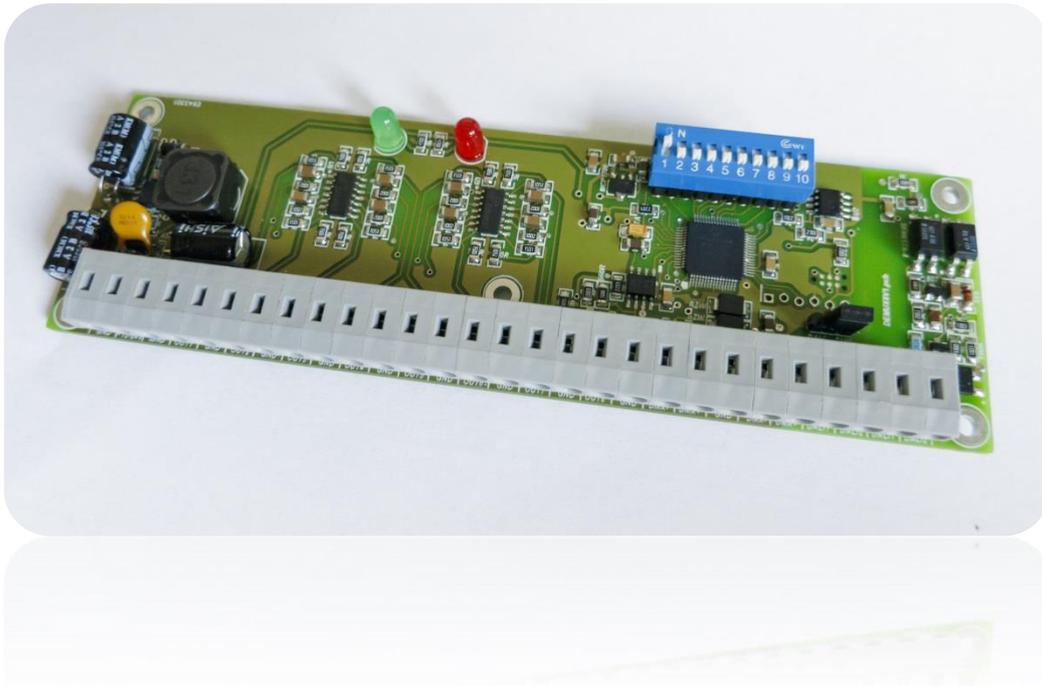# DEMUX 8

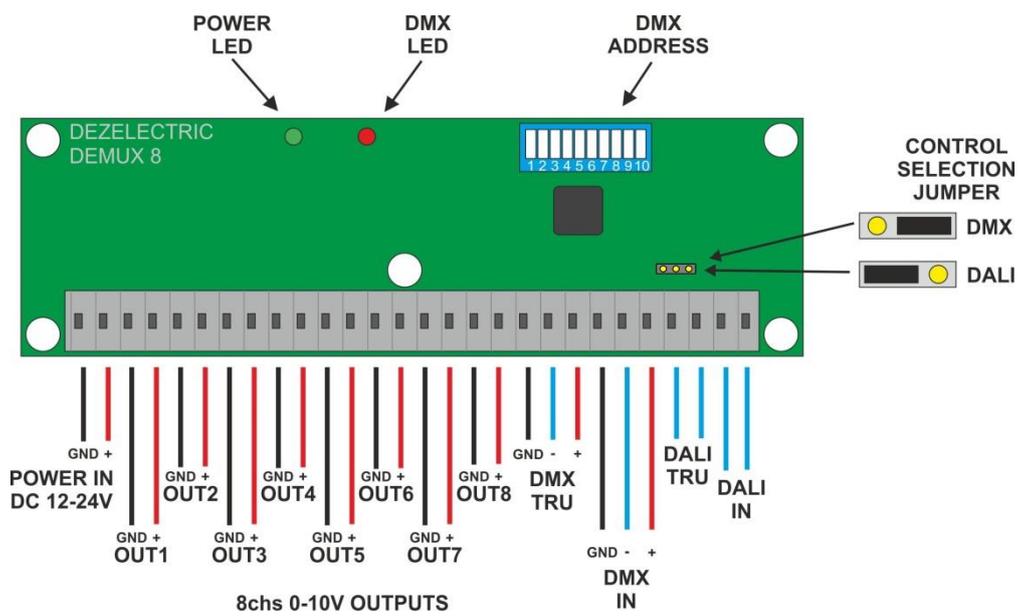*8 channels digital (DMX and DALI) to 0-10V converter – user manual*

Introduction

The DEMUX 8 is a digital (DMX and DALI) to analogue (0-10V) signal converter. It converts 8 channels digital value to 0-10V analogue values.

CONNECTION AND POWER UP

How to connect power supply, control signal and outputs:

POWER INPUT:

After connecting the device to power, the power LED will on. It means the device is under voltage, and works fine. The recommended power supply parameters: DC 12-24V, 500mA

If the green power LED is not lighting, then there is no input power voltage, or the device is damaged.

If the power led is on, and the red led blinks slow, the device required firmware update.

SELECTION DIGITAL CONTROL MODE

The device can be controlled by DMX or also by DALI signal. The control selection jumper has two positions. The right position should be plugged for desired control mode.

