DMX REFERENCE

Proteus Beam

Elation



Manufacturer	Elation
GDTF file	Elation_Proteus_Beam_53959.gdtf
GDTF revision	2023-27-12 First Release · 2023-12-27
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1 About this manual

This document describes the Proteus Beam by Elation. It was compiled from the GDTF file Elation_Proteus_Beam_53959.gdtf from the GDTF-Share library.

File revision: “2023-27-12 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	35 kg
Ingress protection	IP65

DMX modes

Mode	Channels	Units in one universe	First start addresses
Extend Pan540	30	17	1, 31, 61, 91, ...
Stand Pan540	21	24	1, 22, 43, 64, ...
Basic Pan540	19	26	1, 20, 39, 58, ...
Extend Pan630	30	17	1, 31, 61, 91, ...
Stand Pan630	21	24	1, 22, 43, 64, ...
Basic Pan630	19	26	1, 20, 39, 58, ...

No light? Check these channels

- Extend Pan540: CH 23 Shutter at 32–63, 96–127, 160–191 or 224–255 “Open”
- Stand Pan540: CH 15 Shutter at 32–63, 96–127, 160–191 or 224–255 “Open”
- Basic Pan540: CH 13 Shutter at 32–63, 96–127, 160–191 or 224–255 “Open”
- Extend Pan630: CH 23 Shutter at 32–63, 96–127, 160–191 or 224–255 “Open”
- Stand Pan630: CH 15 Shutter at 32–63, 96–127, 160–191 or 224–255 “Open”
- Basic Pan630: CH 13 Shutter at 32–63, 96–127, 160–191 or 224–255 “Open”



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.

⚠ 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.

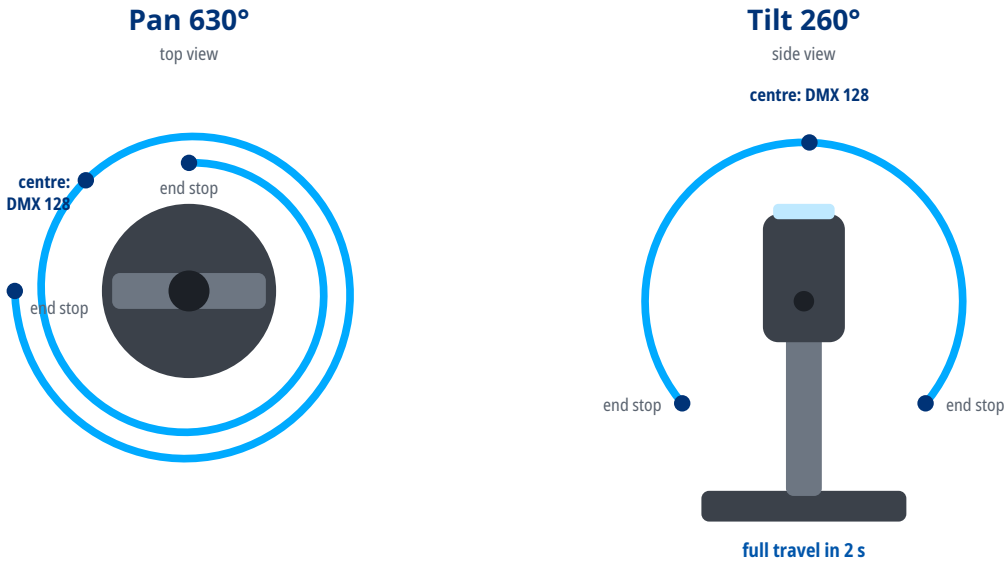
> ⚠ **WARNING**
>
> - The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
> - Keep yourself and any objects out of the range of movement. While the device is switched on, do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

Description in the GDTF file

“PROTEUS BEAM™ is an IP65 rated moving head beam luminaire with the Philips™ MSD Platinum 14R 80CRI 7,800K lamp producing over 12,000 total lumens. Features include an advanced optical system producing a precise 2.5° beam aperture, a revolutionary internal thermal cooling system, full CMY color mixing, 13 dichroic colors including CTB, CTO, and UV, 8 rotating interchangeable metal and 13 static-stamped metal gobos, 5 and 32 facet rotating prisms, frost filter, motorized focus and auto-focus, high speed mechanical shutter and strobe, DMX, RDM, Art-NET, and sACN protocol support, Elation’s E-FLY™ internal wireless DMX transceiver, IP rated 5pin XLR and RJ45 etherCON in/out connections, IP65 Locking Power Cable in, full color 180° reversible menu display with 6 button touch control panel, battery backup for display power, and a multi-voltage universal auto switching power supply (100-240v).”

Range of movement



Full-travel times as stated in the GDTF file.

5 Installation

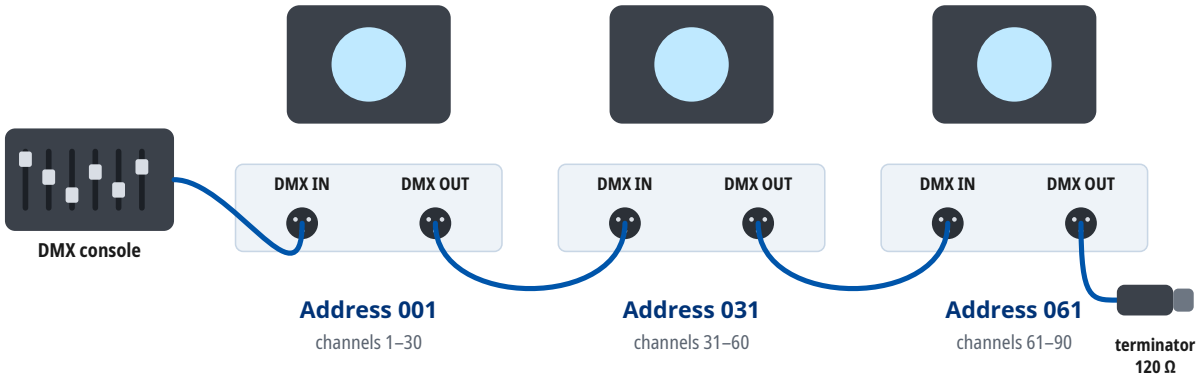
⚠ **WARNING**

- 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: 35 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 Extend Pan540: 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.

