DMX REFERENCE

SIXPAR 300 IP

Elation



Manufacturer	Elation
GDTF file	Elation_SIXPAR_300_IP_52038.gdtf
GDTF revision	23-28-11 First Release · 2023-11-28
Generated	2026-11-24

Contents

1 About this manual 2
2 Quick reference 3
3 Safety instructions 4
4 Product description 5
5 Installation 5
6 Connections 5
7 Operation 6
8 Functions at a glance 6
9 DMX channels 11
Mode 12 CH 11
Mode 8 CH 16
Mode 7 CH 17
Mode 6 CH 17
10 Technical specifications 18
11 Maintenance and cleaning 19
12 Troubleshooting 19
13 Disposal 20

1 About this manual

This document describes the SIXPAR 300 IP by Elation. It was compiled from the GDTF file Elation_SIXPAR_300_IP_52038.gdtf from the GDTF-Share library.

File revision: “23-28-11 First Release”.

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 Elation; 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	9.5 kg
Ingress protection	IP65

DMX modes

Mode	Channels	Units in one universe	First start addresses
12 CH	12	42	1, 13, 25, 37, ...
8 CH	8	64	1, 9, 17, 25, ...
7 CH	7	73	1, 8, 15, 22, ...
6 CH	6	85	1, 7, 13, 19, ...



Read the manual before use



Do not stare into the light

3 Safety instructions



Read the manual before use



Do not stare into the light

⚠ 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.

⚠ CAUTION

- The device is rated IP65 and may be used outdoors within the limits of this rating.
- This protection is effective only when all connectors are mated or closed with their protective caps and all seals are intact. Use cables and connectors with the same or a higher protection rating.
- Do not open the housing; opening it breaks the seals and the protection rating can no longer be guaranteed.
- Install the device so that water cannot collect around connectors and cable glands, and inspect seals and cables regularly.

⚠ 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.

⚠ WARNING

- This device emits ultraviolet (UV) radiation, which can harm the eyes and skin.
- Do not look directly into the light source and avoid prolonged exposure of the eyes and skin at close range. Install the device so that people are not exposed at close range.
- People with increased sensitivity to light, including those taking medication that increases this sensitivity, should avoid UV exposure.

⚠ **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 Product description

Description in the GDTF file

“The IP65 rated SIXPAR 300IP™ features (18) 12W 6-IN-1 RGBAW+UV LEDs, 15° beam and 25° field angles, electronic strobe and dimming (0-100%), 5 variable dimming curve modes, dual yoke / floor stand, multiple unit power linking, RDM (remote device management), rugged die-cast aluminum exterior, flicker free operation for TV and FILM, and a multi-voltage universal auto switching power supply (110-250v).”

5 Installation

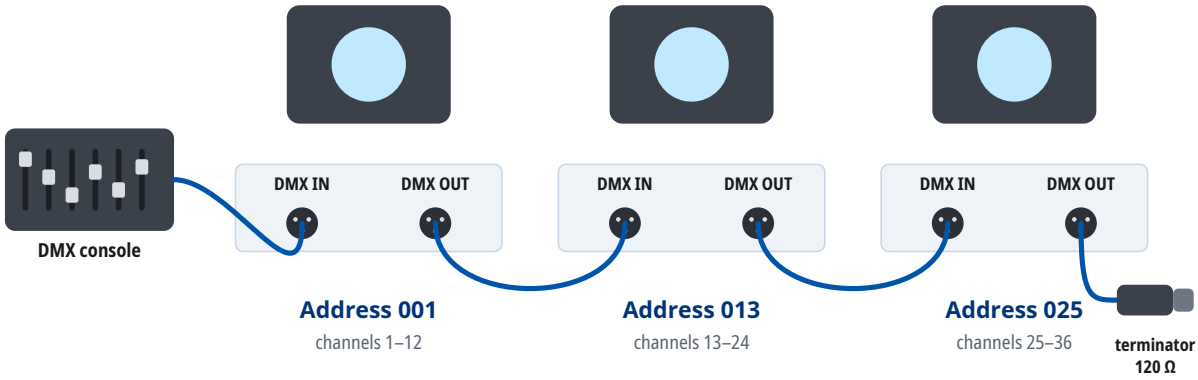
⚠ **WARNING**

- 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: 9.5 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.

6 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 12 CH: every unit occupies 12 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.

