DMX REFERENCE

X5 atom single Head

GLP X5 atom single Head

GLP



Manufacturer	GLP
GDTF file	GLP_X5_atom_single_Head_84642.gdtf
GDTF revision	27012025_X5atomHead_byRG_V04Proto · 2025-01-27
Generated	2026-11-24

Contents

1 About this manual 2
2 Quick reference 3
3 Safety instructions 4
4 Installation 5
5 Connections 5
6 Operation 6
7 Functions at a glance 6
8 DMX channels 8
Mode 2 RGBL 8
Mode 2 RGB 14
Mode 3 RGBL 15
Mode 3 RGB 16
9 Technical specifications 17
10 Maintenance and cleaning 17
11 Troubleshooting 18
12 Disposal 18

1 About this manual

This document describes the GLP X5 atom single Head by GLP. It was compiled from the GDTF file GLP_X5_atom_single_Head_84642.gdtf from the GDTF-Share library.

File revision: “27012025_X5atomHead_byRG_V04Proto”.

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 GLP; 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
Weight	2.5 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
Mode 2 RGBL	9	56	1, 10, 19, 28, ...
Mode 2 RGB	9	56	1, 10, 19, 28, ...
Mode 3 RGBL	13	39	1, 14, 27, 40, ...
Mode 3 RGB	13	39	1, 14, 27, 40, ...

No light? Check these channels

- Mode 2 RGBL: CH 1 Dimmer above 0; CH 3 Shutter at 10–11 or 40–41 or 70–71 or 100–101 or 130–131 or 160–161 or 200–201 or 251–255 “Open”
- Mode 2 RGB: CH 1 Dimmer above 0; CH 3 Shutter at 10–11 or 40–41 or 70–71 or 100–101 or 130–131 or 160–161 or 200–201 or 251–255 “Open”
- Mode 3 RGBL: CH 1 Dimmer above 0; CH 3 Shutter at 10–11 or 40–41 or 70–71 or 100–101 or 130–131 or 160–161 or 200–201 or 251–255 “Open”
- Mode 3 RGB: CH 1 Dimmer above 0; CH 3 Shutter at 10–11 or 40–41 or 70–71 or 100–101 or 130–131 or 160–161 or 200–201 or 251–255 “Open”


Read the manual before use


Do not stare into the light


Indoor use only

3 Safety instructions



Read the manual before use



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

- 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

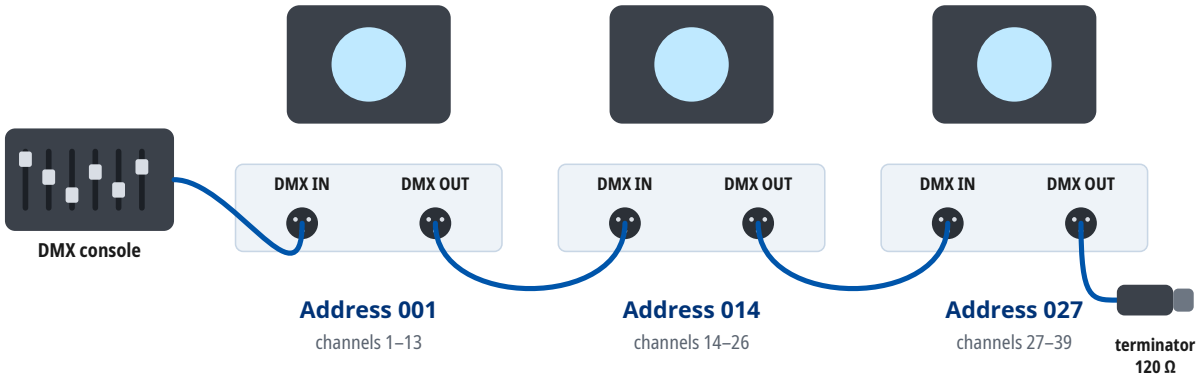
⚠ **WARNING**

- 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: 2.5 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 3 RGBL: every unit occupies 13 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