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 “Extend Pan540”: 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 “Extend Pan540”, 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.

8 Functions at a glance

Functions in each DMX mode

	Extend Pan540 30 channels	Stand Pan540 21 channels	Basic Pan540 19 channels	Extend Pan630 30 channels	Stand Pan630 21 channels	Basic Pan630 19 channels
Pan / Tilt	1, 3	1, 3	1, 2	1, 3	1, 3	1, 2
Pan / Tilt resolution	16 bit	16 bit	8 bit	16 bit	16 bit	8 bit
Dimmer	24	16	14	24	16	14
Dimmer resolution	16 bit	8 bit	8 bit	16 bit	8 bit	8 bit
Shutter / strobe	23	15	13	23	15	13
Color mixing	5, 7, 9	5–7	3–5	5, 7, 9	5–7	3–5
Color wheel	11	8	6	11	8	6
Gobo wheel	13, 16	9, 11	7, 9	13, 16	9, 11	7, 9
Gobo rotation	14	10	8	14	10	8
Prism	18, 19	12, 13	10, 11	18, 19	12, 13	10, 11
Frost	26	17	15	26	17	15
Focus	21	14	12	21	14	12
Effects / macros	27, 28	18, 19	16, 17	27, 28	18, 19	16, 17

Color wheel

1. Color Wheel: Open — DMX 0–10
2. Red — DMX 11–19
3. Green — DMX 29–37
4. Yellow — DMX 38–46
5. Purple
6. Cyan — DMX 83–91
7. Orange — DMX 56–64
8. Magenta — DMX 92–100
9. Pink — DMX 47–55
10. UV — DMX 119–128
11. CTB — DMX 101–109
12. CTO — DMX 110–118
13. High CRI
14. Light Pink — DMX 74–82
15. Aqua — DMX 65–73
16. Blue — DMX 20–28