7 Operation

Setting the DMX address

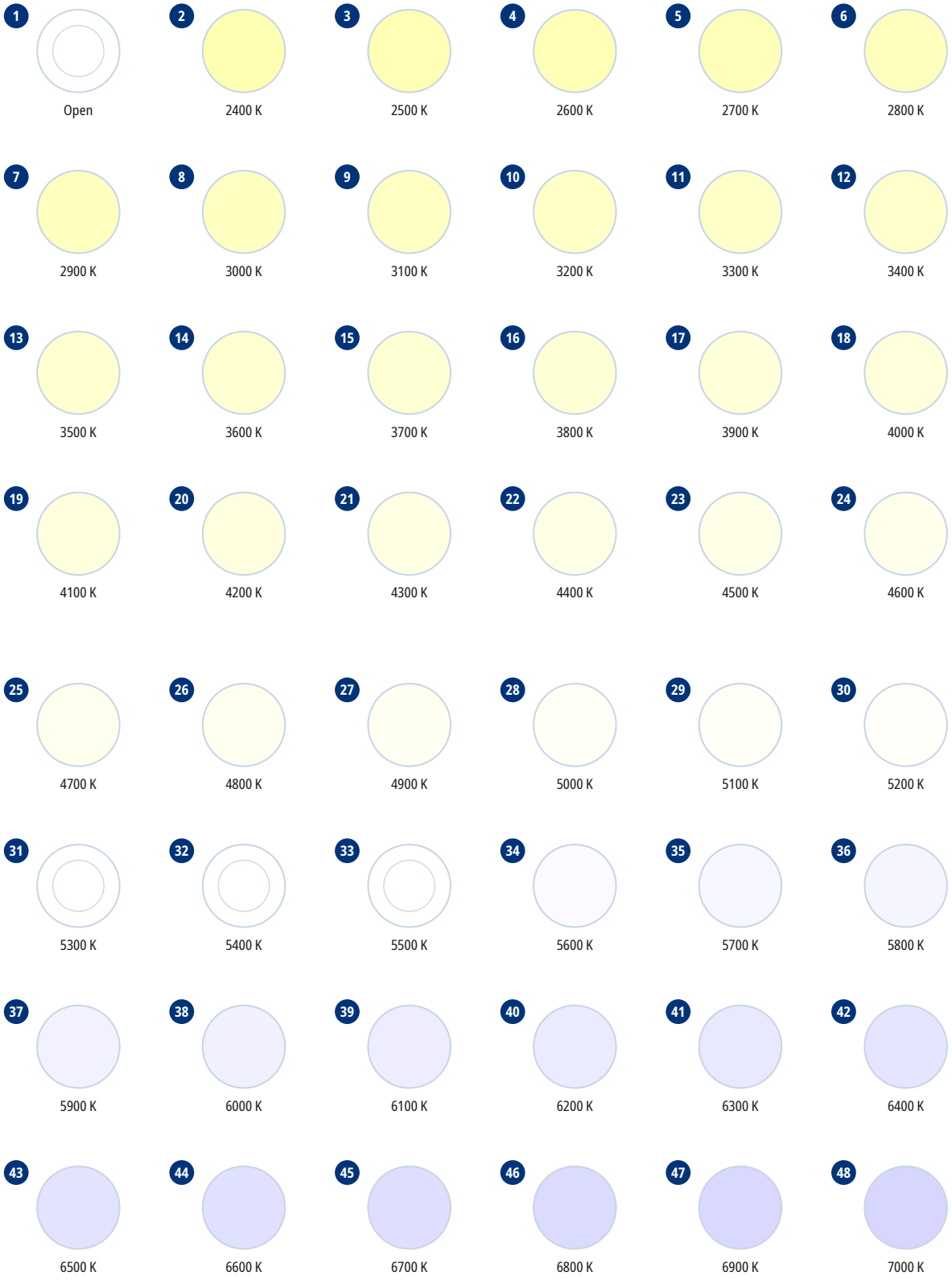
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “12 CH”: 12.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied 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 “12 CH”, you can use, for example, the start addresses 1, 13, 25, 37.
- 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.

8 Functions at a glance

Functions in each DMX mode

	12 CH 12 channels	8 CH 8 channels	7 CH 7 channels	6 CH 6 channels
Dimmer	7	7	7	
Shutter / strobe	8	8		
Color mixing	1–6	1–6	1–6	1–6
Color wheel	9			
Effects / macros	10, 11			

Color wheel 1

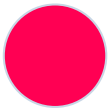


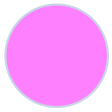
49 7100 K
50 7200 K
51 7300 K
52 7400 K
53 7500 K
54 7600 K
55 7700 K
56 7800 K
57 7900 K
58 8000 K
59 8100 K
60 8200 K
61 8300 K
62 8400 K
63 8500 K

