DMX REFERENCE

Eye 1500 PRO

Brighter



Manufacturer	Brighter
GDTF file	Brighter_EYE_1500_PRO_73202.gdtf
GDTF revision	Eye 1500 Pro · 2024-09-10
Generated	2026-11-23

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1 About this manual

This document describes the Eye 1500 PRO by Brighter. It was compiled from the GDTF file Brighter_EYE_1500_PRO_73202.gdtf from the GDTF-Share library.

File revision: “Eye 1500 Pro”.

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 Brighter; 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	850 W
Weight	17 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
36Ch	36	14	1, 37, 73, 109, ...
19Ch	19	26	1, 20, 39, 58, ...

No light? Check these channels

- 36Ch: CH 9 Shutter at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Open”
- 19Ch: CH 9 Shutter at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Open”


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.

⚠ WARNING

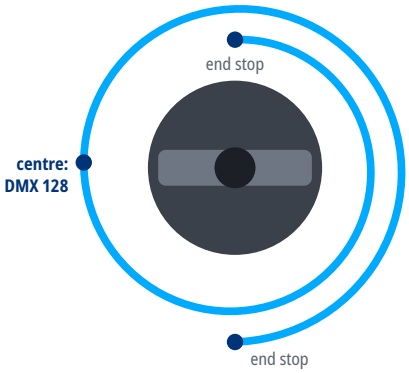
- The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
- Keep yourself and any objects out of the range of movement. While the device is switched on, do not touch the moving parts, move them by hand, or obstruct their movement; this can cause injury (pinching) and damage the drive.
- Do not carry the device by its moving parts. If the device has a transport lock, engage it before transport and release it before switching on.

4 Product description

Range of movement

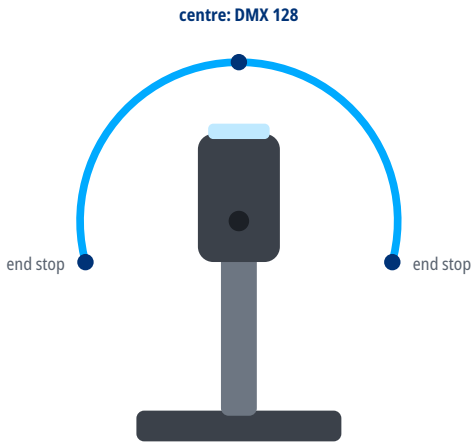
Pan 540°

top view



Tilt 210°

side view



5 Installation

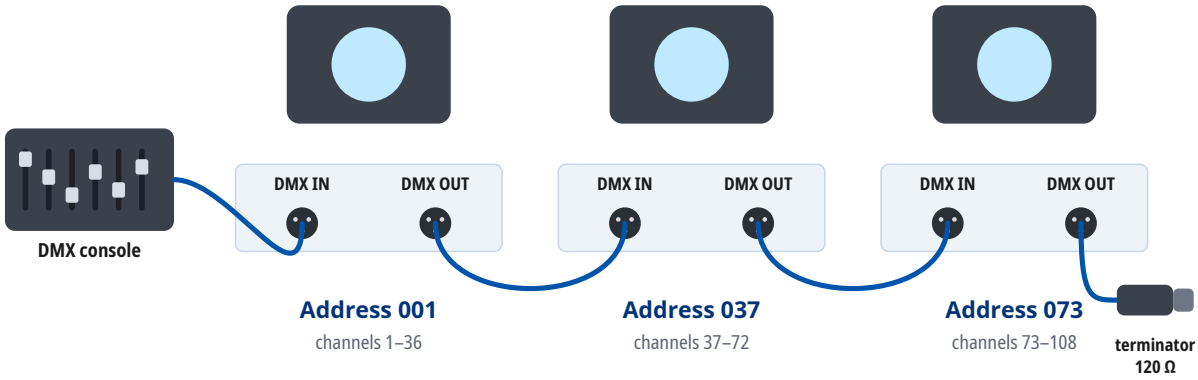
⚠ **WARNING**

- 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: 17 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 36Ch: every unit occupies 36 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 “36Ch”: 36.
- 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 “36Ch”, you can use, for example, the start addresses 1, 37, 73, 109.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.