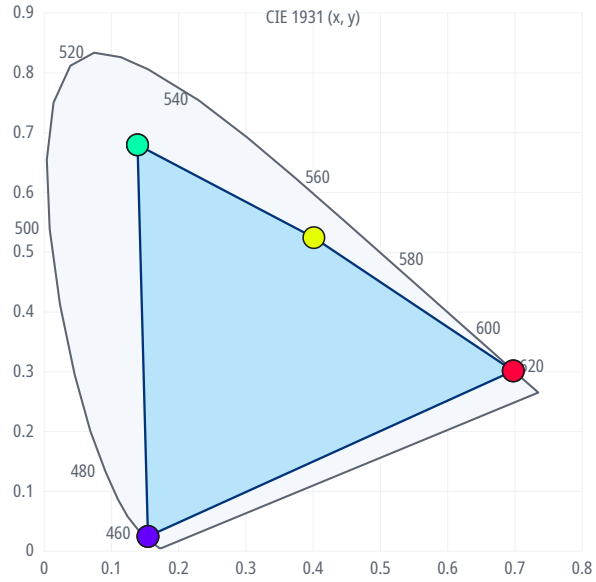
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “Mode 3 RGBL”: 13.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied 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 “Mode 3 RGBL”, you can use, for example, the start addresses 1, 14, 27, 40.
- 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

	Mode 2 RGBL 9 channels	Mode 2 RGB 9 channels	Mode 3 RGBL 13 channels	Mode 3 RGB 13 channels
Dimmer	1	1	1	1
Shutter / strobe	3	3	3	3
Color mixing	6–9	6–8	4× (6–12)	6, 8, 10
Color temperature	5	5	5	5
Zoom	4	4	4	4

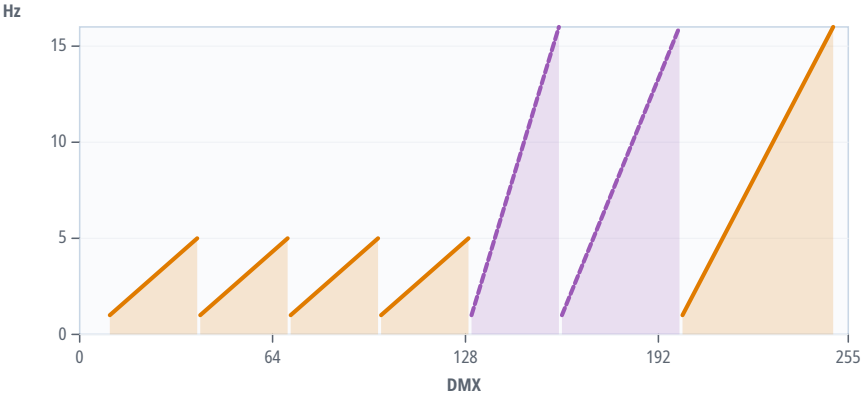
LED colors and the colors they mix



LED	x	y
RGBL Red	0.698	0.302
RGBL Green	0.139	0.680
RGBL Blue	0.154	0.025
RGBL Lime	0.401	0.524
RGB Red	0.698	0.302
RGB Green	0.139	0.680
RGB Blue	0.154	0.025

