

G-PROFILE - DMX Protocol



Protocol Rev. 5

Mode
Standard (31 Channels)

Valid From Firmware Version
1.80

Channel	Name	DMX Value	DMX Percentage	Description	Info	Default DMX Value	Fader Type		
1	SHUTTER	0	7	0,0%	2,7%	Closed		10 (3,9%)	Snap
		8	15	3,1%	5,9%	Open 1 ('Pre-Heat' Enabled)	See note ①		
		16	116	6,3%	45,5%	Strobe			
		117	152	45,9%	59,6%	Strobe - Random			
		153	173	60,0%	67,8%	Pulse - Open	Slow -> Fast		
		174	194	68,2%	76,1%	Pulse - Close	Slow -> Fast		
		195	220	76,5%	86,3%	Random Pulse Open	Slow -> Fast		
		221	246	86,7%	96,5%	Random Pulse Close	Slow -> Fast		
		247	255	96,9%	100,0%	Open 2 ('Pre-Heat' Disabled)	See note ②		
2	INTENSITY	0	255	0,0%	100,0%	No LIGHT -> Maximum LIGHT		0 (0%)	Fade
3	RED	0	255	0,0%	100,0%	No RED -> Maximum RED		0 (0%)	Fade
4	GREEN	0	255	0,0%	100,0%	No GREEN -> Maximum GREEN		0 (0%)	Fade
5	BLUE	0	255	0,0%	100,0%	No BLUE -> Maximum BLUE		0 (0%)	Fade
6	CTC	0	0	0,0%	0,0%	≈ 5600° K	Detailed information - see separate document	182 (71,3%)	Fade
		1	4	0,4%	1,6%	No CTC (RAW)			
		5	5	2,0%	2,0%	≈ 2000° K			
		15	15	5,9%	5,9%	≈ 2200° K (High Pressure Sodium Lamp)			
		40	40	15,7%	15,7%	≈ 2700° K (Incandescent Lamp)			
		54	54	21,2%	21,2%	≈ 3000° K (Halogen / Tungsten Lamp)			
		65	65	25,5%	25,5%	≈ 3200° K (Warm Metal Halide Lamp)			
		105	105	41,2%	41,2%	≈ 4000° K (Clear Metal Halide Lamp)			
		115	115	45,1%	45,1%	≈ 4200° K (Cool White Fluorescent Lamp)			
		177	177	69,4%	69,4%	≈ 5500° K (Daylight Metal Halide Lamp)			
		216	216	84,7%	84,7%	≈ 6300° K			
		238	238	93,3%	93,3%	≈ 8000° K			
255	255	100,0%	100,0%	≈ 10000° K					
7	PAN	0	65535	0,0%	100,0%	-270° to 270°	-270° = Front Lens @ Mains Power Input (Tilt = 0)	32767 (50%)	Fade
8									
9	TILT	0	65535	0,0%	100,0%	-120° to 120°	-120° = Front Lens @ Base Front (Pan = 32767)	32767 (50%)	Fade
10									
11	GOBO WHEEL 1	0	20	0,0%	7,8%	Open		0 (0%)	Snap
		21	41	8,2%	16,1%	Gobo 1 - Position 1			
		42	62	16,5%	24,3%	Gobo 1 - Position 2			
		63	83	24,7%	32,5%	Gobo 1 - Position 3			
		84	104	32,9%	40,8%	Gobo 1 - Position 4			
		105	127	41,2%	49,8%	Gobo 1 - Position 5			
		128	191	50,2%	74,9%	Gobo Wheel Continuous Rotation CW	Fast -> Slow		
		192	192	75,3%	75,3%	No Rotation			
193	255	75,7%	100,0%	Gobo Wheel Continuous Rotation CCW	Slow -> Fast				
12	GOBO WHEEL 1	0	32767	0,0%	50,0%	Gobo Index		0 (0%)	Fade
		32768	32799	50,0%	50,0%	No Effect			
		32800	46418	50,0%	70,8%	Gobo Continuous Rotation CW	Fast -> Slow		
		46419	46919	70,8%	71,6%	No Rotation			
		46920	60538	71,6%	92,4%	Gobo Continuous Rotation CCW	Slow -> Fast		
13	Indexing Rotation Shake	60539	65535	92,4%	100,0%	Gobo Shake	Slow -> Fast		

