Datasheet

E2D v.0.3
Ethernet To DMX Converter

15.01.2015 r.

Commercial
Technology
Group
www.ctg.com.pl

NO DEVELOPMENT

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DATE OF

15 – 01 – 2015 r.

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Revision:
V 0.3

Name of development:
Datasheet – Ethernet to DMX converter

Distributor –
Europe:

Distributor -
Asia / Australia:

Distributor -
North and South America :

Basis the execution:
Technical documentation

Manufacturer:
CTG Spółka z o.o. - ul. Kossak-Szatkowskiej 10 lok 17
43-400 Cieszyn – Poland
http://www.ctg.com.pl

Unitperforms:
CTG Spółka z o.o.
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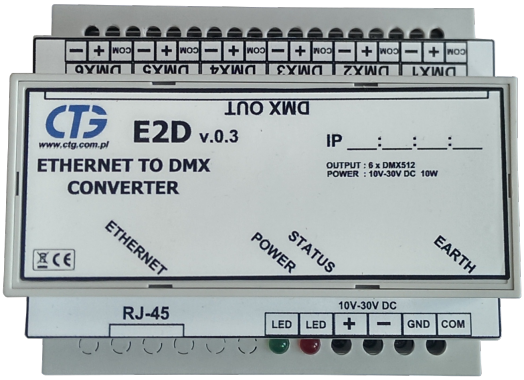
Ethernet to DMX converter E2D v.0.3



Main features:

- Fully-customizable via ethernet
- Compatible with DMX512 standard
- 6 output channels
- Maximum DMX line length - 1200m
- Included 6-channel DMX splitter
- Program memory - 64KB
- Maximum refresh rate of color - 100Hz
- Minimum time for a change of colors - 100ms
- Maximum time for a change of colors - 6553,5s
- DIN-rail (type Ω)
- Supply voltage 9-24V DC
- Power consumption - 10W
- Ambient temperature range - $-30°$C to $75°$C

1 Main characteristics

The E2D is a DMX512-compatible driver for complex LED RGB lighting network. The device is controlled by a browser application CTG Light Studio for servers with Windows and Linux via Ethernet link. Once programmed, can operate completely independently.

The device allows to slow and dynamic color changes. Users can choose from 5 preset types of transitions between colors:

- linear,
- sinusoidal,
- cosinusoidal,
- exponential,
- inversely exponential.

E2D allows the user to create complex lighting scenarios using several devices connected to the same Ethernet network through a mutual synchronization. The basic version supports up to 47 colors sequence for each RGB lamp. Lighting time and time of transition between colors is configurable in range 100ms to 6553,5s. Refresh rate of color is 100Hz.Repairs or replacements of the device elements shall be performed only by an authorized service center.

The device includes a 6-channel DMX splitter, enabling user to connect to a full pot of RGB lamps without repeater.

2 General and safety requirements

- Connect the device to a stable supply voltage 9-24V DC
- For indoor and outdoor use
- Do not connect the device which case has been removed or damaged
- Do not expose the device to rain or moisture above 80%
- Make all electrical connections before connecting power supply
- Protect the device from sudden shocks and falls
- Repairs may be realised solely by an authorised service point