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

Strobe rate

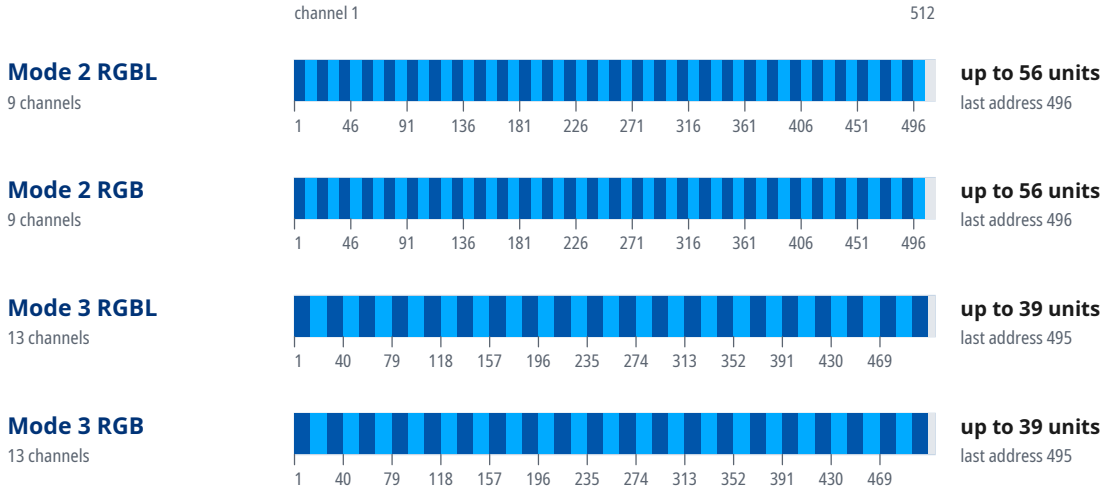


CH 3 · Mode 2 RGBL

- 10–39: 1–5 Hz Pulse
- 40–69: 1–5 Hz Opening pulse
- 70–99: 1–5 Hz Closing pulse
- 100–129: 1–5 Hz Double flash
- 130–159: 1–16 Hz Lightning
- 160–199: 1–16 Hz Random Strobe
- 200–250: 1–16 Hz Strobe

8 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Mode 3 RGBL”

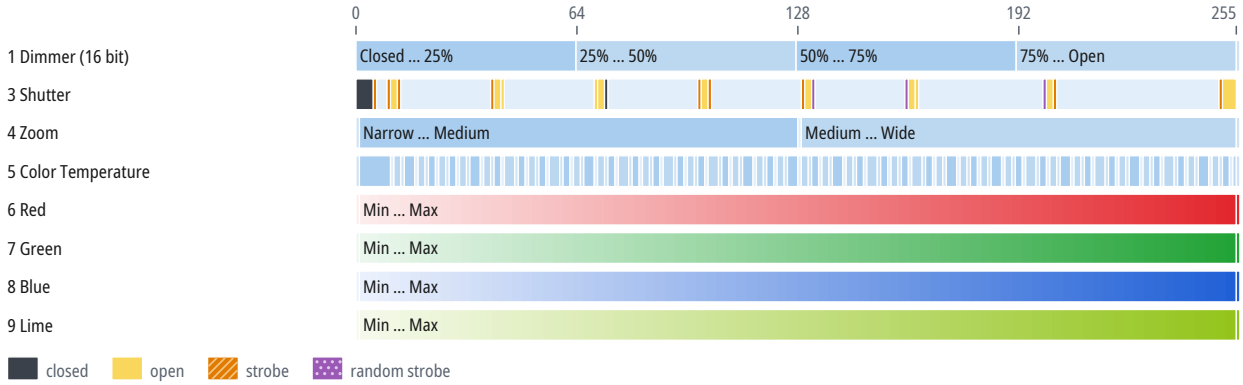
Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	66	11	131	16	196
2	14	7	79	12	144	17	209
3	27	8	92	13	157	18	222
4	40	9	105	14	170	19	235
5	53	10	118	15	183	20	248