Gobo wheel 1

1
Rotating Gobo: Open
DMX 0–21

2 
Spot Open

3 
Rotating Gobo: Gobo 1
DMX 22–31

4 
Rotating Gobo: Gobo 2
DMX 32–41

5 
Rotating Gobo: Gobo 3
DMX 42–51

6 
Rotating Gobo: Gobo 4
DMX 52–61

7 
Rotating Gobo: Gobo 5
DMX 62–71

8 
Rotating Gobo: Gobo 6
DMX 72–81

9 
Rotating Gobo: Gobo 7
DMX 82–91

10 
Gobo 8
DMX 92–102

Gobo wheel 2

1
Gobo Wheel: Open
DMX 0–7

2 
Gobo Wheel: Gobo 1
DMX 8–14

3 
Gobo Wheel: Gobo 2
DMX 15–21

4 
Gobo Wheel: Gobo 3
DMX 22–28

5 
Gobo Wheel: Gobo 4
DMX 29–35

6 
Gobo Wheel: Gobo 5
DMX 36–42

7 
Gobo Wheel: Gobo 6
DMX 43–49

8 
Gobo Wheel: Gobo 7
DMX 50–56

9 
Gobo Wheel: Gobo 8
DMX 57–63

10 
Gobo Wheel: Gobo 9
DMX 64–70

11 
Gobo Wheel: Gobo 10
DMX 71–77

12 
Gobo Wheel: Gobo 11
DMX 78–84

13 
Gobo Wheel: Gobo 12
DMX 85–91

14 
Gobo 13
DMX 92–99

Prism

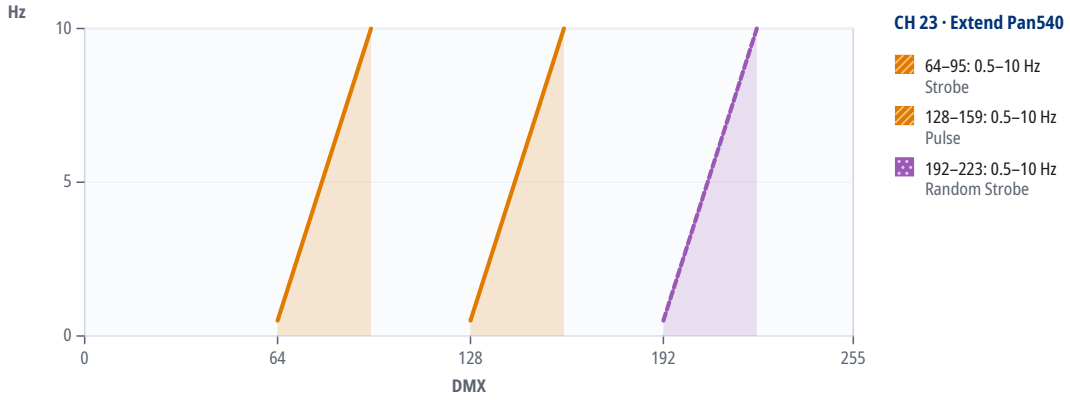
1
No Prism - Open
DMX 0–31

2 
5 facets
5-FACET PRISM
DMX 32–63

3 
32 facets
32-FACET PRISM
DMX 64–95

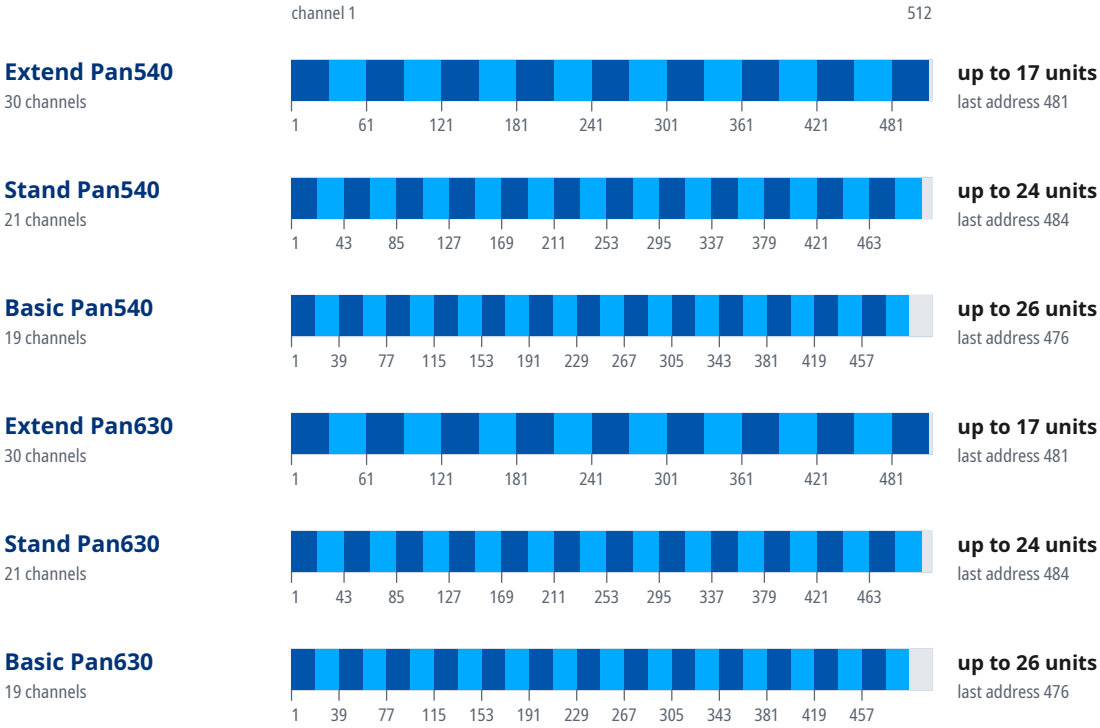
4 
32 facets
5-FACET + 32-FACET PRISMS
DMX 96–127

Strobe rate



9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Extend Pan540”

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.

RDM personalities

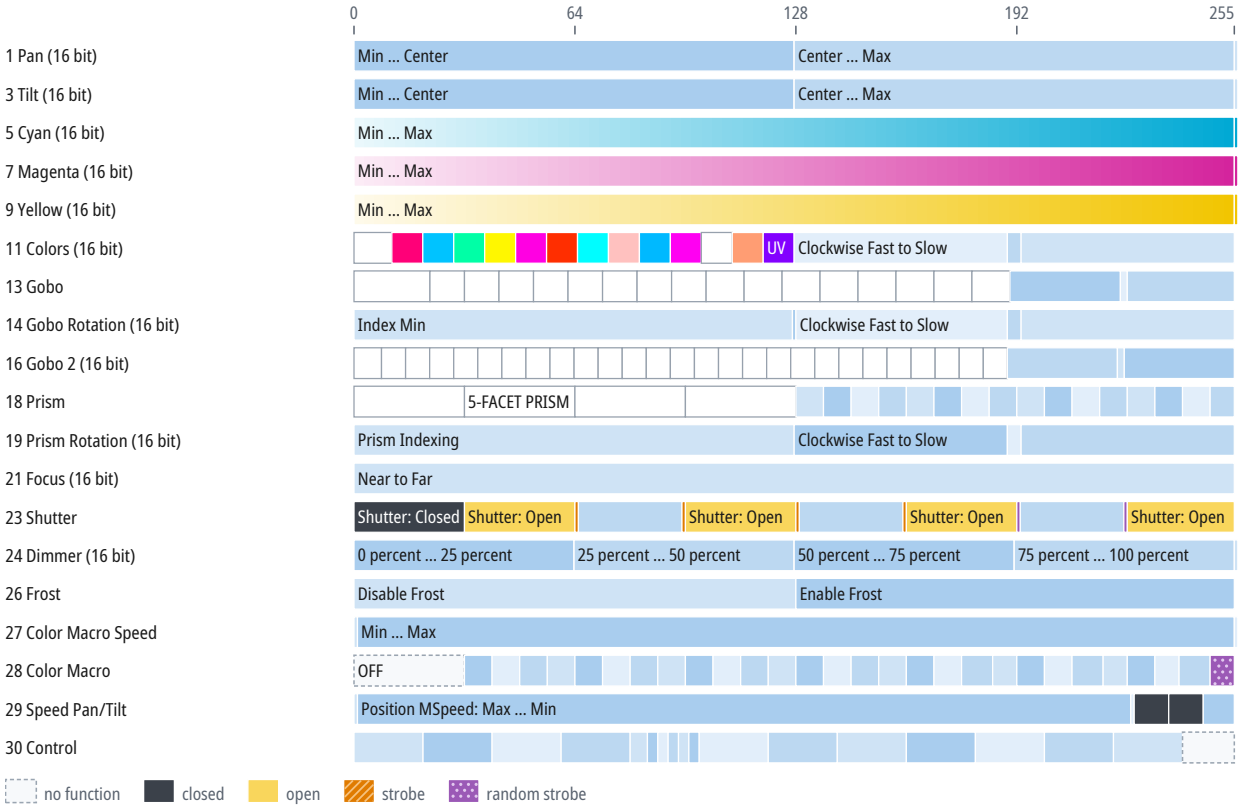
Mode	Channels	RDM personality
Extend Pan540	30	1
Stand Pan540	21	2
Basic Pan540	19	3
Extend Pan630	30	1
Stand Pan630	21	2
Basic Pan630	19	3

Mode Extend Pan540

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 23 Shutter at 32–63, 96–127, 160–191 or 224–255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 5 Cyan 0, CH 7 Magenta 0, CH 9 Yellow 0, CH 23 Shutter 32, CH 24 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–127	Min ... Center
		127	Center
		128–255	Center ... Max
		255	Max
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–127	Min ... Center
		127	Center

