

NLED Single DMX Relay

Controls a single onboard mechanical relay with DMX-512. With R.D.M.(Remote Device Management) for configuring device settings through the DMX network.

Features:

- Full DMX-512 compatibility.
- R.D.M.(Remote Device Management) compatibility.
- Manual and R.D.M addressing and profile selection.
- Two DMX profiles. Standard and Protected.
- 32 volt, 2 amp relay.
- Normally Open and Normally Closed relay connections.
- Power LED indicator.
- Relay status LED indicator.
- Wide input voltage range.
- Common/Standardized power input connector.
- Protected DMX Interface
 - $\pm 15\text{kV}$ ESD protection for DMX input
 - Short protection for DMX input and output.
 - Transient voltage protection for power input.
 - Fail safe internal fuse
- Small Size.

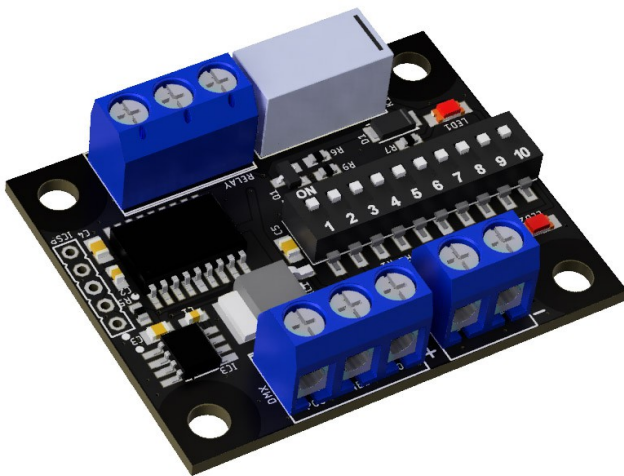


Illustration 1: Fig. 1A



Illustration 2: Fig. 1B - Enclosure with tabs

Specifications

Input Voltage, Recommended	9 – 24 volts
Input Voltage, Maximum Range	7 – 32 volts
Current Draw	< 50mA
Quiescent Current Draw	< 5mA(relay off)
Connector, Power	2 position 5.08mm spaced screw terminals
Connectors, DMX IN & OUT	3 position 5.08mm spaced screw terminals
Protocol Support*	DMX-512, R.D.M.(Remove Device Management)
ESD Protection, DMX Input	±15kV HMB
Total Dimensions, Enclosure	45mm x 55mm, with tabs 63mm x 55mm
Board Dimensions	40mm x 50mm x 12mm
Maximum Temperature	70C

DMX & RDM

DMX Profiles

Relay ON: COM connected to NO(normally open)

Relay OFF: COM connected to NC(normally closed)

Standard:

Channel 1	Value of 0-254 relay is off. 255 relay is on.
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Protected:

Channel 1	Value must be 170 to enable relay.
Channel 2	Value must be 85 to enable relay.

Both channels require those exact values to turn the relay on.
Any other combination of values will turn the relay off

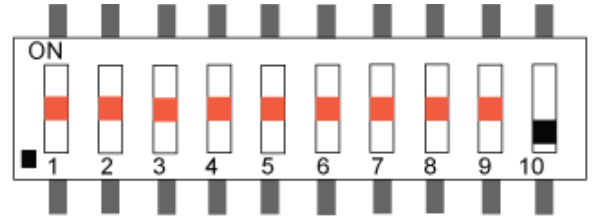
Supported RDM Command Classes

Device Info	Provides information such as version
Device Label	Customizable defined name, saved to persistent memory
Identify Device	Not implemented
Manufacturer Label	“NLED”
Product Details	“Mechanical Relay”

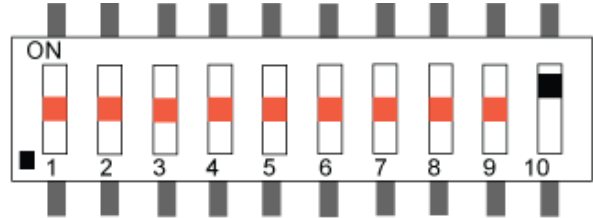
This device is fully compliant with the R.D.M. Specification.

User Inputs & Device Modes

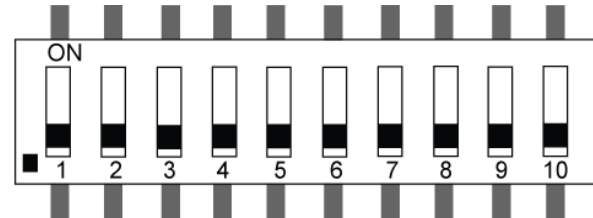
Standard Mode: DIP switches 1-9 sets the DMX starting address. DIP10 low sets DMX Profile to *Standard*.



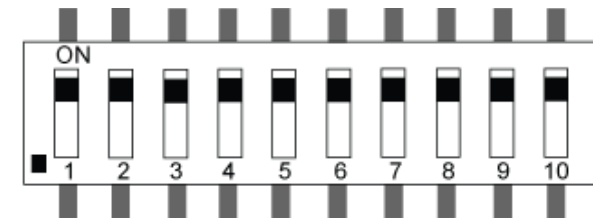
Protected Mode: DIP switches 1-9 sets the DMX starting address. DIP10 high sets DMX Profile to *Protected*.



