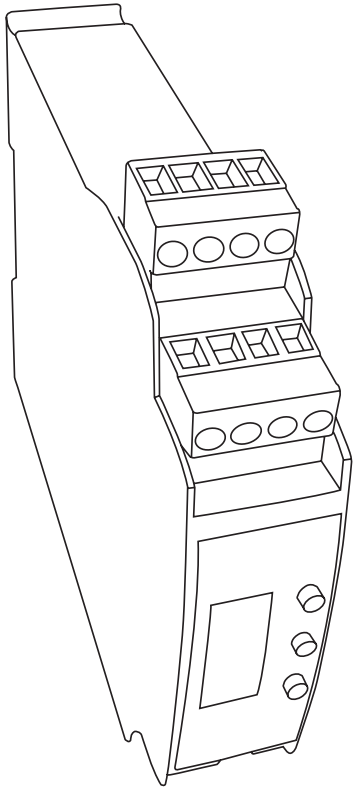
INDEX



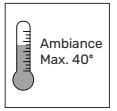
58008

SAFETY INFORMATION

Make sure all connectors are connected properly

Use a source of AC power that complies to local electrical codes

Block access below the work area when maintaining the unit

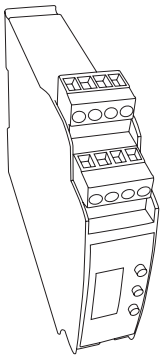


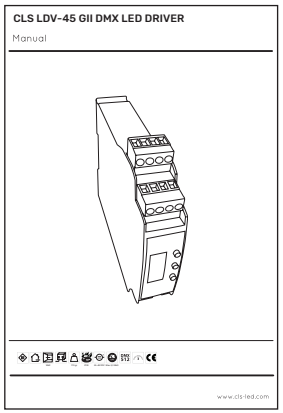
Don't modify or install genuine parts on this product

Don't install in a flammable or explosive area

Warning! Some surfaces can be hot

CONTENT





Optional accessories

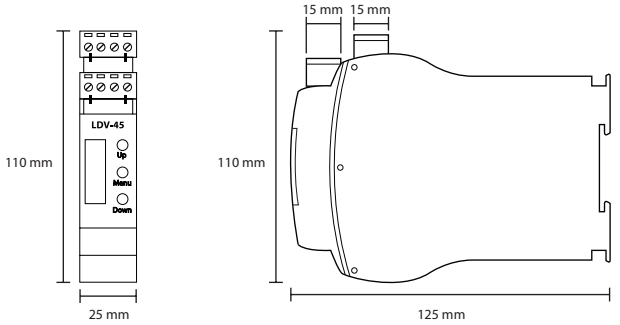
911465	CLS LD serie GII adapter cable XLR3 male to RJ45
911468	CLS LD serie GII adapter cable RJ45 to XLR3 female
707028	CLS Zense DMX controller + built in 4 amp RGB dimmer
707030	CLS ACX60 DMX controller for max. 60 channels
707000	CLS BT20.12 LED power supply 12VDC 20VA 85-264VAC
707001	CLS BT45.12 LED power supply 12VDC 45VA 85-264VAC
707002	CLS BT75.12 LED power supply 12VDC 75VA 85-264VAC
707003	CLS BT120.12 LED power supply 12VDC 120VA 85-264VAC
706995	CLS BT20.24 LED power supply 24VDC 2-VA 85-264VAC
707011	CLS BT45.24 LED power supply 24VDC 45VA 85-264VAC
707012	CLS BT75.24 LED power supply 24VDC 75VA 85-264VAC
707013	CLS BT120.24 LED power supply 24VDC 120VA 85-264VAC
707014	CLS BT240.24 LED power supply 24VDC 240VA 85-264VAC

INTRODUCTION

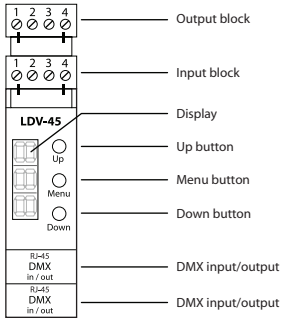
The CLS LDV-45 is a DMX controllable LED dimmer, which has a maximum of 4 regulated voltage DC outputs. Up to a maximum of 5A per channel at 12-24 Volts, with a total maximum current of 10A.
Equipped with a maximum of 4 channels the LDV-45 is suitable for controlling the latest generation of LED fixtures, RGBW or RGBA.