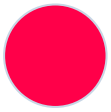
Color wheel 2

1 OFF **DMX 0–3**
2 RED **DMX 4–7**
3 GREEN **DMX 8–11**
4 BLUE **DMX 12–15**
5 WHITE **DMX 16–19**
6 AMBER **DMX 20–23**
7 UV **DMX 24–27**
8 RED + GREEN **DMX 28–31**
9 RED + BLUE **DMX 32–35**
10 RED + WHITE **DMX 36–39**
11 RED + AMBER **DMX 40–43**
12 RED + UV **DMX 44–47**
13 GREEN + BLUE **DMX 48–51**
14 GREEN + WHITE **DMX 52–55**
15 GREEN + AMBER **DMX 56–59**
16 GREEN + UV **DMX 60–63**
17 BLUE + WHITE **DMX 64–67**
18 BLUE + AMBER **DMX 68–71**
19 BLUE + UV **DMX 72–75**
20 WHITE + AMBER **DMX 76–79**
21 WHITE + UV **DMX 80–83**
22 AMBER + UV **DMX 84–87**
23 RED + GREEN + BLUE **DMX 88–91**
24 RED + GREEN + WHITE **DMX 92–95**

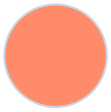
25 
RED + GREEN + AMBER
DMX 96–99

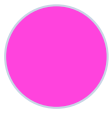
26 
RED + GREEN + UV
DMX 100–103

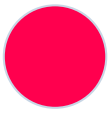
27 
RED + BLUE + WHITE
DMX 104–107

28 
RED + BLUE + AMBER
DMX 108–111

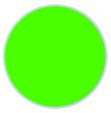
29 
RED + BLUE + UV
DMX 112–115

30 
RED + WHITE + AMBER
DMX 116–119

31 
RED + WHITE + UV
DMX 120–123

32 
RED + AMBER + UV
DMX 124–127

33
GREEN + BLUE + WHITE
DMX 128–131

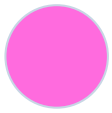
34 
GREEN + BLUE + AMBER
DMX 132–135

35 
GREEN + BLUE + UV
DMX 136–139

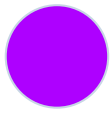
36
GREEN + WHITE + AMBER
DMX 140–143

37 
GREEN + WHITE + UV
DMX 144–147

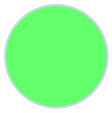
38
GREEN + AMBER + UV
DMX 148–151

39 
BLUE + WHITE + AMBER
DMX 152–155

40 
BLUE + WHITE + UV
DMX 156–159

41 
BLUE + AMBER + UV
DMX 160–163

42 
WHITE + AMBER + UV
DMX 164–167

43 
RED + GREEN + BLUE + WHITE
DMX 168–171

44 
RED + GREEN + BLUE + AMBER
DMX 172–175

45 
RED + GREEN + BLUE + UV
DMX 176–179

46 
RED + GREEN +WHITE + AMBER
DMX 180–183

47 
RED + GREEN + WHITE + UV
DMX 184–187

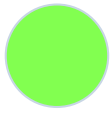
48 
RED + GREEN + AMBER + UV
DMX 188–191

49 
RED + BLUE + WHITE + AMBER
DMX 192–195

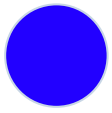
50 
RED + BLUE + WHITE + UV
DMX 196–199

51 
RED + BLUE + AMBER + UV
DMX 200–203

52 
RED + WHITE + AMBER + UV
DMX 204–207

53 
GREEN + BLUE + WHITE + AMBER
DMX 208–211

54 
GREEN + BLUE + WHITE + UV
DMX 212–215

55 
GREEN + BLUE + AMBER + UV
DMX 216–219

56
GREEN + WHITE + AMBER + UV
DMX 220–223

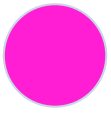
57 
BLUE + WHITE + AMBER + UV
DMX 224–227

58 
RED + GREEN + BLUE + WHITE + AMBER
DMX 228–231

59 
RED + GREEN + BLUE + WHITE + UV
DMX 232–235

60 
RED + GREEN + BLUE + AMBER + UV
DMX 236–239

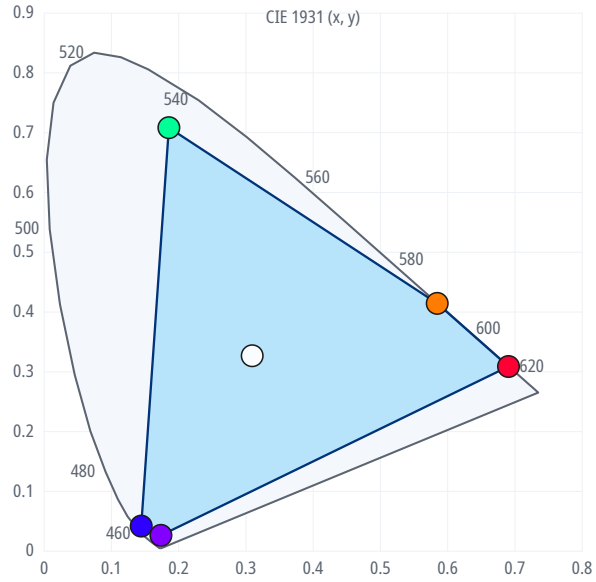
61 
RED + GREEN + WHITE + AMBER + UV
DMX 240–243

