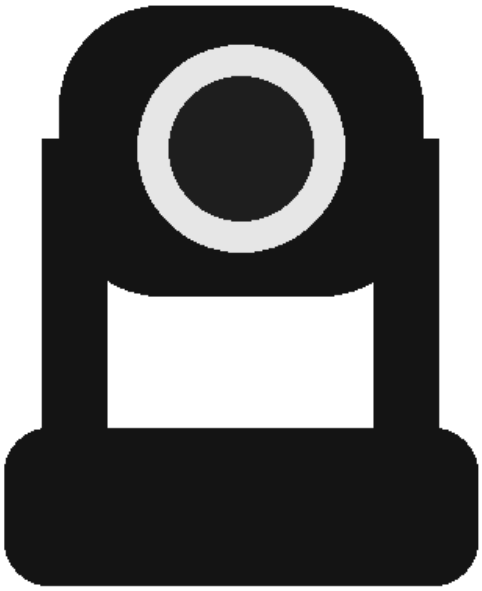
DMX REFERENCE

PG LED Spot 400 PG378

PG LED Spot 400 PG378 36CH

PG LED



Manufacturer	PG LED
GDTF file	PG_LED_PG_LED_Spot_400_PG378_151431.gdtf
GDTF revision	PG LED Spot 400 PG378 36 channel profile for BlenderDMX · 2026-07-18
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1 About this manual

This document describes the PG LED Spot 400 PG378 36CH by PG LED. It was compiled from the GDTF file PG_LED_PG_LED_Spot_400_PG378_151431.gdtf from the GDTF-Share library.

File revision: “PG LED Spot 400 PG378 36 channel profile for BlenderDMX”.

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 PG LED; 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.

Note in the GDTF file

“PG LED Spot 400 PG378 36 channel profile for BlenderDMX”

2 Quick reference

Parameter	Value
Power consumption	450 W
Weight	23 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
36CH	36	14	1, 37, 73, 109, ...

No light? Check these channels

- 36CH: CH 6 Shutter at 11–21 or 127–137 or 202–212 or 245–255; CH 7 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: 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

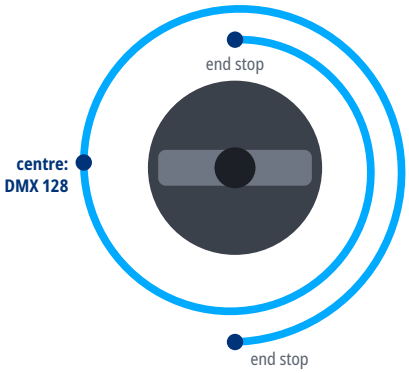
- The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
- Keep yourself and any objects out of the range of movement. While the device is switched on, do not touch the moving parts, 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