CH	Function	DMX	Description
3	Tilt (continued)	128–255	Center … Max
		255	Max
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Cyan	0–255	Min … Max
		255	Max
6	Cyan Fine	0–255	Fine adjustment of CH 5
7	Magenta	0–255	Min … Max
		255	Max
8	Magenta Fine	0–255	Fine adjustment of CH 7
9	Yellow	0–255	Min … Max
		255	Max
10	Yellow Fine	0–255	Fine adjustment of CH 9
11	Colors	0–10	Color Wheel: Open
		11–19	Red
		20–28	Blue
		29–37	Green
		38–46	Yellow
		47–55	Pink
		56–64	Orange
		65–73	Aqua
		74–82	Light Pink
		83–91	Cyan
		92–100	Magenta
		101–109	CTB
		110–118	CTO
		119–127	UV
		128–189	Clockwise Fast to Slow (360–0 °/s)
		190–193	Color Wheel Spin: Stop
		194–255	Counter-clockwise Slow to Fast (360–0 °/s)
12	Colors Fine	0–255	Fine adjustment of CH 11
13	Gobo	0–21	Rotating Gobo: Open
		22–31	Rotating Gobo: Gobo 1
		32–41	Rotating Gobo: Gobo 2
		42–51	Rotating Gobo: Gobo 3
		52–61	Rotating Gobo: Gobo 4
		62–71	Rotating Gobo: Gobo 5
		72–81	Rotating Gobo: Gobo 6
		82–91	Rotating Gobo: Gobo 7
		92–101	Rotating Gobo: Gobo 8
		102–112	Gobo Wheel 1 Shake: Gobo 1 (1–5 Hz)
		113–123	Gobo Wheel 1 Shake: Gobo 2 (1–5 Hz)
		124–134	Gobo Wheel 1 Shake: Gobo 3 (1–5 Hz)

CH	Function	DMX	Description
13	Gobo (continued)	135–145	Gobo Wheel 1 Shake: Gobo 4 (1–5 Hz)
		146–156	Gobo Wheel 1 Shake: Gobo 5 (1–5 Hz)
		157–167	Gobo Wheel 1 Shake: Gobo 6 (1–5 Hz)
		168–178	Gobo Wheel 1 Shake: Gobo 7 (1–5 Hz)
		179–189	Gobo Wheel 1 Shake: Gobo 8 (1–5 Hz)
		190–221	Clockwise Fast to Slow (360–0 °/s)
		222–223	Gobo Wheel 1 Spin: Stop
		224–255	Counter-clockwise Slow to Fast (360–0 °/s)
14	Gobo Rotation	0–127	Index Min
		127–128	Gobo Wheel 1 Index
		128–189	Clockwise Fast to Slow (360–0 °/s)
		190–193	Gobo Wheel 1 Pos Rotate: Stop
		194–255	Counter-clockwise Slow to Fast (360–0 °/s)
15	Gobo Rotation Fine	0–255	Fine adjustment of CH 14
16	Gobo 2	0–7	Gobo Wheel: Open
		8–14	Gobo Wheel: Gobo 1
		15–21	Gobo Wheel: Gobo 2
		22–28	Gobo Wheel: Gobo 3
		29–35	Gobo Wheel: Gobo 4
		36–42	Gobo Wheel: Gobo 5
		43–49	Gobo Wheel: Gobo 6
		50–56	Gobo Wheel: Gobo 7
		57–63	Gobo Wheel: Gobo 8
		64–70	Gobo Wheel: Gobo 9
		71–77	Gobo Wheel: Gobo 10
		78–84	Gobo Wheel: Gobo 11
		85–91	Gobo Wheel: Gobo 12
		92–98	Gobo Wheel: Gobo 13
		99–105	Gobo Wheel 2 Shake: Gobo 1 (1–5 Hz)
		106–112	Gobo Wheel 2 Shake: Gobo 2 (1–5 Hz)
		113–119	Gobo Wheel 2 Shake: Gobo 3 (1–5 Hz)
		120–126	Gobo Wheel 2 Shake: Gobo 4 (1–5 Hz)
		127–133	Gobo Wheel 2 Shake: Gobo 5 (1–5 Hz)
		134–140	Gobo Wheel 2 Shake: Gobo 6 (1–5 Hz)
		141–147	Gobo Wheel 2 Shake: Gobo 7 (1–5 Hz)
		148–154	Gobo Wheel 2 Shake: Gobo 8 (1–5 Hz)
		155–161	Gobo Wheel 2 Shake: Gobo 9 (1–5 Hz)
		162–168	Gobo Wheel 2 Shake: Gobo 10 (1–5 Hz)
		169–175	Gobo Wheel 2 Shake: Gobo 11 (1–5 Hz)
		176–182	Gobo Wheel 2 Shake: Gobo 12 (1–5 Hz)
		183–189	Gobo Wheel 2 Shake: Gobo 13 (1–5 Hz)
		190–221	Clockwise Fast to Slow (360–0 °/s)

CH	Function	DMX	Description
16	Gobo 2 (continued)	222–223	Gobo Wheel 2 Spin: Stop
		224–255	Counter-clockwise Slow to Fast (360–0 °/s)
17	Gobo 2 Fine	0–255	Fine adjustment of CH 16
18	Prism		Prism and Gobo Macro
		0–31	No Prism - Open
		32–63	5-FACET PRISM
		64–95	32-FACET PRISM
		96–127	5-FACET + 32-FACET PRISMS
		128–135	Macro 1
		136–143	Macro 2
		144–151	Macro 3
		152–159	Macro 4
		160–167	Macro 5
		168–175	Macro 6
		176–183	Macro 7
		184–191	Macro 8
		192–199	Macro 9
		200–207	Macro 10
		208–215	Macro 11
		216–223	Macro 12
		224–231	Macro 13
		232–239	Macro 14
		240–247	Macro 15
		248–255	Macro 16
19	Prism Rotation	0–127	Prism Indexing (540°)
		128–189	Clockwise Fast to Slow (0–360 °/s)
		190–193	Prism Rotate: Stop
		194–255	Counter-clockwise Slow to Fast (0–360 °/s)
20	Prism Rotation Fine	0–255	Fine adjustment of CH 19
21	Focus	0–255	Near to Far
22	Focus Fine	0–255	Fine adjustment of CH 21
23	Shutter	0–31	Shutter: Closed
		32–63	Shutter: Open
		64	Strobe Min
		65–94	Strobe Min ... Strobe Max
		95	Strobe Max
		96–127	Shutter: Open
		128	Strobe Pulse Min
		129–158	Strobe Pulse Min ... Strobe Pulse Max
		159	Strobe Pulse Max
		160–191	Shutter: Open
		192	Random Strobe Min