Mode 2 RGBL

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 3 Shutter at 10–11 or 40–41 or 70–71 or 100–101 or 130–131 or 160–161 or 200–201 or 251–255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255, CH 3 Shutter 255, CH 5 Color Temperature 0, CH 6 Red 255, CH 7 Green 255, CH 8 Blue 255, CH 9 Lime 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Dimmer	0–63	Closed ... 25%
		64–127	25% ... 50%
		128–191	50% ... 75%
		192–255	75% ... Open
		255	Open
2	Dimmer Fine	0–255	Fine adjustment of CH 1
3	Shutter	0–4	Shutter closed: Closed
		5–9	Single Flash
		10–11	Pulse: Open 2
		12	Pulse slow
		13–38	Pulse slow ... Pulse Fast
		39	Pulse Fast
		40–41	Opening pulse: Open 3
		42	Pulse Open slow
		43–68	Pulse Open slow ... Pulse Open fast
		69	Pulse Open fast
		70–71	Closing pulse: Open 4
		72	Pulse Close slow
		73–98	Pulse Close slow ... Pulse cCose fast
		99	Pulse cCose fast
		100–101	Double flash: Open 5
		102	Double Flash Slow
		103–128	Double Flash Slow ... Double Flash Fast
		129	Double Flash Fast
		130–131	Lightning: Open 6
		132	Lightning xx
		133–158	Lightning xx ... Lightning XX
		159	Lightning XX
		160–161	Random Strobe: Open 7
		162	Randon Slow
		163–198	Randon Slow ... Random Fast
		199	Random Fast
		200–201	Strobe: Open 8
		202	Strobe Slow
		203–249	Strobe Slow ... Strobe Fast
		250	Strobe Fast
		251–255	Shutter open: Open
4	Zoom	0	Narrow
		1–127	Narrow ... Medium
		128	Medium

CH	Function	DMX	Description
4	Zoom (continued)	129–254	Medium … Wide
		255	Wide
5	Color Temperature	0	Open Whitepoint Default
		1–9	CTC
		10	10000K
		11–12	10000K … 9900K
		13	9900K
		14–16	9900K … 9800K
		17	9800K
		18–19	9800K … 9700K
		20	9700K
		21–22	9700K … 9600K
		23	9600K
		24–25	9600K … 9500K
		26	9500K
		27–28	9500K … 9400K
		29	9400K
		30–31	9400K … 9300K
		32	9300K
		33–35	9300K … 9200K
		36	9200K
		37–38	9200K … 9100K
		39	9100K
		40–41	9100K … 9000K
		42	9000K
		43–45	9000K … 8900K
		46	8900K
		47–48	8900K … 8800K
		49	8800K
		50–51	8800K … 8700K
		52	8700K
		53–54	8700K … 8600K
		55	8600K
		56–58	8600K … 8500K
		59	8500K
		60–61	8500K … 8400K
		62	8400K
		63–64	8400K … 8300K
		65	8300K
		66–68	8300K … 8200K
		69	8200K

CH	Function	DMX	Description
5	Color Temperature (continued)	70–71	8200K … 8100K
		72	8100K
		73–74	8100K … 8000K
		75	8000K
		76–78	8000K … 7900K
		79	7900K
		80–81	7900K … 7800K
		82	7800K
		83–84	7800K … 7700K
		85	7700K
		86–87	7700K … 7600K
		88	7600K
		89–91	7600K … 7500K
		92	7500K
		93–94	7500K … 7400K
		95	7400K
		96–97	7400K … 7300K
		98	7300K
		99–100	7300K … 7200K
		101	7200K
		102–104	7200K … 7100K
		105	7100K
		106–107	7100K … 7000K
		108	7000K
		109–110	7000K … 6900K
		111	6900K
		112–114	6900K … 6800K
		115	6800K
		116–117	6800K … 6700K
		118	6700K
		119–120	6700K … 6600K
		121	6600K
		122–123	6600K … 6500K
		124	6500K
		125–127	6500K … 6400K
		128	6400K
		129–130	6400K … 6300K
		131	6300K
		132–133	6300K … 6200K
		134	6200K
		135–136	6200K … 6100K