DALI CONTROL

If the selected mode is DALI, then the device can be controlled with any kind of DALI controller. In this case the actual dipswitch setting has no meaning, it does not influence the working method.

DMX CONTROL

If the selected mode is DMX, the device can be controlled with any kind of DMX controller. If the dipswitch setting is 0, then also the RDM function is active. Other was the dipswitch shows the actual selected DMX address.

If there is incoming DMX signal, the red LED is blink fast.

DIPSWITCH

With built in dipswitch can be select DMX address or RDM function.

If all dip are in position 0, then the RDM mode is active. In this case the DMX address can be set by external RDM capable DMX controller. Without RDM the DMX address selectable by the dipswitch. If at least one dip switched to on, the RDM function is not active.

DMX ADDRESSING

By the dipswitch bits 1-9 can be select any DMX address from 1 to 511. Every bit has a value. The bit number first is 1, the second is 2, and the others has always double value the previous. So the 9. Dip value is 256. Only the selected dip values must be added to get the actual DMX address. This table helps to calculate the desired DMX address:

Number of dip	Value of dip
1.	1
2.	2
3.	4
4.	8

5.	16
6.	32
7.	64
8.	128
9.	256

If we set all dips to ON, then we get the highest selectable value: 511.

0-10V OUTPUTS

The device is receiving digital signal (DMX or DALI), and the received channel values are converted to analogue values, in voltage range of 0 to 10V.

RDM: REMOTE DEIVICE MANAGEMENT

If all of the dips are in OFF position on the dipswitch, then the device works in RDM mode. It means, that many kind of data can be read and modify via RDM controller.

Data and possibility via RDM:

- RDM UID
- Device model description
- Device label
- Manufacturer label
- Product category
- Software version
- Product details
- DMX address
- Slot info, slot description
- Device hours
- Device power cycles
- Factory default
- Identify device

FIRMWARE UPDATE

The device application software can be updated on the DMX line. From the manufacturer or the dealer can be get the latest firmware update.

Tha actual software version can be read with RDM function.

The new firmware file can be loaded with help of USB-DMX converter. It can be for example a PC DMX Interface, or RDM PC DMX Interface

Before starting the update process, on the device must be the DMX communication mode selected. If it receives the firmware data on the DMX input, it will automatically store it and restarts if ready.

Mounting, size:
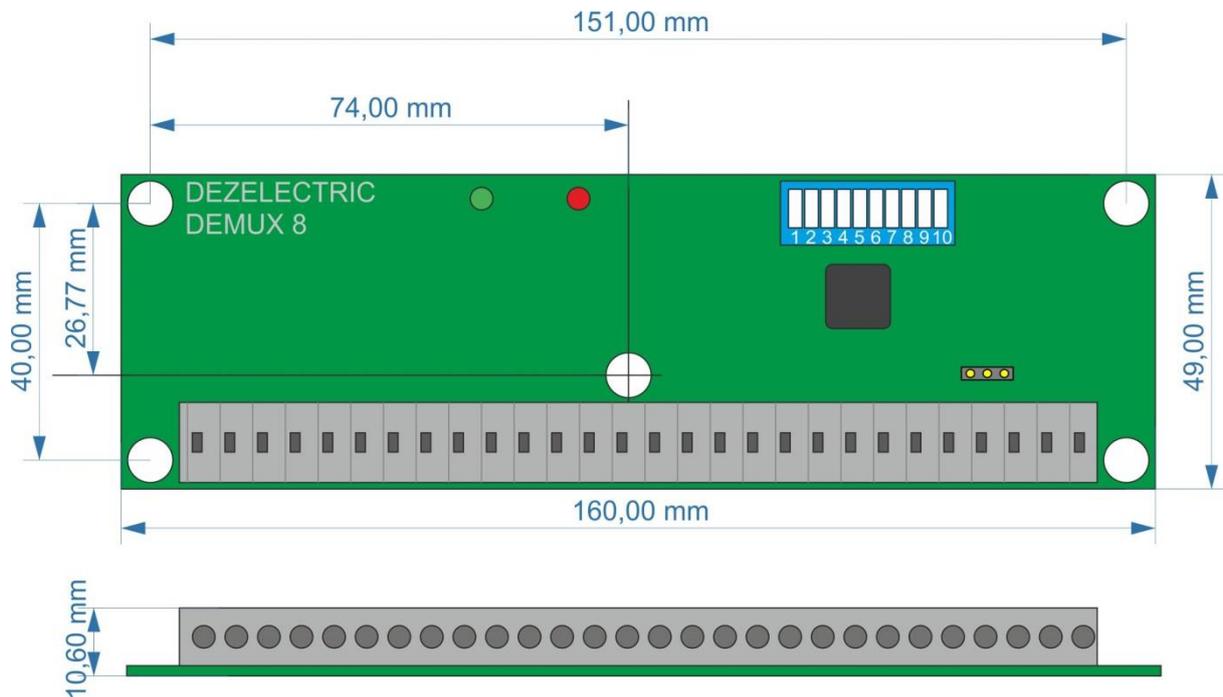
TECHNICAL PARAMETERS

- Power supply: 12-24V DC, 500mA
- DMX Input: double terminal
- DALI Input: double terminal
- Analogue output: 8 x 0-10V terminal
- Size: 160 x 49 x 20mm
- Weight: 0,07Kg