CH	Function	DMX	Description
23	Shutter (continued)	193–222	Random Strobe Min ... Random Strobe Max
		223	Random Strobe Max
		224–255	Shutter: Open
24	Dimmer	0–63	0 percent ... 25 percent
		63	25 percent
		64–127	25 percent ... 50 percent
		127	50 percent
		128–191	50 percent ... 75 percent
		191	75 percent
		192–255	75 percent ... 100 percent
		255	100 percent
25	Dimmer Fine	0–255	Fine adjustment of CH 24
26	Frost	0–127	Disable Frost
		128–255	Enable Frost
27	Color Macro Speed		CMY / Color Macro Speed
		0	Min
		1–254	Min ... Max
		255	Max
28	Color Macro	0–31	OFF
		32–39	Color Macro 1
		40–47	Color Macro 2
		48–55	Color Macro 3
		56–63	Color Macro 4
		64–71	Color Macro 5
		72–79	Color Macro 6
		80–87	Color Macro 7
		88–95	Color Macro 8
		96–103	Color Macro 9
		104–111	Color Macro 10
		112–119	Color Macro 11
		120–127	Color Macro 12
		128–135	Color Macro 13
		136–143	Color Macro 14
		144–151	Color Macro 15
		152–159	Color Macro 16
		160–167	Color Macro 17
		168–175	Color Macro 18
		176–184	Color Macro 19
		185–191	Color Macro 20
		192–199	Color Macro 21
		200–207	Color Macro 22
		208–216	Color Macro 23

CH	Function	DMX	Description
28	Color Macro (continued)	217–223	Color Macro 24
		224–231	Color Macro 25
		232–238	Color Macro 26
		239–247	Color Macro 27
		248–255	Random CMY
29	Speed Pan/Tilt	0	Position MSpeed: Max
		1–224	Position MSpeed: Max ... Min
		225	Position MSpeed: Min
		226–235	Blackout By Movement
		236–245	Blackout by wheel changes
		246–255	Function
30	Control	0–19	COLOR Change Normal
		20–39	COLOR Change to Any Position
		40–59	LAMP ON
		60–79	LAMP SWITCH OFF
		80–84	ALL Motors Reset
		85–87	SCAN Motor Reset
		88–90	COLOR Motors Reset
		91–93	GOBO Motors Reset
		94–96	SHUTTER Motor Reset
		97–99	OTHER Motors Reset
		100–119	Internal Program 1
		120–139	Internal Program 2
		140–159	Internal Program 3
		160–179	Internal Program 4
		180–199	Internal Program 5
		200–219	Internal Program 6
		220–239	Internal Program 7
		240–255	No Function

Mode Stand Pan540

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 15 Shutter at 32–63, 96–127, 160–191 or 224–255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 5 Cyan 0, CH 6 Magenta 0, CH 7 Yellow 0, CH 15 Shutter 32, CH 16 Dimmer 255.

Channel functions at a glance



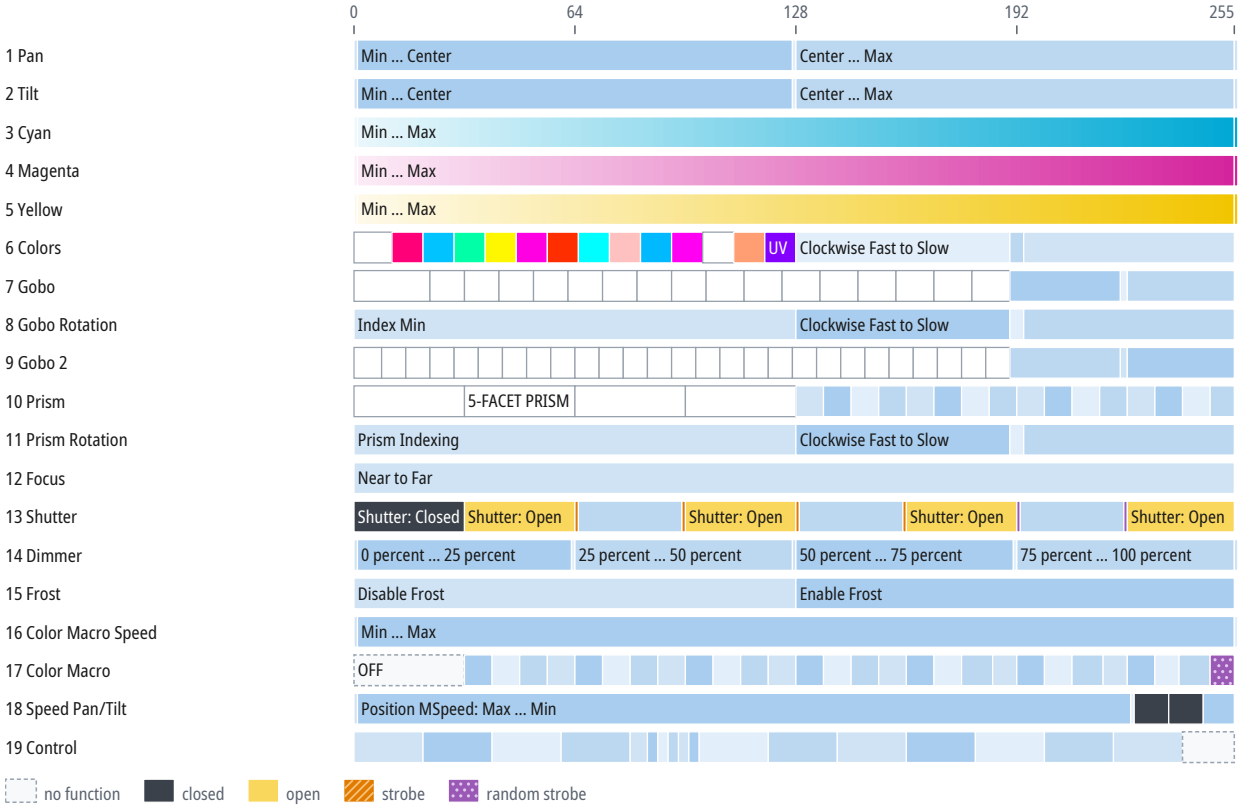
CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Extend Pan540” (p. 11)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Extend Pan540” (p. 11)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Cyan	0	Min
		1–254	Min ... Max
		255	Max
6	Magenta	0	Min
		1–254	Min ... Max
		255	Max
7	Yellow	0	Min
		1–254	Min ... Max
		255	Max
8	Colors		Same as CH 11 in the mode “Extend Pan540” (p. 12)
9	Gobo		Same as CH 13 in the mode “Extend Pan540” (p. 12)