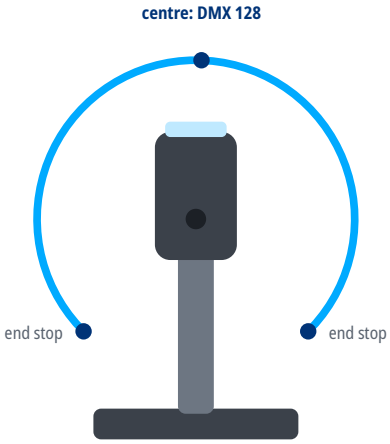
Pan 540°

top view



Tilt 270°

side view



5 Installation

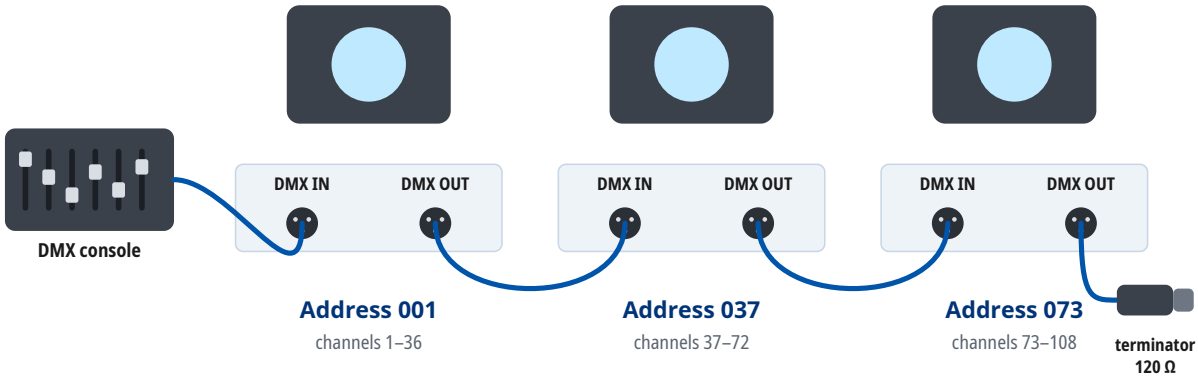
⚠ **WARNING**

- 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: 23 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

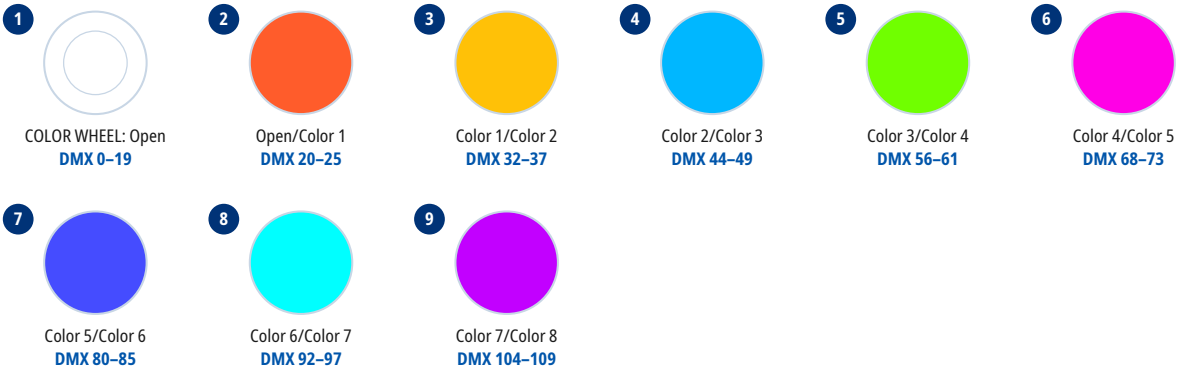
- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “36CH”: 36.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied channel 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
Pan / Tilt	1, 3
Dimmer	7
Shutter / strobe	6
Color mixing	17, 19, 21
Color temperature	23
Color wheel	15
Gobo wheel	25, 28
Gobo rotation	26
Prism	32, 33
Frost	35
Zoom	9
Focus	11
Iris	30
Animation wheel	29

Color wheel



1. COLOR WHEEL: Open — DMX 0–19
2. Open/Color 1 — DMX 20–25
3. Color 1/Color 2 — DMX 32–37
4. Color 2/Color 3 — DMX 44–49
5. Color 3/Color 4 — DMX 56–61
6. Color 4/Color 5 — DMX 68–73
7. Color 5/Color 6 — DMX 80–85
8. Color 6/Color 7 — DMX 92–97
9. Color 7/Color 8 — DMX 104–109

Gobo wheel 1



1. GOBO1_POS: Open — DMX 0–7
2. Horizontal Bar — DMX 8–20
3. Crescent Swirls — DMX 21–33
4. Organic Web — DMX 34–46
5. Shattered Texture — DMX 47–59
6. Four Crescents — DMX 60–72
7. Broken Circle — DMX 73–85
8. Radial Blades — DMX 86–99

