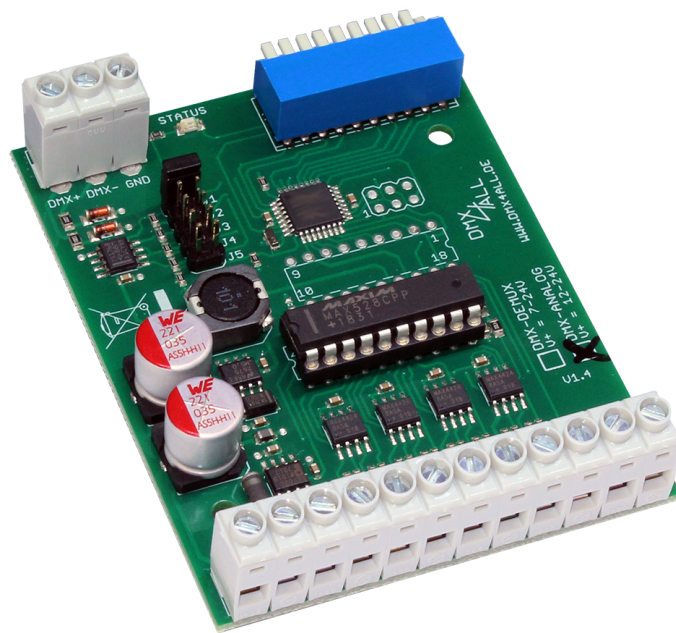


# DMX-Analog 0-10V 8 Channel

User Manual



**DMX**®  
**ALL**



For your own safety, please read the user manual and warnings carefully before installation.

## Description

The **DMX-Analog 0-10V 8-Kanal** is excellent suitable to control electronic devices with analog 0-10V control input.

### 8 Analog outputs

8 analog outputs with 0-10V output voltage each are available.

When used with a 1-10V input, a voltage lower than 1V is usually considered the minimum value. Therefore 0-10V as well as 1-10V devices can be controlled.

### 8Bit resolution

Each output has a resolution of 8Bit. Therefore 256 output steps are available.

### 10mA output current

An output driver at each output allows loads up to 10mA.

### For voltages from 12V up to 24V

The DMX-Analog 0-10V 8-Channel runs with a supply voltage from 12V up to 24V direct voltage.

### Invertible output signal

With address switch 10 the output signal can be inverted.

### DMX FAIL-Function

An adjustable DMX FAIL function offers the option to hold the current state (HOLD) or to change to a predefined value in case of DMX signal failure.

### RDM support

The DMX-Analog 0-10V 8-Channel allows the configuration via RDM or DMX.

### LED status display

The LED status display shows the DMX reception.

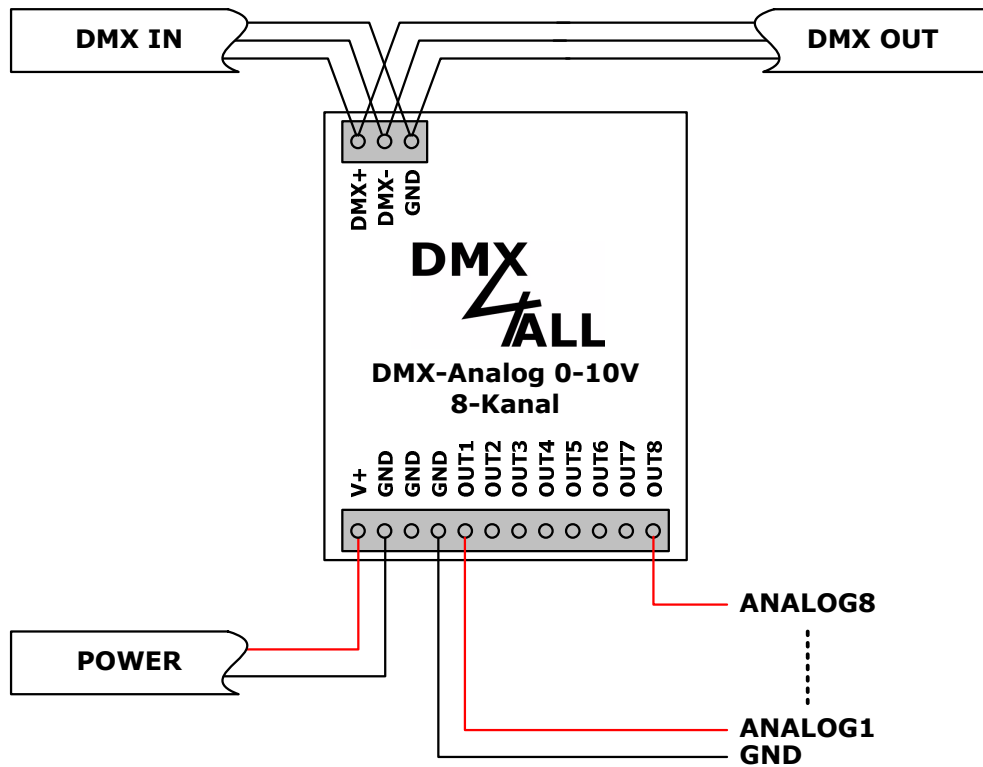
### Suitable for top hat rail mounting

Suitable for the DMX-Analog 0-10V 8-Channel the DIN rail housing 700 is available as accessory.

