

## VarioControl LINEARdrive 180D

### 4/6/24 A Full-Colour Dimmable LED Driver

LINEARdrive DC is a constant voltage LED driver with multiple LED outputs that are controlled over four channels. It is targeted at larger networked and smaller standalone installations that require dimmable, low-power full-colour static or dynamic LED lighting. LINEARdrive DC is DMX/RDM and LedSync compatible.

#### Applications

- Entertainment lighting
- Full-colour architectural lighting
- Signage/advertising lighting
- Cove lighting
- Decorative lighting
- Dynamic colour panel lighting

#### Features & benefits

##### Input

- Voltage: 12 – 28 VDC
- Current, max:  
6 A, irrespective of PSU voltage



LINEARdrive 180D

##### Output

- Voltage: 5 V, 12 V or 24 V
- Max load per output:

	RGBW @ 24 V	RGB @ 24 V
LINEARdrive 180D	1.5 A	2 A

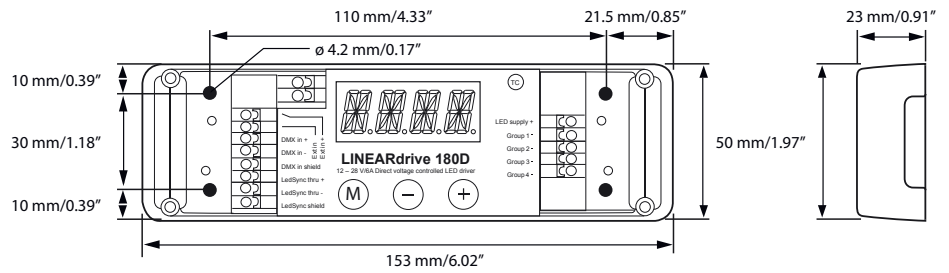
##### General

- USITT DMX512A/RDM (ANSI E1.20) and LedSync compatible
- HydraDrive: 15-bit resolution
- Dimming control: smooth dimming from 100 % to 0.1 %, gamma-corrected curve
- Intuitive 3-button user interface for on-the-fly configuration
- Interface for external control device: 10 k $\Omega$  potentiometer, 0 – 10 V source or momentary switch

## Dimensions, weight, packaging

### LINEARdrive 180D

- Weight: 120 g, 4.2 oz



## Connections

### Connectors LINEARdrive 180D

- VDC: + and -
- DMX in: +, - and shield
- LedSync thru: +, - and shield
- Ext in: + and -
- LED outputs: 4 outputs with common +

### Wiring

- Cross section: 0.5 – 1.5 mm<sup>2</sup>, AWG 20 – 16
- Strip length: 9 mm/0.35 in.

## Other information

### Certifications

- CE
- IEC 61347, EN 55015, IEC 61003, EN 61547
- UL: UL Recognized Component (file no. E333135)

### Environmental ratings

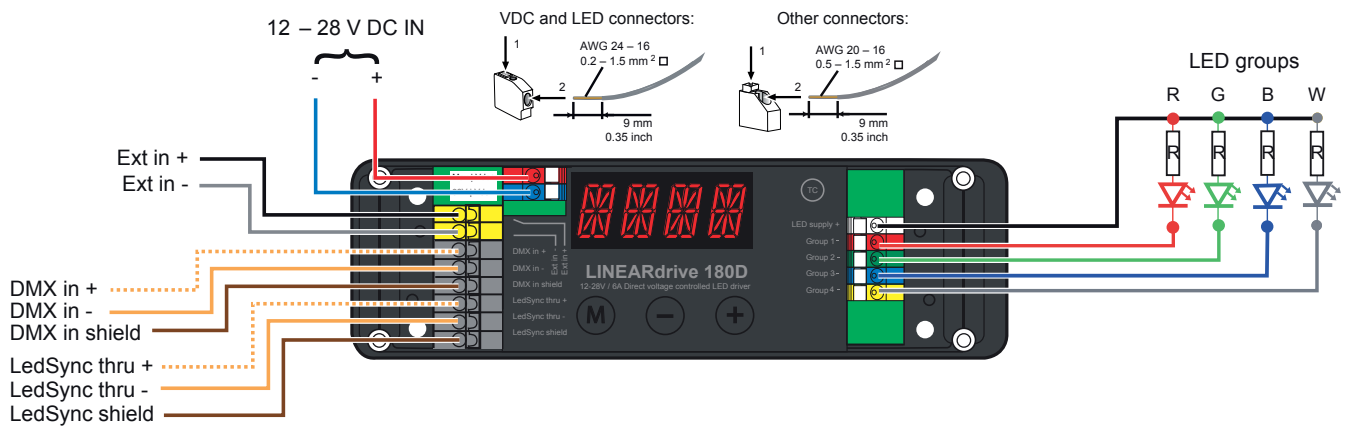
- Ta range: -20°C...50°C/-4°F...122°F
- Tc max: 65°C/149°F
- For use in dry locations

### Control compatibility

- DMX512 A and RDM explore & address (ANSI E1.20) control gear
- Standard 0 – 10 V switch controls



# VarioControl LinearDrive 180D – Wiring diagram



**CAUTION:** The device may only be connected and installed by a qualified electrician. All applicable regulations, legislation and building codes must be observed. Incorrect installation of the device can cause irreparable damage to the device and the connected LEDs.