8 Functions at a glance

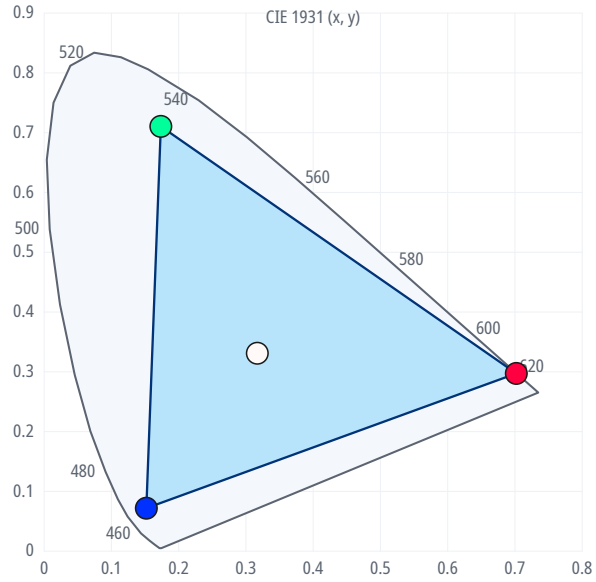
Functions in each DMX mode

	36Ch 36 channels	19Ch 19 channels
Pan / Tilt	1, 3	1, 3
Dimmer	8	8
Shutter / strobe	9	9
Color mixing	16 channels (10–31)	10–13
Color temperature	27	19
Zoom	6	6
Animation wheel	25, 35	17
Effects / macros	6 channels (14–35)	14, 17
Pixel control	✓	

Color wheel


1
Open
2
Moroccan Pink
3
Pink
4
Rose Pink
5
Follies Pink
6
Fuchsia Pink
7
Suprise Pink
8
Congo blue
9
Tokyo Blue
10
Deep blue
11
Just Blue
12
Medium blue
13
Double CT blue
14
Slate Blue
15
Full CT Blue
16
Half CT Blue
17
Steel Blue
18
Lighter Blue
19
Light Blue
20
Blue-Green
21
Dark Green
22
Primary Green
23
Moss Green
24
Fern Green
25
JAS Green
26
Lime Green
27
Spring Yellow
28
Deep Amber
29
Chrome Orange
30
Orange
31
Gold Amber
32
Millennium Gold
33
Golden Amber
34
Flame Red

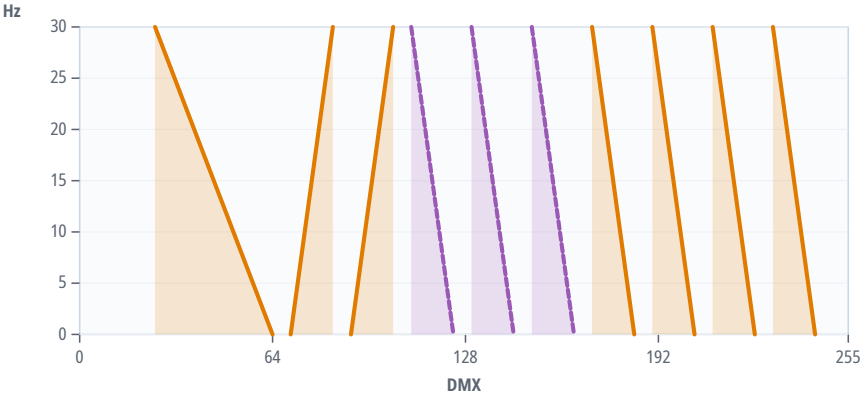
LED colors and the colors they mix



LED	x	y	nm
White	0.317	0.331	
Red	0.702	0.297	626
Green	0.173	0.711	527
Blue	0.152	0.072	452

