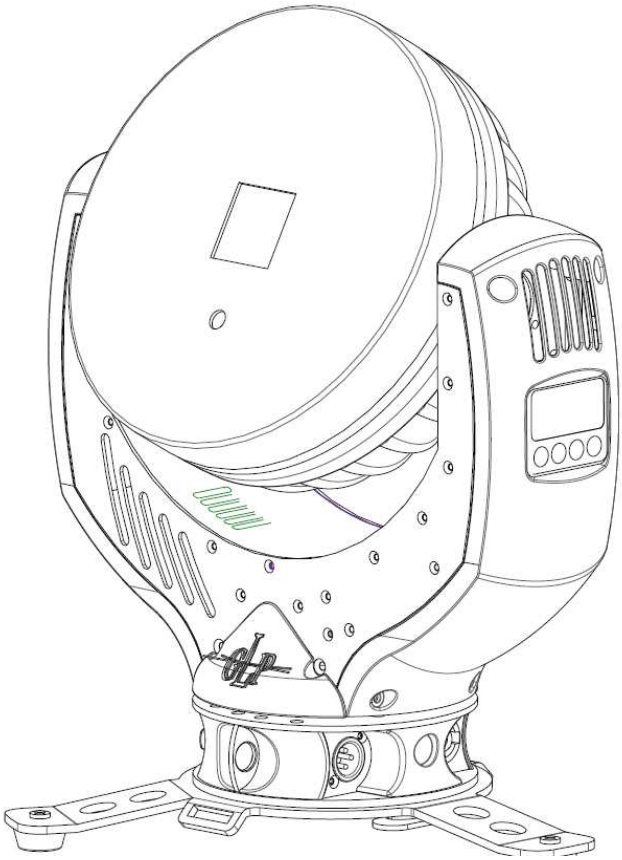
Instruction Manual

impression Laser



from software version 1.00
(Instruction version 1.2)

GLP

GERMAN LIGHT
PRODUCTS

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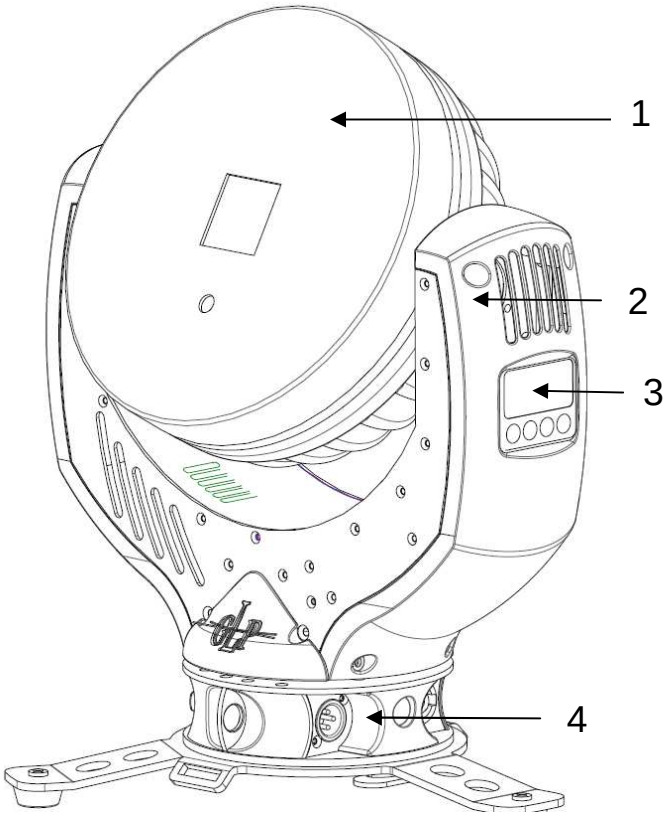
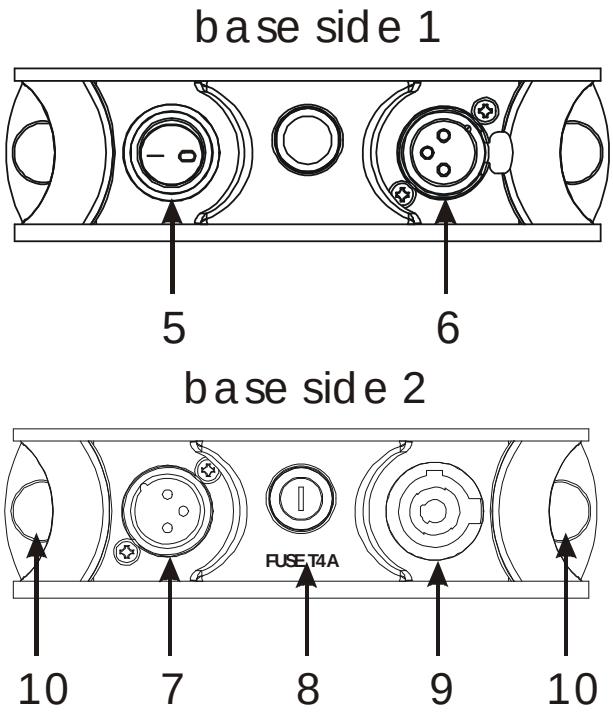
Notes:

Table of content

1 Description of Device

1. Moving head (actively and passively cooled)
2. Arm with various cooling vents
3. LCD-Display/Menu (data entry)
4. Base with various connectors and Camlock mounting system





5. Power On/Off
6. DMX- Output (3 pole)
7. DMX- Input (3 pole)
8. Micro-fuse 5x20mm, T2,5A
9. Mains supply (Powercon)
10. 2x Safety eyes

1.1 Safety Instructions

The **GLP iLaser** is an advanced technology product. To guarantee smooth operation, it is necessary to follow the following instructions.

The manufacturer of this device will not take responsibility of damages through any disregard of the information in this user manual. Warranty claims will also be cancelled in the event of the system casing being opened.

1. Make sure that before powering up the fixture, the fans and air inlets are clean and not blocked by anything.
2. Before powering up the fixture, ensure that the moving head part of the fixture can rotate unhindered through its full range of movement.
3. A safety distance of at least 1.5 m to any easily flammable material (e.g. decoration material) must be adhered to.
4. **Attention!** Don't touch the device during operation. Parts of the fixture can become hot and can cause injuries and / or damages.
5. The system doesn't contain any user serviceable parts. Opening the fixture will void the manufacturers warranty.
6. Danger of burning. Wait at least 15 minutes after disconnecting the AC power before changing the optical carrier on the fixture. Pay attention to possible hot parts of the system.
7. **Never look directly into the Laser.** Never use optical apertures with a distance less than 1.5 m to observe the beam of light. **Laser Class 4.** Not following these precautions can result in serious injury to your eyes and in particular, your retina.

Attention: Laser Class 4 can cause injuries of your eyes even without optical instruments in front of them or within a distance of less than 1.5m and short exposure time.

Avoid direct radiation to your eyes!

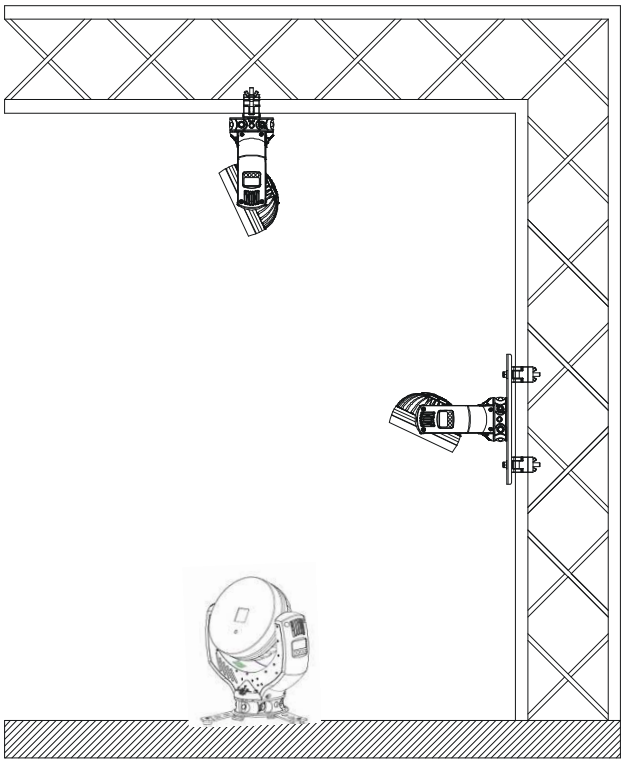
8. To allow a secure operation, follow also the Installation guide described in chapter 2. Operating the **GLP iLaser** without suitable safety aids like Safety cables or clamps/hooks can increase the risk of an accident.
9. Repair-, maintenance- and installation work shall be done by qualified or GLP iLaser certified staff only. You need to pay attention to the common rules of technology that are not explicit mentioned in this manual.