## 12 V – 28 V DC IN

To connect the driver to a DC power supply unit (PSU), connect the PSU's positive voltage supply wire to the VDC+ connector and the PSU's negative voltage supply wire to the VDC- connector.

## EXT in

You have the possibility to connect an external control device (0 – 10 V control device, 10 kΩ potentiometer or show selection switch) to the driver's Ext in+ and Ext in- connector. Configure the driver for use with an external control device over the 3-button user interface.

## DMX in/LedSync thru

Use these connectors when the driver is used in a DMX network.

For DMX in, connect the network cable's data+, data- and shielding wire (the orange/white, orange and brown wire in a CAT5 cable) to the DMX in+, DMX in- and DMX in shield connector respectively.

For LedSync thru, connect the network cable's data+, data- and shielding wire (the orange/white, orange and brown wire in a CAT5 cable) to the LedSync thru+, LedSync thru- and LedSync thru shield connector respectively.

## LED groups

Indicates the location of the connectors for your LED groups. R(ed) represents channel 1, G(reen) represents channel 2, B(lue) represents channel 3 and W(hite) represents channel 4. The default group color allocation can be changed over the 3-button user interface.

# VarioControl LinearDrive 180D – Wiring diagram

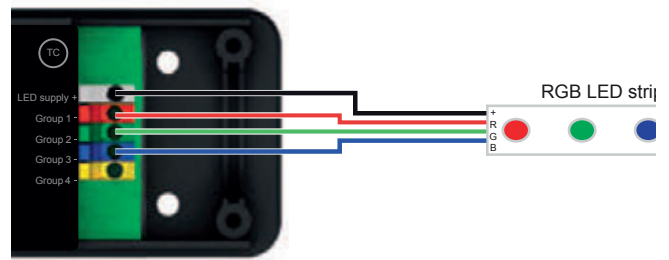
## Connecting an RGB LED strip

Maximum current per output at 12 V: 2 A

Maximum current per output at 24 V: 2 A

Configuration of the LED groups:

Press M and + simultaneously, in the LED menu choose RGB and save this setting by pressing M.



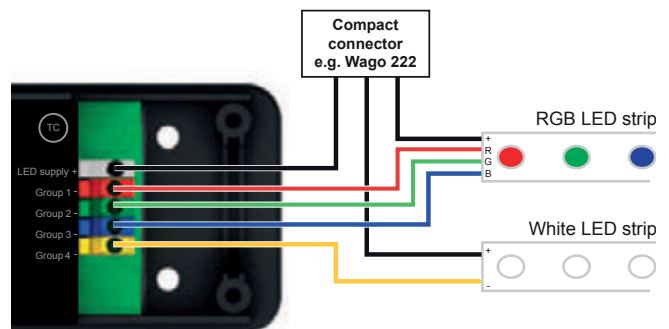
## Connecting an RGB strip and a white LED strip

Maximum current per output at 12 V: 1.5 A

Maximum current per output at 24 V: 1.5 A

Configuration of the LED groups:

Press M and + simultaneously, in the LED menu choose RGBW and save this setting by pressing M.



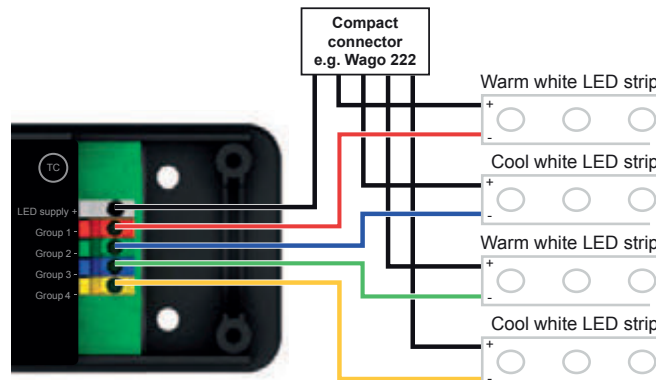
## Connecting warm white and cool white LED strips

Maximum current per output at 12 V: 1.5 A

Maximum current per output at 24 V: 1.5 A

Configuration of the LED groups:

Press M and + simultaneously, in the LED menu choose 4 – 4 L and save this setting by pressing M.