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

Strobe rate

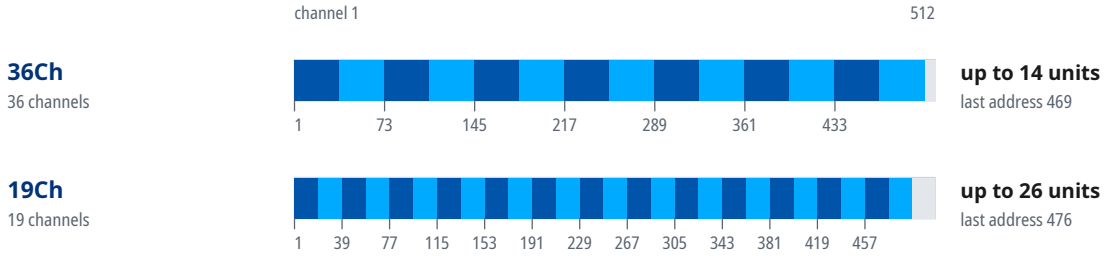


CH 9 · 36Ch

- 25–64: 30–0 Hz
  Strobe: F>S
- 70–84: 0–30 Hz
  Pulse Open
- 90–104: 0–30 Hz
  Pulse Close
- 110–124: 30–0 Hz
  Rnd Strobe: F>S
- 130–144: 30–0 Hz
  Rnd Pulse Open: F>S
- 150–164: 30–0 Hz
  Rnd Pulse Close: F>S
- 170–184: 30–0 Hz
  Burst Pulse: F>S
- 190–204: 30–0 Hz
  Rnd Burst Pulse: F>S

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “36Ch”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	181	11	361	16	U2 · 37
2	37	7	217	12	397	17	U2 · 73
3	73	8	253	13	433	18	U2 · 109
4	109	9	289	14	469	19	U2 · 145
5	145	10	325	15	U2 · 1	20	U2 · 181

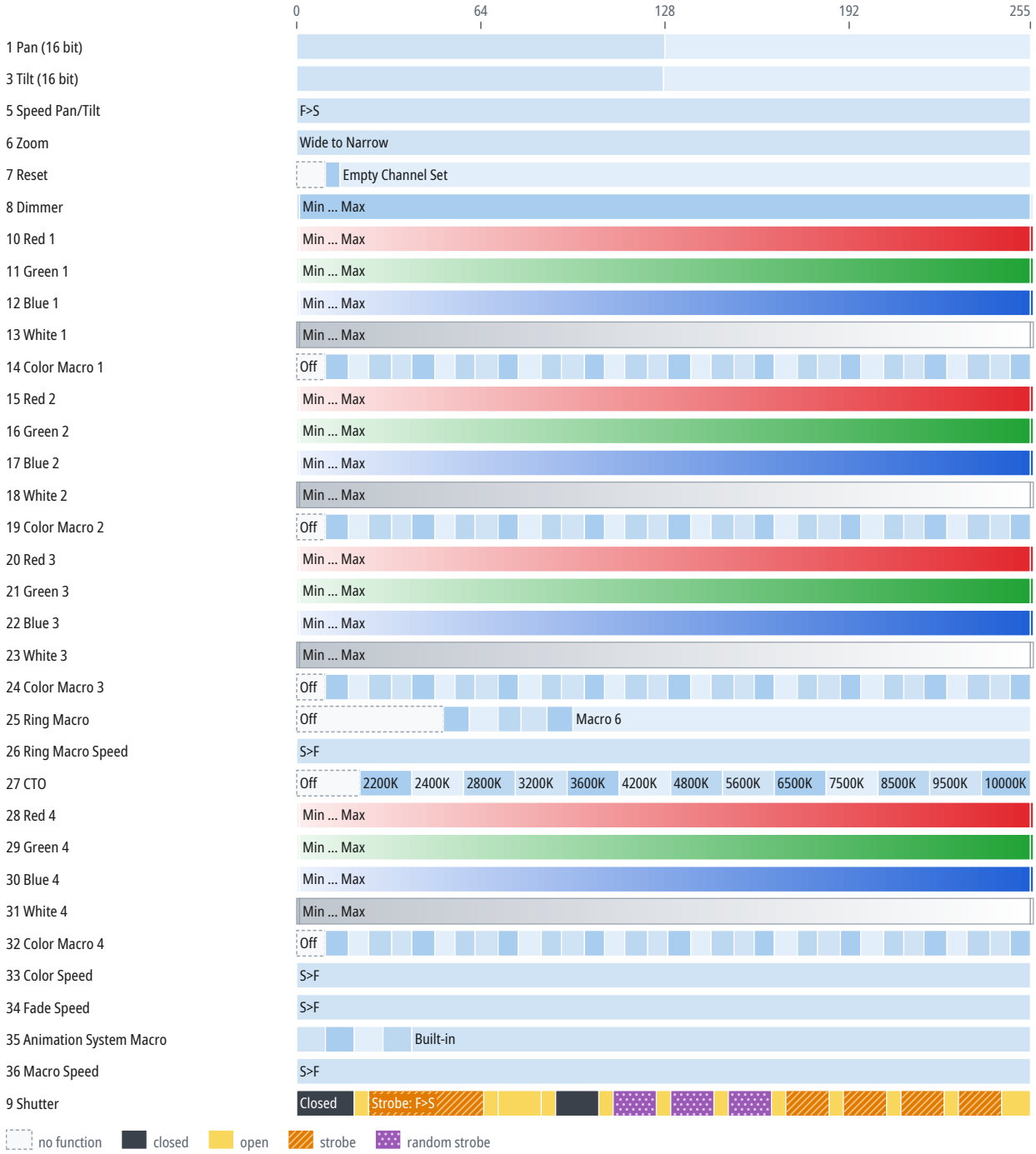
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode 36Ch

