DMX REFERENCE

CITY ZOOM

Elan Lighting



Manufacturer	Elan Lighting
GDTF file	Elan_Lighting_city_zoom_168529.gdtf
GDTF revision	tomico 09112026 CITYZOOM · 2026-11-09
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1 About this manual

This document describes the CITY ZOOM by Elan Lighting. It was compiled from the GDTF file Elan_Lighting_city_zoom_168529.gdtf from the GDTF-Share library.

File revision: “tomico 09112026 CITYZOOM”.

The DMX modes, the channel functions and the technical data are given as the GDTF file states them. Installation, operation from the device's control panel, service and safety instructions are described in the manufacturer's original user manual, which takes precedence over this document.

This document was not issued or endorsed by Elan Lighting; product names and trademarks belong to their owners.

Safety notices are marked with signal words according to the severity of the hazard: DANGER – an imminent hazard that will result in death or serious injury; WARNING – a potential hazard that could result in death or serious injury; CAUTION – a potential hazard that could result in minor injury or property damage; NOTE – additional information for correct and safe use.

> **NOTE** This product is designed for stage and effect lighting. It is not suitable for household room illumination.

2 Quick reference

Parameter	Value
Power consumption	1,234 W
Weight	24.1 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
5CH	5	102	1, 6, 11, 16, ...
6CH	6	85	1, 7, 13, 19, ...
7CH	7	73	1, 8, 15, 22, ...
12CH	12	42	1, 13, 25, 37, ...
15CH	15	34	1, 16, 31, 46, ...
19CH	19	26	1, 20, 39, 58, ...

No light? Check these channels

- 12CH: CH 1 Dimmer above 0; CH 2 Dimmer Mode above 0
- 15CH: CH 1 Dimmer above 0; CH 2 Dimmer Mode above 0
- 19CH: CH 1 Dimmer above 0; CH 2 Dimmer Mode above 0


Read the manual before use


Risk of electric shock


Do not stare into the light


Indoor use only

3 Safety instructions


Read the manual before use


Risk of electric shock


Do not stare into the light


Indoor use only

⚠ WARNING

- This device is intended for professional use. Installation, connection, setup and maintenance must be carried out only by suitably qualified persons who have read this manual.
- Use the device only for its intended purpose and as described in this manual.
- Do not open the housing and do not modify or tamper with the device. Refer all repairs to an authorized service center.
- Do not use the device if its housing, power or data cable, or a connector is damaged, if the device has been dropped, or if liquid or a foreign object has entered it. In such a case, have it checked by a service center.
- Disconnect the device from the power supply before cleaning, maintenance or any work on the connections.
- After moving the device from a cold to a warm environment, let it reach room temperature before switching it on to prevent condensation inside.
- The device is not a toy; keep it out of the reach of children.

⚠ WARNING

- Connect the device only to a properly installed mains outlet with a protective earth (ground) contact. The outlet or other means of disconnection must remain easily accessible.
- Power supply: 100–240 V, 50/60 Hz. Before connecting, make sure that the mains voltage matches this value and the value on the rating plate of the device.
- Do not connect the device to a dimmer or to a dimmed circuit.
- Use only the original power cable or a cable with identical ratings. Protect the cable from damage, do not run it over sharp edges, and never unplug it by pulling on the cable.
- When connecting several devices to one circuit, do not exceed its permitted load.
- Do not touch the device with wet hands.

⚠ WARNING

- This device is designed for indoor use only. Protect it from rain, splashing water, moisture and dust, and do not place containers with liquids on it.
- Do not operate the device in high humidity, near water, or where condensation can form on it.

⚠ CAUTION

- This device emits intense light. Do not look directly into the light source or the beam at close range; doing so may damage your eyes.
- Do not aim the beam at the eyes of people or animals at close range, and do not view the light source through optical instruments (binoculars, camera lenses).
- Do not aim the beam at flammable or heat-sensitive materials at close range.

⚠ **CAUTION**

- Strobe and fast flashing light effects can trigger epileptic seizures in susceptible people (photosensitive epilepsy) and can cause nausea or disorientation.
- Inform the audience and performers in advance that strobe effects will be used, for example with a notice at the entrance, and do not use them longer than necessary.