Channel	Name	DMX value	DMX Percentage	Description	Info	Default DMX value	Fader type
14	BLADE 1 IN	0 255	0,0% 100,0%	Blade 1 In	Out -> In	0 (0%)	Fade
15	BLADE 1 ANGLE	0 255	0,0% 100,0%	Blade 1 Angle	-30° -> +30°	128 (50%)	Fade
16	BLADE 2 IN	0 255	0,0% 100,0%	Blade 2 In	Out -> In	0 (0%)	Fade
17	BLADE 2 ANGLE	0 255	0,0% 100,0%	Blade 2 Angle	-30° -> +30°	128 (50%)	Fade
18	BLADE 3 IN	0 255	0,0% 100,0%	Blade 3 In	Out -> In	0 (0%)	Fade
19	BLADE 3 ANGLE	0 255	0,0% 100,0%	Blade 3 Angle	-30° -> +30°	128 (50%)	Fade
20	BLADE 4 IN	0 255	0,0% 100,0%	Blade 4 In	Out -> In	0 (0%)	Fade
21	BLADE 4 ANGLE	0 255	0,0% 100,0%	Blade 4 Angle	-30° -> +30°	128 (50%)	Fade
22	BLADE ASSEMBLY ROTATE	0 255	0,0% 100,0%	Blade Assembly Rotate	-45° -> +45°	128 (50%)	Fade
23 24	EFFECT WHEEL	0 511	0,0% 0,8%	Open		0 (0%)	Fade
		512 2559	0,8% 3,9%	Inserted Not Indexed			
		2560 32767	3,9% 50,0%	Indexed			
		32768 46402	50,0% 70,8%	Continuous Rotation CW	Fast -> Slow		
		46403 46903	70,8% 71,6%	Stop			
		46904 60538	71,6% 92,4%	Continuous Rotation CCW	Slow -> Fast		
		60539 65535	92,4% 100,0%	Reserved (Calibration Position)			
25	IRIS	0 200	0,0% 78,4%	Open -> Close		0 (0%)	Fade
		201 205	78,8% 80,4%	Effect - "Open Fast / Close Slow"			
		206 210	80,8% 82,4%	Effect - "Open Slow / Close Fast"			
		211 215	82,7% 84,3%	Effect - "Open / Close"			
		216 255	84,7% 100,0%	Effect - "Random Close / Open"	Slow -> Fast		
26	PRISM	0 4	0,0% 1,6%	Open		0 (0%)	Fade
		5 129	2,0% 50,6%	Continuous Rotation CW	Fast -> Slow		
		130 130	51,0% 51,0%	No Rotation			
		131 255	51,4% 100,0%	Continuous Rotation CCW	Slow -> Fast		
27	FROST	0 5	0,0% 2,0%	Open		0 (0%)	Fade
		6 255	2,4% 100,0%	No Frost -> Maximum Frost			
28	ZOOM	0 255	0,0% 100,0%	Wide -> Narrow		0 (0%)	Fade
29	FOCUS	0 255	0,0% 100,0%	Far -> Near		0 (0%)	Fade
30	EFFECT CHANNEL	0 4	0,0% 1,6%	No Effect		0 (0%)	Snap
		5 15	2,0% 5,9%	Reserved (No function)			
		16 26	6,3% 10,2%	Reserved (No function)			
		27 32	10,6% 12,5%	Shutter Black = RED			
		33 38	12,9% 14,9%	Shutter Black = GREEN			
		39 44	15,3% 17,3%	Shutter Black = BLUE			
		45 50	17,6% 19,6%	Shutter Black = WHITE			
		51 56	20,0% 22,0%	Shutter Black = Magenta			
		57 62	22,4% 24,3%	Shutter Black = Yellow			
		63 68	24,7% 26,7%	Shutter Black = Cyan			
69 255	27,1% 100,0%	Reserved (No function)					

