

DMX Channel Index

impression[®]
X4 XL



from software version: v1.47



— since 1994 —

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1 Normal Mode (norm) 26 DMX Channels:

Channel	Function	Time and Value	DMX	HEX	%
1) PAN High	Pan coarse	0° - 660°	0..255	00..FF	0..100
2) PAN Low	Pan fine		0..255	00..FF	0..100
3) Tilt High	Tilt coarse	0° - 260°	0..255	00..FF	0..100
4) Tilt Low	Tilt fine		0..255	00..FF	0..100
5) Color (fixed)	Colors adjustable via RGB		0..7	00..07	0..2..5
	Color 01 - Red ¹⁾		8..15	08..0F	3..5.5
	Color 02 - Amber ¹⁾		16..23	10..17	6..8.5
	Color 03 - Warm Yellow ¹⁾		24..31	18..1F	9..12.5
	Color 04 - Yellow ¹⁾		32..39	20..27	13..15.5
	Color 05 - Green ¹⁾		40..47	28..2F	16..18.5
	Color 06 - Turquoise ¹⁾		48..55	30..37	19..21.5
	Color 07 - Cyan ¹⁾		56..63	38..3F	22..24.5
	Color 08 - Blue ¹⁾		64..71	40..47	25..27.5
	Color 09 - Lavender ¹⁾		72..79	48..4F	28..30.5
	Color 10 - Malve ¹⁾		80..87	50..57	31..34.5
	Color 11 - Magenta ¹⁾		88..95	58..5F	35..37.5
	Color 12 - Pink ¹⁾		96..103	60..67	38..40.5
	White - CTO	3200K	104..111	68..6F	41..43.5
	White	5600K	112..119	70..77	44..46.5
	White - CTB	7200K	120..127	78..7F	47..49.5
	Rainbow Effect Stop ²⁾		128	80	50
Rainbow Effect ³⁾	slow - fast	129..223	81..DF	51..88	
Random colors	slow - fast	224..255	E0..FF	89..100	
6) Red	Color mixing system - Red	0 - 100%	0..255	00..FF	0..100
7) Green	Color mixing system - Green	0 - 100%	0..255	00..FF	0..100
8) Blue	Color mixing system - Blue	0 - 100%	0..255	00..FF	0..100
9) White	Color mixing system - White	0 - 100%	0..255	00..FF	0..100
10) Shutter	Shutter closed		0..15	00..0F	0..5.5
	Shutter pulse random	slow – fast	16..47	10..2F	6..18.5
	Fade on, snap off (random patterns)	slow – fast	48..79	30..4F	19..31
	Snap on, fade off (random patterns)	slow – fast	80..111	50..6F	32..43
	Fade on, fade off (random patterns)	slow – fast	112..143	70..8F	44..56
	Strobe random	5s - 0.1s	144..199	90..C7	57..77
	Strobe effect slow - fast	1 Hz - 10 Hz	200..239	C8..EF	78..94
	Shutter open		240..255	F0..FF	95..100
11) Dimmer	Intensity	0 - 100%	0..255	0..FF	0..100
12) CTO	No CTO		0..7	0..07	0..2.5
	Continuous color temperature correction	Applicable for ALL colors	8..255	08..FF	3..100
13) Special	Pattern Block 1 → See channel 17		0..3	00..03	0..1
	Pattern Block 2 → See channel 17		4..7	04..07	2..3
	Pattern Block 3 → See channel 17		8..11	08..0B	3..4
	Pattern Block 4 → See channel 17		12..15	0C..0F	5..6
	Pattern Block 5 → See channel 17		16..19	10..13	6..7
	Pattern Block 6 → See channel 17		20..23	14..17	8..9
	Pattern Block 7 → See channel 17		24..27	18..1B	9..10
	Pattern Block 8 → See channel 17		28..31	1C..1F	11..12
	Pattern Block 9 → See channel 17		32..35	20..23	12..13
	Pattern Block 10 → See channel 17		36..39	24..27	14..15