CH	Function	DMX	Description
10	Gobo Rotation	0–127	Index Min (360°)
		128–189	Clockwise Fast to Slow (360–0 °/s)
		190–193	Gobo Wheel 1 Pos Rotate: Stop
		194–255	Counter-clockwise Slow to Fast (360–0 °/s)
11	Gobo 2		Same as CH 16 in the mode “Extend Pan540” (p. 13)
12	Prism		Same as CH 18 in the mode “Extend Pan540” (p. 14)
13	Prism Rotation		Same as CH 19 in the mode “Extend Pan540” (p. 14)
14	Focus	0–255	Near to Far
15	Shutter		Same as CH 23 in the mode “Extend Pan540” (p. 14)
16	Dimmer	0	0 percent
		1–62	0 percent … 25 percent
		63	25 percent
		64–126	25 percent … 50 percent
		127	50 percent
		128–190	50 percent … 75 percent
		191	75 percent
		192–254	75 percent … 100 percent
		255	100 percent
17	Frost		Same as CH 26 in the mode “Extend Pan540” (p. 15)
18	Color Macro Speed		Same as CH 27 in the mode “Extend Pan540” (p. 15)
19	Color Macro		Same as CH 28 in the mode “Extend Pan540” (p. 15)
20	Speed Pan/Tilt		Same as CH 29 in the mode “Extend Pan540” (p. 16)
21	Control		Same as CH 30 in the mode “Extend Pan540” (p. 16)

Mode Basic Pan540

If the device receives DMX in this mode but gives no light, check these channels: CH 13 Shutter at 32–63, 96–127, 160–191 or 224–255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 3 Cyan 0, CH 4 Magenta 0, CH 5 Yellow 0, CH 13 Shutter 32, CH 14 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0	Min
		1–126	Min ... Center
		127	Center
		128–254	Center ... Max
		255	Max
2	Tilt	0	Min
		1–126	Min ... Center
		127	Center
		128–254	Center ... Max
		255	Max
3	Cyan		Same as CH 5 in the mode “Stand Pan540” (p. 17)
4	Magenta		Same as CH 6 in the mode “Stand Pan540” (p. 17)
5	Yellow		Same as CH 7 in the mode “Stand Pan540” (p. 17)
6	Colors		Same as CH 11 in the mode “Extend Pan540” (p. 12)
7	Gobo		Same as CH 13 in the mode “Extend Pan540” (p. 12)
8	Gobo Rotation		Same as CH 10 in the mode “Stand Pan540” (p. 18)

CH	Function	DMX	Description
9	Gobo 2		Same as CH 16 in the mode “Extend Pan540” (p. 13)
10	Prism		Same as CH 18 in the mode “Extend Pan540” (p. 14)
11	Prism Rotation		Same as CH 19 in the mode “Extend Pan540” (p. 14)
12	Focus	0–255	Near to Far
13	Shutter		Same as CH 23 in the mode “Extend Pan540” (p. 14)
14	Dimmer		Same as CH 16 in the mode “Stand Pan540” (p. 18)
15	Frost		Same as CH 26 in the mode “Extend Pan540” (p. 15)
16	Color Macro Speed		Same as CH 27 in the mode “Extend Pan540” (p. 15)
17	Color Macro		Same as CH 28 in the mode “Extend Pan540” (p. 15)
18	Speed Pan/Tilt		Same as CH 29 in the mode “Extend Pan540” (p. 16)
19	Control		Same as CH 30 in the mode “Extend Pan540” (p. 16)

Mode Extend Pan630

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 23 Shutter at 32–63, 96–127, 160–191 or 224–255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 5 Cyan 0, CH 7 Magenta 0, CH 9 Yellow 0, CH 23 Shutter 32, CH 24 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–109	Min ... Center
		109–255	Center ... Max
		255	Max