10. Use only original spare parts. Any structural modification on the system will terminate all warranty claims.

2 Preparation and Installation

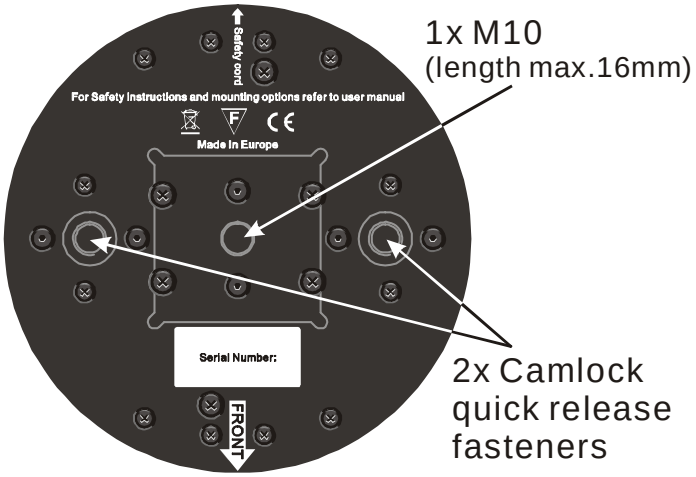
2.1 Mounting

The **GLP iLaser** is fully operational whether it hangs or is mounted to a wall. It can also be operated while standing on the floor. Keep a safety distance of 0.5 m from any easily inflammable materials (decoration etc.).



Pay attention to the regulations of: BGV C1 (former VBG 70), DIN VDE 0711-217 and EN 60825.
The installation shall be done by qualified personal only.

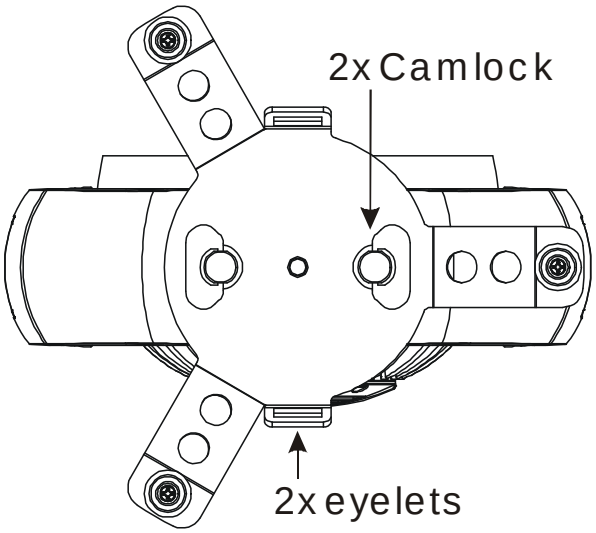
For the various mounting positions of the **GLP iLaser** (standing on the floor, sideways or hanging) different accessories kits are available. Using any required kits, along with the standard mounting connectors on the base of the fixture, will ensure a safe and firm installation.

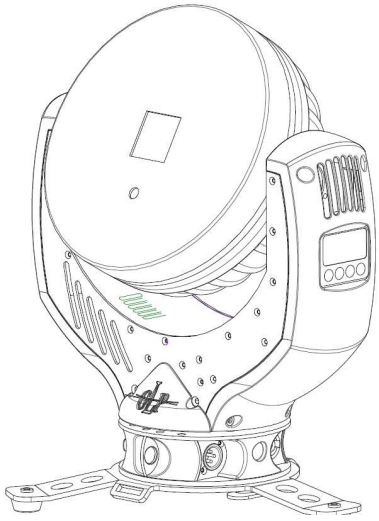


front side of the fixture

2.1.1 Mounting on the floor (upright)

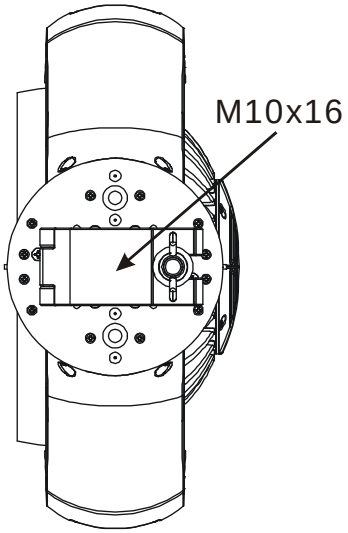
To operate the **GLP iLaser** in an upright position, please use the dedicated floor-stand which ships with all original fixtures. The floor stand is mounted to the base of the fixture using the two Camlock quarter turn fasteners. Line up and engage the camlock connectors from the floor stand into the base of the fixture and turn the two fasteners 90° to lock them. Do the opposite to release them again. On both sides you'll find eyelets to pull though a fixing strap. This allows additional bracing of the floor-stand during the upright operation.