CH	Function	DMX	Description
5	Color Temperature (continued)	137	6100K
		138–140	6100K … 6000K
		141	6000K
		142–143	6000K … 5900K
		144	5900K
		145–146	5900K … 5800K
		147	5800K
		148–150	5800K … 5700K
		151	5700K
		152–153	5700K … 5600K
		154	5600K
		155–156	5600K … 5500K
		157	5500K
		158–159	5500K … 5400K
		160	5400K
		161–163	5400K … 5300K
		164	5300K
		165–166	5300K … 5200K
		167	5200K
		168–169	5200K … 5100K
		170	5100K
		171–173	5100K … 5000K
		174	5000K
		175–176	5000K … 4900K
		177	4900K
		178–179	4900K … 4800K
		180	4800K
		181–182	4800K … 4700K
		183	4700K
		184–186	4700K … 4600K
		187	4600K
		188–189	4600K … 4500K
		190	4500K
		191–192	4500K … 4400K
		193	4400K
		194–196	4400K … 4300K
		197	4300K
		198–199	4300K … 4200K
		200	4200K
		201–202	4200K … 4100K
		203	4100K

CH	Function	DMX	Description
5	Color Temperature (continued)	204–206	4100K ... 4000K
		207	4000K
		208–209	4000K ... 3900K
		210	3900K
		211–212	3900K ... 3800K
		213	3800K
		214–216	3800K ... 3700K
		217	3700K
		218–219	3700K ... 3600K
		220	3600K
		221–222	3600K ... 3500K
		223	3500K
		224–226	3500K ... 3400K
		227	3400K
		228–229	3400K ... 3300K
		230	3300K
		231–232	3300K ... 3200K
		233	3200K
		234–236	3200K ... 3100K
		237	3100K
		238–239	3100K ... 3000K
		240	3000K
		241–242	3000K ... 2900K
		243	2900K
		244–246	2900K ... 2800K
		247	2800K
		248–249	2800K ... 2700K
		250	2700K
		251–252	2700K ... 2600K
		253	2600K
		254	2500K
		255	CTC 2
6	Red	0	Min
		1–254	Min ... Max
		255	Max
7	Green	0	Min
		1–254	Min ... Max
		255	Max
8	Blue	0	Min
		1–254	Min ... Max
		255	Max

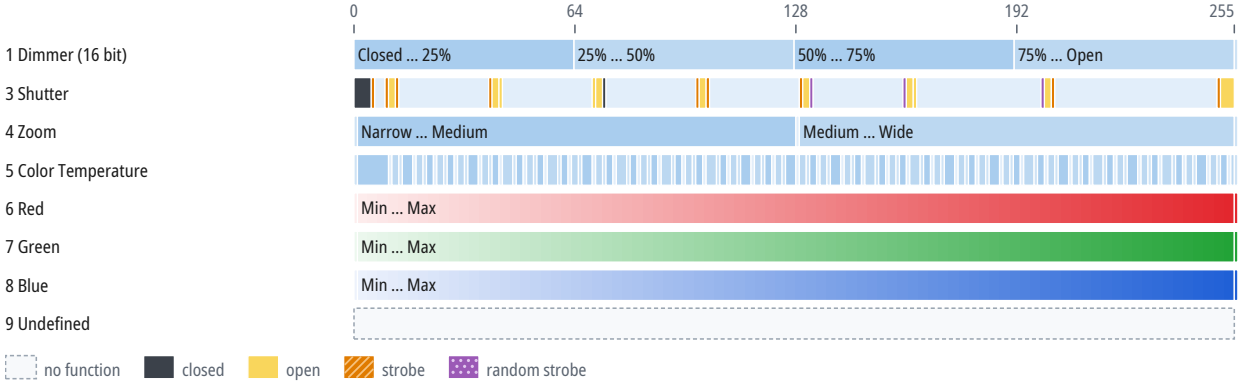
CH	Function	DMX	Description
9	Lime	0	Min
		1–254	Min … Max
		255	Max

Mode 2 RGB

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 3 Shutter at 10–11 or 40–41 or 70–71 or 100–101 or 130–131 or 160–161 or 200–201 or 251–255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255, CH 3 Shutter 255, CH 5 Color Temperature 0, CH 6 Red 255, CH 7 Green 255, CH 8 Blue 255.