4 Installation

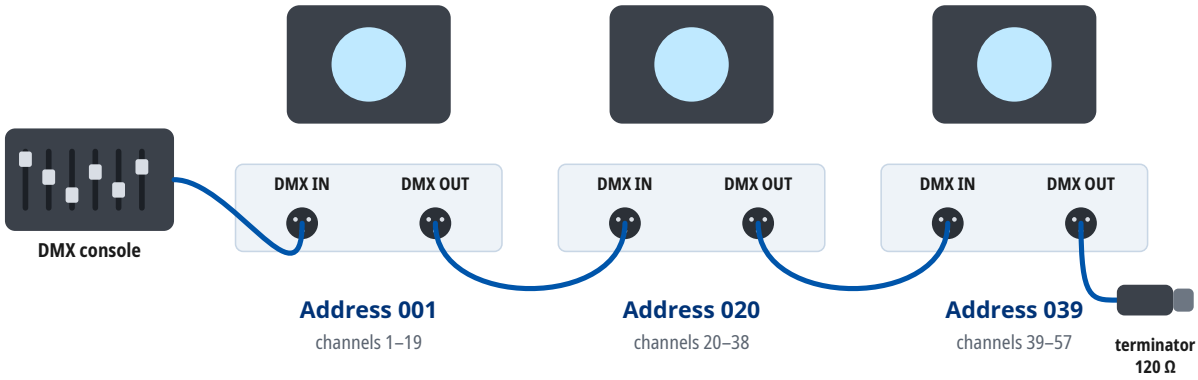
⚠ **WARNING**

- Rigging must be carried out only by qualified persons in accordance with applicable regulations, in particular those for work at height.
- The supporting structure and fixings must safely carry the weight of all suspended devices; verify their load capacity in advance.
- Weight of the device: 24.15 kg.
- Use suitable mounting hardware (for example truss clamps) and tighten all screw connections properly.
- Always secure the suspended device against falling with a safety cable of adequate load capacity, routed through a fixed point of the device and around the supporting structure.
- During installation and removal, keep people out of the area below the work position.
- Regularly inspect the fixings and the safety cable for damage, corrosion and loosening.

5 Connections

- Use shielded cable designed for DMX512 with an impedance of 110 Ω. Ordinary microphone cable is not suitable for DMX, especially over longer distances.
- Connect the devices in a daisy chain: connect the DMX OUT of one device to the DMX IN of the next. Do not split the line with Y-cables or wire it in a star; the line may be split only with a DMX splitter.
- Connect the shield to pin 1 only. Do not connect the shield (ground) to the metal shell of the connector; this can cause short circuits or erratic behavior.
- XLR pin assignment: pin 1 – shield (ground), pin 2 – Data- (Data Complement), pin 3 – Data+ (Data True). On 5-pin connectors, pins 4 and 5 are not connected; a 5-pin connector can be connected to a 3-pin one with a cable adapter.
- Terminate the end of the line (for impedance matching): plug an XLR connector with a 120 Ω, ¼ W resistor between pins 2 and 3 into the DMX OUT of the last device. This reduces the risk of erratic behavior.
- Connect no more than 32 devices to one DMX line. For more devices or longer runs, use a DMX splitter or booster.

DMX line



Mode 19CH: every unit occupies 19 channels from its address. At most 32 units on one line; for more units or longer runs use a DMX splitter. A 120 Ω terminator closes the last DMX OUT.

6 Operation

Setting the DMX address

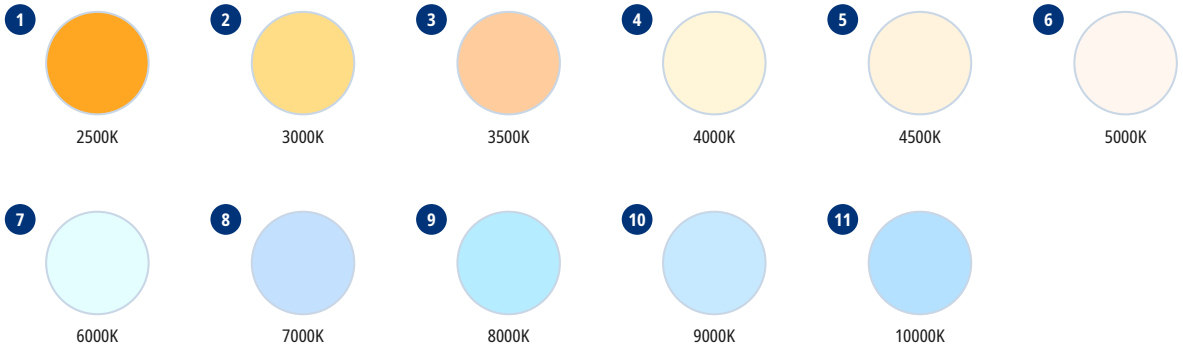
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “19CH”: 19.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied channel does not exceed 512. Devices with the same start address and mode respond identically.
- For several devices in a row in the DMX mode “19CH”, you can use, for example, the start addresses 1, 20, 39, 58.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.
- The device supports RDM (Remote Device Management), two-way communication with the controller over the DMX line.

