DMX REFERENCE

Ebro

Krypton Ebro

Krypton



Manufacturer	Krypton
GDTF file	Krypton_Ebro_82678.gdtf
GDTF revision	Release 1 · 2025-01-07
Generated	2026-11-24

Contents

1 About this manual 2
2 Quick reference 3
3 Safety instructions 4
4 Product description 5
5 Installation 6
6 Connections 6
7 Operation 7
8 Functions at a glance 8
9 DMX channels 10
Mode Extended 11
Mode Standard 18
10 Technical specifications 21
11 Maintenance and cleaning 22
12 Troubleshooting 22
13 Disposal 23

1 About this manual

This document describes the Krypton Ebro by Krypton. It was compiled from the GDTF file Krypton_Ebro_82678.gdtf from the GDTF-Share library.

File revision: “Release 1”.

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 Krypton; 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	1,000 W
Weight	30.4 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
Extended	56	9	1, 57, 113, 169, ...
Standard	37	13	1, 38, 75, 112, ...

No light? Check these channels

- Extended: CH 19 Shutter at 32–63, 96–112, 160–191, 225–255 “Open” or 113–127 or 224; CH 20 Dimmer above 0
- Standard: CH 14 Shutter at 32–63, 96–112, 160–191, 225–255 “Open” or 113–127 or 224; CH 15 Dimmer 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: 110–240 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.

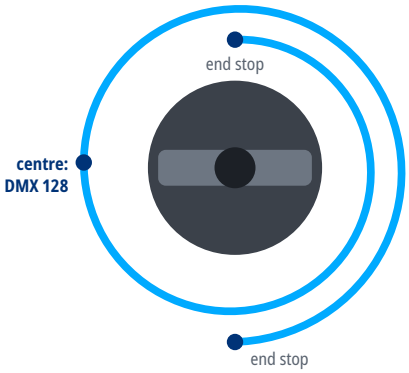
> ⚠ **WARNING**
>
> - The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
> - Keep yourself and any objects out of the range of movement. While the device is switched on, do 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

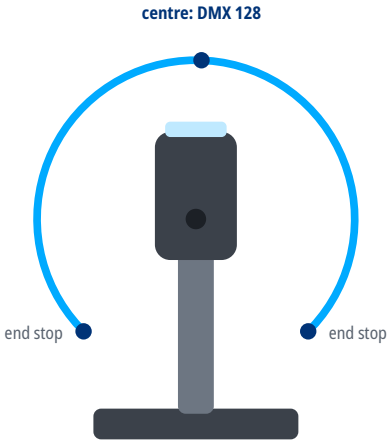
Pan 540°

top view



Tilt 270°

side view



5 Installation

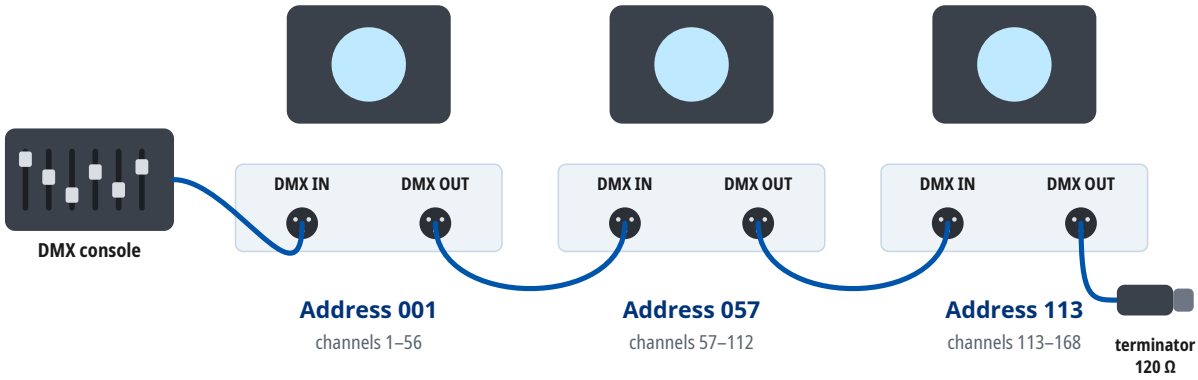
⚠ **WARNING**

- 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: 30.4 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 Extended: every unit occupies 56 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