Channel functions at a glance



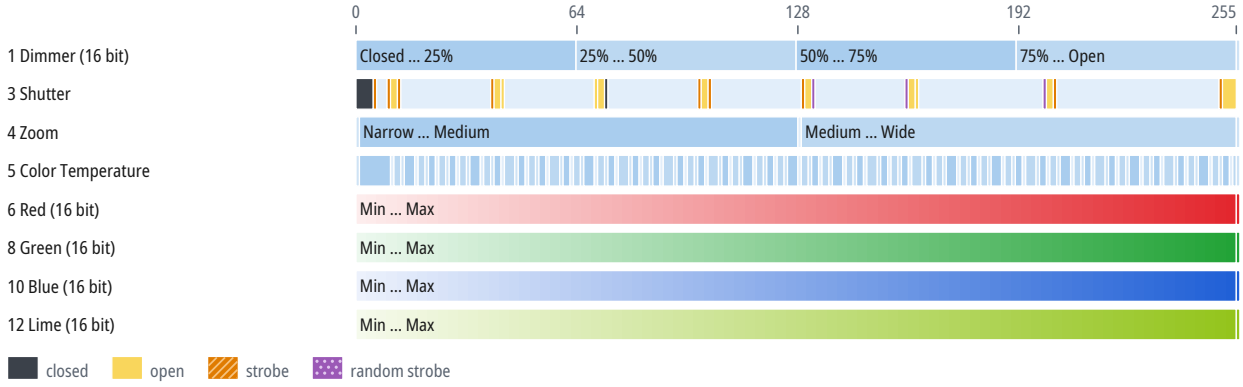
CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “Mode 2 RGBL” (p. 9)
2	Dimmer Fine	0–255	Fine adjustment of CH 1
3	Shutter		Same as CH 3 in the mode “Mode 2 RGBL” (p. 9)
4	Zoom		Same as CH 4 in the mode “Mode 2 RGBL” (p. 9)
5	Color Temperature		Same as CH 5 in the mode “Mode 2 RGBL” (p. 10)
6	Red		Same as CH 6 in the mode “Mode 2 RGBL” (p. 13)
7	Green		Same as CH 7 in the mode “Mode 2 RGBL” (p. 13)
8	Blue		Same as CH 8 in the mode “Mode 2 RGBL” (p. 13)
9	Undefined	0–255	

Mode 3 RGBL

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 3 Shutter at 10–11 or 40–41 or 70–71 or 100–101 or 130–131 or 160–161 or 200–201 or 251–255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255, CH 3 Shutter 255, CH 5 Color Temperature 0, CH 6 Red 255, CH 8 Green 255, CH 10 Blue 255, CH 12 Lime 255.

Channel functions at a glance



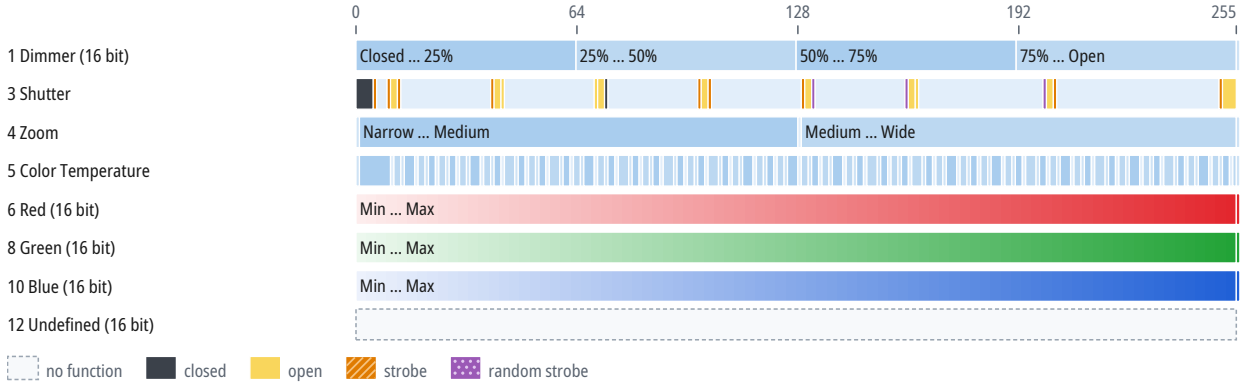
CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “Mode 2 RGBL” (p. 9)
2	Dimmer Fine	0–255	Fine adjustment of CH 1
3	Shutter		Same as CH 3 in the mode “Mode 2 RGBL” (p. 9)
4	Zoom		Same as CH 4 in the mode “Mode 2 RGBL” (p. 9)
5	Color Temperature		Same as CH 5 in the mode “Mode 2 RGBL” (p. 10)
6	Red	0–255	Min ... Max
		255	Max
7	Red Fine	0–255	Fine adjustment of CH 6
8	Green	0–255	Min ... Max
		255	Max
9	Green Fine	0–255	Fine adjustment of CH 8
10	Blue	0–255	Min ... Max
		255	Max
11	Blue Fine	0–255	Fine adjustment of CH 10
12	Lime	0–255	Min ... Max
		255	Max
13	Lime Fine	0–255	Fine adjustment of CH 12