7 Functions at a glance

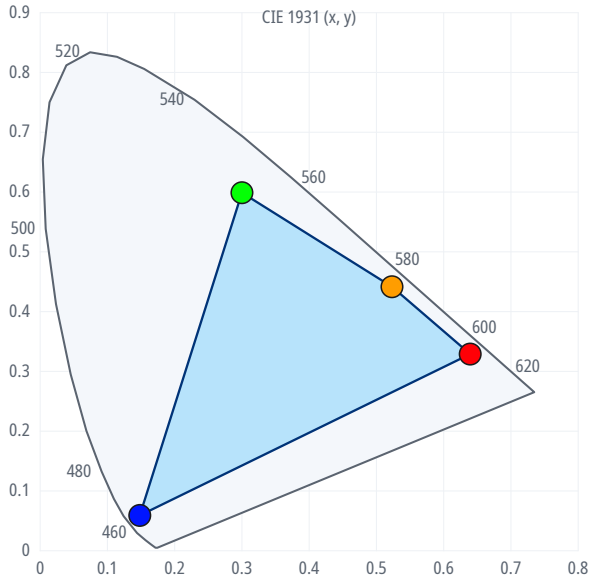
Functions in each DMX mode

	5CH 5 channels	6CH 6 channels	7CH 7 channels	12CH 12 channels	15CH 15 channels	19CH 19 channels
Dimmer				1	1	1
Shutter / strobe				7	7	11
Color mixing			1–4	3–6	3–6	4× (3–9)
Color temperature	2				9	13
Color wheel	1				8	12
Zoom	3	4	5	8	10	14
Effects / macros				10, 11	12, 13	16, 17

Color wheel



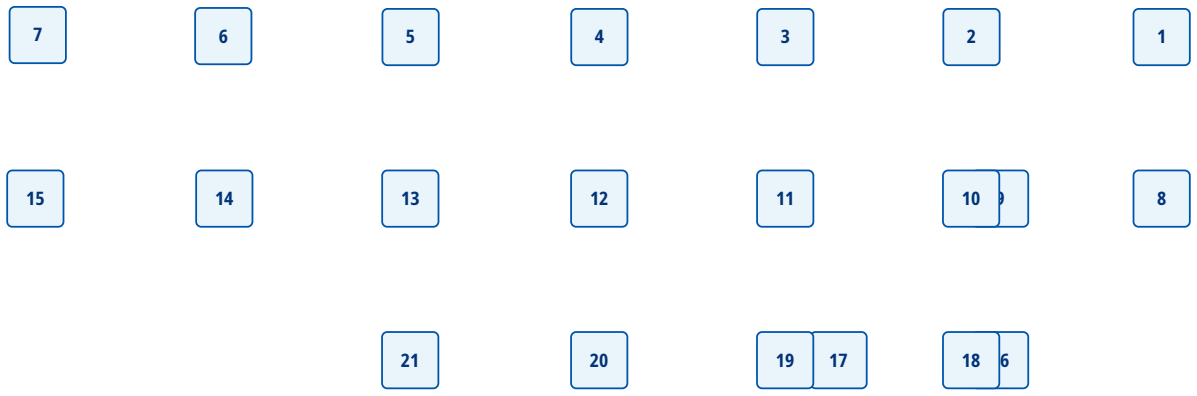
LED colors and the colors they mix



LED	x	y
RED	0.639	0.329
GREEN	0.300	0.599
BLUE	0.148	0.059
AMBER	0.523	0.442

The shaded area holds the colors the LEDs can mix; the dots are the LED colors the GDTF file states.