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 9 Shutter at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 8 Dimmer 255, CH 9 Shutter 255, CH 10 Red 1 255, CH 11 Green 1 255, CH 12 Blue 1 255, CH 13 White 1 255, CH 14 Color Macro 1 0, CH 15 Red 2 255, CH 16 Green 2 255, CH 17 Blue 2 255, CH 18 White 2 255, CH 19 Color Macro 2 0, CH 20 Red 3 255, CH 21 Green 3 255, CH 22 Blue 3 255, CH 23 White 3 255, CH 24 Color Macro 3 0, CH 27 CTO 0, CH 28 Red 4 255, CH 29 Green 4 255, CH 30 Blue 4 255, CH 31 White 4 255, CH 32 Color Macro 4 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–128	Pan
		128	Home
		128–255	Pan
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–127	Tilt
		128	Home
		128–255	Tilt
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt	0–255	F>S
6	Zoom	0–255	Wide to Narrow (60–10°)
7	Reset	0–9	No Function
		10–14	Reset
		15–255	Empty Channel Set
8	Dimmer	0	Min
		1–254	Min ... Max
		255	Max
9	Shutter	0–19	Closed
		20–24	Open
		25–64	Strobe: F>S (30–0 Hz)
		65–69	Open
		70–84	Pulse Open (0–30 Hz)
		85–89	Open
		90–104	Pulse Close (0–30 Hz)
		105–109	Open
		110–124	Rnd Strobe: F>S (30–0 Hz)
		125–129	Open
		130–144	Rnd Pulse Open: F>S (30–0 Hz)
		145–149	Open
		150–164	Rnd Pulse Close: F>S (30–0 Hz)
		165–169	Open
		170–184	Burst Pulse: F>S (30–0 Hz)
		185–189	Open
		190–204	Rnd Burst Pulse: F>S (30–0 Hz)
		205–209	Open
		210–224	Sine Wave: F>S (30–0 Hz)
		225–229	Open
		230–244	Burst: F>S (30–0 Hz)
		245–255	Open
10	Red 1	0	Min
		1–254	Min ... Max
		255	Max

CH	Function	DMX	Description
11	Green 1	0	Min
		1–254	Min ... Max
		255	Max
12	Blue 1	0	Min
		1–254	Min ... Max
		255	Max
13	White 1	0	Min
		1–254	Min ... Max
		255	Max
14	Color Macro 1	0–9	Off
		10–17	Col 1
		18–24	Col 2
		25–32	Col 3
		33–39	Col 4
		40–47	Col 5
		48–54	Col 6
		55–61	Col 7
		62–69	Col 8
		70–76	Col 9
		77–84	Col 10
		85–91	Col 11
		92–99	Col 12
		100–106	Col 13
		107–113	Col 14
		114–121	Col 15
		122–128	Col 16
		129–136	Col 17
		137–143	Col 18
		144–151	Col 19
		152–158	Col 20
		159–165	Col 21
		166–173	Col 22
		174–180	Col 23
		181–188	Col 24
		189–195	Col 25
		196–203	Col 26
		204–210	Col 27
		211–217	Col 28
		218–225	Col 29
		226–232	2700K
		233–240	3200K
		241–247	4200K