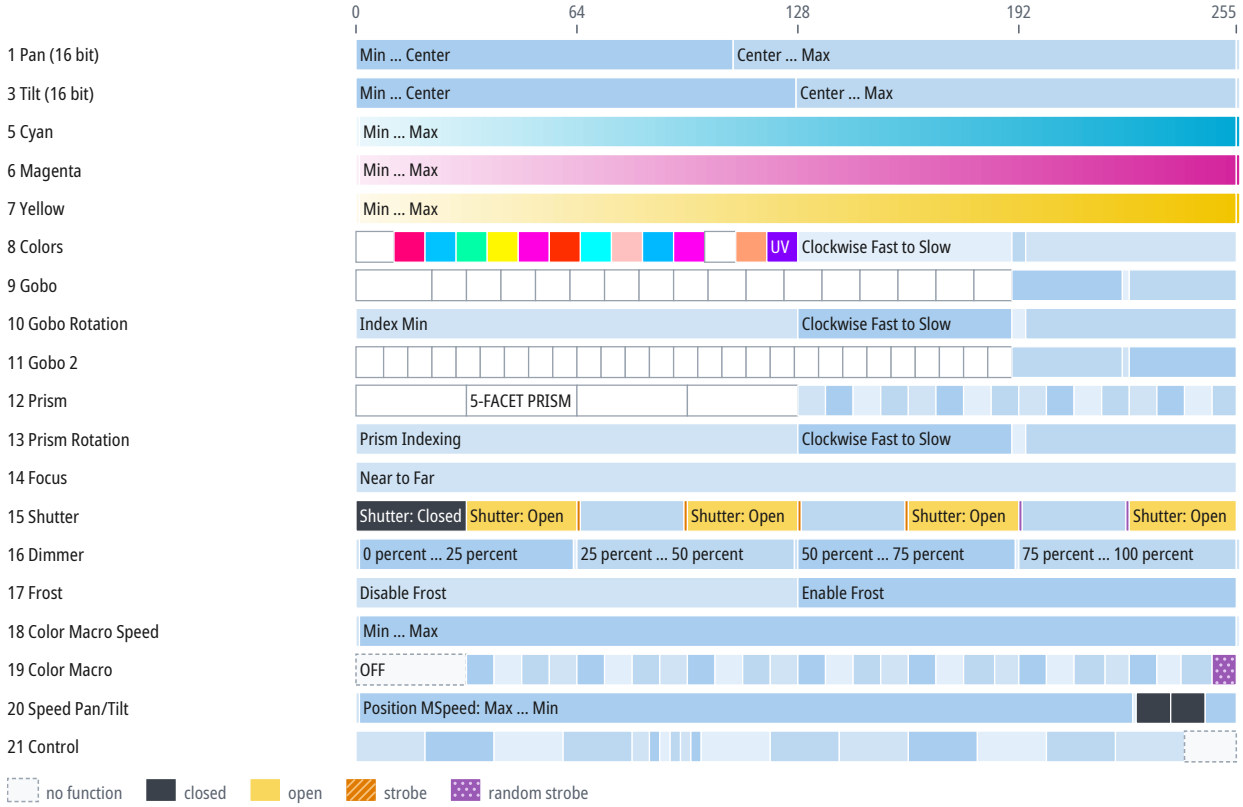
CH	Function	DMX	Description
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Extend Pan540” (p. 11)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Cyan		Same as CH 5 in the mode “Extend Pan540” (p. 12)
6	Cyan Fine	0–255	Fine adjustment of CH 5
7	Magenta		Same as CH 7 in the mode “Extend Pan540” (p. 12)
8	Magenta Fine	0–255	Fine adjustment of CH 7
9	Yellow		Same as CH 9 in the mode “Extend Pan540” (p. 12)
10	Yellow Fine	0–255	Fine adjustment of CH 9
11	Colors		Same as CH 11 in the mode “Extend Pan540” (p. 12)
12	Colors Fine	0–255	Fine adjustment of CH 11
13	Gobo		Same as CH 13 in the mode “Extend Pan540” (p. 12)
14	Gobo Rotation		Same as CH 14 in the mode “Extend Pan540” (p. 13)
15	Gobo Rotation Fine	0–255	Fine adjustment of CH 14
16	Gobo 2		Same as CH 16 in the mode “Extend Pan540” (p. 13)
17	Gobo 2 Fine	0–255	Fine adjustment of CH 16
18	Prism		Same as CH 18 in the mode “Extend Pan540” (p. 14)
19	Prism Rotation		Same as CH 19 in the mode “Extend Pan540” (p. 14)
20	Prism Rotation Fine	0–255	Fine adjustment of CH 19
21	Focus	0–255	Near to Far
22	Focus Fine	0–255	Fine adjustment of CH 21
23	Shutter		Same as CH 23 in the mode “Extend Pan540” (p. 14)
24	Dimmer		Same as CH 24 in the mode “Extend Pan540” (p. 15)
25	Dimmer Fine	0–255	Fine adjustment of CH 24
26	Frost		Same as CH 26 in the mode “Extend Pan540” (p. 15)
27	Color Macro Speed		Same as CH 27 in the mode “Extend Pan540” (p. 15)
28	Color Macro		Same as CH 28 in the mode “Extend Pan540” (p. 15)
29	Speed Pan/Tilt		Same as CH 29 in the mode “Extend Pan540” (p. 16)
30	Control		Same as CH 30 in the mode “Extend Pan540” (p. 16)

Mode Stand Pan630

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 15 Shutter at 32–63, 96–127, 160–191 or 224–255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 5 Cyan 0, CH 6 Magenta 0, CH 7 Yellow 0, CH 15 Shutter 32, CH 16 Dimmer 255.

Channel functions at a glance



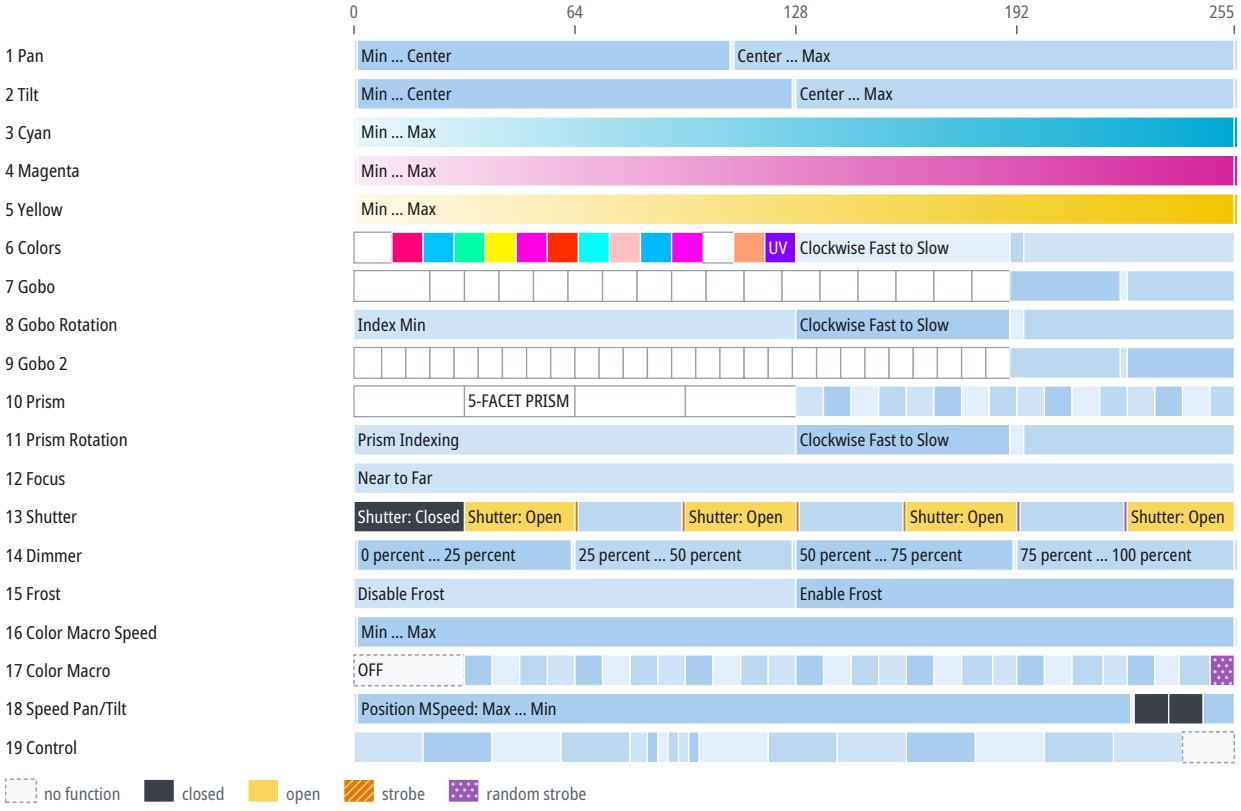
CH	Function	DMX	Description
1	Pan		Same as CH 1 in the mode “Extend Pan630” (p. 20)
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt		Same as CH 3 in the mode “Extend Pan540” (p. 11)
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Cyan		Same as CH 5 in the mode “Stand Pan540” (p. 17)
6	Magenta		Same as CH 6 in the mode “Stand Pan540” (p. 17)
7	Yellow		Same as CH 7 in the mode “Stand Pan540” (p. 17)
8	Colors		Same as CH 11 in the mode “Extend Pan540” (p. 12)
9	Gobo		Same as CH 13 in the mode “Extend Pan540” (p. 12)
10	Gobo Rotation		Same as CH 10 in the mode “Stand Pan540” (p. 18)
11	Gobo 2		Same as CH 16 in the mode “Extend Pan540” (p. 13)
12	Prism		Same as CH 18 in the mode “Extend Pan540” (p. 14)
13	Prism Rotation		Same as CH 19 in the mode “Extend Pan540” (p. 14)
14	Focus	0–255	Near to Far
15	Shutter		Same as CH 23 in the mode “Extend Pan540” (p. 14)

