DMX REFERENCE

BLINDER LINE 5 IP

BLINDER LINE 5 IP (BLB 5 IP)

ACME



Manufacturer	ACME
GDTF file	ACME_BLINDER_LINE_5_IP_141684.gdtf
GDTF revision	(BLB 5 IP) V1-0 · 2026-05-07
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1 About this manual

This document describes the BLINDER LINE 5 IP (BLB 5 IP) by ACME. It was compiled from the GDTF file ACME_BLINDER_LINE_5_IP_141684.gdtf from the GDTF-Share library.

File revision: “(BLB 5 IP) V1-0”.

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 ACME; 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	7.7 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
Mode 2 30DMX	30	17	1, 31, 61, 91, ...
Mode 1 14DMX	14	36	1, 15, 29, 43, ...

No light? Check these channels

- Mode 2 30DMX: CH 3 Shutter at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 4 Dimmer above 0
- Mode 1 14DMX: CH 3 Shutter at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 4 Dimmer above 0


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.

⚠ WARNING

- This device produces very intense flashes of light.
- Flash rates of about 3 to 30 flashes per second carry the highest risk for people with photosensitive epilepsy.
- Do not aim the device into the eyes of the audience or performers at close range.
- At public events, always give clear advance notice that strobe effects will be used.

4 Installation

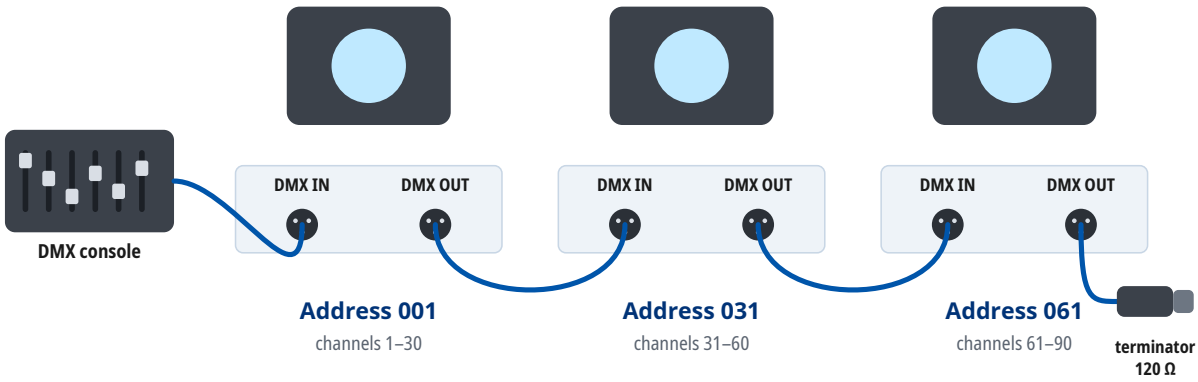
⚠ WARNING

- 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: 7.74 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 2 30DMX: every unit occupies 30 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 2 30DMX”: 30.
- 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 2 30DMX”, you can use, for example, the start addresses 1, 31, 61, 91.
- 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 30DMX 30 channels	Mode 1 14DMX 14 channels
Dimmer	4	4
Shutter / strobe	3	3
Color mixing	6–30	6–10
Color temperature		11
Color wheel		12
Frost	2	2
Effects / macros		13, 14