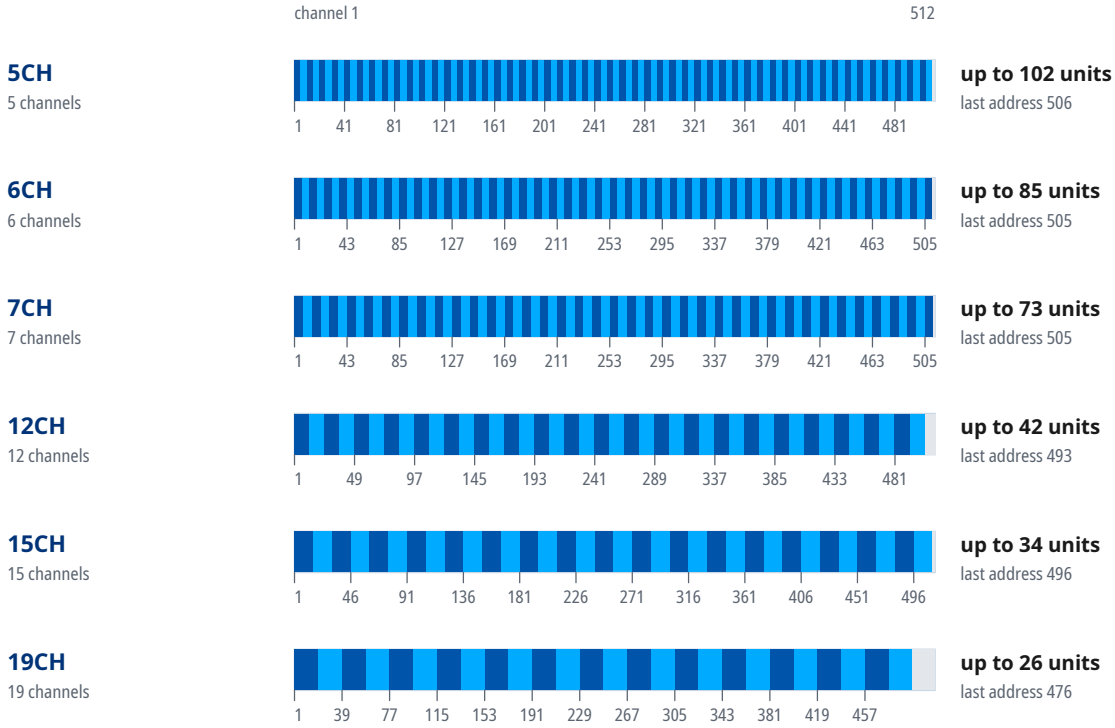
Cells (pixels)



21 cells where the GDTF file places them (seen from above), numbered in the file's order; the mode “15CH” drives them together.

8 DMX channels

Units in one DMX universe

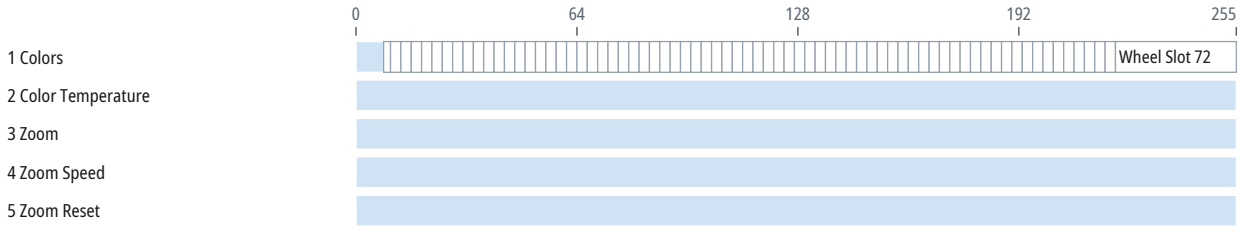


Start addresses of 20 units in the mode “19CH”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	96	11	191	16	286
2	20	7	115	12	210	17	305
3	39	8	134	13	229	18	324
4	58	9	153	14	248	19	343
5	77	10	172	15	267	20	362

Mode 5CH

Channel functions at a glance



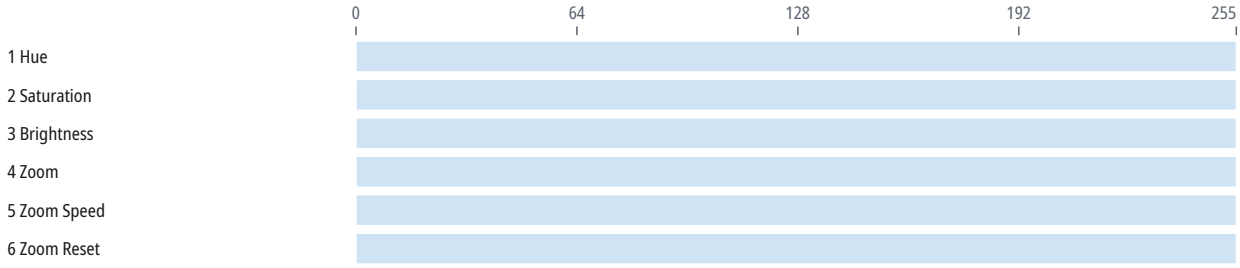
CH	Function	DMX	Description
1	Colors		Color Macro
		0–7	Color Macro
		8–9	Wheel Slot 1
		10–12	Wheel Slot 2