62 
RED + BLUE + WHITE + AMBER + UV
DMX 244–247

63 
GREEN +BLUE + WHITE + AMBER + UV
DMX 248–251

64 
RED + GREEN + BLUE + WHITE + AMBER + UV
DMX 252–255

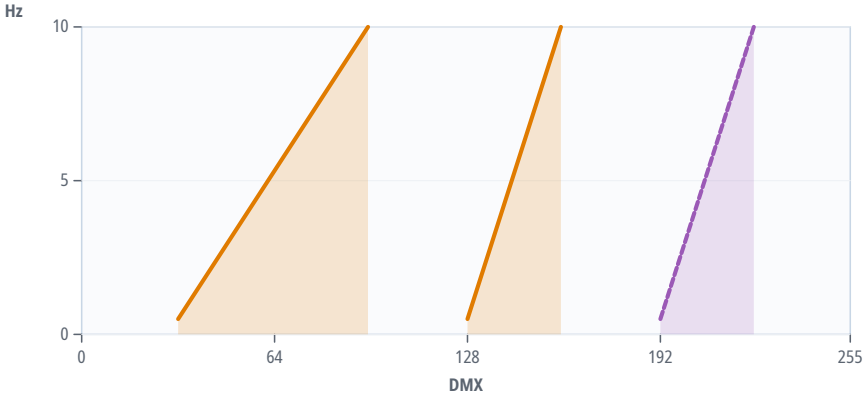
LED colors and the colors they mix



LED	x	y	nm
Red-LED	0.690	0.309	
Green-LED	0.185	0.708	
Blue-LED	0.144	0.042	
White-LED	0.309	0.327	
Amber-LED	0.584	0.414	
UV-LED	0.174	0.026	400

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

Strobe rate

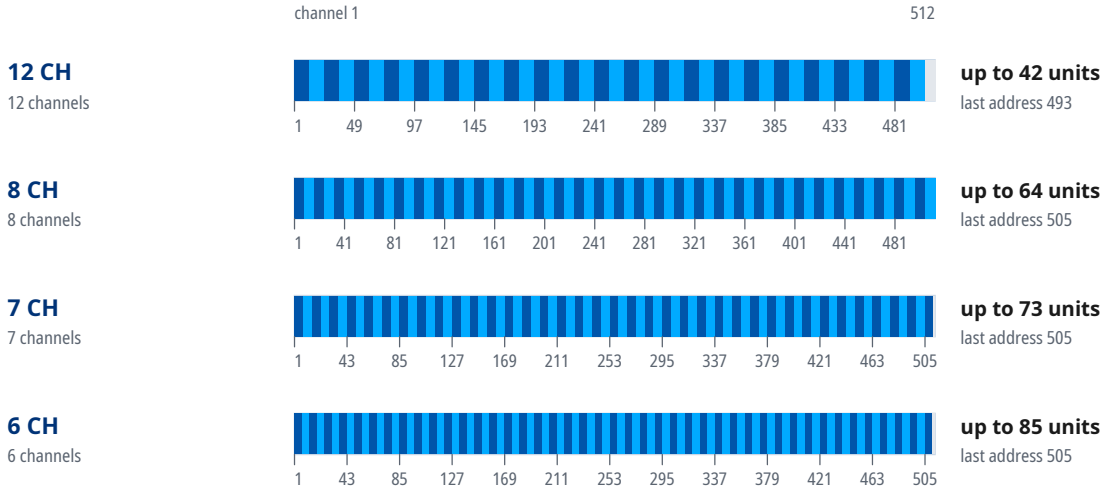


CH 8 · 12 CH

- 32–95: 0.5–10 Hz
  Strobe Effect SLOW to FAST
- 128–159: 0.5–10 Hz
  Pulse
- 192–223: 0.5–10 Hz
  Random Strobe