Channel	Function	Time and Value	DMX	HEX	%	
	Enable Animation		80..83	50..53	31..32	
	→ use channel 17 to select → use channel 18 so set step → use channel 19 to start / for speed					
	Set Dimmer to soft mode		84..87	54..57	33..34	
	Change PWM frequency		100..200	64..C8	40..78	
	Set Maximum Zoom to 247	> 1 sec	208..211	D0..D3	82..83	
	Set Maximum Zoom to 255	> 1 sec	212..215	D4..D7	84..85	
	Set Zoom to normal	> 1 sec	216..219	D8..DB	85..86	
	Set Zoom to inverted	> 1 sec	220..223	DC..DF	86..87	
	RESET	> 1 sec	250..255	FA..FF	98..100	
14) Movement macros	No macros		0	00	0	
	Movement	Size	Phase	Use "Speed" to adjust		
	PAN	1	0°	01..01	01..01	0.5
		1	90°	02..03	02..03	1.0
		1	180°	04..05	04..05	1.7
		1	270°	06..07	06..07	2.5
	PAN	2	0°	08..09	08..09	3.3
		2	90°	10..11	0A..0B	4.1
		2	180°	12..13	0C..0D	4.9
		2	270°	14..15	0E..0F	5.7
	PAN	3	0°	16..17	11..11	6.5
		3	90°	18..19	12..13	7.3
		3	180°	20..21	14..15	8.0
		3	270°	22..23	16..17	8.8
	PAN	4	0°	24..25	18..19	9.6
		4	90°	26..27	1A..1B	10.4
		4	180°	28..29	1C..1D	11.2
		4	270°	30..31	1E..1F	12
	TILT	size / phase see PAN		32..63	20..3F	13..25
	PAN / TILT	size / phase see PAN		64..95	40..5F	26..37
	PAN / TILT (inverse)	size / phase see PAN		96..127	60..7F	38..50
	Circle	size / phase see PAN		128..159	80..9F	51..62
	Circle (inverse)	size / phase see PAN		160..191	A0..BF	63..75
	Lying eight	size / phase see PAN		193..223	C0..DF	76..87
	Random movement	size / phase see PAN		224..255	E0..FF	88..100
15) Pan / Tilt Speed	Pan/Tilt movement speed from controller		0..1	00..01	0..0.5	
	Pan/Tilt, slow – fast Use this channel for the speed of the macros on channel 14.		02..255	02..FF	1..100	
16) Zoom	Wide (flood) - narrow (spot)	50° - 7°	0...255	00...FF	0...100	
17) Pattern / Animation	No pattern		0..2	00..02	0..1	
	Pre-defined patterns / animations ^{4) 5)}	See Special Channel 13	03..253	03..FD	2..99	
	Activates direct access to LED Lenses	See Channel 18 - 26	254..255	FE..FF	100	
18) Pattern Section 1 ⁴⁾	Direct activation of lenses 1 thru 8 ⁴⁾	Activation in binary style	0...255	00...FF	0...100	
19) Pattern Section 2 ⁵⁾	Direct activation of lenses 9 thru 16 ⁵⁾	Activation in binary style	0...255	00...FF	0...100	
20) Pattern Section 3	Direct activation of lenses 17 thru 19	Activation in binary style	0...255	00...FF	0...100	
21) Pattern Section 4	Direct activation of lenses 20 thru 27	Activation in binary style	0...255	00...FF	0...100	

Channel	Function	Time and Value	DMX	HEX	%
22) Pattern Section 5	Direct activation of lenses 28 thru 35	Activation in binary style	0...255	00...FF	0...100
23) Pattern Section 6	Direct activation of lenses 36 thru 38	Activation in binary style	0...255	00...FF	0...100
24) Pattern Section 7	Direct activation of lenses 39 thru 46	Activation in binary style	0...255	00...FF	0...100
25) Pattern Section 8	Direct activation of lenses 47 thru 54	Activation in binary style	0...255	00...FF	0...100
26) Pattern Section 9	Direct activation of lens 55	Activation in binary style	0...255	00...FF	0...100