3 Installation notes

3.1 Connections

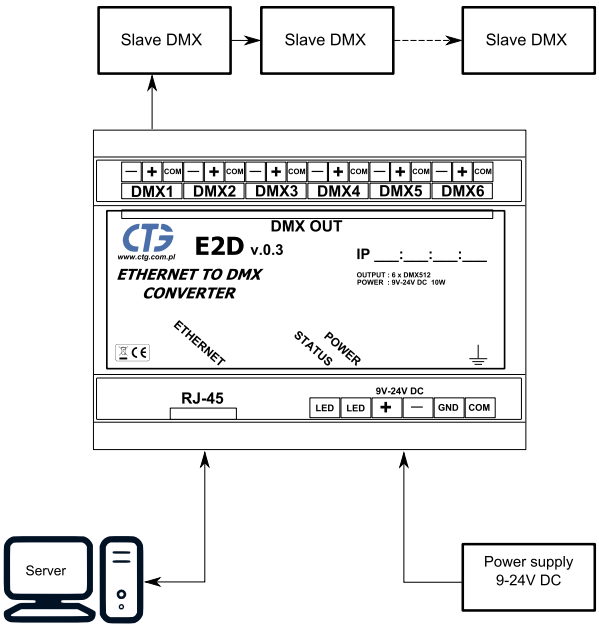


Figure 1: Connections guide

3.2 Connectors

3.2.1 Ethernet

Programing is performed via Ethernet network. For this purpose the device is equipped with a RJ45 communication interface 10/100Mbps (Cat. 5E up to 100m).

3.2.2 Power supply

Use a feeder cable with a diameter of 0,5mm^2 to 2,5mm^2 and make sure the polarity is correct.

3.2.3 Power GND and DMX shield

It is possible connect to earth power ground and DMX shield, it is also possible to connect both power ground and DMX shield by GND and COM signals.

- GND - power ground
- COM - DMX shield

3.2.4 DMX interface

DMX line shall be connected by shielded twisted single-pair with minimum bandwidth 250kHz. In the case of short cables (up to 20m) shield and twisted pair is not required.

4 Programming tips

4.1 Programming of the lights sequence

Please refer to the *CTG Light Studio - user manual*

4.2 Changing IP address

Every device should have an unique IP address. Changing the IP address is possible by a dedicated application for Windows, Linux and Mac. Application is not generally available.

5 Front panel

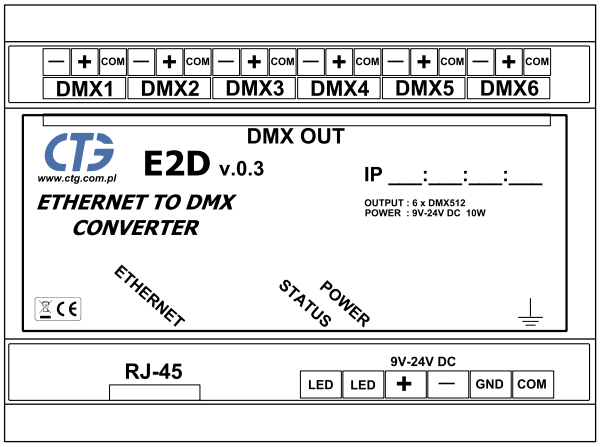


Figure 2: Front panel

5.1 Status LED

Status LED (green) indicates the correct operation of the DMX transmitter.
Mode:

- Status LED ON - DMX signal is transmitted,
- Status LED OFF - no DMX transmission.

5.2 Power LED

Power LED (red) indicates the presence of the supply voltage and correct work.
Mode:

- Power LED ON - device works correctly,
- Power LED OFF - no power supply or device error.

6 Technical notes

6.1 Electrical and operating conditions

Table 1: Electrical specifications

Parameter	Min	Typ	Max	Unit
Supply voltage	9	12	24	V
Power comsumption			10	W
DMX line length			1200	m
Devices per DMX channel			32	–

Table 2: Operating conditions

Parameter	Min	Typ	Max	Unit
Ambient temperature	-30	20	75	°C
Relative humidity			80 non-condensing	%

6.2 Dimensions

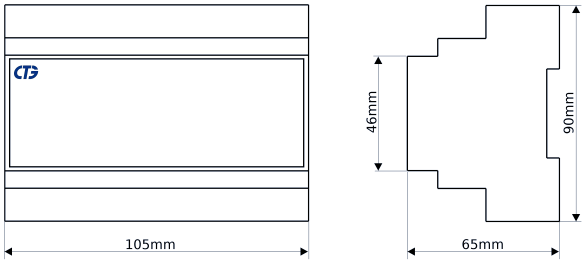


Figure 3: Dimensions

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