Color wheel

1 Open
DMX 0–9

2 Color 1
DMX 10–16

3 Color 2
DMX 17–23

4 Color 3
DMX 24–30

5 Color 4
DMX 31–37

6 Color 5
DMX 38–44

7 Color 6
DMX 45–51

8 Color 7
DMX 52–58

9 Color 8
DMX 59–65

10 Color 9
DMX 66–72

11 Color 10
DMX 73–79

12 Color 11
DMX 80–86

13 Color 12
DMX 87–93

14 Color 13
DMX 94–100

15 Color 14
DMX 101–107

16 Color 15
DMX 108–114

17 Color 16
DMX 115–121

18 Color 17
DMX 122–128

19 Color 18
DMX 129–135

20 Color 19
DMX 136–142

21 Color 20
DMX 143–149

22 Color 21
DMX 150–156

23 Color 22
DMX 157–163

24 Color 23
DMX 164–170

25 Color 24
DMX 171–177

26 Color 25
DMX 178–184

27 Color 26
DMX 185–191

28 Color 31
DMX 192–198

29 Color 27
DMX 199–205

30 Color 30
DMX 206–212

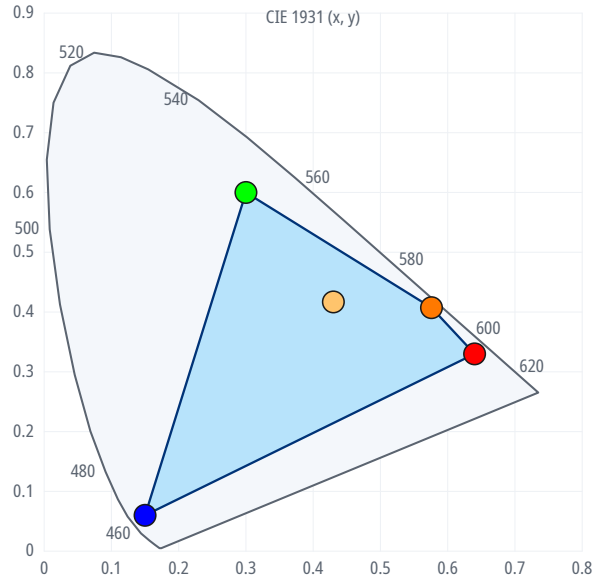
31 Color 32
DMX 213–219

32 Color 28
DMX 220–226

33 Color 29
DMX 227–233

34 Color 33
DMX 234–255

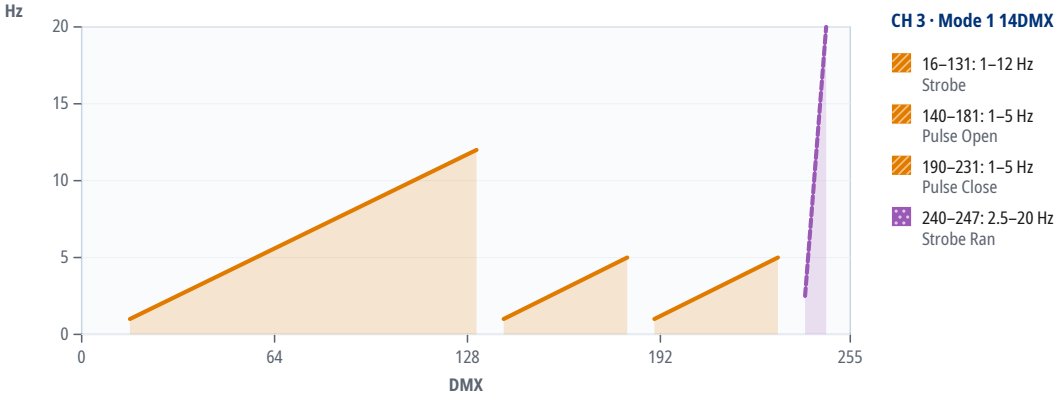
LED colors and the colors they mix



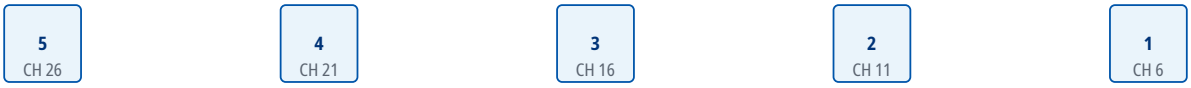
LED	x	y
R	0.640	0.330
G	0.300	0.600
B	0.150	0.060
WW	0.430	0.417
A	0.576	0.407