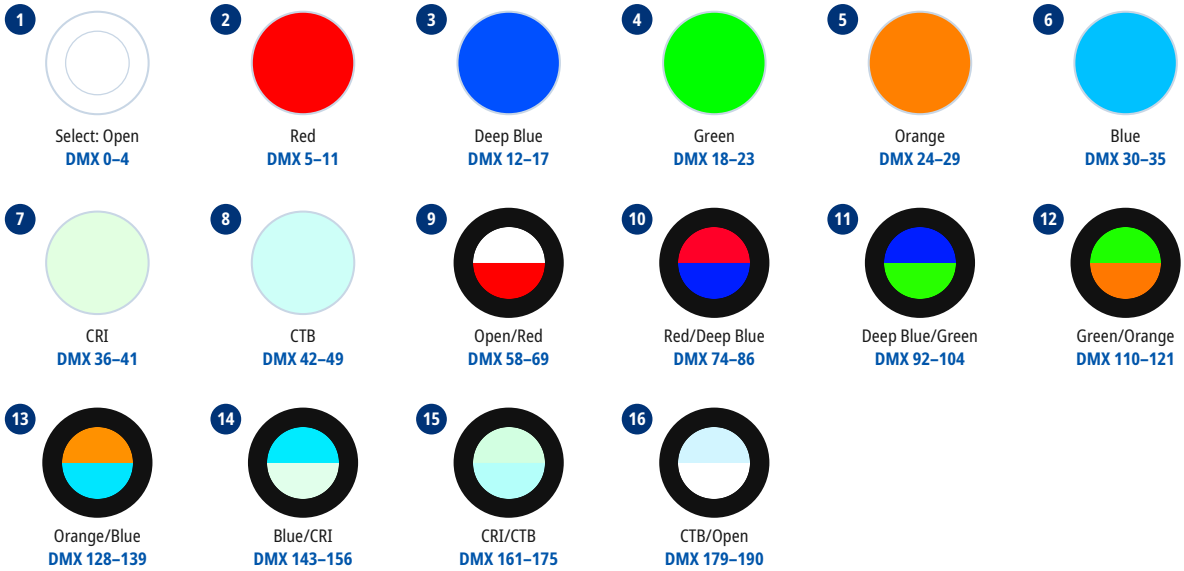
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “Extended”: 56.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied 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 “Extended”, you can use, for example, the start addresses 1, 57, 113, 169.
- 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

	Extended 56 channels	Standard 37 channels
Pan / Tilt	1, 3, 5	1, 3, 5
Dimmer	20	15
Shutter / strobe	19	14
Color mixing	6, 8, 10	6–8
Color temperature	12	9
Color wheel	14	10
Gobo wheel	15, 18	11, 13
Gobo rotation	16	12
Prism	22, 23, 25, 26	17–20
Frost	33, 34	24, 25
Zoom	30	22
Focus	28	21
Iris	32	23
Animation wheel	35	26

