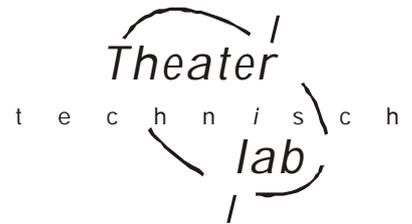


# Manual *powerDAC8 - TL*

For software version V1.0



First read the manual completely before you start to install and use this equipment!

## Introduction:

*powerDAC8 - TL* is primarily designed to control dimmable electronic ballast with DMX512 instead of 1-10V. There for it has an analogue output of 0-10V and a power switch, both controllable by the same DMX channel. The power switch is meant to switch the mains power of the ballast. The power switches have a hybrid structure; a snubberless triac handles the switching current and a relay the steady current. Switching action takes place at mains zero voltage crossing. Because of that all, each channel can control for example 18 ballasts with 50W lamps. One must realize that an electronic ballast can create an inrush current of about 20A. Read the ballast specification for that!

*powerDAC8 - TL* can also be used as a DMX controlled switchpack with an additional demultiplexer. By internal jumper setting you can:

- 1) select two DMX levels for the switching point of the power switches,
- 2) set to hold DMX data upon loss of DMX signal or not,
- 3) select a special control curve for the analogue output,
- 4) DMX channel sharing for the corresponding power switch and analogue output or not,
- 5) skip the triac switch action from the power switch or not.

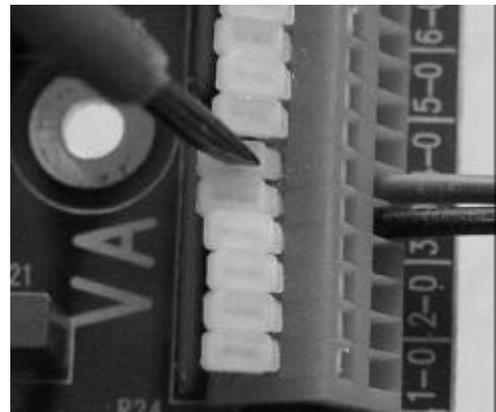
## Specifications:

### General

- DMX address setting by 3 digit led display
- DMX galvanic isolated
- DMX in/through on NEUTRIK connectors, pcb mounted
- Case Outlet: 3 cable glands, PG21.
- Accessories: wall mounting strips and truss clamps
- Dimensions: 320x190x110 [mm]
- Weight : 2.7 [kg]

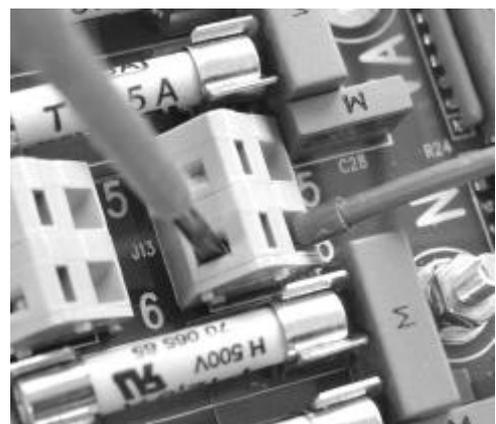
### Analogue output:

- on Wago cage clamps, 0.08-0.75mm<sup>2</sup>
- sink/source capacity 20[mA]
- adjustable 0-10[V] or 0-370[uA]



### Power switches:

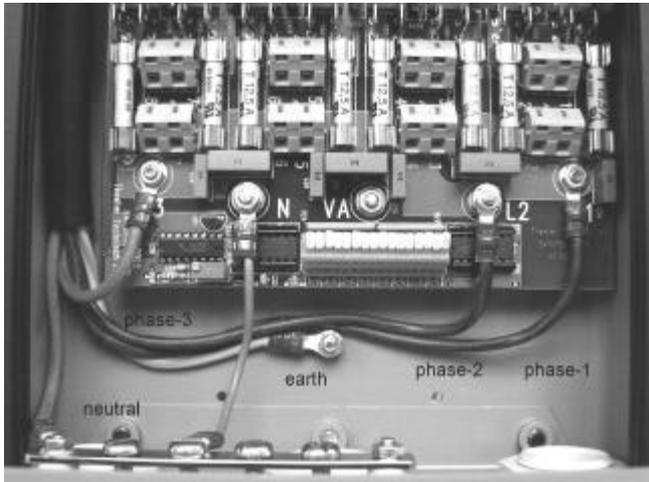
- on Wago cage clamps, 0.08-2.5mm<sup>2</sup>
- two clamps on each switch
- leakage current 40[uA]
- switching current 200[A]
- switch action at mains zero crossing
- nominal current 16[A], internal fused by 12.5[A], slow
- can set potential free by removing the fuses
- can handle direct - or alternated currents



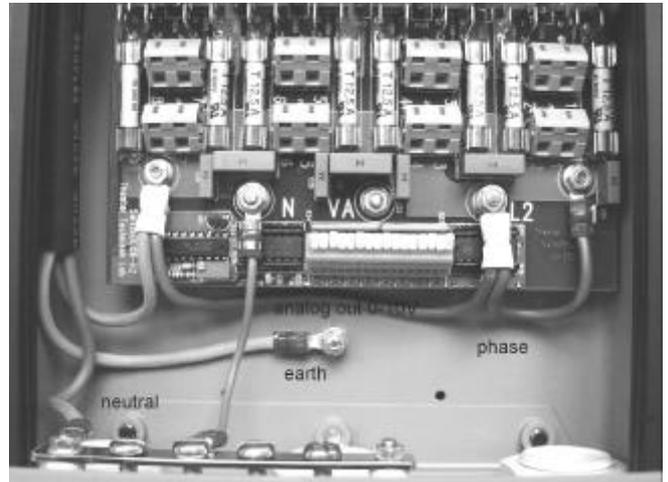
**Mains connections:**

- Mains inlet cable clamp PG21
- Phases connected direct on pcb, M4
- Neutral distribution rail
- 3 phase- or 1 phase mains connection
- Switch 1, 2 and 3 on phase1, switch 4 and 5 on phase2, switch 6, 7 and 8 on phase3

3 phase + neutral + earth



1phase +neutral + earth



**User interface with 3 digit led display.**

- At power on the led display shows the software version.
- Led signalling for DMX present.
- Setting the DMX address:

Push on button [select digit]. The decimal point of the left digit flashes. You can change the value of this digit by pushing button [ << ] or [ >> ]. By pushing on button [select digit] more than ones you can select every digit and change the value by pushing button [ << ] or [ >> ]. Changes made will be automatically stored after a while in non-volatile memory.



**Setup by internal jumper setting**

Jumper	Open (= default setting)	Closed
1	Switch point at 2% DMX input	Switch point at 50% DMX input
2	DMX data hold upon loss of signal	DMX data will be fade out upon loss of signal
3	Analogue out is proportional with DMX in (linear).	At 3% input analogue out starts with 1V ==> 10V
4	Analogue output-N and switch-N has same DMX address	Switch-1 has displayed DMX address, analogue out-1 has displayed DMX address +8
5	Power switch is hybrid of triac and relay. This can only be used in case of switching <b>alternated currents</b> .	Triac is skipped from the power switch. This jumper must be set in case of switching direct currents. Also the ceramic internal fuses must be removed.

FIRST DISCONNECT THE MAINS, BEFORE YOU OPEN THE HOUSING: DANGEROUS TO LIFE! INSTALLATION AND REPARATION ONLY BY QUALIFIED PROFESSIONALS.