

OPERATING MANUAL

DMX / DSI Decoder 3004T-FG (DSI) DMX / DSI Decoder 3014T-FG (DALI)



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Thank you for choosing a SOUNDLIGHT device.

The SOUNDLIGHT DMX DSI Converter 3004T is an intelligent DMX converter decoding digital data complying with standard USITT DMX512 and DIN 56930-2 to DSI serial output to drive digital SOUNDLIGHT LUXMATE PCA ballasts for fluorescent tubes. The card can be used with all standard light control systems. Its special advantages include:

- **universal protocol decoding**
Recognizes all variants of the protocol as defined by USITT / ESTA / DIN
- **future-proof**
The unit is software controlled and can easily be adapted to any change in protocol definition.
- **high linearity**
As the unit accepts and outputs data in digital format, excellent linearity characteristics result.
- **simple supply**
The power supply is achieved by its own PSU, power supply is 230V AC.
- **signal loss**
In the case of a loss of the drive signal the last setting will remain intact.
- **cost-effective**
The SOUNDLIGHT 3008R is a cost-effective solution for many purposes.

APPLICATIONS

The converter 3004T is designed to drive fluorescent light tubes with variable intensity. Up to eight SOUNDLIGHT LUXMATE PCA electronic ballasts (8 separate circuits) may be connected. Each output can drive one ballast. The unit is well suited for all applications on stage, for TV background lighting, or for architectural lighting purposes. The dimming range is 100% to 1%, and OFF at DMX input zero..

UNPACKING

Please unpack carefully and check that all items are intact. When leaving our factory, the card has been in good condition. In case of damage during transport please notify the carrier immediately.

When unpacking, you should identify these items:

- * the interface box
- * this manual

CONNECTORS

The 3004T decoder has RJ45 DMX input and output connectors for quick wiring using CAT5 network media.

CN1, CN2	RJ45 DMX Input/Output (both connectors parallel)
1	DMX -
2	DMX +
3	GND
4	GND
5	fed thru
6	fed thru
7	fed thru
8	fed thru

CN4...11	control output to electronic ballasts
1	DSI control signal +
2	DSI control signal -
3	PE, GND
4	230V N
5	230V L

SIGNAL INDICATORS

Status signalling is with LED indicators:

green:	DMX data reception OK
red:	ERROR
	normally off
	blinks at transmission errors or at loss of signal
yellow:	power indicator

START ADDRESS SWITCHES

The coding switches set the start address, that is the address of the first channel to be decoded. Setting is in binary format. To set an address, add the values of the appropriate switches, e.g.:

$$1+4+32+128 = 165$$

To set DMX channel 165 as the channel to control output #1, set switches "1", "4", "32" and "128"

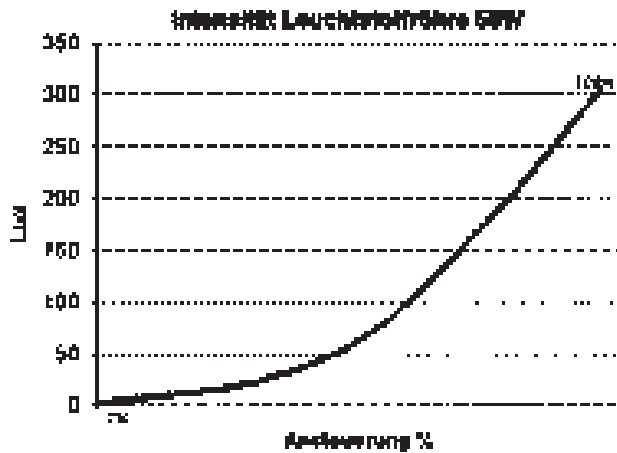
Address 000 is not a valid address, minimum address setting is address #1. If address 0 has been selected, all outputs are pulsed for service purposes.



CONTROL CHARACTERISTIC

As the fluorescent tubes are controlled fully digital, a precise control characteristic can be defined. Electronic control is fully logarithmic, which produces a linear increase in intensity for the eye. This results in excellent intensity control.

The tubes will ignite as soon as the DMX control signal reaches a value of 001 (equivalent to 1% intensity). A control signal of 128 will result in 10% intensity, while a control value of 255 will result in 100% intensity. That is the logarithmic law: doubling the input value will create a tenfold output value.



ELECTRONIC BALLASTS

Electronic ballasts require power supply and control signal. Power supply (230 V AC) and control signal lines (12V DC) must never be interchanged or the decoder or the ballast may be destroyed. To provide safe data lines, the DMX data input is galvanically isolated.

We recommend to only use pre-wired SLH fluorescent tube bars. They come with integrated ballast and adaptor cable with multipin connector. Multipin connectors are coded and are always plugged right.

If you intend to use your own setup, any DSI compatible electronic ballast may be used. We recommend to use SOUNDLIGHT PCA ballasts, which are available for popular T5 (14W, 21W, 28W, 39W) and T8 (18W, 30W, 36W, 58W) fluorescent tubes.

