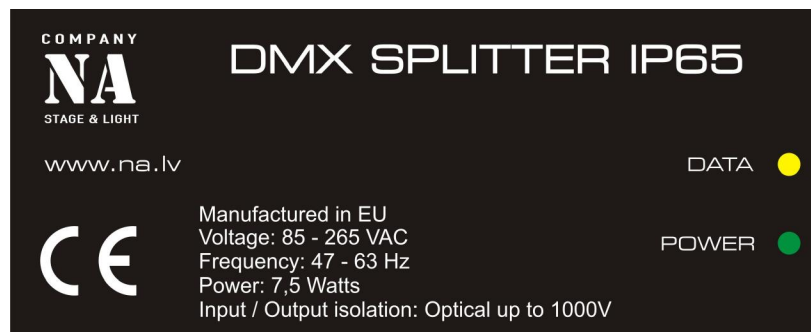
Signal processing:

DMX signal splitter is used for standard DMX-512A signal amplification and splitting to multiple outputs. The splitter has 1 optically isolated DMX input, 1 through output and 4 optically isolated outputs. Available with hard wired data connectors or tail Neutrik NC5 M/F X-HD series data connectors.

This unit provide the DMX signal reinforcement at the outputs 2-5. Upon receipt of DMX signal, it is recorded in device memory, and then straightened the signal distortion components. Then at the DMX Splitter IP65 output is fed DMX signal with the proper DMX curve. At this outputs signal processing signal delay is 0.1 μ sek.

At the first DMX output signal processing is not performed.

LED indicator positions



„**POWER**” - Power LED indicator (green) has two positions:

- Off - Power is not connected;
- On - Power is connected.

„**DATA**” - DMX input signal LED indicator is located at the top of the unit and indicate whether the DMX signal receive at the input. DMX input signal LED indicator (yellow) has two positions:

- Off - DMX signal is not received;
- Blink - DMX signal is recieved.

5. APPENDIX

DMX Primer

There are 512 channels in a DMX-512 connection. Channels may be assigned in any manner. A fixture capable of receiving DMX 512 will require one or a number of sequential channels. The user must assign a starting address on the fixture that indicates the first channel reserved in the lighting console. There are many different types of DMX controllable fixtures and they all may vary in the total number of channels required. Choosing a start address should be planned in advance. Channels should never overlap. If they do, this will result in erratic operation of the fixtures whose starting address is set incorrectly. You can however, control multiple fixtures of the same type using the same starting address as long as the intended result is that of unison movement or operation. In other words, the fixtures will be slaved together and all respond exactly the same.

DMX fixtures are designed to receive data through a DMX Chain. A DMX Chain connection is where the DMX OUT of one fixture connects to the DMX IN of the next fixture. The order in which the fixtures are connected is not important and has no effect on how a lighting console communicates to each fixture. Use an order that provides for the easiest and most direct cabling. Connect fixtures using shielded two conductor twisted pair cable with three pin XLR male to female connectors. The shield connection is pin 1, while pin 2 is Data Negative (S-) and pin 3 is Data positive (S+). Company NA carries 3-pin and 5-pin XLR DMX compliant cables.

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 power off 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 surrounding 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 / 60 days.

Returns 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. Call Company NA 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. Company NA 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

Claims

Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise. It is the customer's responsibility to notify and submit claims with the shipper in the event that a fixture is damaged due to shipping. Any other claim for items such as missing component/part, damage not related to shipping, and concealed damage, must be made within seven (7) days of receiving merchandise.

DMX Splitter IP65 Technical Specifications

WEIGHT & DIMENSIONS

Length295,0 mm
Width215.0 mm
Height95,0 mm
Weight 2,3 kg

POWER

Operating Voltage85-265V AC, 47/63 Hz
Power Consumption7.5W max.
Input / Output isolation..... Optical up to 1000 V

THERMAL

Maximum ambient temperature.....+50°C
Minimum ambient temperature.....-40°C
Cooling convectional
IP protection 65

CONTROL & PROGRAMMING

DMX input 1 unit , tail Neutrik NC5 MX-HD male socket
DMX output1+4 units , Neutrik NC5 FX-HD female socket
DMX pin config.pin 1 shield, pin 2 (-), pin 3 (+), pin 4 don't use, pin 5 don't use
Control DMX-512
Signal delay in processing mode0,1 µsec.

WARRANTY INFORMATION

Warranty..... 2-year limited warranty