Gobo wheel 1



Animation wheel

1	Animation

Prism 1

1

Open
DMX 0–5

2

8 facets
8 Facet Prism
DMX 6–255

Gobo wheel 2

1

Select: open
DMX 0–6

2

Select: gobo 1 1
DMX 7–13

3

Select: gobo 1 2
DMX 14–20

4

Select: gobo 1 3
DMX 21–27

5

Select: gobo 1 4
DMX 28–34

6

Select: gobo 1 5
DMX 35–41

7

Select: gobo 1 6
DMX 42–48

8

Gobo 7
DMX 49–56

Gobo wheel 3

1

Select: open
DMX 0–6

2

Select: gobo 2 1
DMX 7–13

3

Select: gobo 2 2
DMX 14–20

4

Select: gobo 2 3
DMX 21–27

5

Select: gobo 2 4
DMX 28–34

6

Select: gobo 2 5
DMX 35–41

7

Select: gobo 2 6
DMX 42–48

8

Select: gobo 2 7
DMX 49–55

9

Gobo 8
DMX 56–63

Prism 2

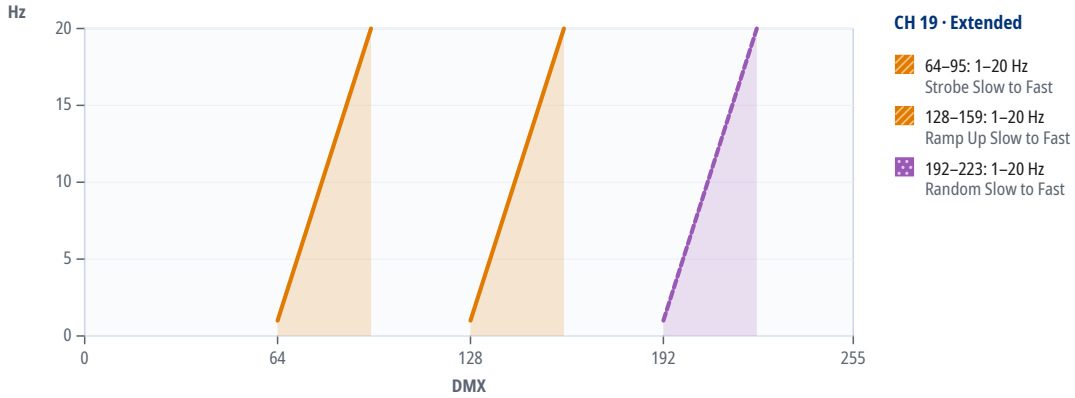
1

Open
DMX 0–31

2

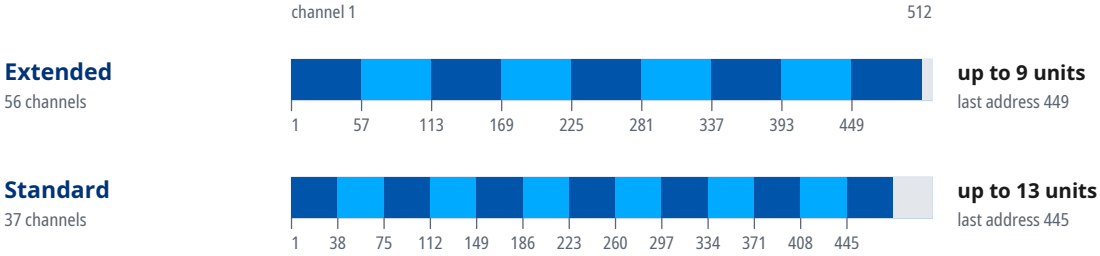
6 facets
6 Facet Prism
DMX 32–255

Strobe rate



9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Extended”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	281	11	U2 · 57	16	U2 · 337
2	57	7	337	12	U2 · 113	17	U2 · 393
3	113	8	393	13	U2 · 169	18	U2 · 449
4	169	9	449	14	U2 · 225	19	U3 · 1
5	225	10	U2 · 1	15	U2 · 281	20	U3 · 57

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 Extended

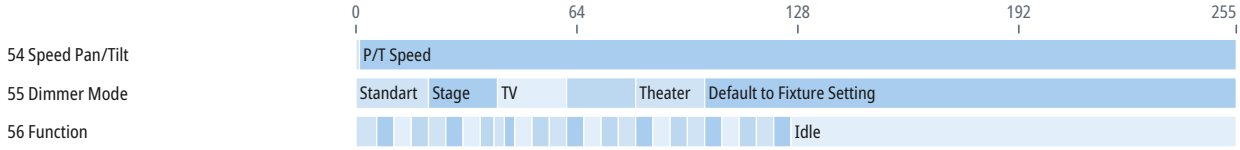
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 19 Shutter at 32–63, 96–112, 160–191, 225–255 “Open” or 113–127 or 224; CH 20 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 6 Cyan 0, CH 8 Magenta 0, CH 10 Yellow 0, CH 12 CTO 0, CH 14 Colors 0, CH 19 Shutter 63, CH 20 Dimmer 255.