Gobo wheel 2

1 GOBO2: Open
DMX 0–9



2 Static Gobo 1
DMX 10–17

3 Static Gobo 2
DMX 18–25



4 Static Gobo 3
DMX 26–33



5 Static Gobo 4
DMX 34–41



6 Static Gobo 5
DMX 42–49



7 Static Gobo 6
DMX 50–57



8 Static Gobo 7
DMX 58–65



9 Static Gobo 8
DMX 66–73



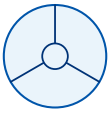
10 Static Gobo 9
DMX 74–81



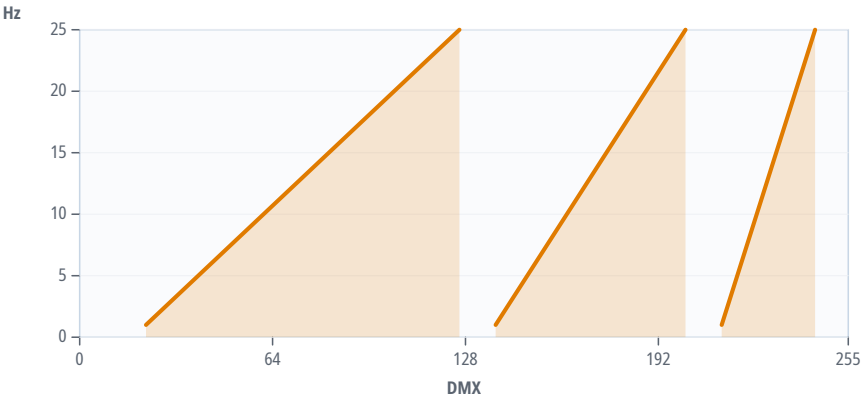
Prism

1 Open
DMX 0–127

2 3 facets
3-facet prism
DMX 128–255



Strobe rate



CH 6 · 36CH

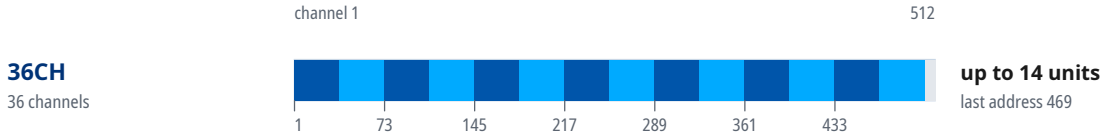
22–126: 1–25 Hz
STROBE EFFECT SLOW TO FAST

138–201: 1–25 Hz
PULSE EFFECT IN SEQUENCES

213–244: 1–25 Hz
RANDOM STROBE EFFECT SLOW TO FAST

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 6 Shutter at 11–21 or 127–137 or 202–212 or 245–255; CH 7 Dimmer above 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–255	PAN (540°)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–255	TILT (270°)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt	0–255	MSPEED
6	Shutter	0–10	SHUTTER CLOSED
		11–21	SHUTTER OPEN 1
		22–126	STROBE EFFECT SLOW TO FAST (1–25 Hz)
		127–137	SHUTTER OPEN 2
		138–201	PULSE EFFECT IN SEQUENCES (1–25 Hz)
		202–212	SHUTTER OPEN 3
		213–244	RANDOM STROBE EFFECT SLOW TO FAST (1–25 Hz)
		245–255	SHUTTER OPEN HIGH

CH	Function	DMX	Description
7	Dimmer	0–255	DIM
8	Dimmer Fine	0–255	Fine adjustment of CH 7
9	Zoom	0–255	ZOOM (6–42°)
10	Zoom Fine	0–255	Fine adjustment of CH 9
11	Focus	0–255	FOCUS
12	Focus Fine	0–255	Fine adjustment of CH 11
13	Color Mix Mode	0–255	COLORMIXMODE
14	Color Mix Mode Fine	0–255	Fine adjustment of CH 13
15	Colors	0–19	COLOR WHEEL: Open
		20–25	Open/Color 1
		26–31	Color 1
		32–37	Color 1/Color 2
		38–43	Color 2
		44–49	Color 2/Color 3
		50–55	Color 3
		56–61	Color 3/Color 4
		62–67	Color 4
		68–73	Color 4/Color 5
		74–79	Color 5
		80–85	Color 5/Color 6
		86–91	Color 6
		92–97	Color 6/Color 7
		98–103	Color 7
		104–109	Color 7/Color 8
		110–115	Color 8
		116–121	Color 8/Open
		122–127	COLOR WHEEL: Open
		128–189	Forwards rainbow effect from fast to slow (360–5 °/s)
		190–193	No rotation
		194–255	Backwards rainbow effect from slow to fast (5–360 °/s)
16	Colors Fine	0–255	Fine adjustment of CH 15
17	Cyan	0–255	COLORRGB1
18	Cyan Fine	0–255	Fine adjustment of CH 17
19	Magenta	0–255	COLORRGB2
20	Magenta Fine	0–255	Fine adjustment of CH 19
21	Yellow	0–255	COLORRGB3
22	Yellow Fine	0–255	Fine adjustment of CH 21
23	CTO	0–255	7000–2700 K
24	CTO Fine	0–255	Fine adjustment of CH 23
25	Gobo	0–7	GOBO1_POS: Open
		8–20	Horizontal Bar
		21–33	Crescent Swirls