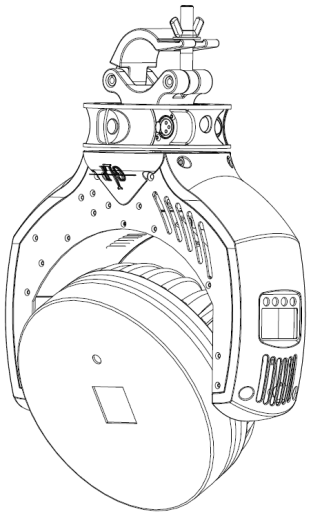




2.1.1 Mounting in hanging position (head down)

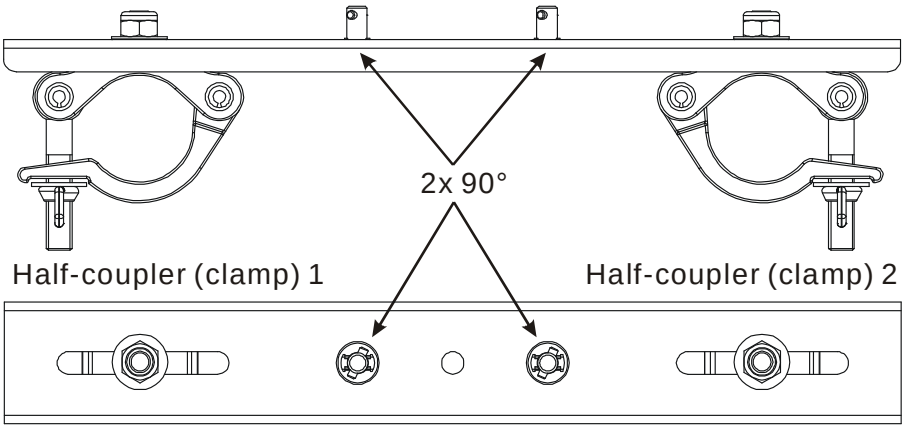
To operate the **GLP iLaser** in a hanging position, a half-coupler or similar clamp can be mounted directly to the bottom of the base using the M10x16 mm threaded socket.





2.1.1 Mounting in a sideway position

To operate the **GLP iLaser** in a sideways position, please use an additional mounting bar, available from GLP or one of their agents.. This mounting bar is fixed via the two camlock quick-release connectors. Two half-couplers or clamps are then used to hang the mounting bar. This technique is necessary to cope with the additional torque in this mounting position. Never use the "Mounting in hanging position" technique described above to secure the fixture in a sideway position, as the fixtures base can become damaged, and a secure installation cannot be assured.



2.2 Securing the Device

Regardless of the mounting method of the **GLP iLaser** you'll have to use a secondary safety wire. This safety wire can be attached to the fixture by threading it through one of the two holes provided on the base of the fixture. Ensure that the safety wire is securely fastened through the fixture and the fixtures mounting support. Install a safety wire that can hold at least 10 times the weight of the fixture.

2.3 Connections

2.3.1 Power Supply

~90-240 Volt AC, 50-60 Hz, earth contact type plug - Powercon

Connected load 170VA (W) <=> 2,5 AT (micro-fuse 5x20mm)

Please see printing on the case for the right electronic supply!

Disconnect from the mains supply for changing the fuse and use only the above described micro-fuse type.

2.3.2 DMX

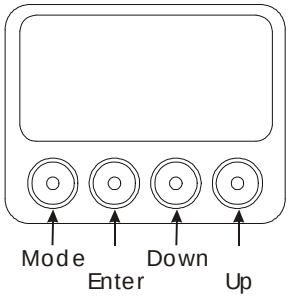
USITT DMX-512 Standard input/output in 3 pole connectors.

3 pole: Pin 1 = [Ground] / Pin 2 = [-] / Pin 3 = [+]

The DMX- Addressing starts at the DMX- Address [001].

3 The Menu Field

You'll find the control board on the side of the arm. It allows you to make all necessary adjustments of the **GLP iLaser.** With the **Mode-**key you get into the main menu. Afterwards you can navigate through the menu with the **Up/Down-**keys. Push the **Enter-**key to get to the next menu level or to confirm your settings. Select **ON/ OFF** function settings with the **Up/Down-**keys. Confirm and save with the **Enter-**key (the display shows **OK**). Push the **Mode-**key to cancel the entry and go back to the main menu.