Channel functions at a glance



Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–127	Min ... center
		128–255	Center ... max
		255	Max
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–127	Min ... center
		128–255	Center ... max
		255	Max
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Pan Rotation		Pan Rotate
		0–127	Idle
		128–189	<<<<
		190–193	Stop
		194–255	>>>>
6	Cyan	0–255	Cyan
7	Cyan Fine	0–255	Fine adjustment of CH 6
8	Magenta	0–255	Magenta
9	Magenta Fine	0–255	Fine adjustment of CH 8
10	Yellow	0–255	Yellow
11	Yellow Fine	0–255	Fine adjustment of CH 10
12	CTO	0–255	Min CTO ... max CTO
		255	Max CTO
13	CTO Fine	0–255	Fine adjustment of CH 12
14	Colors	0–4	Select: Open
		5–11	Red
		12–17	Deep Blue
		18–23	Green
		24–29	Orange
		30–35	Blue
		36–41	CRI
		42–49	CTB
		50–57	Select: Open
		58–69	Open/Red
		70–73	Red
		74–86	Red/Deep Blue
		87–91	Deep Blue
		92–104	Deep Blue/Green

CH	Function	DMX	Description
14	Colors (continued)	105–109	Green
		110–121	Green/Orange
		122–127	Orange
		128–139	Orange/Blue
		140–142	Blue
		143–156	Blue/CRI
		157–160	CRI
		161–175	CRI/CTB
		176–178	CTB
		179–190	CTB/Open
		191–192	Select: Open
		193–222	<<< (348.6–5.71 °/s)
		223–224	Color 1 Wheel Spin: stop
		225–255	>>> (17.1–360 °/s)
15	Gobo	0–6	Select: open
		7–13	Select: gobo 1 1
		14–20	Select: gobo 1 2
		21–27	Select: gobo 1 3
		28–34	Select: gobo 1 4
		35–41	Select: gobo 1 5
		42–48	Select: gobo 1 6
		49–55	Select: gobo 1 7
		56–62	Select Shake: gobo 1 1 (0–0.13 Hz)
		63–69	Select Shake: gobo 1 2 (0.15–0.27 Hz)
		70–76	Select Shake: gobo 1 3 (0.29–0.42 Hz)
		77–83	Select Shake: gobo 1 4 (0.44–0.56 Hz)
		84–90	Select Shake: gobo 1 5 (0.58–0.71 Hz)
		91–97	Select Shake: gobo 1 6 (0.73–0.85 Hz)
		98–104	Select Shake: gobo 1 7 (0.88–1 Hz)
		105–178	<<< (360–0 °/s)
		179–181	Spin: Stop
		182–255	>>> (0–360 °/s)
16	Gobo Rotation Speed	0–125	Gobo Indexing (360°)
		125–127	Gobo 2 Pos Rotate 1
		128–190	<<< (360–0 °/s)
		191–192	Gobo 2 Pos Rotate: stop
		193–255	>>> (0–360 °/s)
17	Gobo Rotation Speed Fine	0–255	Fine adjustment of CH 16
18	Gobo 2	0–6	Select: open
		7–13	Select: gobo 2 1
		14–20	Select: gobo 2 2
		21–27	Select: gobo 2 3