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

Strobe rate



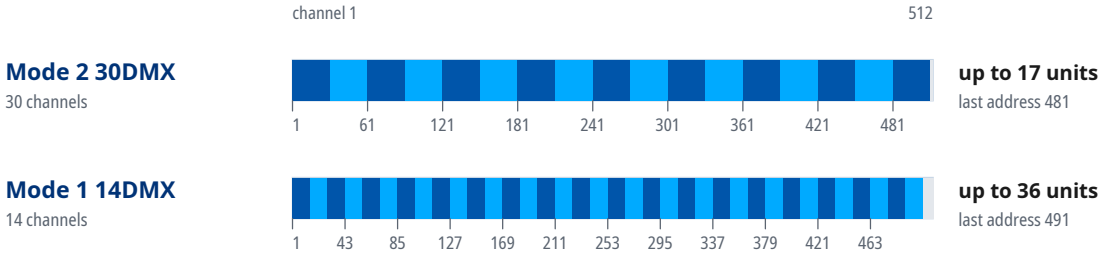
Cells (pixels)



5 cells where the GDTF file places them (seen from above), numbered by their first DMX channel (CH) in the mode “Mode 1 14DMX”.

8 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Mode 2 30DMX”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	151	11	301	16	451
2	31	7	181	12	331	17	481
3	61	8	211	13	361	18	U2 · 1
4	91	9	241	14	391	19	U2 · 31
5	121	10	271	15	421	20	U2 · 61

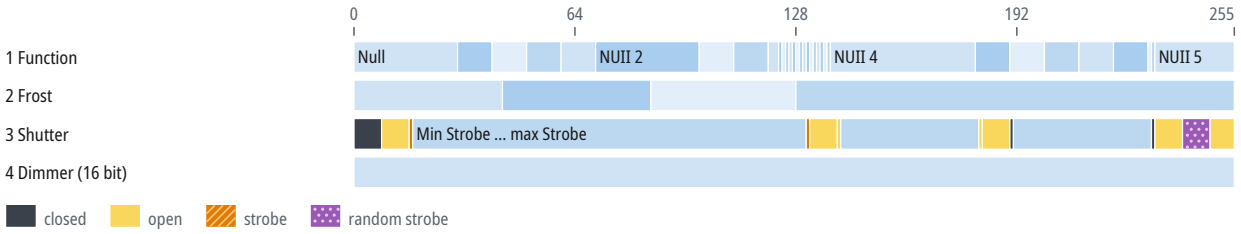
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode 2 30DMX

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 3 Shutter at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 4 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 3 Shutter 255, CH 4 Dimmer 255, CH 6 White 1 255, CH 11 White 2 255, CH 16 White 3 255, CH 21 White 4 255, CH 26 White 5 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Function	0–29	Null
		30–39	Dim Linear
		40–49	Square Law
		50–59	Inv SQ Law
		60–69	S Curve
		70–99	NUII 2
		100–109	LED Frequency Setting En
		110–119	LED Frequency Setting Dis

CH	Function	DMX	Description
1	Function (continued)	120–122	NUII 3
		123	900Hz
		124	1000Hz
		125	1100Hz
		126	1200Hz
		127	1300Hz
		128	1400Hz
		129	1500Hz
		130	2500Hz
		131	4000Hz
		132	5000Hz
		133	6000Hz
		134	10Hz
		135	15Hz
		136	20Hz
		137	25Hz
		138–179	NUII 4
		180–189	Dim Speed Fast
		190–199	Dim Speed Smooth
		200–209	Dim Speed Tungsten
		210–219	Invert Pixel No
		220–229	Invert Pixe Yes
		230	Dim Start Mode High
		231	Dim Start Mode Low
		232–255	NUII 5
2	Frost	0–42	Open
		43–85	Frost 1
		86–127	Frost 2
		128–255	Frost 0--100%
3	Shutter	0–7	Closed
		8–15	Open
		16	Min Strobe
		17–130	Min Strobe ... max Strobe
		131	Max Strobe
		132–139	Open 2
		140	Min Pulse Open
		141–180	Min Pulse Open ... max Pulse Open
		181	Max Pulse Open
		182–189	Open 3
		190	Min Pulse Close
		191–230	Min Pulse Close ... max Pulse Close
		231	Max Pulse Close