RDM Override: All DIP switches low. DMX address and DMX Profile are set by R.D.M. Settings are stored internally and loaded at device power up. Default is address 1 and *Standard* profile.



Bootloader Mode: All DIP switches high. When the device powers with all DIP switches high it will enter bootloader mode.



Pinout

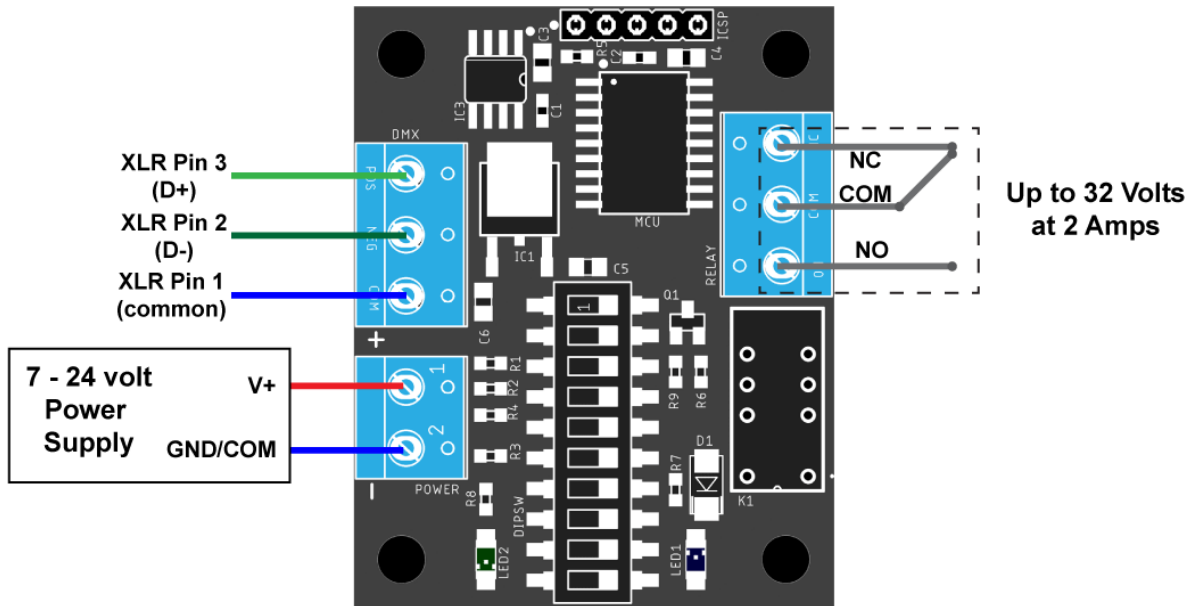


Fig. 4A

*Power GND/COM is not connected or related to Relay COM

Dimensions and Mounting

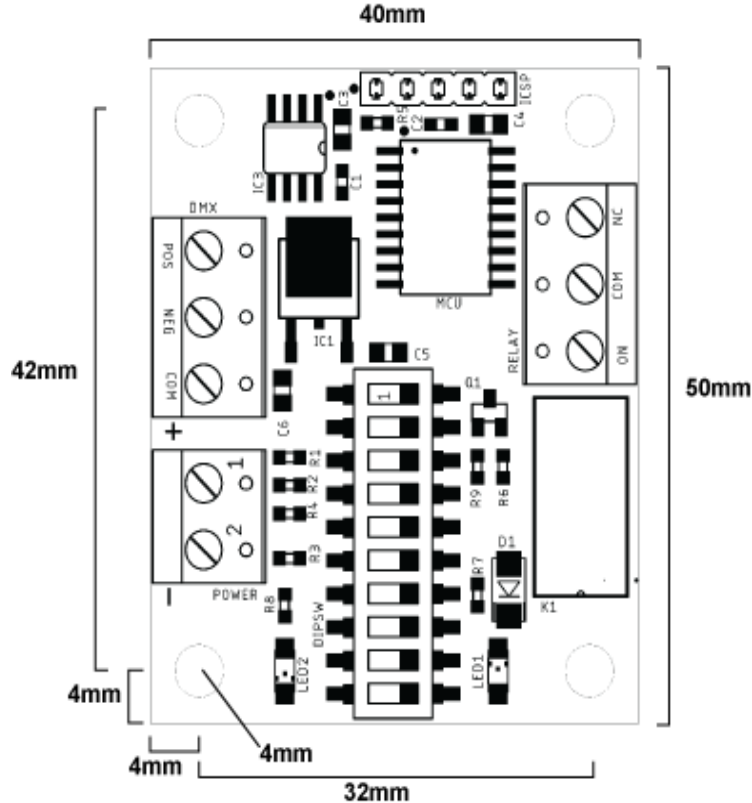


Fig. 4b

Mounting Notes:

Device is for indoor use only.

NORTHERN LIGHTS ELECTRONIC DESIGN

www.NLEDshop.com/dmxrelay

www.NorthernLightsElectronicDesign.com

NLED is available to create new designs and derivatives of current designs customized to the clients requirements, please Contact Us with your specifications.