CH	Function	DMX	Description
18	Gobo 2 (continued)	28–34	Select: gobo 2 4
		35–41	Select: gobo 2 5
		42–48	Select: gobo 2 6
		49–55	Select: gobo 2 7
		56–62	Select: gobo 2 8
		63–69	Select Shake: gobo 2 1
		70–76	Select Shake: gobo 2 2
		77–83	Select Shake: gobo 2 3
		84–90	Select Shake: gobo 2 4
		91–97	Select Shake: gobo 2 5
		98–104	Select Shake: gobo 2 6
		105–111	Select Shake: gobo 2 7
		112–118	Select Shake: gobo 2 8
		119–185	<<< (360–0 °/s)
		186–188	Spin: stop
		189–255	>>> (0–360 °/s)
19	Shutter	0–31	Shutter 1: Closed
		32–63	Shutter 1: Open
		64–95	Strobe Slow to Fast (1–20 Hz)
		96–112	Open
		113–127	Open 2
		128–159	Ramp Up Slow to Fast (1–20 Hz)
		160–191	Open
		192–223	Random Slow to Fast (1–20 Hz)
		224	Open 4
		225–255	Open
20	Dimmer	0–255	Closed … open
		255	Open
21	Dimmer Fine	0–255	Fine adjustment of CH 20
22	Prism	0–5	Open
		6–255	8 Facet Prism
23	Prism Rotation Speed	0–127	Prism 1 Indexing (540°)
		128–189	<<< (540–8.57 °/s)
		190–193	Prism 1 Pos Rotate: stop
		194–255	>>> (0–540 °/s)
24	Prism Rotation Speed Fine	0–255	Fine adjustment of CH 23
25	Prism 2	0–31	Open
		32–255	6 Facet Prism
26	Prism 2 Rotation Speed	0	Prism 2 Indexing
		0–127	Prism Indexing
		128–189	<<< (540–8.57 °/s)
		190–193	Prism 1 Pos Rotate: stop

CH	Function	DMX	Description
26	Prism 2 Rotation Speed (continued)	194–255	>>> (0–540 °/s)
27	Prism 2 Rotation Speed Fine	0–255	Fine adjustment of CH 26
28	Focus	0–255	Focus
29	Focus Fine	0–255	Fine adjustment of CH 28
30	Zoom	0–127	Narrow ... Medium
		127–255	Medium ... Wide
		255	Wide
31	Zoom Fine	0–255	Fine adjustment of CH 30
32	Iris	0	Iris open
		1–190	Iris open ... Iris closed
		191	Iris closed
		192	Iris Pulse Open: max Pulse
		193–222	Max Pulse ... min Pulse
		223	Iris Pulse Open: min Pulse
		224	Iris Pulse Close: min Pulse
		225–254	Min Pulse ... max Pulse
		255	Iris Pulse Close: max Pulse
33	Frost		Frost 1
		0	Frost 0%
		1–254	Frost 0% ... Frost 100%
		255	Frost 100%
34	Frost 2	0	Frost 0%
		1–254	Frost 0% ... Frost 100%
		255	Frost 100%
35	Animation Wheel	0–5	Animation Wheel: open
		6	Min CW
		7–127	Min CW ... max CCW
		128	Max CCW
		129–191	<<< (360–0 °/s)
		192	Animation Wheel 1 Pos Rotate: stop
		193–255	>>> (0–360 °/s)
36	Blade 1 A	0–255	Min ... Max
		255	Max
37	Blade 1 A Fine	0–255	Fine adjustment of CH 36
38	Blade 1 B	0–255	Min ... Max
		255	Max
39	Blade 1 B Fine	0–255	Fine adjustment of CH 38
40	Blade 2 A	0–255	Min ... Max
		255	Max
41	Blade 2 A Fine	0–255	Fine adjustment of CH 40
42	Blade 2 B	0–255	Min ... Max
		255	Max