CH	Function	DMX	Description
1	Colors (continued)	13–15	Wheel Slot 3
		16–18	Wheel Slot 4
		19–21	Wheel Slot 5
		22–24	Wheel Slot 6
		25–27	Wheel Slot 7
		28–30	Wheel Slot 8
		31–33	Wheel Slot 9
		34–36	Wheel Slot 10
		37–39	Wheel Slot 11
		40–42	Wheel Slot 12
		43–45	Wheel Slot 13
		46–48	Wheel Slot 14
		49–51	Wheel Slot 15
		52–54	Wheel Slot 16
		55–57	Wheel Slot 17
		58–60	Wheel Slot 18
		61–63	Wheel Slot 19
		64–66	Wheel Slot 20
		67–69	Wheel Slot 21
		70–72	Wheel Slot 22
		73–75	Wheel Slot 23
		76–78	Wheel Slot 24
		79–81	Wheel Slot 25
		82–84	Wheel Slot 26
		85–87	Wheel Slot 27
		88–90	Wheel Slot 28
		91–93	Wheel Slot 29
		94–96	Wheel Slot 30
		97–99	Wheel Slot 31
		100–102	Wheel Slot 32
		103–105	Wheel Slot 33
		106–108	Wheel Slot 34
		109–111	Wheel Slot 35
		112–114	Wheel Slot 36
		115–117	Wheel Slot 37
		118–120	Wheel Slot 38
		121–123	Wheel Slot 39
		124–126	Wheel Slot 40
		127–129	Wheel Slot 41
		130–132	Wheel Slot 42
		133–135	Wheel Slot 43
		136–138	Wheel Slot 44

CH	Function	DMX	Description
1	Colors (continued)	139–141	Wheel Slot 45
		142–144	Wheel Slot 46
		145–147	Wheel Slot 47
		148–150	Wheel Slot 48
		151–153	Wheel Slot 49
		154–156	Wheel Slot 50
		157–159	Wheel Slot 51
		160–162	Wheel Slot 52
		163–165	Wheel Slot 53
		166–168	Wheel Slot 54
		169–171	Wheel Slot 55
		172–174	Wheel Slot 56
		175–177	Wheel Slot 57
		178–180	Wheel Slot 58
		181–183	Wheel Slot 59
		184–186	Wheel Slot 60
		187–189	Wheel Slot 61
		190–192	Wheel Slot 62
		193–195	Wheel Slot 63
		196–198	Wheel Slot 64
		199–201	Wheel Slot 65
		202–204	Wheel Slot 66
		205–207	Wheel Slot 67
		208–210	Wheel Slot 68
		211–213	Wheel Slot 69
		214–216	Wheel Slot 70
		217–219	Wheel Slot 71
		220–255	Wheel Slot 72
2	Color Temperature	0–255	
3	Zoom	0–255	
4	Zoom Speed	0–255	
5	Zoom Reset	0–255	

Mode 6CH

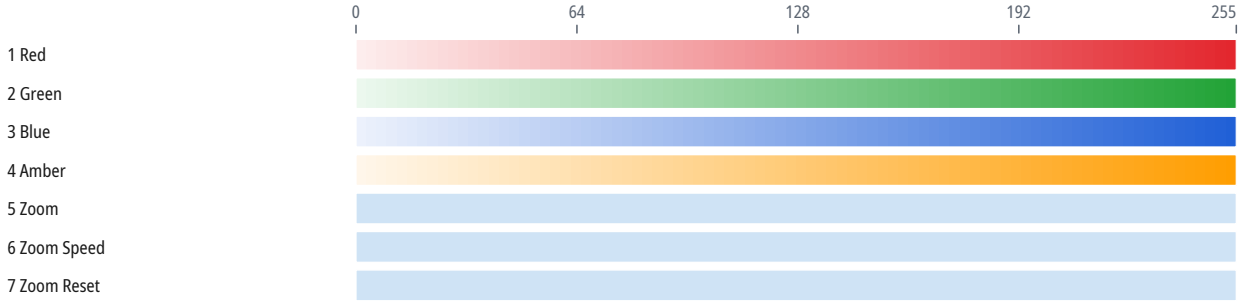
Channel functions at a glance



CH	Function	DMX	Description
1	Hue	0–255	
2	Saturation	0–255	
3	Brightness	0–255	
4	Zoom	0–255	
5	Zoom Speed	0–255	
6	Zoom Reset	0–255	