Mode 3 RGB

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 3 Shutter at 10–11 or 40–41 or 70–71 or 100–101 or 130–131 or 160–161 or 200–201 or 251–255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255, CH 3 Shutter 255, CH 5 Color Temperature 0, CH 6 Red 255, CH 8 Green 255, CH 10 Blue 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “Mode 2 RGBL” (p. 9)
2	Dimmer Fine	0–255	Fine adjustment of CH 1
3	Shutter		Same as CH 3 in the mode “Mode 2 RGBL” (p. 9)
4	Zoom		Same as CH 4 in the mode “Mode 2 RGBL” (p. 9)
5	Color Temperature		Same as CH 5 in the mode “Mode 2 RGBL” (p. 10)
6	Red		Same as CH 6 in the mode “Mode 3 RGBL” (p. 15)
7	Red Fine	0–255	Fine adjustment of CH 6
8	Green		Same as CH 8 in the mode “Mode 3 RGBL” (p. 15)
9	Green Fine	0–255	Fine adjustment of CH 8
10	Blue		Same as CH 10 in the mode “Mode 3 RGBL” (p. 15)
11	Blue Fine	0–255	Fine adjustment of CH 10
12	Undefined	0–255	
13	Undefined Fine	0–255	Fine adjustment of CH 12

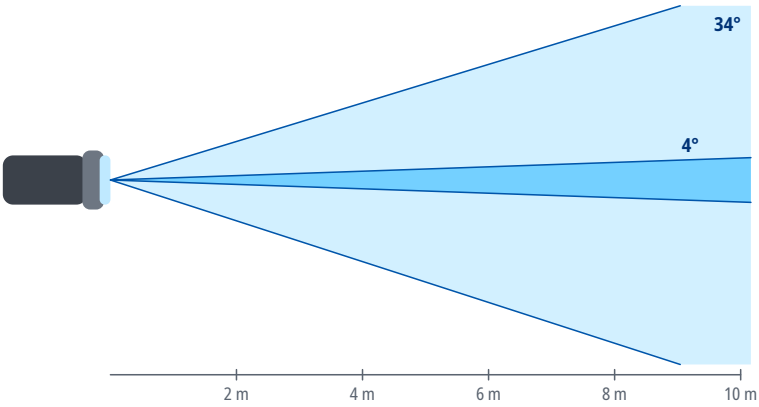
9 Technical specifications

Parameter	Value
Light source	LED
Zoom	4–34°
RDM	yes (manufacturer ID 0x676C, device model ID 0x0102)
Weight	2.5 kg
Operating temperature	-10 to 45 °C

Speeds and ranges

Parameter	Value
Color temperature range	2500–10000 K
Strobe frequency	1–16 Hz

Spot diameter



Distance	Ø 4°	Ø 34°
2 m	0.14 m	1.2 m
4 m	0.28 m	2.4 m
6 m	0.42 m	3.7 m
8 m	0.56 m	4.9 m
10 m	0.7 m	6.1 m
15 m	1 m	9.2 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.