2 Compressed Mode (comp) 16 DMX Channels:

Channel	Function	Time and Value	DMX	HEX	%
1) PAN High	Pan coarse	0° - 660°	0..255	00..FF	0..100
2) PAN Low	Pan fine		0..255	00..FF	0..100
3) Tilt High	Tilt coarse	0° - 260°	0..255	00..FF	0..100
4) Tilt Low	Tilt fine		0..255	00..FF	0..100
5) Color (fixed)	Colors adjustable via RGB		0..7	00..07	0..2.5
	Color 01 - Red ¹⁾		8..15	08..0F	3..5.5
	Color 02 - Amber ¹⁾		16..23	10..17	6..8.5
	Color 03 - Warm Yellow ¹⁾		24..31	18..1F	9..12.5
	Color 04 - Yellow ¹⁾		32..39	20..27	13..15.5
	Color 05 - Green ¹⁾		40..47	28..2F	16..18.5
	Color 06 - Turquoise ¹⁾		48..55	30..37	19..21.5
	Color 07 - Cyan ¹⁾		56..63	38..3F	22..24.5
	Color 08 - Blue ¹⁾		64..71	40..47	25..27.5
	Color 09 - Lavender ¹⁾		72..79	48..4F	28..30.5
	Color 10 - Mauve ¹⁾		80..87	50..57	31..34.5
	Color 11 - Magenta ¹⁾		88..95	58..5F	35..37.5
	Color 12 - Pink ¹⁾		96..103	60..67	38..40.5
	White – CTO	Color temperature 3200K	104..111	68..6F	41..43.5
	White	Color temperature 5600K	112..119	70..77	44..46.5
White – CTB	Color temperature 7200K	120..127	78..7F	47..49.5	
Rainbow Effect Stop ²⁾		128	80	50	
Rainbow Effect ³⁾	slow - fast	129..223	81..DF	51..88	
Rainbow Effect, random colors	slow - fast	224..255	E0..FF	89..100	
6) Red	Color mixing system - Red	0 - 100%	0..255	00..FF	0..100
7) Green	Color mixing system - Green	0 - 100%	0..255	00..FF	0..100
8) Blue	Color mixing system - Blue	0 - 100%	0..255	00..FF	0..100
9) White	Color mixing system - White	0 - 100%	0..255	00..FF	0..100
10) Shutter	Shutter closed		0..15	00..0F	0..5.5
	Shutter pulse random	slow – fast	16..47	10..2F	6..18.5
	Fade on, snap off (random patterns)	slow – fast	48..79	30..4F	19..31
	Snap on, fade off (random patterns)	slow – fast	80..111	50..6F	32..43
	Fade on, fade off (random patterns)	slow – fast	112..143	70..8F	44..56
	Strobe random	5s - 0.1s	144..199	90..C7	57..77
	Strobe effect slow – fast	1 Hz - 10 Hz	200..239	C8..EF	78..94
	Shutter open		240..255	F0..FF	95..100
11) Dimmer	Intensity	0 - 100%	0..255	0..FF	0..100
12) Zoom	Wide (flood) - narrow (spot)	50° - 7°	0..255	00..FF	0..100
13) Special	Pattern Block 1 → See channel 14		0..3	00..03	0..1
	Pattern Block 2 → See channel 14		4..7	04..07	2..3
	Pattern Block 3 → See channel 14		8..11	08..0B	3..4
	Pattern Block 4 → See channel 14		12..15	0C..0F	5..6
	Pattern Block 5 → See channel 14		16..19	10..13	6..7
	Pattern Block 6 → See channel 14		20..23	14..17	8..9
	Pattern Block 7 → See channel 14		24..27	18..1B	9..10
	Pattern Block 8 → See channel 14		28..31	1C..1F	11..12
	Pattern Block 9 → See channel 14		32..35	20..23	12..13
	Pattern Block 10 → See channel 14		36..39	24..27	14..15

Channel	Function	Time and Value	DMX	HEX	%
	Enable Animation		80..83	50..53	31..32
	→ use channel 14 to select → use channel 15 so set step → use channel 16 to start / for speed				
	Set Dimmer to soft mode		84..87	54..57	33..34
	Change PWM frequency		100..200	64..C8	40..78
	Set Maximum Zoom to 247	> 1 sec	208..211	D0..D3	82..83
	Set Maximum Zoom to 255	> 1 sec	212..215	D4..D7	84..85
	Set Zoom to normal	> 1 sec	216..219	D8..DB	85..86
	Set Zoom to inverted	> 1 sec	220..223	DC..DF	86..87
	RESET	> 1 sec	250..255	FA..FF	98..100
14) Pattern / Animation	No pattern		0..2	00..02	0..1
	Pre-defined patterns / animations ^{4) 5)}	See Special Channel 13	03..253	03..FD	2..99
15) A-Step ⁴⁾	Animation step ⁴⁾	See Special Channel 13	00..255	00..FF	0..100
16) A-Speed ⁵⁾	Animation start / speed ⁵⁾	See Special Channel 13	00..255	00..FF	0..100