Mode 7CH

Channel functions at a glance

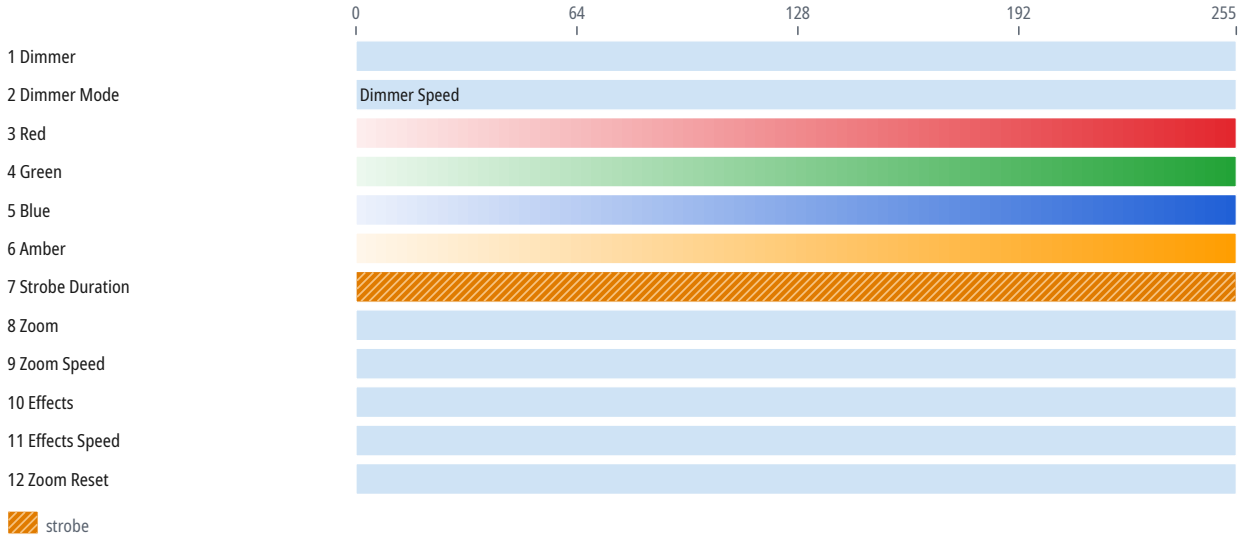


CH	Function	DMX	Description
1	Red	0–255	
2	Green	0–255	
3	Blue	0–255	
4	Amber	0–255	
5	Zoom	0–255	
6	Zoom Speed	0–255	
7	Zoom Reset	0–255	

Mode 12CH

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Dimmer above 0; CH 2 Dimmer Mode above 0.