Unique is the DIN-rail mounting possibility of the new and small housing. The LDV-45 is equipped with installer friendly menu structure, which offers some smart solutions for installers to test and setup an installation.

MEASUREMENTS

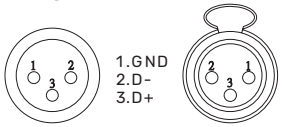


LAY-OUT description

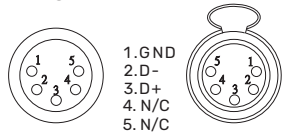


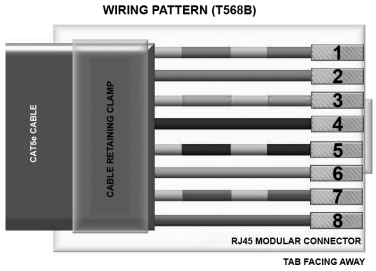
PINNING DMX OUTPUT

XLR3



XLR5





PIN	COLOUR	FUNCTION
1	Orange/white	DMX data +
2	Orange	DMX data -
3	Green/White	Not connected
4	Blue	Not connected
5	Blue/White	Not connected
6	Green	Not connected
7	Brown/White	DMX Common
8	Brown	DMX Common

This section describes in general terms how to install the LDV-45. How to setup the menu, data link and how to connect it to a fixture.

The LDV-45 has a unique feature, it is designed to be installed on a DIN-rail. Now it is possible to install the LDV-45 directly next to the powersupplies which are also suitable for DIN-rail mounting. This helps to keep your installation work modular and correct.

Overview voltage controlled drivers										
Fixture	**Voltage**	**Number ***	**LDV-45**	**LDV-45**	**LDV-45**	**LDV-45**	**LDV-45**	**LDV-45**	**LDV-45**	**LDV-45**	**LDV-45**
		Channels	4	4	4	4	4	4	4	4	4
		Dimmable	√	√	√	√	√	√	√	√	√
		External power supply	BT20.12	BT45.12	BT75.12	BT120.12	BT20.24	BT45.24	BT75.24	BT120.24	BT240.24
Covelight Superior	24VDC	Total	-	-	-	-	3m	5m	8m	13m	26m
2500K / 3000K		Maximum	-	-	-	-	3m	5m	8m	13m	13m
Power Strip GII 25 cm	24VDC	Total	-	-	-	-	3	7	12	20	40
		Maximum	-	-	-	-	3	7	12	20	20
Power Strip GII 50 cm	24VDC	Total	-	-	-	-	2	3	6	10	20
		Maximum	-	-	-	-	2	3	6	10	10
Safestairs red / amber	12VDC	Total	12m	28m	46m	74m	-	-	-	-	-
		Maximum	12m	28m	36m	36m	-	-	-	-	-
Safestairs cold white	12VDC	Total	6m	14m	22m	36m	-	-	-	-	-
		Maximum	6m	14m	18m	18m	6	6	9	12	12
Covelight Superior V2											
RGB 30 LEDs/mtr	24VDC	Total	-	-	-	-	-	-	-	-	-
		Maximum	-	-	-	-	2m	5m	8m	13m	27m
Covelight Superior V2											
RGB 60 LEDs/mtr	24VDC	Total	-	-	-	-	-	-	-	-	-
		Maximum	-	-	-	-	1m	3m	5m	8m	16m
Covelight Superior RGBW	24VDC	Total	-	-	-	-	-	-	-	-	-
		Maximum	-	-	-	-	1m	3m	5m	8m	16m

* The number of fixtures is divided in 2 catagories, total = total amount of fixtures on the driver, maximum = maximum amount of fixtures per channel.MT-drivers fixtures total is not used because they only have 1 channel, with RGB(A/W) fixtures total is not used because per fixture all channels are used.