CH	Function	DMX	Description
16	Dimmer		Same as CH 16 in the mode “Stand Pan540” (p. 18)
17	Frost		Same as CH 26 in the mode “Extend Pan540” (p. 15)
18	Color Macro Speed		Same as CH 27 in the mode “Extend Pan540” (p. 15)
19	Color Macro		Same as CH 28 in the mode “Extend Pan540” (p. 15)
20	Speed Pan/Tilt		Same as CH 29 in the mode “Extend Pan540” (p. 16)
21	Control		Same as CH 30 in the mode “Extend Pan540” (p. 16)

Mode Basic Pan630

If the device receives DMX in this mode but gives no light, check these channels: CH 13 Shutter at 32–63, 96–127, 160–191 or 224–255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 3 Cyan 0, CH 4 Magenta 0, CH 5 Yellow 0, CH 13 Shutter 32, CH 14 Dimmer 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0	Min
		1–108	Min ... Center
		109	Center
		110–254	Center ... Max
		255	Max
2	Tilt		Same as CH 2 in the mode “Basic Pan540” (p. 19)
3	Cyan		Same as CH 5 in the mode “Stand Pan540” (p. 17)
4	Magenta		Same as CH 6 in the mode “Stand Pan540” (p. 17)
5	Yellow		Same as CH 7 in the mode “Stand Pan540” (p. 17)

CH	Function	DMX	Description
6	Colors		Same as CH 11 in the mode “Extend Pan540” (p. 12)
7	Gobo		Same as CH 13 in the mode “Extend Pan540” (p. 12)
8	Gobo Rotation		Same as CH 10 in the mode “Stand Pan540” (p. 18)
9	Gobo 2		Same as CH 16 in the mode “Extend Pan540” (p. 13)
10	Prism		Same as CH 18 in the mode “Extend Pan540” (p. 14)
11	Prism Rotation		Same as CH 19 in the mode “Extend Pan540” (p. 14)
12	Focus	0–255	Near to Far
13	Shutter		Same as CH 23 in the mode “Extend Pan540” (p. 14)
14	Dimmer		Same as CH 16 in the mode “Stand Pan540” (p. 18)
15	Frost		Same as CH 26 in the mode “Extend Pan540” (p. 15)
16	Color Macro Speed		Same as CH 27 in the mode “Extend Pan540” (p. 15)
17	Color Macro		Same as CH 28 in the mode “Extend Pan540” (p. 15)
18	Speed Pan/Tilt		Same as CH 29 in the mode “Extend Pan540” (p. 16)
19	Control		Same as CH 30 in the mode “Extend Pan540” (p. 16)

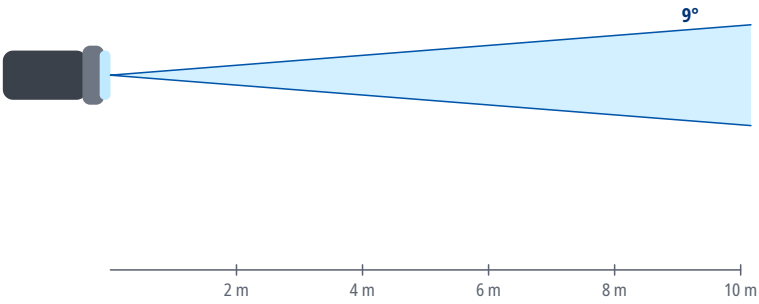
10 Technical specifications

Parameter	Value
Light	
Light source	discharge lamp
Lamp power	280 W
Luminous flux	136,800 lm
Color temperature	7,800 K
Color rendering index (CRI)	80
Optics	
Beam angle	9°
Movement	
Pan	630°
Tilt	260°
Control	
DMX connection	5-pin XLR IN/OUT, 3-pin XLR IN/OUT
RJ45 connectors	RJ45 IN/OUT
RDM	yes (manufacturer ID 0x22A3, device model ID 0x1433)
Electrical	
Power connectors	powerCON TRUE1
Dimensions and construction	
Weight	35 kg
Operating environment	
Ingress protection	IP65
Meaning of the IP code (IEC 60529)	Dust-tight; protected against water jets
Operating temperature	-10 to 45 °C

Speeds and ranges

Parameter	Value
Strobe frequency	0.5–10 Hz
Color wheel rotation	up to 360 °/s (60 rpm)
Gobo wheel 1 rotation	up to 1440 °/s (240 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)

Spot diameter



Distance	Ø 9°
2 m	0.31 m
4 m	0.63 m
6 m	0.94 m
8 m	1.3 m
10 m	1.6 m
15 m	2.4 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.

Problem	Remedy
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.