CH	Function	DMX	Description
14	Color Macro 1 (continued)	248–255	5600K
15	Red 2	0	Min
		1–254	Min … Max
		255	Max
16	Green 2	0	Min
		1–254	Min … Max
		255	Max
17	Blue 2	0	Min
		1–254	Min … Max
		255	Max
18	White 2	0	Min
		1–254	Min … Max
		255	Max
19	Color Macro 2	0–9	Off
		10–17	Col 1
		18–24	Col 2
		25–32	Col 3
		33–39	Col 4
		40–47	Col 5
		48–54	Col 6
		55–61	Col 7
		62–69	Col 8
		70–76	Col 9
		77–84	Col 10
		85–91	Col 11
		92–99	Col 12
		100–106	Col 13
		107–113	Col 14
		114–121	Col 15
		122–128	Col 16
		129–136	Col 17
		137–143	Col 18
		144–151	Col 19
		152–158	Col 20
		159–165	Col 21
		166–173	Col 22
		174–180	Col 23
		181–188	Col 24
		189–195	Col 25
		196–203	Col 26
		204–210	Col 27
		211–217	Col 28

CH	Function	DMX	Description
19	Color Macro 2 (continued)	218–225	Col 29
		226–232	2700K
		233–240	3200K
		241–247	4200K
		248–255	5600K
20	Red 3	0	Min
		1–254	Min ... Max
		255	Max
21	Green 3	0	Min
		1–254	Min ... Max
		255	Max
22	Blue 3	0	Min
		1–254	Min ... Max
		255	Max
23	White 3	0	Min
		1–254	Min ... Max
		255	Max
24	Color Macro 3	0–9	Off
		10–17	Col 1
		18–24	Col 2
		25–32	Col 3
		33–39	Col 4
		40–47	Col 5
		48–54	Col 6
		55–61	Col 7
		62–69	Col 8
		70–76	Col 9
		77–84	Col 10
		85–91	Col 11
		92–99	Col 12
		100–106	Col 13
		107–113	Col 14
		114–121	Col 15
		122–128	Col 16
		129–136	Col 17
		137–143	Col 18
		144–151	Col 19
		152–158	Col 20
		159–165	Col 21
		166–173	Col 22
		174–180	Col 23
		181–188	Col 24

CH	Function	DMX	Description
24	Color Macro 3 (continued)	189–195	Col 25
		196–203	Col 26
		204–210	Col 27
		211–217	Col 28
		218–225	Col 29
		226–232	2700K
		233–240	3200K
		241–247	4200K
		248–255	5600K
25	Ring Macro	0–50	Off
		51–59	Macro 1
		60–69	Macro 2
		70–77	Macro 3
		78–86	Macro 4
		87–95	Macro 5
		96–255	Macro 6
26	Ring Macro Speed	0–255	S>F
27	CTO	0–21	Off
		22–39	2200K
		40–57	2400K
		58–75	2800K
		76–93	3200K
		94–111	3600K
		112–129	4200K
		130–147	4800K
		148–165	5600K
		166–183	6500K
		184–201	7500K
		202–219	8500K
		220–237	9500K
		238–255	10000K
28	Red 4	0	Min
		1–254	Min ... Max
		255	Max
29	Green 4	0	Min
		1–254	Min ... Max
		255	Max
30	Blue 4	0	Min
		1–254	Min ... Max
		255	Max
31	White 4	0	Min
		1–254	Min ... Max

CH	Function	DMX	Description
31	White 4 (continued)	255	Max
32	Color Macro 4	0–9	Off
		10–17	Col 1
		18–24	Col 2
		25–32	Col 3
		33–39	Col 4
		40–47	Col 5
		48–54	Col 6
		55–61	Col 7
		62–69	Col 8
		70–76	Col 9
		77–84	Col 10
		85–91	Col 11
		92–99	Col 12
		100–106	Col 13
		107–113	Col 14
		114–121	Col 15
		122–128	Col 16
		129–136	Col 17
		137–143	Col 18
		144–151	Col 19
		152–158	Col 20
		159–165	Col 21
		166–173	Col 22
		174–180	Col 23
		181–188	Col 24
		189–195	Col 25
		196–203	Col 26
		204–210	Col 27
		211–217	Col 28
		218–225	Col 29
		226–232	2700K
		233–240	3200K
		241–247	4200K
		248–255	5600K
33	Color Speed		When CH 35 is 20–29:
		0–255	S>F
34	Fade Speed		When CH 35 is 30–39:
		0–255	S>F
35	Animation System Macro	0–9	Ring Control
		10–19	Overall Control
		20–29	Col Change