CH	Function	DMX	Description
43	Blade 2 B Fine	0–255	Fine adjustment of CH 42
44	Blade 3 A	0–255	Min ... Max
		255	Max
45	Blade 3 A Fine	0–255	Fine adjustment of CH 44
46	Blade 3 B	0–255	Min ... Max
		255	Max
47	Blade 3 B Fine	0–255	Fine adjustment of CH 46
48	Blade 4 A	0–255	Min ... Max
		255	Max
49	Blade 4 A Fine	0–255	Fine adjustment of CH 48
50	Blade 4 B	0–255	Min ... Max
		255	Max
51	Blade 4 B Fine	0–255	Fine adjustment of CH 50
52	Shaper Rotation	0–255	Rotation 0 ... Rotation 120
		255	Rotation 120
53	Shaper Rotation Fine	0–255	Fine adjustment of CH 52
54	Speed Pan/Tilt		P/T Speed
		0	P/T Speed Fast-Slow
		1–255	P/T Speed
55	Dimmer Mode	0–20	Standart
		21–40	Stage
		41–60	TV
		61–80	Architectural
		81–100	Theater
		101–255	Default to Fixture Setting
56	Function	0–5	Idle
		6–10	Display ON
		11–15	Display OFF
		16–20	Invert Pan ON
		21–25	Invert Pan OFF
		26–30	Invert Tilt ON
		31–35	Invert Tilt OFF
		36–39	Fan Auto
		40–42	Fan Silent
		43–45	Fan High
		46–50	Linear Dimmer Curve
		51–55	Square Dimmer Curve
		56–60	Inv-Square Dimmer Curve
		61–65	S-Dimmer Curve
		66–70	LED Freq 1200Hz
		71–75	LED Freq 3600Hz
		76–80	LED Freq 5000Hz

CH	Function	DMX	Description
56	Function (continued)	81–85	LED Freq 10000Hz
		86–90	LED Freq 15000Hz
		91–95	LED Freq 20000Hz
		96–100	LED Freq 25000Hz
		101–105	Reset All
		106–110	P/T Motor Reset
		111–115	Head Motor Reset
		116–120	Gobo CTB Auto ON
		121–125	Gobo CTB Auto OFF
		126–255	Idle

Mode Standard

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 14 Shutter at 32–63, 96–112, 160–191, 225–255 “Open” or 113–127 or 224; CH 15 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 6 Cyan 0, CH 7 Magenta 0, CH 8 Yellow 0, CH 9 CTO 0, CH 10 Colors 0, CH 14 Shutter 63, CH 15 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Extended” (p. 12)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Extended” (p. 12)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Pan Rotation		Same as CH 5 in the mode “Extended” (p. 12)
6	Cyan	0–255	Cyan
7	Magenta	0–255	Magenta
8	Yellow	0–255	Yellow
9	CTO	0	Min CTO
		1–254	Min CTO ... max CTO
		255	Max CTO
10	Colors		Same as CH 14 in the mode “Extended” (p. 12)
11	Gobo		Same as CH 15 in the mode “Extended” (p. 13)
12	Gobo Rotation Speed	0–125	Gobo Indexing (360°)
		126–127	Gobo 2 Pos Rotate 1
		128–190	<<< (360–0 °/s)
		191–192	Gobo 2 Pos Rotate: stop
		193–255	>>> (0–360 °/s)
13	Gobo 2		Same as CH 18 in the mode “Extended” (p. 13)
14	Shutter		Same as CH 19 in the mode “Extended” (p. 14)
15	Dimmer		Same as CH 20 in the mode “Extended” (p. 14)
16	Dimmer Fine	0–255	Fine adjustment of CH 15
17	Prism		Same as CH 22 in the mode “Extended” (p. 14)
18	Prism Rotation Speed		Same as CH 23 in the mode “Extended” (p. 14)
19	Prism 2		Same as CH 25 in the mode “Extended” (p. 14)
20	Prism 2 Rotation Speed	0	Prism 2 Indexing
		1–127	Prism Indexing
		128–189	<<< (540–8.57 °/s)
		190–193	Prism 1 Pos Rotate: stop
		194–255	>>> (0–540 °/s)
21	Focus	0–255	Focus
22	Zoom	0	Narrow
		1–126	Narrow ... Medium
		127	Medium
		128–254	Medium ... Wide
		255	Wide
23	Iris		Same as CH 32 in the mode “Extended” (p. 15)
24	Frost		Same as CH 33 in the mode “Extended” (p. 15)
25	Frost 2		Same as CH 34 in the mode “Extended” (p. 15)
26	Animation Wheel		Same as CH 35 in the mode “Extended” (p. 15)