CH	Function	DMX	Description
25	Gobo (continued)	34–46	Organic Web
		47–59	Shattered Texture
		60–72	Four Crescents
		73–85	Broken Circle
		86–98	Radial Blades
		99–111	Gobo 1 shake slow to fast (0.5–10 Hz)
		112–124	Gobo 2 shake slow to fast (0.5–10 Hz)
		125–137	Gobo 3 shake slow to fast (0.5–10 Hz)
		138–150	Gobo 4 shake slow to fast (0.5–10 Hz)
		151–163	Gobo 5 shake slow to fast (0.5–10 Hz)
		164–176	Gobo 6 shake slow to fast (0.5–10 Hz)
		177–189	Gobo 7 shake slow to fast (0.5–10 Hz)
		190–221	Gobo wheel rotation forwards from fast to slow (360–5 °/s)
		222–223	No rotation
		224–255	Gobo wheel rotation backwards from slow to fast (5–360 °/s)
26	Gobo Rotation	0–127	GOBO1 INDEXFINE (360°)
		128–189	GOBO1 INDEXFINE - Forwards gobo rotation from fast to slow (360–5 °/s)
		190–193	GOBO1 INDEXFINE - No rotation
		194–255	GOBO1 INDEXFINE - Backwards gobo rotation from slow to fast (5–360 °/s)
27	Gobo Rotation Fine	0–255	Fine adjustment of CH 26
28	Gobo 2	0–9	GOBO2: Open
		10–17	Static Gobo 1
		18–25	Static Gobo 2
		26–33	Static Gobo 3
		34–41	Static Gobo 4
		42–49	Static Gobo 5
		50–57	Static Gobo 6
		58–65	Static Gobo 7
		66–73	Static Gobo 8
		74–81	Static Gobo 9
		82–89	GOBO2: Unused
		90–99	Gobo 1 shake slow to fast (0.5–10 Hz)
		100–109	Gobo 2 shake slow to fast (0.5–10 Hz)
		110–119	Gobo 3 shake slow to fast (0.5–10 Hz)
		120–129	Gobo 4 shake slow to fast (0.5–10 Hz)
		130–139	Gobo 5 shake slow to fast (0.5–10 Hz)
		140–149	Gobo 6 shake slow to fast (0.5–10 Hz)
		150–159	Gobo 7 shake slow to fast (0.5–10 Hz)
		160–169	Gobo 8 shake slow to fast (0.5–10 Hz)
		170–179	Gobo 9 shake slow to fast (0.5–10 Hz)
		180–189	Fixed gobo shake: Unused