Connector pinout (WAGO 721-605/000-042)

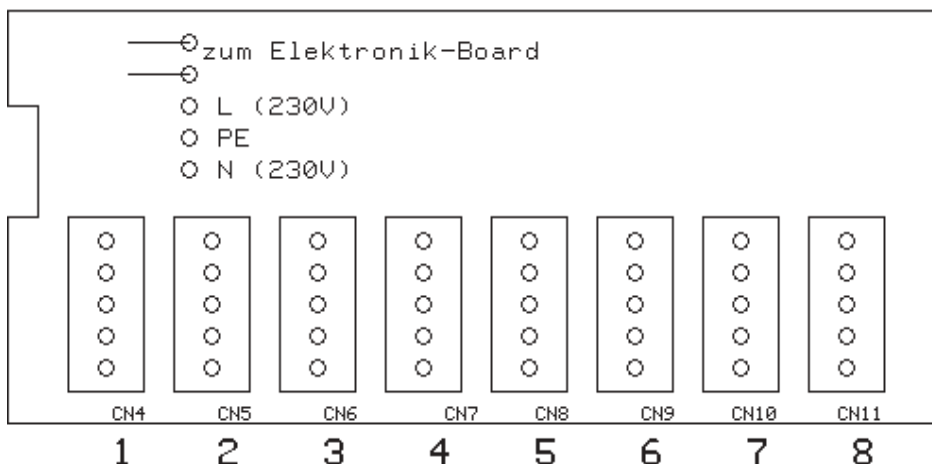


CN4...CN11

Ballast terminal	Output Pin	Function
L	5	L (fused 3.15A)
N	4	N
PE	3	PE
D2	2	Control Out GND
D1	1	Control Out Signal

IMPORTANT NOTICE: Please refer to the contact numbering as printed on the WAGO Multipin connectors. Control signal lines (1,2) must NEVER be interchanged with power supply lines (3,4,5). Wrong wiring may cause harm to units or components.

Wiring shall only be performed by a skilled electrician. Before setting your installation to work, please make sure that all wiring is correct and has been made to the instructions above.



TECHNICAL DATA

Power supply: 230V AC
DMX IN: RJ45, pair 1, 1 Unit Load
DMX OUT: fed thru
Ballast Out: 12V DSI pulse signal
Order code.: 3004T-FG (DSI), 3014T-FG (DALI)

DISTURBANCES

If a trouble-free operation cannot be guaranteed, disconnect the decoder interface and secure it against unwanted operation. This is especially necessary, when

- the unit has visible damages;
- the unit does not operate;
- internal parts are loose;
- connection cables show visible damages.

CE MARKING



The unit has been tested in our lab and has been marked to comply with CE requirements. To ensure compliance, use grounded power leads only and make sure that properly shielded data lines (CAT5, DMX data cable or Digital Audio cable to AES/EBU specifications) are used. Any modifications not approved by the manufacturer may void CE compliance.

LIMITED WARRANTY

This instrument is warranted against defects in materials and workmanship for a period of 12 months, beginning with the date of purchase. The warranty is limited to repair or exchange of the hardware product; no further liability is assumed. SOUNDLIGHT is not responsible for damages or for loss of data, sales or profit which arise from usage or breakdown of the hardware product. In Germany, SOUNDLIGHT will repair or replace established defects in hardware, provided that the defective part is sent in, freight paid, through the responsible dealer along with warranty card and/or sales receipt prior to expiration of warranty.

Warranty is void:

- when modifying or trying to repair the unit without authorisation;
- modification of the circuitry;
- damages by interference of other persons;
- operation which is not in accordance with the manual;
- connection to wrong voltage or current;
- misuse.

END-OF-LIFETIME



If the end of lifetime of this product has been reached, it must be disposed of properly. Electronic devices are NOT domestic waste. SOUNDLIGHT is registered in the electronic materials collection and recycling system (EAR).

SERVICE

There are no parts within the DMX DSI decoder 3004T-FG which require the user's attention. Should your unit require servicing, please send it to the factory, freight paid.

INTERNET-HOTLINE

Please check our internet domain <http://www.soundlight.de> for new versions, updates etc. If you have any comments which may be worth considering, please send a message to support@soundlight.de. We will check your message and reply accordingly.

KONFORMITÄTSBESCHEINIGUNG

entsprechend EN 45014 und ISO/IEC Guide 22
Declaration of Conformity, according to ISO/IEC guide 22 and EN 45014

HERSTELLER: SOUNDLIGHT
Manufacturer's Name:

ADRESSE: Vahrenwalder Strasse 205-207
Manufacturer's Address: D-30165 Hannover
Deutschland

erklärt, daß das Produkt
declares, that the product

Produktbezeichnung: DMX512 to DSI/DALI Interface
Product Name:

Modellbezeichnung: 3004T-FG, 3014T-FG
Model Number(s):

Gerätenummern: -
Serial Number:

Optionen: keine
Options:

nach den für dieses Produkt festgelegten technischen Spezifikationen hergestellt worden ist und insbesondere den folgenden Vorschriften genügt:
has been manufactured to the technical specifications of the product and conforms to the following product specifications:

Elektrische Sicherheit: EN 60065 (1994)
Electrical Safety: EN 60335-1 (1994)

EMC: EN 55022 (1989) / DIN VDE 0878 Teil 3
Electromagnetic Compatibility: / CISPR 22 Klasse B
EN 50082-1 (1994) / IEC 801-2: 3 V/m

Zusätzliche Informationen --
Supplementary Information:

Hannover, 18.02.2000


Dipl. Ing. Eckart Steffens, Fertigungsprüfung