Channel	Name	DMX value	DMX Percentage	Description	Info	Default DMX value	Fader type		
31	CONTROL CHANNEL	0	4	0,0%	1,6%	No Function		0 (0%)	Snap
		5	9	2,0%	3,5%	Full Reset	Hold 3 seconds		
		10	14	3,9%	5,5%	Pan Reset	Hold 3 seconds		
		15	19	5,9%	7,5%	Tilt Reset	Hold 3 seconds		
		20	24	7,8%	9,4%	Gobo Reset	Hold 3 seconds		
		25	29	9,8%	11,4%	Zoom Reset	Hold 3 seconds		
		30	34	11,8%	13,3%	Sleep mode	See note ③		
		35	39	13,7%	15,3%	Display Off	Hold 3 seconds		
		40	44	15,7%	17,3%	Display On	Hold 3 seconds		
		45	115	17,6%	45,1%	LED Frequency (100 kHz - 1,41 kHz)	See note ④		
		116	119	45,5%	46,7%	Capture Scene 1	See note ⑤		
		120	123	47,1%	48,2%	Capture Scene 2			
		124	127	48,6%	49,8%	Capture Scene 3			
		128	131	50,2%	51,4%	Capture Scene 4			
		132	135	51,8%	52,9%	Capture Scene 5			
		136	139	53,3%	54,5%	Capture Scene 6			
		140	143	54,9%	56,1%	Capture Scene 7			
		144	147	56,5%	57,6%	Capture Scene 8			
		148	151	58,0%	59,2%	Capture Scene 9			
		152	155	59,6%	60,8%	Capture Scene 10			
		156	159	61,2%	62,4%	Capture Scene 11			
		160	163	62,7%	63,9%	Capture Scene 12			
		164	167	64,3%	65,5%	Capture Scene 13			
		168	171	65,9%	67,1%	Capture Scene 14			
		172	175	67,5%	68,6%	Capture Scene 15			
		176	179	69,0%	70,2%	Capture Scene 16			
180	183	70,6%	71,8%	Capture Scene 17					
184	187	72,2%	73,3%	Capture Scene 18					
188	191	73,7%	74,9%	Capture Scene 19					
192	195	75,3%	76,5%	Capture Scene 20					
196	199	76,9%	78,0%	Capture Scene 21					
200	203	78,4%	79,6%	Capture Scene 22					
204	207	80,0%	81,2%	Capture Scene 23					
208	211	81,6%	82,7%	Capture Scene 24					
212	255	83,1%	100,0%	Reserved (No function)					

① 'Pre-Heat' Enabled = Ready for instant operation ② 'Pre-Heat' Disabled = To perform a complete blackout, use "Open 2". This will take 400 millisec to exit.

③ All other channels must be zero and this has to be held for 30 seconds (fixture will wake up on a full reset)

④ Set LED frequency refresh rate, see separate documentation for frequencies, see manual for details, value must be hold to keep setting (default value 1,41 kHz)

⑤ Hold for 3 sec to capture scenes for internal program (stand-alone operation) see user manual for details.

G-PROFILE - DMX Protocol

Protocol Rev. 5



Mode
Extended (46 Channels)

Valid From Firmware Version
1.80

Channel	Name	DMX Value	DMX Percentage	Description	Info	Default DMX Value	Fader Type		
1	SHUTTER	0	7	0,0%	2,7%	Closed		10 (3,9%)	Snap
		8	15	3,1%	5,9%	Open 1 ('Pre-Heat' Enabled)	See note ①		
		16	116	6,3%	45,5%	Strobe			
		117	152	45,9%	59,6%	Strobe - Random			
		153	173	60,0%	67,8%	Pulse - Open	Slow -> Fast		
		174	194	68,2%	76,1%	Pulse - Close	Slow -> Fast		
		195	220	76,5%	86,3%	Random Pulse Open	Slow -> Fast		
		221	246	86,7%	96,5%	Random Pulse Close	Slow -> Fast		
		247	255	96,9%	100,0%	Open 2 ('Pre-Heat' Disabled)	See note ②		
2	3	0	65535	0,0%	100,0%	No LIGHT -> Maximum LIGHT		0 (0%)	Fade
INTENSITY									
4	5	0	65535	0,0%	100,0%	No RED -> Maximum RED		0 (0%)	Fade
RED									
6	7	0	65535	0,0%	100,0%	No GREEN -> Maximum GREEN		0 (0%)	Fade
GREEN									
8	9	0	65535	0,0%	100,0%	No BLUE -> Maximum BLUE		0 (0%)	Fade
BLUE									
10	CTC	0	0	0,0%	0,0%	≈ 5600° K	Detailed information - see separate document	182 (71,3%)	Fade
		1	4	0,4%	1,6%	No CTC (RAW)			
		5	5	2,0%	2,0%	≈ 2000° K			
		15	15	5,9%	5,9%	≈ 2200° K (High Pressure Sodium Lamp)			
		40	40	15,7%	15,7%	≈ 2700° K (Incandescent Lamp)			
		54	54	21,2%	21,2%	≈ 3000° K (Halogen / Tungsten Lamp)			
		65	65	25,5%	25,5%	≈ 3200° K (Warm Metal Halide Lamp)			
		105	105	41,2%	41,2%	≈ 4000° K (Clear Metal Halide Lamp)			
		115	115	45,1%	45,1%	≈ 4200° K (Cool White Fluorescent Lamp)			
		177	177	69,4%	69,4%	≈ 5500° K (Daylight Metal Halide Lamp)			
		216	216	84,7%	84,7%	≈ 6300° K			
		238	238	93,3%	93,3%	≈ 8000° K			
255	255	100,0%	100,0%	≈ 10000° K					
11	12	0	65535	0,0%	100,0%	-270° to 270°	-270° = Front Lens @ Mains Power Input (Tilt = 0)	32767 (50%)	Fade
PAN									
13	14	0	65535	0,0%	100,0%	-120° to 120°	-120° = Front Lens @ Base Front (Pan = 32767)	32767 (50%)	Fade
TILT									
15	GOBO WHEEL 1	0	20	0,0%	7,8%	Open		0 (0%)	Snap
		21	41	8,2%	16,1%	Gobo 1 - Position 1			
		42	62	16,5%	24,3%	Gobo 1 - Position 2			
		63	83	24,7%	32,5%	Gobo 1 - Position 3			
		84	104	32,9%	40,8%	Gobo 1 - Position 4			
		105	127	41,2%	49,8%	Gobo 1 - Position 5			
		128	191	50,2%	74,9%	Gobo Wheel Continuous Rotation CW	Fast -> Slow		
		192	192	75,3%	75,3%	No Rotation			
193	255	75,7%	100,0%	Gobo Wheel Continuous Rotation CCW	Slow -> Fast				
16	GOBO WHEEL 1	0	32767	0,0%	50,0%	Gobo Index		0 (0%)	Fade
		32768	32799	50,0%	50,0%	No Effect			
		32800	46418	50,0%	70,8%	Gobo Continuous Rotation CW	Fast -> Slow		
		46419	46919	70,8%	71,6%	No Rotation			
		46920	60538	71,6%	92,4%	Gobo Continuous Rotation CCW	Slow -> Fast		
17	Indexing Rotation Shake	60539	65535	92,4%	100,0%	Gobo Shake	Slow -> Fast		