CH	Function	DMX	Description
27	Blade 1 A	0	Min
		1–254	Min … Max
		255	Max
28	Blade 1 B	0	Min
		1–254	Min … Max
		255	Max
29	Blade 2 A	0	Min
		1–254	Min … Max
		255	Max
30	Blade 2 B	0	Min
		1–254	Min … Max
		255	Max
31	Blade 3 A	0	Min
		1–254	Min … Max
		255	Max
32	Blade 3 B	0	Min
		1–254	Min … Max
		255	Max
33	Blade 4 A	0	Min
		1–254	Min … Max
		255	Max
34	Blade 4 B	0	Min
		1–254	Min … Max
		255	Max
35	Shaper Rotation	0	Rotation 0
		1–254	Rotation 0 … Rotation 120
		255	Rotation 120
36	Dimmer Mode		Same as CH 55 in the mode “Extended” (p. 16)
37	Function		Same as CH 56 in the mode “Extended” (p. 16)

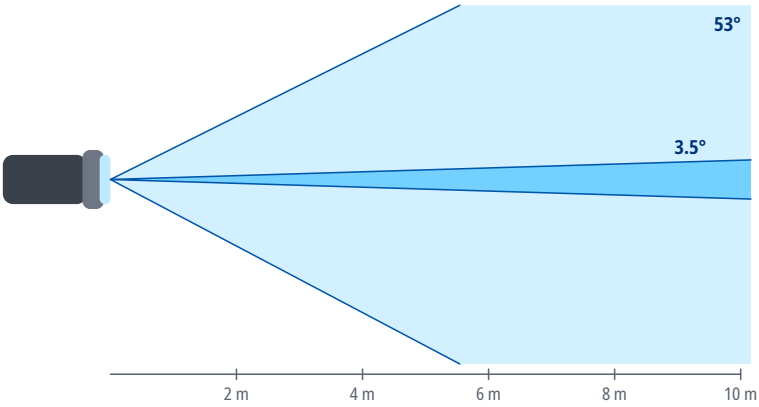
10 Technical specifications

Parameter	Value
Light	
Light source	LED
LED power	1,400 W
Luminous flux	90,000 lm
Color temperature	6,500 K
Color rendering index (CRI)	85
Optics	
Zoom	3.5–53°
Movement	
Pan	540°
Tilt	270°
Control	
DMX connection	5-pin XLR IN/OUT, 3-pin XLR IN/OUT
RJ45 connectors	RJ45 IN
Electrical	
Power supply	110–240 V, 50/60 Hz
Power consumption	1,000 W
Power connectors	powerCON TRUE1 IN/OUT
Dimensions and construction	
Weight	30.4 kg
Operating environment	
Operating temperature	-5 to 45 °C

Speeds and ranges

Parameter	Value
Color temperature range	2900–6500 K
Strobe frequency	1–20 Hz
Color wheel 1 rotation	up to 360 °/s (60 rpm)
Gobo wheel 2 rotation	up to 360 °/s (60 rpm)
Gobo wheel 3 rotation	up to 360 °/s (60 rpm)
Gobo 2 rotation	up to 360 °/s (60 rpm)
Prism 1 rotation	up to 540 °/s (90 rpm)
Prism 2 rotation	up to 540 °/s (90 rpm)
Animation wheel rotation	up to 360 °/s (60 rpm)

Spot diameter



Distance	Ø 3.5°	Ø 53°
2 m	0.12 m	2 m
4 m	0.24 m	4 m
6 m	0.37 m	6 m
8 m	0.49 m	8 m
10 m	0.61 m	10 m
15 m	0.92 m	15 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.