9 DMX channels

Units in one DMX universe



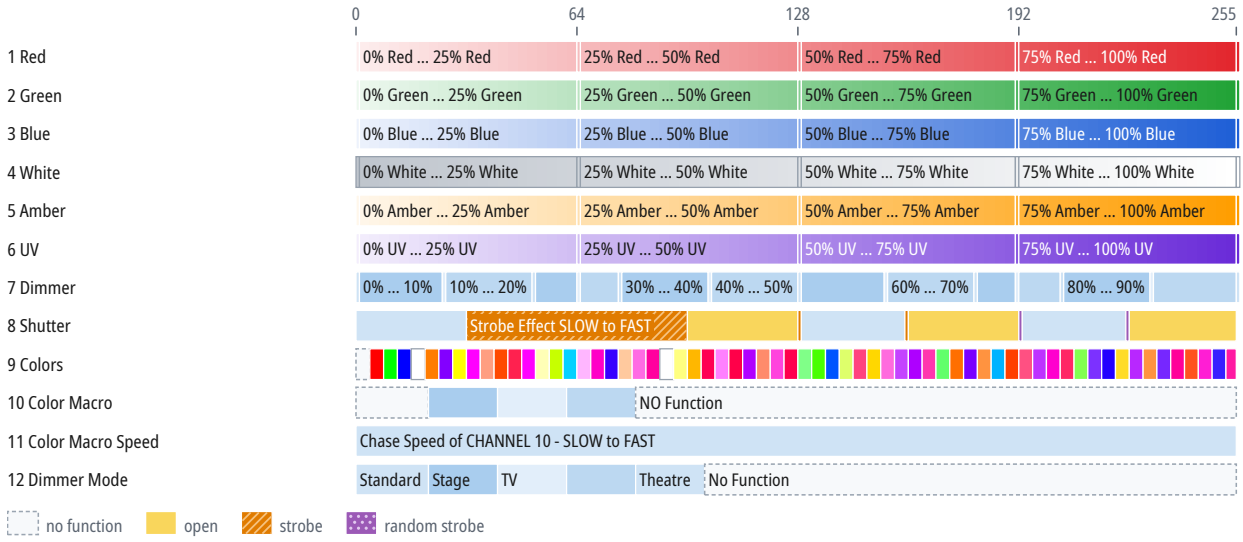
Start addresses of 20 units in the mode “12 CH”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	61	11	121	16	181
2	13	7	73	12	133	17	193
3	25	8	85	13	145	18	205
4	37	9	97	14	157	19	217
5	49	10	109	15	169	20	229

Mode 12 CH

The GDTF file gives these values for a console's Highlight function: CH 1 Red 255, CH 2 Green 255, CH 3 Blue 255, CH 4 White 255, CH 5 Amber 255, CH 6 UV 255, CH 7 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Red	0	0% Red
		1–63	0% Red … 25% Red
		64	25% Red
		65–127	25% Red … 50% Red
		128	50% Red
		129–190	50% Red … 75% Red
		191	75% Red
		192–254	75% Red … 100% Red
		255	100% Red
2	Green	0	0% Green
		1–63	0% Green … 25% Green
		64	25% Green
		65–127	25% Green … 50% Green
		128	50% Green
		129–190	50% Green … 75% Green
		191	75% Green
		192–254	75% Green … 100% Green
		255	100% Green
3	Blue	0	0% Blue
		1–63	0% Blue … 25% Blue
		64	25% Blue
		65–127	25% Blue … 50% Blue
		128	50% Blue
		129–190	50% Blue … 75% Blue
		191	75% Blue
		192–254	75% Blue … 100% Blue
		255	100% Blue
4	White	0	0% White
		1–63	0% White … 25% White
		64	25% White
		65–127	25% White … 50% White
		128	50% White
		129–190	50% White … 75% White
		191	75% White
		192–254	75% White … 100% White
		255	100% White
5	Amber	0	0% Amber
		1–63	0% Amber … 25% Amber
		64	25% Amber
		65–127	25% Amber … 50% Amber
		128	50% Amber

CH	Function	DMX	Description
5	Amber (continued)	129–190	50% Amber ... 75% Amber
		191	75% Amber
		192–254	75% Amber ... 100% Amber
		255	100% Amber
6	UV	0	0% UV
		1–63	0% UV ... 25% UV
		64	25% UV
		65–127	25% UV ... 50% UV
		128	50% UV
		129–190	50% UV ... 75% UV
		191	75% UV
		192–254	75% UV ... 100% UV
		255	100% UV
7	Dimmer	0	0%
		1–24	0% ... 10%
		25	10%
		26–50	10% ... 20%
		51	20%
		52–63	20% ... 25%
		64	25%
		65–75	25% ... 30%
		76	30%
		77–101	30% ... 40%
		102	40%
		103–127	40% ... 50%
		128	50%
		129–152	50% ... 60%
		153	60%
		154–178	60% ... 70%
		179	70%
		180–190	70% ... 75%
		191	75%
		192–203	75% ... 80%
		204	80%
		205–229	80% ... 90%
		230	90%
		231–254	90% ... 100%
		255	100%
8	Shutter	0–31	LED OFF (NO STROBE)
		32–95	Strobe Effect SLOW to FAST (0.5–10 Hz)
		96–127	Shutter Open: LED ON (NO STROBE)
		128	Strobe Pulse Min