Connecting a RGB(W/A) fixture and a powersupply to the LDV-45:

WARNING

ATTENTION!
First make sure that none of the products you are working on, are connected to the AC power!

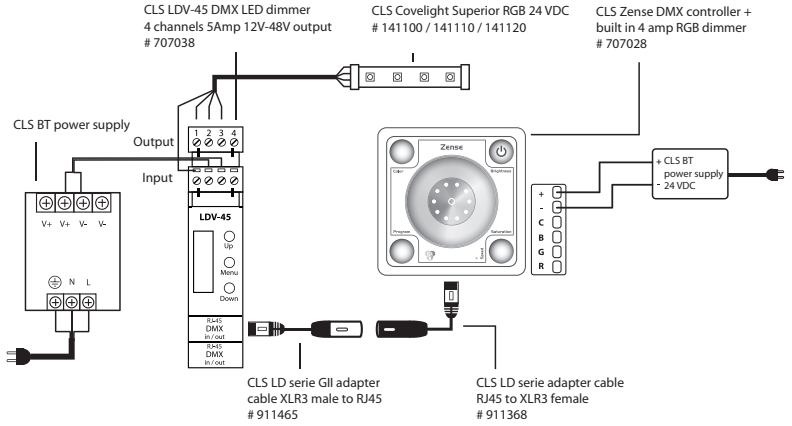
Use a powersupply with the output voltage which is compatible with the LED fixture you are using.
(e.g. Use a 230 VAC -24VDC powersupply if you are working with the CLS Covelight Superior)

Locate the 4 pole connection block at the top of the LDV-45, which is marked with INPUT.
- Connect the + positive output of the power supply to the power supply + positive input terminal of the LDV-45.
- Connect the - negative output of the power supply to the power supply - negative input terminal of the LDV-45.

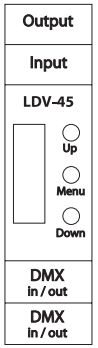
Locate the 4 pole connection block at the top of the LDV-45, which is marked with OUTPUT.
- Connect the fixture's Red to Channel 1 (R) of the LDV-45.
- Connect the fixture's Green to Channel 2 (G) of the LDV-45.
- Connect the fixture's Blue to Channel 3 (B) of the LDV-45.
- Connect the fixture's Amber/White to Channel 4 (A/W) of the LDV-45.*
- Connect the common + (positive) of your LED fixture to the powersupply + of the LDV-45.

* If the fixture is fitted with an Amber/White possibility

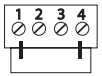
Connecting data to the LDV-45
When using the LDV-45 in combination with the CLS Zense DMX controller, you can simply connect the two devices with a standard RJ45 (UTP) cable. There is no need for an external powersupply, the LDV-45 supplies the CLS Zense with power through the RJ45 connection.



Connecting a RGB(W/A) fixture and a powersupply to the LDV-45:

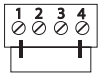


Output



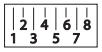
1 Channel 1 (R)
2 Channel 2 (G)
3 Channel 3 (B)
4 Channel 4 (A/W)