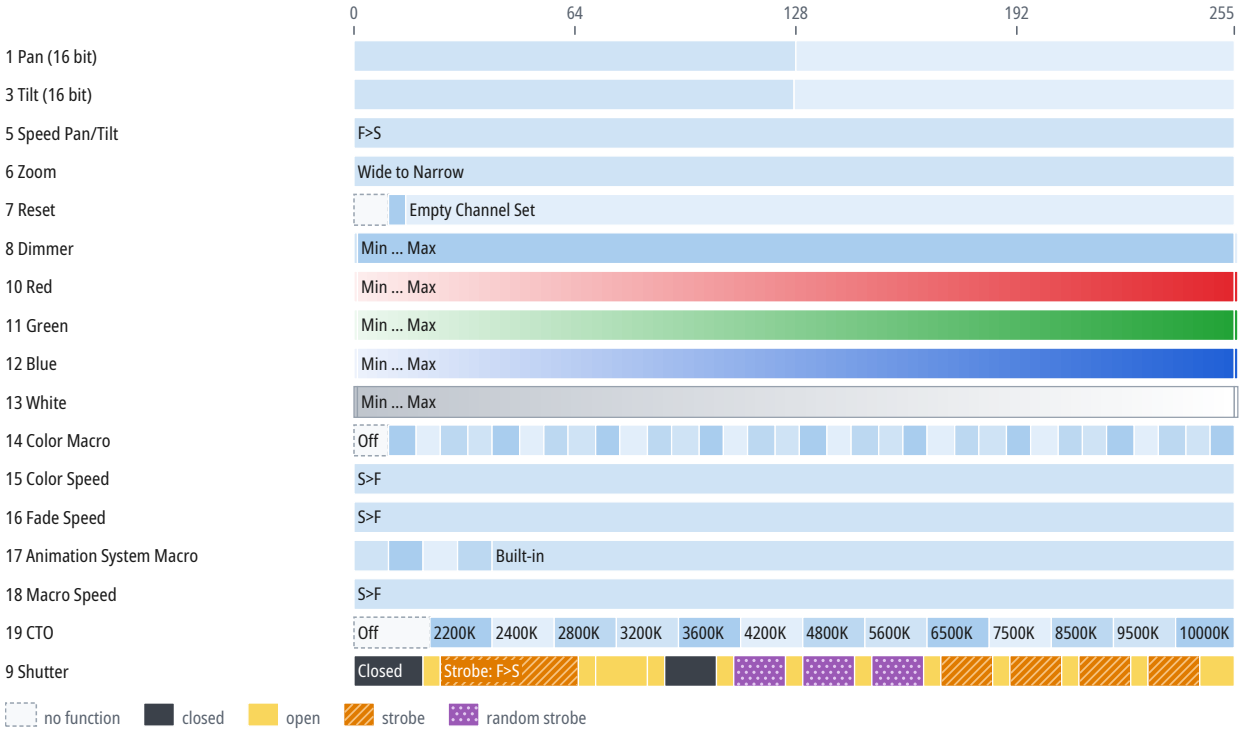
CH	Function	DMX	Description
35	Animation System Macro (continued)	30–39	Gradient Change
		40–255	Built-in
36	Macro Speed		When CH 35 is 40–255:
		0–255	S>F

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 9 Shutter at 20–24, 65–69, 85–89, 105–109, 125–129, 145–149, 165–169, 185–189, 205–209, 225–229 or 245–255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 8 Dimmer 255, CH 9 Shutter 255, CH 10 Red 255, CH 11 Green 255, CH 12 Blue 255, CH 13 White 255, CH 14 Color Macro 0, CH 19 CTO 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “36Ch” (p. 12)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “36Ch” (p. 12)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt	0–255	F>S
6	Zoom	0–255	Wide to Narrow (60–10°)
7	Reset		Same as CH 7 in the mode “36Ch” (p. 12)
8	Dimmer		Same as CH 8 in the mode “36Ch” (p. 12)
9	Shutter		Same as CH 9 in the mode “36Ch” (p. 12)
10	Red	0	Min
		1–254	Min ... Max