CH	Function	DMX	Description
8	Shutter (continued)	129–158	Strobe Pulse Min ... Strobe Pulse Max
		159	Strobe Pulse Max
		160–191	Shutter Open_: LED ON (NO STROBE)
		192	Random Strobe Min
		193–222	Random Strobe Min ... Random Strobe Max
		223	Random Strobe Max
		224–255	Shutter Open__: LED ON (NO STROBE)
9	Colors		Color Macros
		0–3	OFF
		4–7	RED
		8–11	GREEN
		12–15	BLUE
		16–19	WHITE
		20–23	AMBER
		24–27	UV
		28–31	RED + GREEN
		32–35	RED + BLUE
		36–39	RED + WHITE
		40–43	RED + AMBER
		44–47	RED + UV
		48–51	GREEN + BLUE
		52–55	GREEN + WHITE
		56–59	GREEN + AMBER
		60–63	GREEN + UV
		64–67	BLUE + WHITE
		68–71	BLUE + AMBER
		72–75	BLUE + UV
		76–79	WHITE + AMBER
		80–83	WHITE + UV
		84–87	AMBER + UV
		88–91	RED + GREEN + BLUE
		92–95	RED + GREEN + WHITE
		96–99	RED + GREEN + AMBER
		100–103	RED + GREEN + UV
		104–107	RED + BLUE + WHITE
		108–111	RED + BLUE + AMBER
		112–115	RED + BLUE + UV
		116–119	RED + WHITE + AMBER
		120–123	RED + WHITE + UV
		124–127	RED + AMBER + UV
		128–131	GREEN + BLUE + WHITE
		132–135	GREEN + BLUE + AMBER

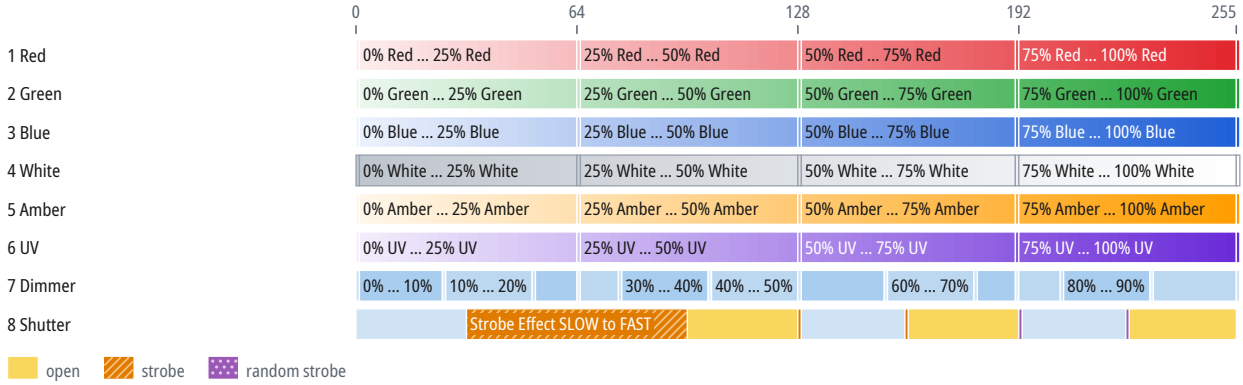
CH	Function	DMX	Description
9	Colors (continued)	136–139	GREEN + BLUE + UV
		140–143	GREEN + WHITE + AMBER
		144–147	GREEN + WHITE + UV
		148–151	GREEN + AMBER + UV
		152–155	BLUE + WHITE + AMBER
		156–159	BLUE + WHITE + UV
		160–163	BLUE + AMBER + UV
		164–167	WHITE + AMBER + UV
		168–171	RED + GREEN + BLUE + WHITE
		172–175	RED + GREEN + BLUE + AMBER
		176–179	RED + GREEN + BLUE + UV
		180–183	RED + GREEN +WHITE + AMBER
		184–187	RED + GREEN + WHITE + UV
		188–191	RED + GREEN + AMBER + UV
		192–195	RED + BLUE + WHITE + AMBER
		196–199	RED + BLUE + WHITE + UV
		200–203	RED + BLUE + AMBER + UV
		204–207	RED + WHITE + AMBER + UV
		208–211	GREEN + BLUE + WHITE + AMBER
		212–215	GREEN + BLUE + WHITE + UV
		216–219	GREEN + BLUE + AMBER + UV
		220–223	GREEN + WHITE + AMBER + UV
		224–227	BLUE + WHITE + AMBER + UV
		228–231	RED + GREEN + BLUE + WHITE + AMBER
		232–235	RED + GREEN + BLUE + WHITE + UV
		236–239	RED + GREEN + BLUE + AMBER + UV
		240–243	RED + GREEN + WHITE + AMBER + UV
		244–247	RED + BLUE + WHITE + AMBER + UV
		248–251	GREEN +BLUE + WHITE + AMBER + UV
		252–255	RED + GREEN + BLUE + WHITE + AMBER + UV
10	Color Macro		COLOR CHASE MACROS
		0–20	NO Function
		21–40	30 Color Chase
		41–60	6 Color Chase
		61–80	Color Fade Chase
		81–255	NO Function
11	Color Macro Speed		COLOR CHASE MACROS SPEED
		0–255	Chase Speed of CHANNEL 10 - SLOW to FAST