Input



1 Power supply +
2 Power supply +
3 Power supply -
4 Power supply -

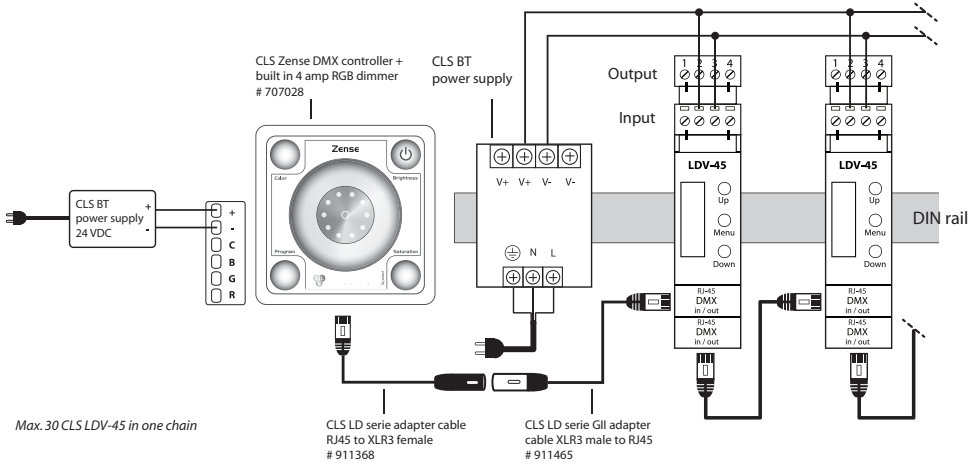
DMX



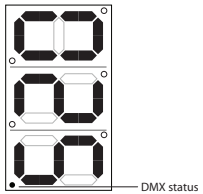
1 DMX data +
2 DMX data -
3 Not connected
4 Not connected
5 Not connected
6 Not connected
7 DMX Common
8 DMX Common

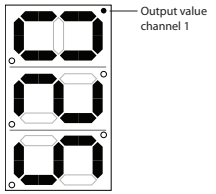
DMX data +	=	pin 1
DMX data -	=	pin 2
DMX common	=	pin 7 & 8

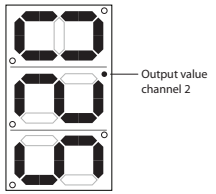
Linking the LDV-45

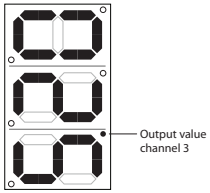


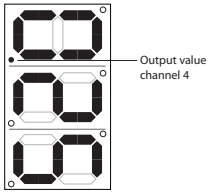
While in the main screen, you can check the output values of each channel. So you can check that the LDV-45 is connected correctly. The display will show a value in the 0-255 range. By pressing the [MENU] button you can select the different channels. Using this feature can help you checking the setup and makes trouble shooting very easy.











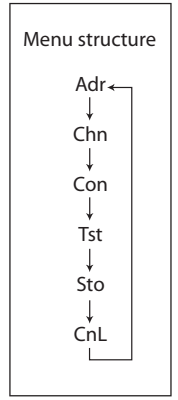
Setting up the LDV-45

When starting up the LDV-45 the display shows the DMX address. To enter the menu hold the [MENU] button for ± 3 seconds. Use the [UP] and [DOWN] buttons to scroll through the menu.

DMX address

The display will now show [Adr] (address), by pressing the [MENU] button again the current DMX address will be shown.

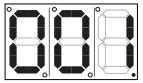
The DMX address can be changed by pressing the [UP] or [DOWN] button, when set to the correct DMX address you can go back to the main menu by pressing the [MENU] button again.



DISPLAY

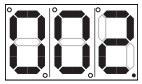
Setting the Mode
In the [Chn] (channel) menu there are 4 different modes available.

The first mode can be used for single colour products, all four outputs respond to 1 DMX Channel.



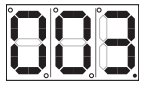
Output	DMX Channel
	1
1	✓
2	✓
3	✓
4	✓

The second mode can be used for 2 single colour fixtures.



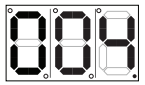
Output	DMX Channel	
	1	2
1	✓	
2	✓	
3		✓
4		✓

The third mode can be used for RGB products. The last channel is outputted on the 3rd and 4th output.



Output	DMX Channel		
	1 (R)	2 (G)	3 (B)
1	✓		
2		✓	
3			✓
4			✓

The fourth mode can be used for RGBW or RGBA products.



