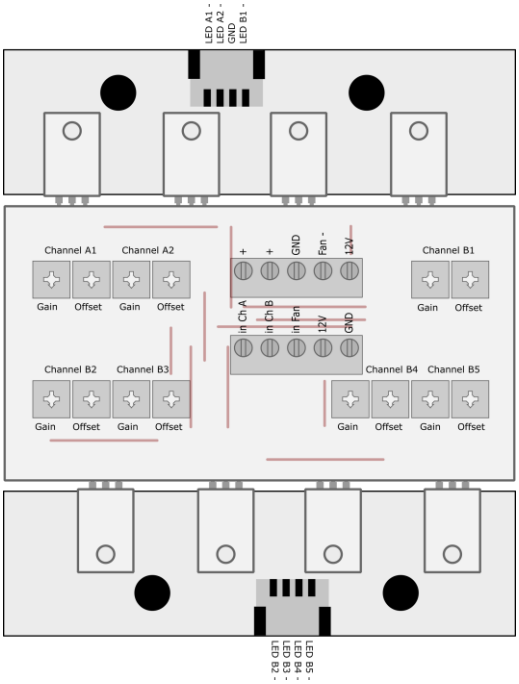
NELIS Natural Environment Light Intensity Simulation System

LIN7x1A Description

LIN7x1A is a regulated constant current source with adjustable current output from 0 to 1.2 A for seven channels. It was designed to drive LEDs flicker free. Te desired maximal current can be adjusted for each channel separately by a potentiometer. Another potentiometer allows the minimal current per channel. The seven channels are divided in two groups: group A with 5 channels and group B with 2 channels. Control voltage inputs (0 - 10 V) for the two groups allow to reduce the output current, allowing do dim the driven LEDs infinitely variable. A 12V-regulator provides power supply for controlling devices. Connectors to drive a fan are also featured.

Connections

+	Input PSU, anode side LEDs
GND	common ground
Fan -	Connection for Fan (MOSFET)
12V	Outputs
in Ch A	Input control voltage for group A (0 - 10 V)
in Ch B	Input control voltage for group B (0 - 10 V)
in Fan	Input control voltage for fan (0 V = OFF / 5 V = ON)



Technical specifications:

Power supply: 12 - 28 V DC

Control input voltage groups A and B: 0 - 10 V DC

Control input fan: 0 V (OFF) / 5 V (ON)

Output 12 V: max. 800 mA

Switching capacity fan: max. 3 W

Power: max. 1.2A per channel, if proper cooling is provided

Dimensions (l x w x h): 115mm x 98mm x 15mm

Percent Flicker: 0

Efficiency

Transistors and shunt cause a voltage drop, therefore the power supply must provide a slightly higher voltage than needed for the LED. So adjustable voltage sources are recommended to avoid excessive heat and power loss.