## Technical Data

<b>Power supply:</b>	12-24V DC
<b>Current consumption:</b>	50mA@12V; 40mA@24V (without connected load)
<b>Protocol:</b>	DMX512 RDM
<b>DMX channels:</b>	8 channels
<b>DMX-FAIL:</b>	Hold / 0-100%
<b>Output:</b>	8 outputs with driver each max. 10mA
<b>Resolution:</b>	256 steps (8-Bit), linear
<b>Connection:</b>	screw terminals
<b>Dimensions:</b>	64mm x 82mm

## Connection



## LED-Display

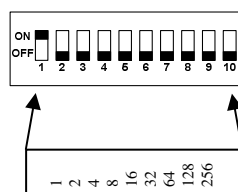
The LED is a multifunctional display. In the normal operation mode, the LED lights non-stop. In this case the device is working.

Furthermore, the LED signals the status. In this case, the LED lights up in short pitches and then turn into off modus. The number of flashing signals is equal to the error status:

Error Status	Error	Description
1	No DMX	There is no DMX-signal
2	Address error	Please check the set DMX-Address
4	Factory Reset	Factory Reset is executed

## Addressing

The starting address is adjustable via a DIP-Switch. Switch 1 has the valency  $2^0$  (=1), switch 2 has the valency  $2^1$  (=2) and so on... finally switch 9 has the valency  $2^8$  (=256). The sum of the switches showing ON, represents the starting address.



Address	Switch
1	
2	
3	
4	
5	

Address	Switch
...	...
508	
509	
510	
511	



To invert the output-signal please use switch 10.

## **DMX-FAIL function**

Via a jumper you can adjust the outputs behavior in case of DMX signal failure.

No jumper closed:	RDM settings are used
Jumper J1 closed:	Outputs are unchanged (HOLD)
Jumper J2 closed:	Outputs are turned on (ON – 100%)
Jumper J3 closed:	Outputs are shut down (OFF – 0%)



With the RDM parameter `DMX_FAIL_MODE` the level can be set.

## RDM (from Hardware V1.3)

RDM is the short form for **R**emote **D**evice **M**anagement.

As soon as the device is within the system, device-dependent settings can occur remotely via RDM command due to the uniquely assigned UID. A direct access to the device is not necessary.



If the DMX start address is set via RDM, all address switches at the DMX-Analog 0-10V 8-Channel must be set to OFF ! A DMX start address set by the address switches is always prior !

This device supports the following RDM commands:

Parameter ID	Discovery Command	SET Command	GET Command	ANSI/ PID
DISC_UNIQUE_BRANCH	✓			E1.20
DISC_MUTE	✓			E1.20
DISC_UN_MUTE	✓			E1.20
DEVICE_INFO			✓	E1.20
SUPPORTED_PARAMETERS			✓	E1.20
PARAMETER_DESCRIPTION			✓	E1.20
SOFTWARE_VERSION_LABEL			✓	E1.20
DMX_START_ADDRESS		✓	✓	E1.20
DEVICE_LABEL		✓	✓	E1.20
MANUFACTURER_LABEL			✓	E1.20
DEVICE_MODEL_DESCRIPTION			✓	E1.20
IDENTIFY_DEVICE		✓	✓	E1.20
FACTORY_DEFAULTS		✓	✓	E1.20
DMX_PERSONALITY		✓	✓	E1.20
DMX_PERSONALITY_DESCRIPTION			✓	E1.20
DMX_FAIL_MODE		✓	✓	E1.37
SERIAL_NUMBER <sup>1)</sup>			✓	PID: 0xD400

1) Manufacturer depending RDM control commands (MSC - Manufacturer Specific Type)

Manufacturer depending RDM control commands:

**SERIAL\_NUMBER**

PID: 0xD400

Outputs a text description (ASCII-Text) of the device serial number.

GET    Send:    PDL=0  
      Receive: PDL=21    (21 Byte ASCII-Text)



## Factory Reset



Before running the Factory Reset, read all steps carefully.