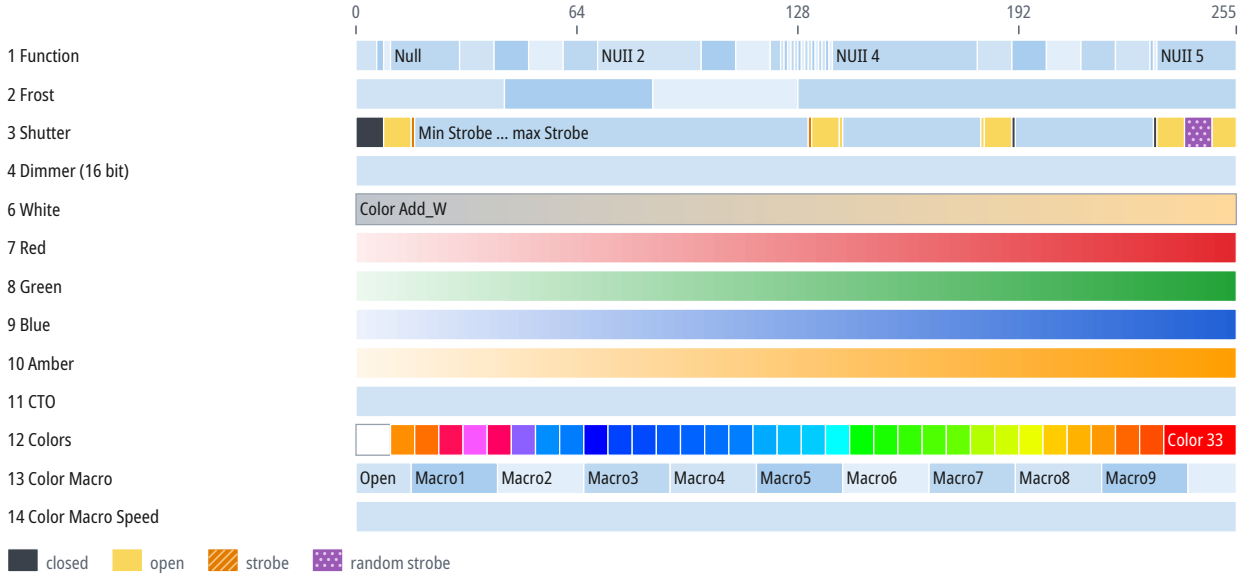
CH	Function	DMX	Description
3	Shutter (continued)	232–239	Open 4
		240–247	Strobe Ran (2.5–20 Hz)
		248–255	Open 5
4	Dimmer	0–255	
5	Dimmer Fine	0–255	Fine adjustment of CH 4
6	White 1	0–255	
7	Red 1	0–255	
8	Green 1	0–255	
9	Blue 1	0–255	
10	Amber 1	0–255	
11	White 2	0–255	
12	Red 2	0–255	
13	Green 2	0–255	
14	Blue 2	0–255	
15	Amber 2	0–255	
16	White 3	0–255	
17	Red 3	0–255	
18	Green 3	0–255	
19	Blue 3	0–255	
20	Amber 3	0–255	
21	White 4	0–255	
22	Red 4	0–255	
23	Green 4	0–255	
24	Blue 4	0–255	
25	Amber 4	0–255	
26	White 5	0–255	
27	Red 5	0–255	
28	Green 5	0–255	
29	Blue 5	0–255	
30	Amber 5	0–255	

Mode 1 14DMX

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 3 Shutter at 8–15 “Open” or 132–139 or 182–189 or 232–239 or 248–255; CH 4 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 3 Shutter 255, CH 4 Dimmer 255, CH 6 White 255, CH 12 Colors 0, CH 13 Color Macro 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Function	0–5	Null
		6–7	Wireless: On
		8–9	Wireless: Off
		10–29	Null
		30–39	Curve: Linear
		40–49	Square Law
		50–59	Inv SQ Law
		60–69	S Curve
		70–99	NUII 2
		100–109	Setting Enable
		110–119	Setting Disable
		120–122	NUII 3
		123	900Hz
		124	1000Hz
		125	1100Hz
		126	1200Hz
		127	1300Hz
		128	1400Hz
		129	1500Hz
		130	2500Hz