← MODE - ENTER →

← DOWN - UP →

Level1	Level 2	Level 3	Level 4	Remark
DMX Start Address 001				Define the DMX start address
Special	**Manual DMX**			Manual control of all system functions
		Pan		Manual control for Pan (X-movement)
		Tilt		Manual control for Tilt (Y-movement)
	Display Contrast			Adjustment for the Display contrast
	Default Set			Resetting all functions to original values
	Impression Version			Reads out the current CPU software version
	Adjust	**Key code xxxx**		Use the code for entering the calibration menu (for authorized persons only)
		Pan Offset		Calibration for Pan-Offset
		Tilt Offset		Calibration for Tilt-Offset
		Clear EEPROM		Erase EEPROM memory
		Diagnose		Diagnose functions
			Pos Feed Pan Delta	Internal data and function diagnose
			Anz Ti0-Int-Err	Internal data and function diagnose
			PFC Voltage	Show the present PFC voltage
			Pos Feed Tilt Delta	Internal data and function diagnose
	Temperature Arm			Indicates the arm temperature
	Temperature Head			Indicates the head temperature
	PAN/TILT Motor Power			Switches power for Pan/Tilt ON or OFF (disconnected from power)
	PAN/TILT Silent Mode			Reduces maximum speed for Pan/Tilt
	DMX Hold			Defines whether the last DMX signal is stored or the lamp is switched OFF in case of signal interruption
	Position Feedback			Automatically position feedback (correction) for Pan/Tilt movement

Set DMX Image	Stores the Scene currently sent to the unit
DMX input Monitor	Indicates the presently received DMX signal per DMX channel
Pan	Instantaneous value for Pan
Tilt	Instantaneous value for Tilt movement
Live time	Indicates the overall operation time of the system
Display	Adjust the display
Blackout	ON/OFF: Display OFF
Reverse Pan	Selects Inverse Pan, on or off
Reverse Tilt	SelectsInverse Tilt on or off
Reset	RESET all functions

4 DMX Channel Selection (DMX Protocol)

Normal-Mode 20 DMX channels

We do not show Hexadecimal or Percentage values in here because the steps between each function are too small to be set properly.

Channel	Function	Should Default	DMX
1) Pan Coarse		128	0..255
	0 .. 660°		0..255
2) Pan Fine	High- Pos ... High- Pos + 2,6°(16 Bit)		0..255
3) Tilt Coarse		128	0..255
	0 .. 300°		0..255
4) Tilt Fine	High- Pos … High- Pos + 1,2°(16 Bit)		
5) Access		255	
	Blackout		0..31
	Basic Range		35..95
	Standard Range		97..159
	Extended Range		161..223
	Full Range		225..255
6) Folder		0	
	Page 1		0..15
	Page 2		17..31
	Page 3		33..47
	Page 4		49..63
	Page 5		65..79
	Page 6		81..95
	Page 7		97..111
	Page 8		113..127
	Page 9		129..255
(7) File		0	
	Blackout		0..32
	Cue 1		33..35
	Cue 2		37..39
	Cue 3		41..43
	Cue 4		45..47

Channel	Function	Should Default	DMX
	Cue 5		49..51
	Cue 6		53..55
	Cue 7		57..59
	Cue 8		61..63
	Cue 9		65..67
	Cue 10		69..71
	Cue 11		73..75
	Cue 12		77..79
	Cue 13		81..83
	Cue 14		85..87
	Cue 15		89..91
	Cue 16		93..95
	Cue 17		97..99
	Cue 18		101..103
	Cue 19		105..107
	Cue 20		109..111
	Cue 21		113..115
	Cue 22		117..119
	Cue 23		121..123
	Cue 24		125..127
	Cue 25		129..131
	Cue 26		133..135
	Cue 27		137..139
	Cue 28		141..143
	Cue 29		145..147
	Cue 30		149..151
	Cue 31		153..155
	Cue 32		157..159
	Cue 33		161..163
	Cue 34		165..167
	Cue 35		169..171
	Cue 36		173..175
	Cue 37		177..179
	Cue 38		181..183
	Cue 39		185..187
	Cue 40		189..191
	Cue 41		193..195
	Cue 42		197..199
	Cue 43		201..203
	Cue 44		205..207
	Cue 45		209..211
	Cue 46		213..215
	Cue 47		217..219
	Cue 48		221..255
(8) Playback Speed		128	
	Normal Playspeed		0..15
	Pause		17..31
	25 % Playback Speed to 99 %		33..127
	100 % Playback Speed		128
	101 % Playback Speed to 200 %		129..255
(9) Intensity		0	
	0 % to 100 %		0..255
(10) Z Position (Zoom)		128	
	0 % to 100 %		0..255