3 Extended Mode (high) 27 DMX Channels:

Channel	Function	Time and Value	DMX	HEX	%	
1) PAN High	Pan coarse	0° - 660°	0..255	00..FF	0..100	
2) PAN Low	Pan fine		0..255	00..FF	0..100	
3) Tilt High	Tilt coarse	0° - 260°	0..255	00..FF	0..100	
4) Tilt Low	Tilt fine		0..255	00..FF	0..100	
5) Red High	Color mixing system – Red	0 - 100%	0..255	00..FF	0..100	
6) Red Low	Color mixing system – Red-Low		0..255	00..FF	0..100	
7) Green High	Color mixing system – Green	0 - 100%	0..255	00..FF	0..100	
8) Green Low	Color mixing system – Green-Low		0..255	00..FF	0..100	
9) Blue High	Color mixing system – Blue	0 - 100%	0..255	00..FF	0..100	
10) Blue Low	Color mixing system – Blue-Low		0..255	00..FF	0..100	
11) White High	Color mixing system – White	0 - 100%	0..255	00..FF	0..100	
12) White Low	Color mixing system – White-Low		0..255	00..FF	0..100	
13) Shutter	Shutter closed		0..15	00..0F	0..5.5	
	Shutter pulse random	slow – fast	16..47	10..2F	6..18.5	
	Fade on, snap off (random patterns)	slow – fast	48..79	30..4F	19..31	
	Snap on, fade off (random patterns)	slow – fast	80..111	50..6F	32..43	
	Fade on, fade off (random patterns)	slow – fast	112..143	70..8F	44..56	
	Strobe random	5s - 0.1s	144..199	90..C7	57..77	
	Strobe effect slow – fast	1 Hz - 10 Hz	200..239	C8..EF	78..94	
	Shutter open		240..255	F0..FF	95..100	
14) Dimmer-High	Intensity coarse	0 - 100%	0..255	0..FF	0..100	
15) Dimmer-Low	Intensity fine		0..255	0..FF	0..100	
16) Zoom	Wide (flood) - narrow (spot)	50° - 7°	0..255	00..FF	0..100	
17) Special	Pattern Block 1 → See channel 18		0..3	00..03	0..1	
	Pattern Block 2 → See channel 18		4..7	04..07	2..3	
	Pattern Block 3 → See channel 18		8..11	08..0B	3..4	
	Pattern Block 4 → See channel 18		12..15	0C..0F	5..6	
	Pattern Block 5 → See channel 18		16..19	10..13	6..7	
	Pattern Block 6 → See channel 18		20..23	14..17	8..9	
	Pattern Block 7 → See channel 18		24..27	18..1B	9..10	
	Pattern Block 8 → See channel 18		28..31	1C..1F	11..12	
	Pattern Block 9 → See channel 18		32..35	20..23	12..13	
	Pattern Block 10 → See channel 18		36..39	24..27	14..15	
	Enable Animation		80..83	50..53	31..32	
	→ use channel 18 to select					
	→ use channel 19 so set step					
	→ use channel 20 to start/for speed					
	Set Dimmer to soft mode			84..87	54..57	33..34
	Change PWM frequency			100..200	64..C8	40..78
	Set Maximum Zoom to 247	> 1 sec		208..211	D0..D3	82..83
	Set Maximum Zoom to 255	> 1 sec		212..215	D4..D7	84..85
Set Zoom to normal	> 1 sec		216..219	D8..DB	85..86	
Set Zoom to inverted	> 1 sec		220..223	DC..DF	86..87	
RESET	> 1 sec		250..255	FA..FF	98..100	
18) Pattern	No pattern		0..2	00..02	0..1	
	Pre-defined patterns / animations ^{4) 5)}	See Special Channel 17	03..253	03..FD	2..99	
	Activates direct access to LED Lenses		254..255	FE..FF	100	