Channel	Name	DMX value	DMX Percentage	Description	Info	Default DMX value	Fader type
18 19	BLADE 1 IN	0 65535	0,0% 100,0%	Blade 1 In	Out -> In	0 (0%)	Fade
20 21	BLADE 1 ANGLE	0 65535	0,0% 100,0%	Blade 1 Angle	-30° -> +30°	32767 (50%)	Fade
22 23	BLADE 2 IN	0 65535	0,0% 100,0%	Blade 2 In	Out -> In	0 (0%)	Fade
24 25	BLADE 2 ANGLE	0 65535	0,0% 100,0%	Blade 2 Angle	-30° -> +30°	32767 (50%)	Fade
26 27	BLADE 3 IN	0 65535	0,0% 100,0%	Blade 3 In	Out -> In	0 (0%)	Fade
28 29	BLADE 3 ANGLE	0 65535	0,0% 100,0%	Blade 3 Angle	-30° -> +30°	32767 (50%)	Fade
30 31	BLADE 4 IN	0 65535	0,0% 100,0%	Blade 4 In	Out -> In	0 (0%)	Fade
32 33	BLADE 4 ANGLE	0 65535	0,0% 100,0%	Blade 4 Angle	-30° -> +30°	32767 (50%)	Fade
34 35	BLADE ASSEMBLY ROTATE	0 65535	0,0% 100,0%	Blade Assembly Rotate	-45° -> +45°	32767 (50%)	Fade
36 37	EFFECT WHEEL	0 511	0,0% 0,8%	Open		0 (0%)	Fade
		512 2559	0,8% 3,9%	Inserted Not Indexed			
		2560 32767	3,9% 50,0%	Indexed			
		32768 46402	50,0% 70,8%	Continuous Rotation CW	Fast -> Slow		
		46403 46903	70,8% 71,6%	Stop			
		46904 60538	71,6% 92,4%	Continuous Rotation CCW	Slow -> Fast		
		60539 65535	92,4% 100,0%	Reserved (Calibration Position)			
38	IRIS	0 200	0,0% 78,4%	Open -> Close		0 (0%)	Fade
		201 205	78,8% 80,4%	Effect - "Open Fast / Close Slow"			
		206 210	80,8% 82,4%	Effect - "Open Slow / Close Fast"			
		211 215	82,7% 84,3%	Effect - "Open / Close"			
		216 255	84,7% 100,0%	Effect - "Random Close / Open"	Slow -> Fast		
39	PRISM	0 4	0,0% 1,6%	Open		0 (0%)	Fade
		5 129	2,0% 50,6%	Continuous Rotation CW	Fast -> Slow		
		130 130	51,0% 51,0%	No Rotation			
		131 255	51,4% 100,0%	Continuous Rotation CCW	Slow -> Fast		
40	FROST	0 5	0,0% 2,0%	Open		0 (0%)	Fade
		6 255	2,4% 100,0%	No Frost -> Maximum Frost			
41 42	ZOOM	0 65535	0,0% 100,0%	Wide -> Narrow		0 (0%)	Fade
43 44	FOCUS	0 65535	0,0% 100,0%	Far -> Near		0 (0%)	Fade
45	EFFECT CHANNEL	0 4	0,0% 1,6%	No Effect		0 (0%)	Snap
		5 15	2,0% 5,9%	Reserved (No function)			
		16 26	6,3% 10,2%	Reserved (No function)			
		27 32	10,6% 12,5%	Shutter Black = RED			
		33 38	12,9% 14,9%	Shutter Black = GREEN			
		39 44	15,3% 17,3%	Shutter Black = BLUE			
		45 50	17,6% 19,6%	Shutter Black = WHITE			
		51 56	20,0% 22,0%	Shutter Black = Magenta			
		57 62	22,4% 24,3%	Shutter Black = Yellow			
		63 68	24,7% 26,7%	Shutter Black = Cyan			
69 255	27,1% 100,0%	Reserved (No function)					