CH	Function	DMX	Description
12	Dimmer Mode	0–20	Standard
		21–40	Stage
		41–60	TV
		61–80	Architectural
		81–100	Theatre
		101–255	No Function

Mode 8 CH

The GDTF file gives these values for a console's Highlight function: CH 1 Red 255, CH 2 Green 255, CH 3 Blue 255, CH 4 White 255, CH 5 Amber 255, CH 6 UV 255, CH 7 Dimmer 255.

Channel functions at a glance

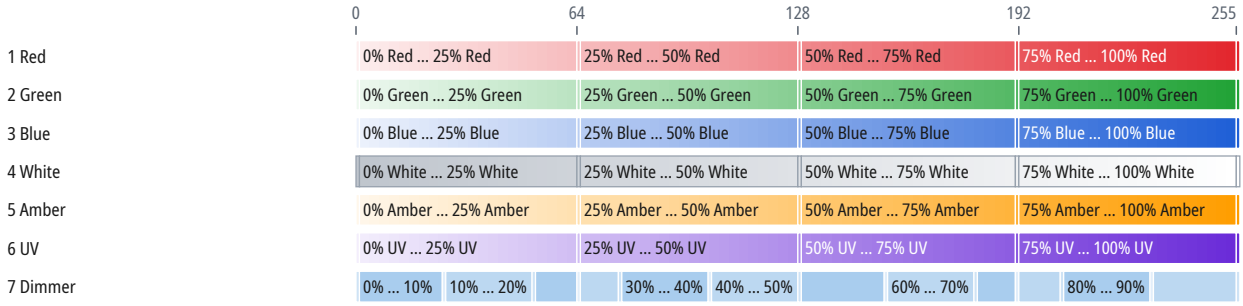


CH	Function	DMX	Description
1	Red		Same as CH 1 in the mode “12 CH” (p. 12)
2	Green		Same as CH 2 in the mode “12 CH” (p. 12)
3	Blue		Same as CH 3 in the mode “12 CH” (p. 12)
4	White		Same as CH 4 in the mode “12 CH” (p. 12)
5	Amber		Same as CH 5 in the mode “12 CH” (p. 12)
6	UV		Same as CH 6 in the mode “12 CH” (p. 13)
7	Dimmer		Same as CH 7 in the mode “12 CH” (p. 13)
8	Shutter		Same as CH 8 in the mode “12 CH” (p. 13)

Mode 7 CH

The GDTF file gives these values for a console's Highlight function: CH 1 Red 255, CH 2 Green 255, CH 3 Blue 255, CH 4 White 255, CH 5 Amber 255, CH 6 UV 255, CH 7 Dimmer 255.