Channel functions at a glance

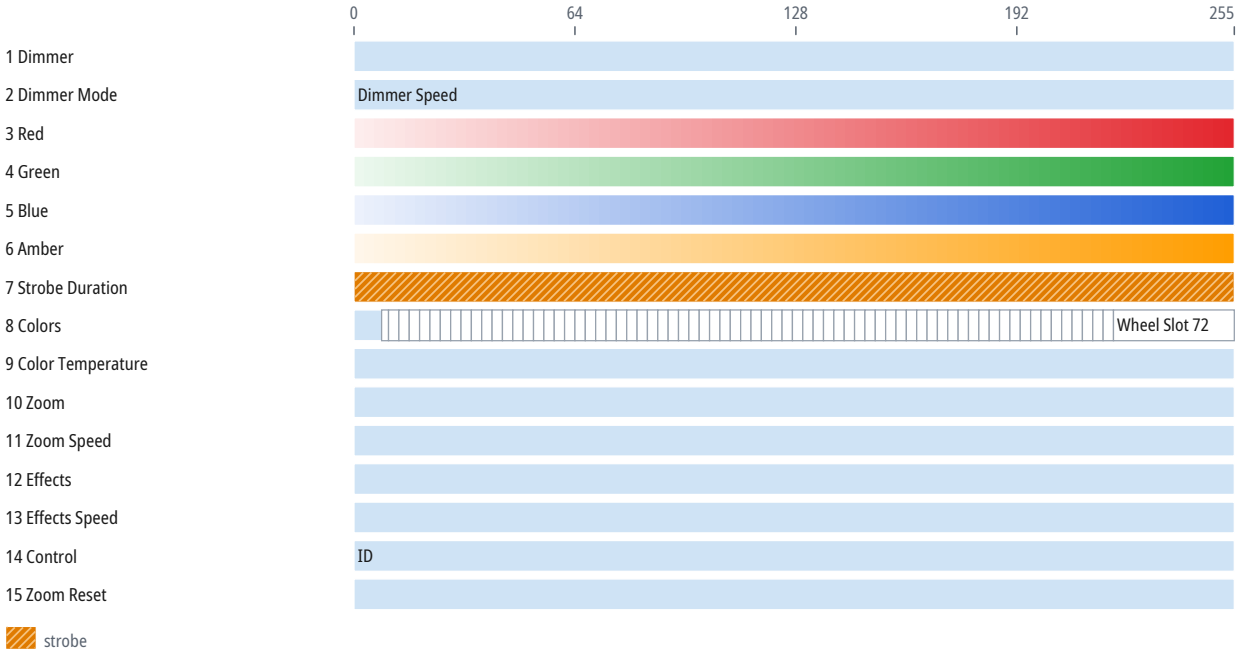


CH	Function	DMX	Description
1	Dimmer	0–255	
2	Dimmer Mode		Dimmer Speed
		0–255	Dimmer Speed
3	Red	0–255	
4	Green	0–255	
5	Blue	0–255	
6	Amber	0–255	
7	Strobe Duration	0–255	
8	Zoom	0–255	
9	Zoom Speed	0–255	
10	Effects	0–255	
11	Effects Speed	0–255	
12	Zoom Reset	0–255	

Mode 15CH

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Dimmer above 0; CH 2 Dimmer Mode above 0.

Channel functions at a glance



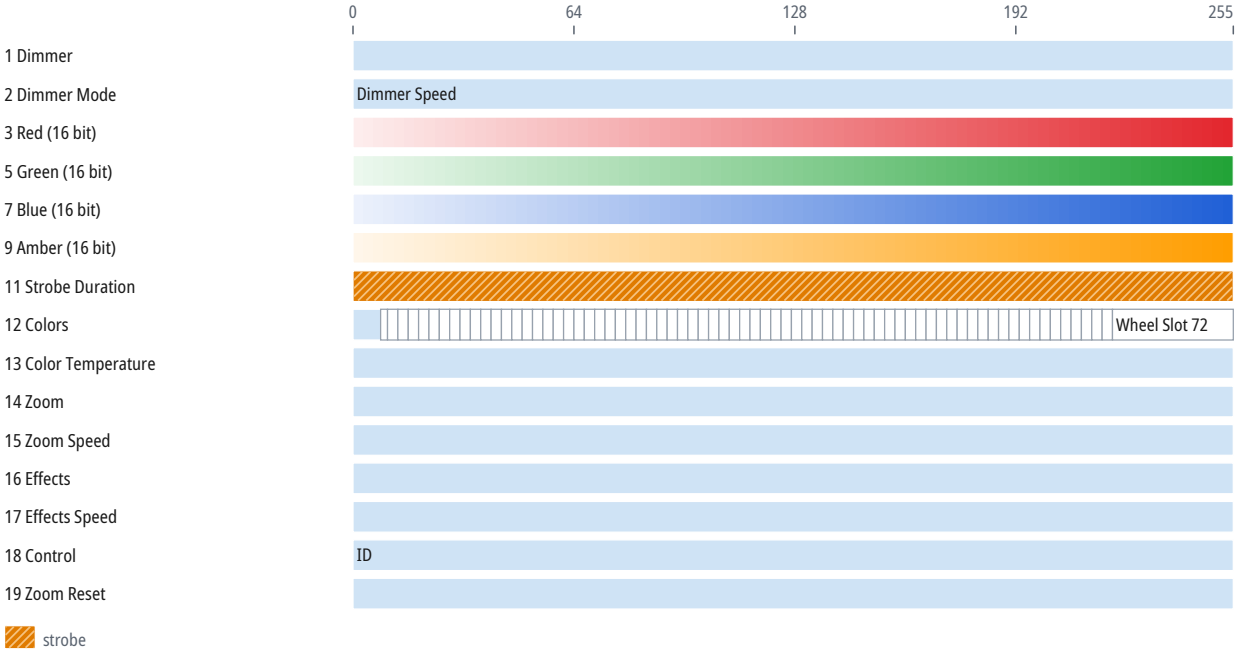
CH	Function	DMX	Description
1	Dimmer	0–255	
2	Dimmer Mode		Same as CH 2 in the mode “12CH” (p. 12)
3	Red	0–255	
4	Green	0–255	
5	Blue	0–255	
6	Amber	0–255	
7	Strobe Duration	0–255	
8	Colors		Same as CH 1 in the mode “5CH” (p. 8)
9	Color Temperature	0–255	
10	Zoom	0–255	
11	Zoom Speed	0–255	
12	Effects	0–255	
13	Effects Speed	0–255	
14	Control	0–255	ID
15	Zoom Reset	0–255	

Mode 19CH

16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Dimmer above 0; CH 2 Dimmer Mode above 0.