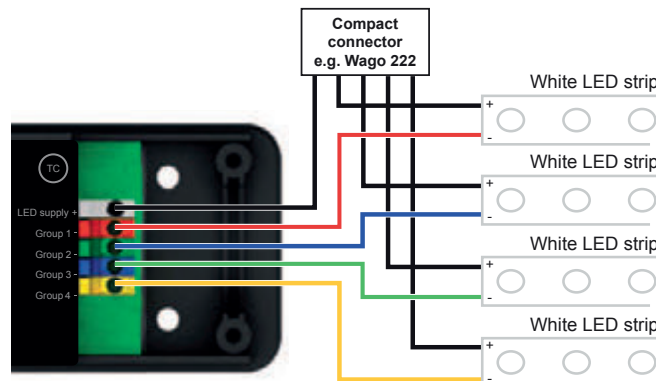
## Connecting four white or self-colored LED strips

Maximum current per output at 12 V: 1.5 A

Maximum current per output at 24 V: 1.5 A

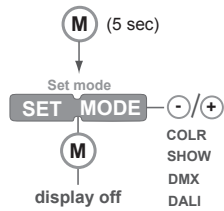
Configuration of the LED groups:

Press M and + simultaneously, in the LED menu choose 1 – 4 L and save this setting by pressing M.

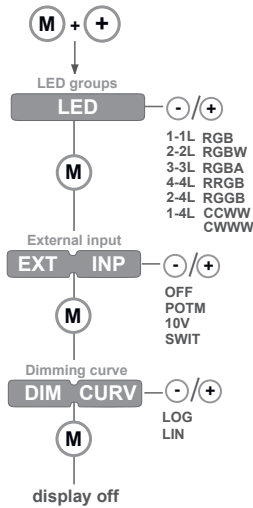


# VarioControl LinearDrive 180D – Quick Start Guide

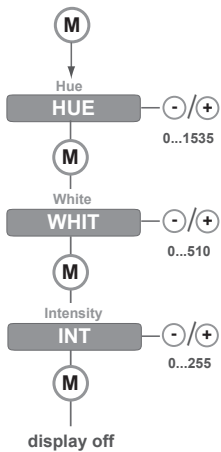
## 1. Select mode of operation



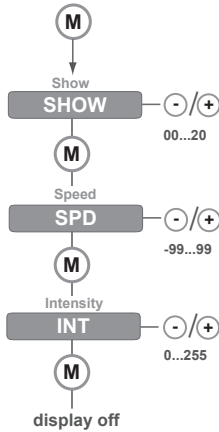
## 2. Set LED groups



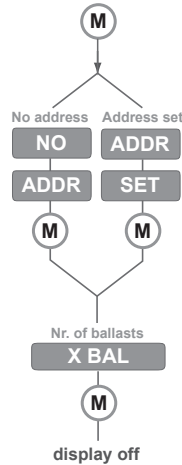
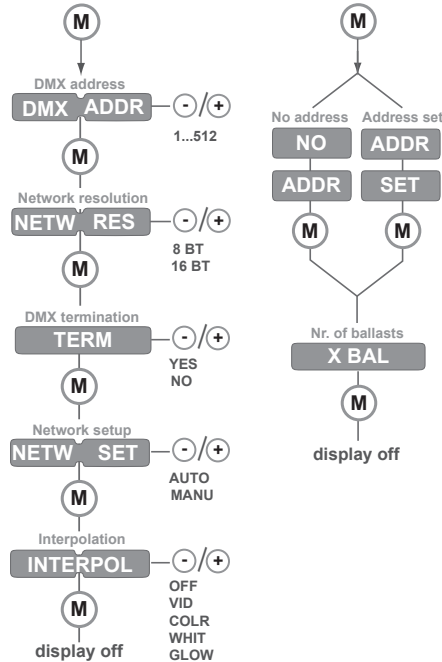
## 3. Standalone operation - Colour\*



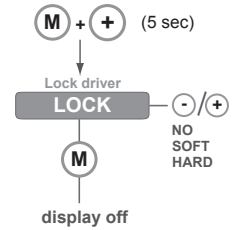
## Standalone operation - Show



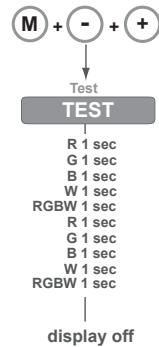
## Networked operation - DMX or DALI



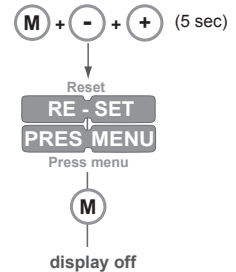
## Locking the configuration



## Visual test run



## Reset to factory defaults



\* The colour menu depends on the LED group settings you have selected in step 2.