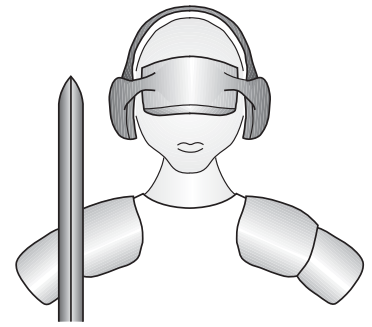


LED-Warrior16-DR



Code Mercenaries

DMX/RDM to DALI Bridge

1. Features

- DALI type II master
- DMX/RDM to DALI bridge
- Can address broadcast, groups or devices
- Converts 1 to 64 DMX slots to DALI DAPC
- Configuration via RDM-Personalities
- DC supply 7 V to 26 V, max. 30 mA
- Galvanically isolated DALI bus
- Termination resistor for DMX via jumper
- Two unit DIN rail mountable device

1.1 Variants

LED-Warrior16-DR is available as a DIN rail mountable device.

1.2 Custom variants

Custom variants are possible, please contact sales.

2. Functional overview

LED-Warrior16-DR is a type II DALI master. It can coexist with other masters on the same bus but is not addressable.

LED-Warrior16-DR uses 1 to 64 DMX slots and converts them into arc power commands for the DALI bus. The addressing mode is configurable.

In factory mode a single DMX slot with start address 1 is used to send broadcast DALI commands. So all connected DALI lamps will be set to the same brightness level.

Configuration is done via RDM. The start slot and the mode are selectable via standard RMD functions. No specialized software is required, the setup can be done with any RDM tool that allows setting the start slot and personality of a RDM device.

In Group mode 1 to 16 DMX slots are translated into arc power commands addressed to the DALI groups 0 to 15. The number of groups/slots is selectable. Likewise in the individual address mode 1 to 64 DMX slots are used to address the devices 0 to 63 on the DALI bus. The number of devices/slots is selectable.

For simple setup LED-Warrior16-DR advertises 81 different personalities on RDM, each with a plain text label. This allows a RDM tool to show the settings as a pop-up menu with 81 entries like "3 Groups", "16 Devices", "Broadcast".

2.1 DALI function

LED-Warrior16-DR does not supply bus power to the DALI. An external bus power supply like LED-Warrior11-DR is required to do this.

When using a LED-Warrior11-DR to supply power to the bus keep in mind that if both units are fed from a single 24 V DC power supply the DMX will not be galvanically isolated from the DALI bus.

2.2 DMX/RDM function

LED-Warrior16-DR implements the standard RDM functions for device discovery and setting of start slot and personality. Any standard RDM configuration software should be able to configure LED-Warrior16-DR.

Depending on the configuration selected via RDM LED-Warrior16-DR uses 1 to 64 slots of the DMX data and converts these into DALI commands. The brightness value is cut off at 254 since DALI uses 255 for a different purpose. So brightness values 254 and 255 on DMX will both be mapped to 254 which is maximum brightness on DALI.

2.3 Data rates

DALI is significantly slower than DMX/RDM. If a fast sequence of changing brightness values is transmitted via DMX/RDM only some of these values will actually be transmitted on the DALI bus. The last new value received will be translated to the DALI bus.

3. Connections

All external connections are done via screw terminal blocks.

Two positions are for feeding the DC supply power. The connection is protected against reversal of the lines.

Four positions are used for DMX/RDM: GND, Sig-, Sig+, and Term. If the LED-Warrior16-DR is the last device in a DMX device chain, the termination resistor may be activated by putting a jumper between Sig+ and the Term position.

There are four positions for DALI to allow easy feed through for the two lines (the two positions in either terminal block are the same).

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V+ / GND

Power supply for the LED-Warrior16-DR. Accepts up to 26 V DC. Minimum required voltage is 7 V.

DMX Gnd, DMX Sig-, DMX Sig+

Connection for the DMX/RDM signals. Connect direct to the bus.

Term

Optional termination resistor if the LED-Warrior16-DR is the last device on the bus. Insert a jumper between "Term" and "Sig+" to activate the termination resistor.

DALI

Connection for the DALI bus. Connect one wire to the left and the other to the right terminal block. An external DALI bus power supply is required for the operation of the DALI.

3.1 Mechanical dimensions

Dimensions in mm
36 x 90 x 58 mm (69 max.)

Conforms to standard size for a 2 unit DIN rail mount.

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4. Absolute maximum ratings

Supply voltage (Vcc relative to GND):	-0.5 V to +30 V
DMX pin input voltage (relative to GND):	-10 V to 15 V
DALI input voltage (differential):	max. 50 V
DALI current draw:	max. 5 mA
Storage temperature:	-55°C to +100°C
ESD:	2000 V human body model

Absolute maximum ratings must not be exceeded or permanent damage to the LED-Warrior16-DR may result.

4.1 Operating specifications

Supply voltage (V+ relative to GND):	7 V to 26 V
Operating temperature:	0°C to +70°C
Supply current:	30 mA max.
DMX input voltage:	-7 V to 12 V
DMX termination resistor:	typ. 120 Ω
DALI input voltage (differential):	max. 24 V
DALI input current:	max. 2 mA

LED-Warrior16-DR

5. Ordering information

Partname	Order Code	Package	MOQ	Description
LED-Warrior16-DR	LW16-DR	DIN rail	1	DMX/RMD to DALI bridge

The chips and modules listed here are standard products. Customized chips and modules are available on request.

5.1 Packaging info

The modules are packaged as single units in cardboard boxes.

5.2 Shipping version

LED-Warrior16-DR is currently shipping in version V1.0.0.0

5.2.1 Revision History

V1.0.0.0 - Initial shipping version.

5.3 FCC / CE

LED-Warrior16-DR does conform to CE.

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