Channel functions at a glance

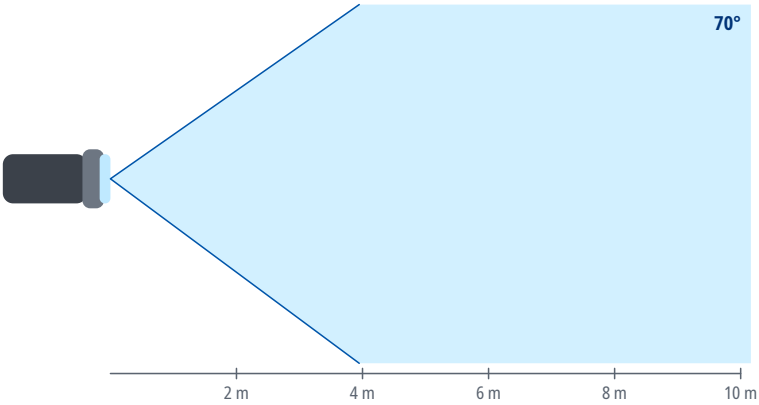


CH	Function	DMX	Description
1	Dimmer	0–255	
2	Dimmer Mode		Same as CH 2 in the mode “12CH” (p. 12)
3	Red	0–255	
4	Red Fine	0–255	Fine adjustment of CH 3
5	Green	0–255	
6	Green Fine	0–255	Fine adjustment of CH 5
7	Blue	0–255	
8	Blue Fine	0–255	Fine adjustment of CH 7
9	Amber	0–255	
10	Amber Fine	0–255	Fine adjustment of CH 9
11	Strobe Duration	0–255	
12	Colors		Same as CH 1 in the mode “5CH” (p. 8)
13	Color Temperature	0–255	
14	Zoom	0–255	
15	Zoom Speed	0–255	
16	Effects	0–255	
17	Effects Speed	0–255	
18	Control	0–255	ID
19	Zoom Reset	0–255	

9 Technical specifications

Parameter	Value
Light	
Light source	LED
Control	
DMX connection	5-pin XLR IN/OUT
RJ45 connectors	RJ45 IN/OUT
RDM	yes (manufacturer ID 0x03E8, device model ID 0x0136)
Electrical	
Power supply	100–240 V, 50/60 Hz
Power consumption	1,234 W
Power connectors	powerCON TRUE1 IN/OUT
Dimensions and construction	
Weight	24.1 kg
Operating environment	
Operating temperature	0 to 40 °C

Spot diameter



Distance	Ø 70°
2 m	2.8 m
4 m	5.6 m
6 m	8.4 m
8 m	11.2 m
10 m	14 m
15 m	21 m

Spot diameter square to the beam axis, calculated from the beam angle.

10 Maintenance and cleaning

- Before cleaning and maintenance, switch the device off, disconnect it from the power supply and let it cool down.
- Clean the housing with a soft, dry or slightly damp cloth. Do not use solvents, abrasive cleaners or pressure washers, and make sure no liquid gets into the device.
- Clean optical parts (lenses, front glass), if the device has any, with a soft lint-free cloth and a cleaner intended for optics or glass.
- Regularly inspect the housing, cables, connectors and fixings. Have damaged parts replaced by a service center.
- How often to clean depends on the environment; dust, smoke and fog make the device dirty much faster.

11 Troubleshooting

Problem	Remedy
The device does not switch on	Check the supply voltage, the cables and the fuse, if the device has one.
The device does not respond to DMX	Check the start address, the selected DMX mode and whether it matches the profile in the controller, the cable connection to DMX IN, and the controller output (universe).
The device behaves erratically or flickers	Check the terminator at the end of the line, the condition and wiring of the cables (shield on pin 1 only), the number of devices on the line (32 at most), and that the line is not split without a splitter.
Only some devices on the line respond	Check the cable and connectors between the last working and the first non-working device, and make sure all devices on the line are switched on.
Devices respond to the wrong channels or affect each other	Check that the addresses do not overlap and that the DMX mode on the devices matches the patch in the controller.
The device or the connected load does not light up although it receives DMX	Check the values of the dimmer, shutter and strobe channels against the DMX channel table. For the DMX modes for which the sources state it, the chapter DMX channels gives under the mode's heading which channels must be open.

12 Disposal

The crossed-out wheeled bin symbol on the product, in the manual or on the packaging means that the product must not be disposed of with unsorted household waste at the end of its life.

Take the end-of-life equipment to a collection point, for example a municipal collection site or a retailer. Proper disposal enables materials to be recycled and helps prevent possible negative effects on the environment and human health.

Follow the regulations applicable in your country; in the Czech Republic, take-back is governed by Act No. 542/2020 Coll., on End-of-Life Products.

Recycle the packaging materials according to their type.