Channel functions at a glance

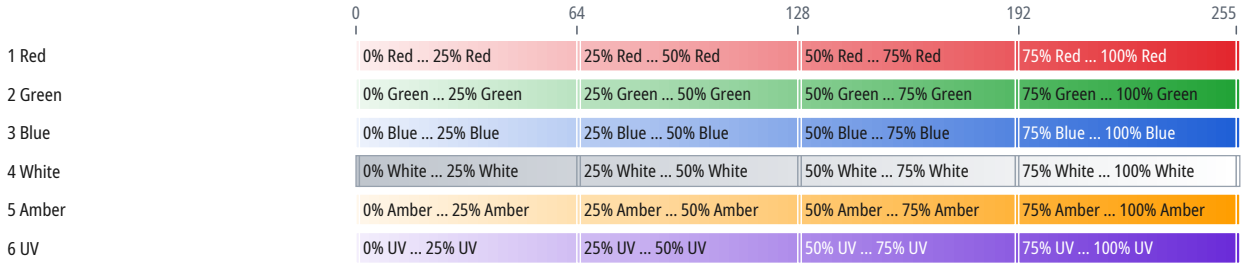


CH	Function	DMX	Description
1	Red		Same as CH 1 in the mode “12 CH” (p. 12)
2	Green		Same as CH 2 in the mode “12 CH” (p. 12)
3	Blue		Same as CH 3 in the mode “12 CH” (p. 12)
4	White		Same as CH 4 in the mode “12 CH” (p. 12)
5	Amber		Same as CH 5 in the mode “12 CH” (p. 12)
6	UV		Same as CH 6 in the mode “12 CH” (p. 13)
7	Dimmer		Same as CH 7 in the mode “12 CH” (p. 13)

Mode 6 CH

The GDTF file gives these values for a console's Highlight function: CH 1 Red 255, CH 2 Green 255, CH 3 Blue 255, CH 4 White 255, CH 5 Amber 255, CH 6 UV 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Red		Same as CH 1 in the mode “12 CH” (p. 12)
2	Green		Same as CH 2 in the mode “12 CH” (p. 12)
3	Blue		Same as CH 3 in the mode “12 CH” (p. 12)
4	White		Same as CH 4 in the mode “12 CH” (p. 12)
5	Amber		Same as CH 5 in the mode “12 CH” (p. 12)
6	UV		Same as CH 6 in the mode “12 CH” (p. 13)

10 Technical specifications

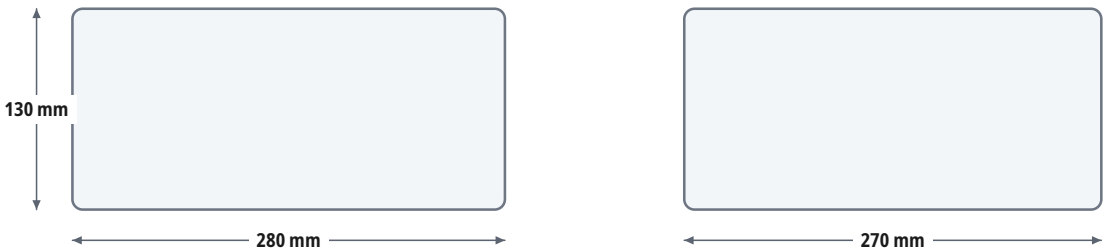
Parameter	Value
Light	
Light source	LED
LED power	216 W
Luminous flux	6,521 lm
Color temperature	6,500 K
Color rendering index (CRI)	61
Optics	
Beam angle	15°
Control	
DMX connection	5-pin XLR IN/OUT, 3-pin XLR IN/OUT
RDM	yes (manufacturer ID 0x22A6, device model ID 0x0038)
Electrical	
Power connectors	powerCON TRUE1 IN, powerCONTRUE1TOP OUT
Dimensions and construction	
Weight	9.5 kg
Operating environment	
Ingress protection	IP65
Meaning of the IP code (IEC 60529)	Dust-tight; protected against water jets
Operating temperature	-15 to 45 °C

Speeds and ranges

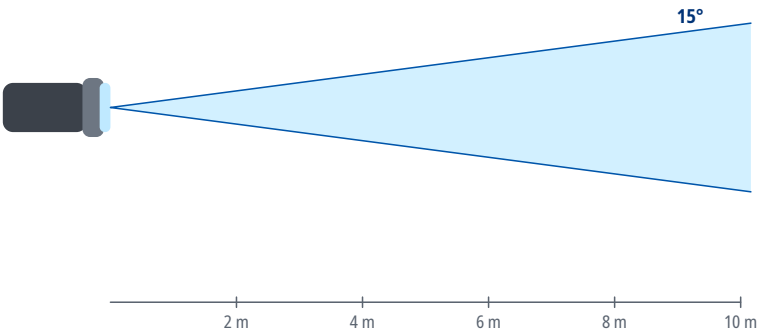
Parameter	Value
Strobe frequency	0.5–10 Hz

Dimensions

weight 9.5 kg



Spot diameter



Distance	Ø 15°
2 m	0.53 m
4 m	1.1 m
6 m	1.6 m
8 m	2.1 m
10 m	2.6 m
15 m	3.9 m

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

11 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.

12 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.

13 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.