Channel	Name	DMX value	DMX Percentage	Description	Info	Default DMX value	Fader type		
46	CONTROL CHANNEL	0	4	0,0%	1,6%	No Function		0 (0%)	Snap
		5	9	2,0%	3,5%	Full Reset	Hold 3 seconds		
		10	14	3,9%	5,5%	Pan Reset	Hold 3 seconds		
		15	19	5,9%	7,5%	Tilt Reset	Hold 3 seconds		
		20	24	7,8%	9,4%	Gobo Reset	Hold 3 seconds		
		25	29	9,8%	11,4%	Zoom Reset	Hold 3 seconds		
		30	34	11,8%	13,3%	Sleep	See note ③		
		35	39	13,7%	15,3%	Display Off	Hold 3 seconds		
		40	44	15,7%	17,3%	Display On	Hold 3 seconds		
		45	115	17,6%	45,1%	LED Frequency (100 kHz - 1,41 kHz)	See note ④		
		116	119	45,5%	46,7%	Capture Scene 1	See note ⑤		
		120	123	47,1%	48,2%	Capture Scene 2			
		124	127	48,6%	49,8%	Capture Scene 3			
		128	131	50,2%	51,4%	Capture Scene 4			
		132	135	51,8%	52,9%	Capture Scene 5			
		136	139	53,3%	54,5%	Capture Scene 6			
		140	143	54,9%	56,1%	Capture Scene 7			
		144	147	56,5%	57,6%	Capture Scene 8			
		148	151	58,0%	59,2%	Capture Scene 9			
		152	155	59,6%	60,8%	Capture Scene 10			
		156	159	61,2%	62,4%	Capture Scene 11			
		160	163	62,7%	63,9%	Capture Scene 12			
		164	167	64,3%	65,5%	Capture Scene 13			
		168	171	65,9%	67,1%	Capture Scene 14			
		172	175	67,5%	68,6%	Capture Scene 15			
176	179	69,0%	70,2%	Capture Scene 16					
180	183	70,6%	71,8%	Capture Scene 17					
184	187	72,2%	73,3%	Capture Scene 18					
188	191	73,7%	74,9%	Capture Scene 19					
192	195	75,3%	76,5%	Capture Scene 20					
196	199	76,9%	78,0%	Capture Scene 21					
200	203	78,4%	79,6%	Capture Scene 22					
204	207	80,0%	81,2%	Capture Scene 23					
208	211	81,6%	82,7%	Capture Scene 24					
212	255	83,1%	100,0%	Reserved (No function)					

① 'Pre-Heat' Enabled = Ready for instant operation ② 'Pre-Heat' Disabled = To perform a complete blackout, use "Open 2". This will take 400 millisec to exit.

③ All other channels must be zero and this has to be held for 30 seconds (fixture will wake up on a full reset)

④ Set LED frequency refresh rate, see separate documentation for frequencies, see manual for details, value must be hold to keep setting (default value 1,41 kHz)

⑤ Hold for 3 sec to capture scenes for internal program (stand-alone operation) see user manual for details