Channel	Function	Time and Value	DMX	HEX	%
19) Pattern Section 1 ⁴⁾	Direct activation of lenses 1 thru 8 ⁴⁾	Activation in binary style	0...255	00...FF	0...100
20) Pattern Section 2 ⁵⁾	Direct activation of lenses 9 thru 16 ⁵⁾	Activation in binary style	0...255	00...FF	0...100
21) Pattern Section 3	Direct activation of lenses 17 thru 19	Activation in binary style	0...255	00...FF	0...100
22) Pattern Section 4	Direct activation of lenses 20 thru 27	Activation in binary style	0...255	00...FF	0...100
23) Pattern Section 5	Direct activation of lenses 28 thru 35	Activation in binary style	0...255	00...FF	0...100
24) Pattern Section 6	Direct activation of lenses 36 thru 38	Activation in binary style	0...255	00...FF	0...100
25) Pattern Section 7	Direct activation of lenses 39 thru 46	Activation in binary style	0...255	00...FF	0...100
26) Pattern Section 8	Direct activation of lenses 47 thru 54	Activation in binary style	0...255	00...FF	0...100
27) Pattern Section 9	Direct activation of lens 55	Activation in binary style	0...255	00...FF	0...100

¹⁾ The predefined colors can be used as start-colors for the Rainbow effect. Please select first a desired start-color before you activate the rainbow effect. All **IMPRESSION X4XL** will then start from that color and will execute the rainbow effect synchronously. Different **IMPRESSION X4XL** can have different start-colors but will still execute the rainbow effect synchronously. If you choose a color different from the ones marked with ¹⁾ in the tables above the rainbow start-color will be red.

²⁾ Rainbow-effect Stop will pause this function. After resuming the rainbow-effect will be continued from the current color.

³⁾ The Rainbow-effect will run synchronously only if started from one of the predefined colors (see also ¹⁾ before).

⁴⁾ If the Animation mode is activated through Special Channel set to DMX = 80..83 then the Function of this Channel is:

Animation step		00..255	00..FF	0..100
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Use this Chanel to select the starting point of the animation.

⁵⁾ If the Animation mode is activated through Special Channel set to DMX = 80..83 then the Function of this Channel is:

Animation start / speed		00..255	00..FF	0..100
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Use this Chanel to start the animation by setting the speed to run it.

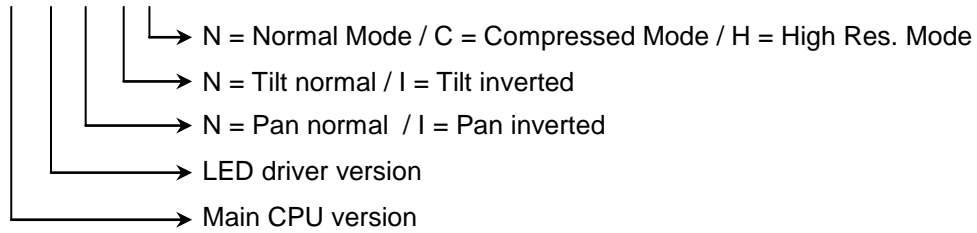
Locking and unlocking the Control Panel

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

Additional Display Indications

As a default you'll find the following additional information in the first row of the LCD display:

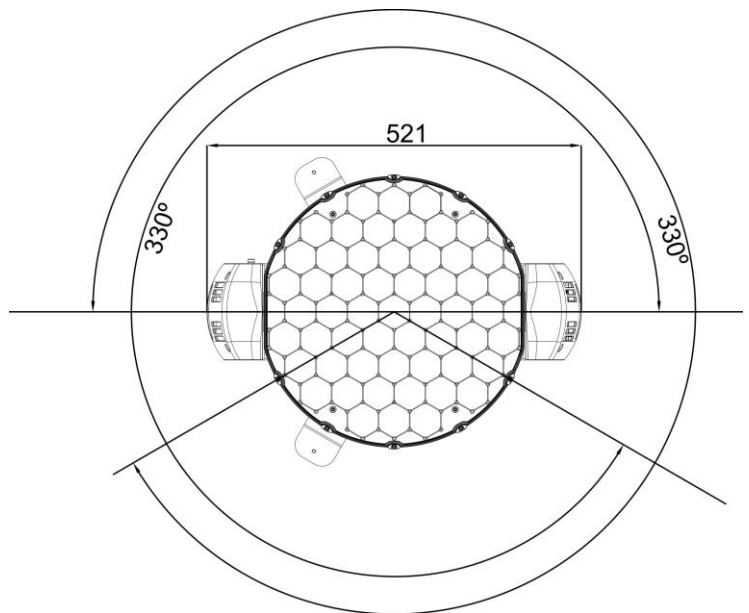
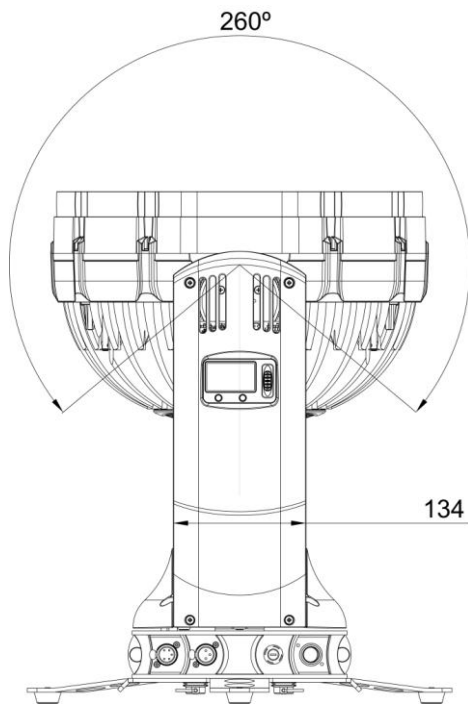
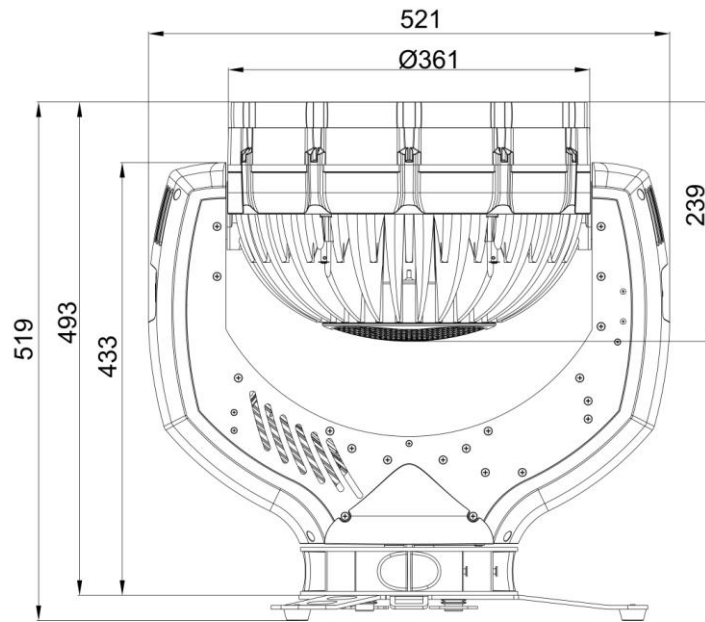
Vxx/xx/xx/xx/x



4 Technical Specifications:

Power supply	
Power consumption	1200 VA (Watt)
Power Input	~100-240 V AC, 50-60 Hz (wide range input)
Fuse protection	Micro-fuse 5x20 mm, T12A
Operational Parameters	
Max. Ambient Temperature	5° - 45°C (integrated overheating switch)
Mounting Position	Any (see relevant chapter)
Lighting System - Additive Color mixing	
LED Type	55 x Osram Ostar RGBW multi-chip
Lifetime	50,000 h
Wavelength optimized for maximum presentable color space	
Optical System	
Full RGBW / High efficient Collimator cluster	
Shutter / Dimmer (8/16 Bit)	
Strobe- Effect with variable speed between 1 - 10 flashes per second, Random-Strobe, Pulse-Effects	
Continuous Dimmer 0 - 100%	
Zoom	
7 to 50 degree continuous zoom	
Optical Patterns	
Several hundred pre-defined beam patterns with direct access and manipulation	
DMX Control	
Standard USITT DMX-512, 3/5 pin XLR: [+]=Pin 3 / [-]=Pin 2 / [Ground]=Pin 1 / Pin 4&5 N.C. The 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	260° in min. 1,5 seconds (Position Feedback)
Weights and Measures	
Width of the base	521 mm
Length of the base	361 mm
height (head vertical)	519 mm (incl. standing foot/tripod)
Weight (net)	31.0 kg

5 Dimensions



PAN movement range: 660°