CH	Function	DMX	Description
28	Gobo 2 (continued)	190–221	Gobo wheel rotation forwards from fast to slow (360–5 °/s)
		222–223	No rotation
		224–255	Gobo wheel rotation backwards from slow to fast (5–360 °/s)
29	Animation Wheel Rotation	0–127	ANIMATIONWHEEL (360°)
		128–189	ANIMATIONWHEEL - Forwards rotation from fast to slow (360–5 °/s)
		190–193	ANIMATIONWHEEL - No rotation
		194–255	ANIMATIONWHEEL - Backwards rotation from slow to fast (5–360 °/s)
30	Iris	0–255	IRIS
31	Iris Fine	0–255	Fine adjustment of CH 30
32	Prism	0–127	Open
		128–255	3-facet prism
33	Prism Rotation	0–127	PRISMA2 (360°)
		128–189	PRISMA2 - Forwards prism rotation from fast to slow (360–5 °/s)
		190–193	PRISMA2 - No rotation
		194–255	PRISMA2 - Backwards prism rotation from slow to fast (5–360 °/s)
34	Prism Rotation Fine	0–255	Fine adjustment of CH 33
35	Frost	0–127	FROST
		128–255	FROST - Frost
36	Controller	0–9	Unused
		10–19	Display Off
		20–29	Display On
		30–36	Display Invert Off
		37–43	Display Invert On
		44–49	Display Invert Auto
		50–59	Auto fan control mode
		60–69	High fan control mode
		70–79	Silent fan control mode
		80–82	Square Law
		83–85	Inv SQ Law
		86–88	Linear
		89–91	S Curve
		92–94	800 Hz refresh rate
		95–97	1200 Hz refresh rate
		98–100	3600 Hz refresh rate
		101–103	5000 Hz refresh rate
		104–106	10 kHz refresh rate
		107–109	15 kHz refresh rate
		110–112	20 kHz refresh rate
		113–115	25 kHz refresh rate

CH	Function	DMX	Description
36	Controller (continued)	116–118	Standard
		119–121	Stage
		122–124	TV
		125–127	Architecture
		128–130	Theatre
		131–149	Unused
		150–159	All motor reset
		160–169	Scan motor reset
		170–179	Colors motor reset
		180–189	Gobo motor reset
		190–199	Other motor reset
		200–255	Unused

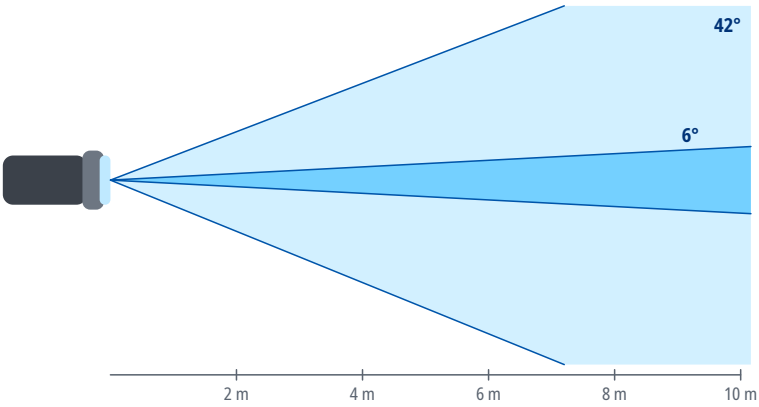
10 Technical specifications

Parameter	Value
Light	
Light source	LED
LED power	400 W
Luminous flux	11,200 lm
Color temperature	7,000 K
Optics	
Zoom	6–42°
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	100–240 V, 50/60 Hz
Power consumption	450 W
Power connectors	powerCON TRUE1 IN/OUT
Dimensions and construction	
Weight	23 kg
Operating environment	
Operating temperature	0 to 40 °C

Speeds and ranges

Parameter	Value
Color temperature range	2700–7000 K
Strobe frequency	1–25 Hz
Color wheel rotation	up to 360 °/s (60 rpm)
Gobo wheel 1 rotation	up to 360 °/s (60 rpm)
Gobo wheel 2 rotation	up to 360 °/s (60 rpm)
Gobo 1 rotation	up to 360 °/s (60 rpm)
Prism rotation	up to 360 °/s (60 rpm)
Animation wheel rotation	up to 360 °/s (60 rpm)

Spot diameter



Distance	Ø 6°	Ø 42°
2 m	0.21 m	1.5 m
4 m	0.42 m	3.1 m
6 m	0.63 m	4.6 m
8 m	0.84 m	6.1 m
10 m	1 m	7.7 m
15 m	1.6 m	11.5 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.