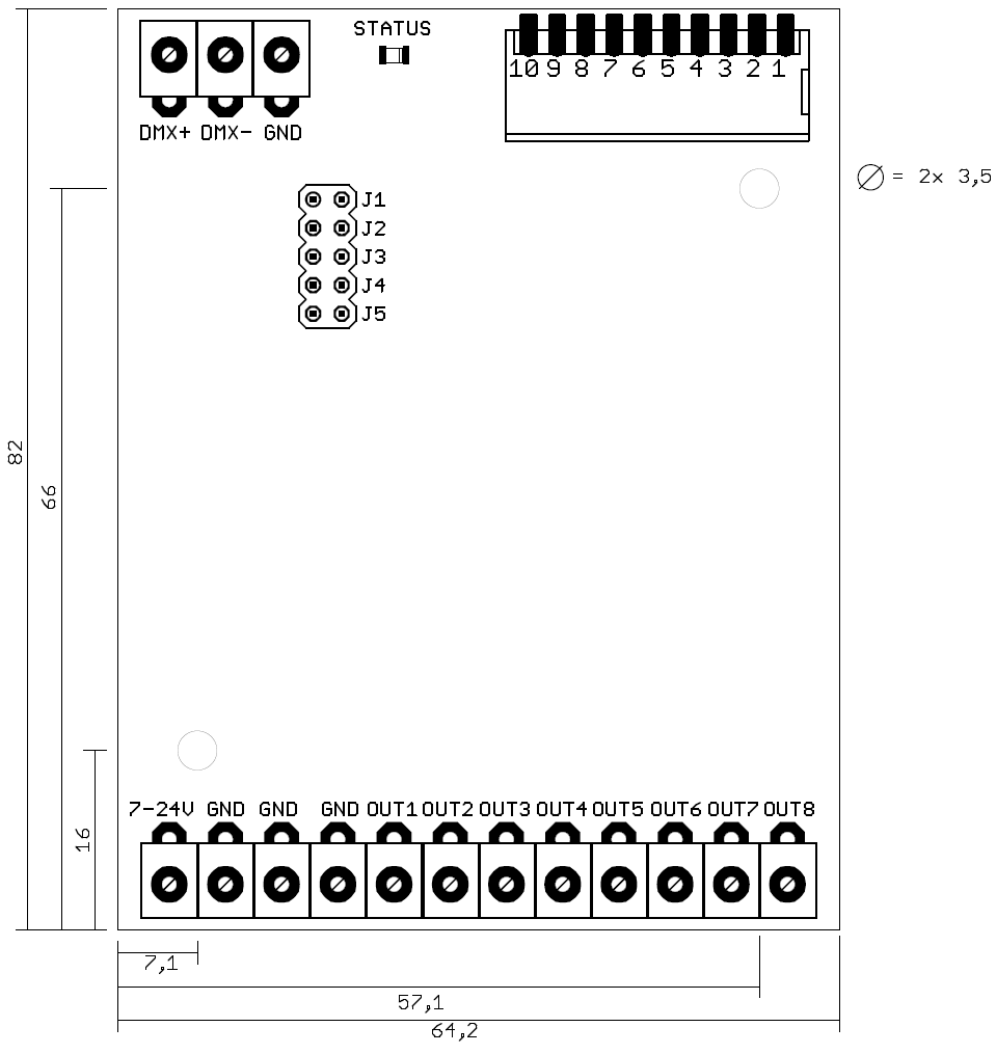
To reset the **DMX-Analog 0-10V 8-Channel** into the delivery state, please proceed as follows:

- Turn off device (turn off power supply !)
- Set address switch 1 up to 10 to ON
- Turn on the device (turn on power supply)
- The LED lights up 20x during ca. 3 seconds
  - ➔ While the LED lights up set DIP switch 10 to OFF
- Now, the Factory Reset is executed
  - ➔ The LED lights up with error code 4
- Turn off the device (turn off power supply !)
- Now, the device can be used



If a Factory Reset is needed again, this procedure can be repeated at any time.

## Dimensions



All details in mm

## Accessories

Top-hat rail mounting 700



Power supply 12V / 20W

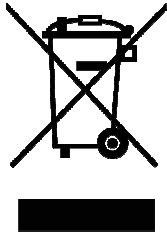


## CE-Conformity



This assembly (board) is controlled by a microprocessor and uses high frequency. In order to maintain the properties of the module with regard to CE conformity, installation into a closed metal housing in accordance with the EMC directive 2014/30/EU is necessary.

## Disposal



Electronical and electronic products must not be disposed in domestic waste. Dispose the product at the end of its service life in accordance with applicable legal regulations. Information on this can be obtained from your local waste disposal company.

## Warning



This device is no toy. Keep out of the reach of children. Parents are liable for consequential damages caused by nonobservance for their children.

## Risk-Notes



You purchased a technical product. Conformable to the best available technology the following risks should not be excluded:

### **Failure risk:**

The device can drop out partially or completely at any time without warning. To reduce the probability of a failure a redundant system structure is necessary.

### **Initiation risk:**

For the installation of the board, the board must be connected and adjusted to foreign components according to the device paperwork. This work can only be done by qualified personnel, which read the full device paperwork and understand it.

### **Operating risk:**

The Change or the operation under special conditions of the installed systems/components could as well as hidden defects cause to breakdown within the running time.

### **Misusage risk:**

Any nonstandard use could cause incalculable risks and is not allowed.

**Warning:** It is not allowed to use the device in an operation, where the safety of persons depend on this device.



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