CH	Function	DMX	Description
1	Function (continued)	131	4000Hz
		132	5000Hz
		133	6000Hz
		134	10Hz
		135	15Hz
		136	20Hz
		137	25Hz
		138–179	NUII 4
		180–189	Dimmer Speed: Speed: Fast
		190–199	Speed: Smooth
		200–209	Speed: Tungsten
		210–219	Invert Pixel: No
		220–229	Invert Pixel: Yes
		230	Start Mode: High
		231	Start Mode: Low
		232–255	NUII 5
2	Frost		Same as CH 2 in the mode “Mode 2 30DMX” (p. 10)
3	Shutter		Same as CH 3 in the mode “Mode 2 30DMX” (p. 10)
4	Dimmer	0–255	
5	Dimmer Fine	0–255	Fine adjustment of CH 4
6	White	0–255	Color Add_W
7	Red	0–255	
8	Green	0–255	
9	Blue	0–255	
10	Amber	0–255	
11	CTO	0–255	8000–2500 K
12	Colors	0–9	Open
		10–16	Color 1
		17–23	Color 2
		24–30	Color 3
		31–37	Color 4
		38–44	Color 5
		45–51	Color 6
		52–58	Color 7
		59–65	Color 8
		66–72	Color 9
		73–79	Color 10
		80–86	Color 11
		87–93	Color 12
		94–100	Color 13
		101–107	Color 14
		108–114	Color 15

CH	Function	DMX	Description
12	Colors (continued)	115–121	Color 16
		122–128	Color 17
		129–135	Color 18
		136–142	Color 19
		143–149	Color 20
		150–156	Color 21
		157–163	Color 22
		164–170	Color 23
		171–177	Color 24
		178–184	Color 25
		185–191	Color 26
		192–198	Color 31
		199–205	Color 27
		206–212	Color 30
		213–219	Color 32
		220–226	Color 28
		227–233	Color 29
		234–255	Color 33
13	Color Macro	0–15	Open
		16–40	Macro1
		41–65	Macro2
		66–90	Macro3
		91–115	Macro4
		116–140	Macro5
		141–165	Macro6
		166–190	Macro7
		191–215	Macro8
		216–240	Macro9
		241–255	Macro10
14	Color Macro Speed	0–255	

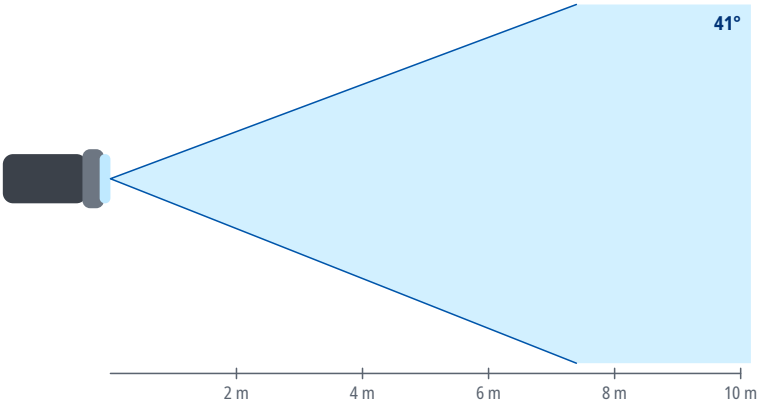
9 Technical specifications

Parameter	Value
Light source	LED
RDM	yes (manufacturer ID 0x3806, device model ID 0x1371)
Weight	7.7 kg
Operating temperature	-10 to 40 °C

Speeds and ranges

Parameter	Value
Color temperature range	2500–8000 K
Strobe frequency	1–12 Hz

Spot diameter



Distance	Ø 41°
2 m	1.5 m
4 m	3 m
6 m	4.5 m
8 m	6 m
10 m	7.5 m
15 m	11.2 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.