Output	DMX Channel			
	1 (R)	2 (G)	3 (B)	4 (A/W)
1	✓			
2		✓		
3			✓	
4				✓

Setting the Master Channel
The LDV-45 can be set to use a separate Master Channel. The Master Channel is at all times the last channel, no matter which mode is selected in the [Chn] menu.

This can be done in the [Con] menu:

Mode	Master
000	OFF
001	ON

Master Channel:

Mode	Output	Master
001	n	n+1
002	n ▶ n+1	n+2
003	n ▶ n+2	n+3
004	n ▶ n+3	n+4
*n = DMX address		

Test function
The [tst] function gives you the possibility to check the output of all channels without the need of a DMX controller. When running the test function, the four outputs will show a gradual change.

Store the setup
The [Sto] function is one of the two last steps in de menu. When the display shows [Sto] the settings can be saved by pressing the [MENU] button for ± 3 seconds.

Cancel the setup
When you do not want to save the changed settings, you can press the [DOWN] button one more time.
The display will now show [CnL], now press the [MENU] button again for ± 3 seconds to cancel and exit the menu.
All of the changes will be cancelled.

TECHNICAL

TECHNICAL SPECIFICATIONS

Power supply:	12-24 VDC
Power consumption:	Max. 0,5 Watt
Controlled voltage:	12-24 VDC
Controlled current:	Max, 5A each channel (total max. 10A)
Fuse:	6,3A fast, each channel (internal)
Protocol:	DMX 512/1990
Data in/out:	RJ45
Housing:	Plastic
IP rating:	IP40
Measurements:	110 x 25 x 125 mm (hxwxd)
Mounting:	DIN-rail
Weight:	140 gr
Working temperature:	-10 °C to +60 °C

LIST OF SYMBOLS

Protection class
One, two or three

Application area
Indoor or outdoor

Application area
Floor, wall or ceiling

Swivel
Fixture is horizontally rotatable, indicated in degrees

Swivel
Fixture is vertically rotatable, indicated in degrees

Multiple connection
Daisychain connectivity

Installation depth
In centimeters

Installation size
In centimeters

Cable length
Maximum cable attached to the fixture in centimeters

Driver
Inclusive or exclusive
Internal or external

Weight
In grams/kilograms

Pressure
Maximum pressure on the fixture in kg/cm²

Lifespan
Of the light source in hours

Lenses
Availble lenses, indicated in degrees

Performance Zoom
Adjustable beam angle

LEDs
Kind of LED used in the fixture

Plug & play
Easy connection using the SmartConnect system

IP value
Ingress Protection classifies the degrees of protection provided against the intrusion of the product

Colour changing
RGB, RGB-W, RGB-A, AWB or Tunable White

Retail & Food LED modules
Clothing, furniture, kitchens, jewellery, shoes, bread, meat, fish and vegetables & fruit.

Colour
Available colours;
Amber, blue, red or green

White colour temperature
In different Kelvin values;
Cold white, neutral white, warm white or extra warm white

Curve
Minimal bending curve in centimeters

Cutting length
Indicated by the cutting marks

LED pitch
Pitch between the LEDs in millimeters

Power supply
In VDC, VAC or milliAmpere

Power consumption
In VA or Watt

Dimmable
1-10 Volt, Phase, individual, DMX dimmable or DALI

PWM dimming
Traditional PWM dimming, DMX analog or DMX Hybrid dim

Bluetooth controlled
By Casambi

Magno dimming
Accurate dimming from 100 - 1% by using a magnet

Dynamic Control
Dynamic Power Control or Dynamic Temperature Control

DMX input
Fixture works on DMX512 protocol

Combined product
Compose your own fixture

Warranty
3 or 5 years warranty on the product

Conformité Européenne
CE marking for free marketability of industrial goods within the EU

Energy label

Lightsource
Equipped with a CLS, Citizen or a Xicato LED module