CH	Function	DMX	Description
10	Red (continued)	255	Max
11	Green	0	Min
		1–254	Min ... Max
		255	Max
12	Blue	0	Min
		1–254	Min ... Max
		255	Max
13	White	0	Min
		1–254	Min ... Max
		255	Max
14	Color Macro	0–9	Off
		10–17	Col 1
		18–24	Col 2
		25–32	Col 3
		33–39	Col 4
		40–47	Col 5
		48–54	Col 6
		55–61	Col 7
		62–69	Col 8
		70–76	Col 9
		77–84	Col 10
		85–91	Col 11
		92–99	Col 12
		100–106	Col 13
		107–113	Col 14
		114–121	Col 15
		122–128	Col 16
		129–136	Col 17
		137–143	Col 18
		144–151	Col 19
		152–158	Col 20
		159–165	Col 21
		166–173	Col 22
		174–180	Col 23
		181–188	Col 24
		189–195	Col 25
		196–203	Col 26
		204–210	Col 27
		211–217	Col 28
		218–225	Col 29
		226–232	2700K
		233–240	3200K

CH	Function	DMX	Description
14	Color Macro (continued)	241–247	4200K
		248–255	5600K
15	Color Speed		When CH 17 is 20–29:
		0–255	S>F
16	Fade Speed		When CH 17 is 30–39:
		0–255	S>F
17	Animation System Macro		Same as CH 35 in the mode “36Ch” (p. 17)
18	Macro Speed		When CH 17 is 40–255:
		0–255	S>F
19	CTO		Same as CH 27 in the mode “36Ch” (p. 16)

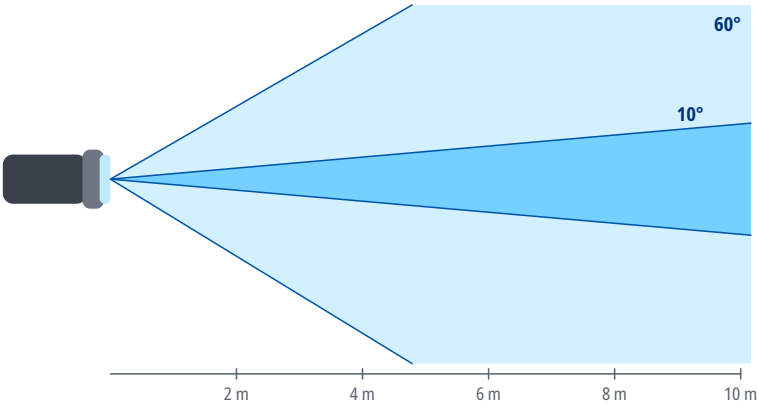
10 Technical specifications

Parameter	Value
Light	
Light source	LED
LED power	850 W
Luminous flux	49,800 lm
Color temperature	7,200 K
Color rendering index (CRI)	75
Optics	
Zoom	10–60°
Movement	
Pan	540°
Tilt	210°
Control	
DMX connection	5-pin XLR IN/OUT, 3-pin XLR IN/OUT
RJ45 connectors	RJ45 IN
Electrical	
Power supply	100–240 V, 50/60 Hz
Power consumption	850 W
Power connectors	PowerConBlue IN/OUT
Dimensions and construction	
Weight	17 kg
Operating environment	
Operating temperature	-10 to 40 °C

Speeds and ranges

Parameter	Value
Color temperature range	2000–10000 K
Strobe frequency	0–30 Hz

Spot diameter



Distance	Ø 10°	Ø 60°
2 m	0.35 m	2.3 m
4 m	0.7 m	4.6 m
6 m	1 m	6.9 m
8 m	1.4 m	9.2 m
10 m	1.7 m	11.5 m
15 m	2.6 m	17.3 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.
Movement is reversed	Check whether Pan/Tilt inversion is enabled in the device menu or in the controller.
Moving parts do not reach the correct position after power-on or transport	Switch the device off and on again to reset the position, and make sure the transport lock, if any, is released. If this does not help, contact a service center.
Movement is jerky	Check the value of the Pan/Tilt speed channel, if the device has one, and the stability of the DMX signal.

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.