Channel	Function	Should Default	DMX
(11) X Size		0	
	0 % to 100 %		0..255
(12) Y Size		0	
	0 % to 100 %		0..255
(13) Rotation		128	
	0 °to 360°		0..255
(14) X Position		128	
	Left to Right		0..255
(15) Y Position		128	
	Down to Up		0.255
(16) Visible Points		255	
	None to All		0.255
(17) Scan Rate		255	
	Default (30k)		0..31
	6k to 30k		33..255
(18) Release		0	
	Default		0..31
	Hold		33..95
	Loop		97..159
	Next		161..223
	Stop		225..255
(19) Color		0	
	No Colorization		0..31
	Red		33
	Orange		44
	Yellow		55
	Lime		77
	Green		88
	Cyan		111
	Blue		165
	Purple		170
	Pink		191
	Red		221
	White		230
(20) Reserved	Reserved		

The access channel does de- or increase the overall channel-count of the fixture:

Basic	Channel 1 to Channel 8
Standard	Channel 1 to Channel 12
Extended	Channel 1 to Channel 16
Full	Channel 1 to Channel 20

Locking and unlocking the Control Panel

Please lock and unlock the control panel by pressing the menu keys **MODE & ENTER & UP** at the same time.

5 Maintaining and Cleaning the GLP iLaser

The **GLP iLaser** is a system of very low maintenance. It is only necessary to clean the air in- and outlets as well as the exit window from time to time. For a safe operation it is absolutely essential that the fixture is kept clean and that dust, dirt and smoke-fluid residues must not built up on or within the fixture. Otherwise the fixture's light-output will be significantly reduced or damages can occur. Regular cleaning will not only ensure the maximum light-output, but will also allow the fixture to operate reliably throughout its life.

A soft lint-free cloth moistened with any good glass cleaning fluid is recommended, under no circumstances should alcohol or solvents be used!

5.1 Safety regulations

- **Pull out the main plug!**
- Wait min. 15 minutes after the last operation to cool down the fixture.

5.2 Maintenance Intervals (rule-of-thumb)

The maintenance schedule of any given fixture depends on the installation environment. Hence no specific guidelines can be given. The cleaning intervals given below are suggestions, based on practical experience. We suggest that you start with these and develop your own maintenance schedule as you see the fixtures performance in your specific environment.

Maintenance Task	Interval	How
Exit window	weekly	soft brush /lint-free cloth
Fan and air channel	monthly	vacuum cleaner, airbrush, etc.

Attention:

- **Never let optical parts come into contact with oil or fat.**
- **Before running the fixture wait until all parts are dried up.**

6 Technical Specifications

Power supply	
Power consumption	170 VA (Watt)
Power Input	~100-240 V AC, 50-60 Hz (auto sensing input)
Fuse protection	Micro-fuse 5x20 mm, T 2,5A
Operational Parameters	
Max. Ambient Temperature	45℃ / 113℉ (integrated overheating switch)
Mounting Position	Any (see chapter mounting)
Laser - Additive Color mixing	
Laser	Diode
Lifetime	10.000 h
Projector	
Horizontal beam angle	40°
Vertical beam angle	40°
SASRT (step response time)	0.3msec
Controller	
DMX, ILDA, PC software, Stand alone autostart mode	
Resolution x and y	- 16-bit
Resolution RGB intensity	- 8-bit
DMX Control	
Standard USITT DMX-512, 3 pole XLR; [+] = Pin 3 [-] = Pin 2 [Ground] = Pin 1. Die DMX- Addressing starts at the DMX channel [001].	
Pan / Tilt (8/16 Bit)	
Pan- movement	**660° in min. 3,2 seconds (Position Feedback)**
Tilt- movement	**300° in min. 1,5 seconds (Position Feedback)**
Weights and Measures	
Width of the base	**340 mm / 13.4 inches**
Length of the base	**145 mm / 5.7 inches**
height (head vertical)	**370 mm / 14.6 inches**
Weight (net)	**7,5 kg / 17 lbs.**

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