

DMX protocol

Robin DLX Spot - DMX protocol - version 1.3						
Mode/channel			DMX Value	Function	Type of control	
1	2	3				
1	1	1		Pan		
			0 - 255	Pan movement by 540°	proportional	
2	2	*		Pan Fine		
			0 - 255	Fine control of pan movement	proportional	
3	3	2		Tilt		
			0 - 255	Tilt movement by 280°	proportional	
4	4	*		Tilt fine		
			0 - 255	Fine control of tilt movement	proportional	
5	5	3		Pan/Tilt speed , Pan/Tilt time		
			0	Max. speed (tracking mode)	step	
				P./T. speed-set Speed Mode in menu: Pan/Tilt Mode		
			1 - 255	Speed from max. to min. (vector mode)	proportional	
				P./T. time - set Time Mode in menu: Pan/Tilt Mode		
			1 - 255	Time from 0.1 s to 25.5 sec.	proportional	
6	6	4		Power/Special functions		
			0-9	Reserved		
				<i>To activate following functions, stop in DMX value for at least 3 s and shutter must be closed at least 3 sec. („Shutter,Strobe“ channel 33/24/22 must be at range: 0-31 DMX). Corresponding menu items are temporarily overridden).</i>		
			10-14	DMX input: Wired DMX *	step	
			15-19	DMX input: Wireless DMX *	step	
				* function is active only 10 seconds after switching the fixture on		
			20-24	White point 8000K ON	step	
			25-29	White point 8000K OFF	step	
			30-39	RGB colour mixing mode	step	
			40-49	CMY colour mixing mode	step	
			50 - 59	Pan/Tilt speed mode	step	
			60 - 69	Pan/Tilt time mode	step	
			70 - 79	Blackout while pan/tilt moving	step	
			80 - 89	Disabled blackout while pan/tilt moving	step	
			90-109	Reserved		
			110 - 119	Blackout while gobo wheel moving	step	
			120-129	Disabled blackout while gobo wheel moving	step	
				<i>To activate following functions, stop in DMX value for at least 3 seconds.</i>		
			130 - 139	Fixture reset (except pan/tilt)		
			140 - 149	Pan/Tilt reset	step	
			150 - 159	Reserved		
			160 - 169	Gobo wheels reset	step	
			170 - 179	Reserved		
			180 - 189	Zoom/focus/frost/prism reset	step	
			190 - 199	Iris reset	step	
			200 - 209	Total fixture reset	step	
			210 - 239	Reserved		
			240	Disable "Theatre mode"	step	
			241	"Theatre mode" -automatic control of fan noise	step	
			242 - 255	"Theatre mode" -fan noise control from min. to max.	proportional	

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1	2	3			
7	7	5		Virtual colour wheel	
			0	No function	step
			1-2	White 2700 K	step
			3	White 2700 K (Halogen lamp mode**)	step
			4-5	White 3200 K	step
			6	White 3200 K (Halogen lamp mode**)	step
			7-9	White 4200 K	step
			10-12	White 5600 K	step
			13-15	White 8000 K	step
			16	Blue (Blue=full, Red+Green+White=0)	step
			17-55	Red=0, Green->up,Blue =full, White=0	proportional
			56	Light Blue (Red=0, Green=full, Blue =full, White=0)	step
			57 - 95	Red=0, Green=full, Blue->down, White=0	proportional
			96	Green (Red=0, Green=full, Blue =0, White=0)	step
			97 – 134	Red->up, Green=full, Blue=0, White=0	proportional
			135	Yellow (Red=full, Green=full, Blue=0, White=0)	step
			136 - 174	Red=full, Green->down, Blue=0, White=0	proportional
			175	Red(Red=full, Green=0, Blue=0, White=0)	step
			176 -214	Red=full, Green=0, Blue->up, White=0	proportional
			215	Magenta (Red=full, Green=0, Blue=full, White=0)	step
			216 - 246	Red -> down, Green=0, Blue=full, White=0	proportional
			247	Blue (Red=0, Green=0, Blue=full, White=0)	step
			248-251	Rainbow effect (with fade time)from slow-> fast	proportional
			252-255	Rainbow effect from slow-> fast	proportional
8	8	6		Red/Cyan (8 bit)***	
			0 - 255	Red or Cyan colour saturation control - coarse (0-100%)	proportional
9	*	*		Red/Cyan (16bit)***	
			0 - 255	Red or Cyan colour saturation control - fine	proportional
10	9	7		Green/Magenta (8 bit)***	
			0 - 255	Green or Magenta colour saturation control - coarse (0-100%)	proportional
11	*	*		Green/Magenta (16bit)***	
			0 - 255	Green or Magenta colour saturation control - fine	proportional
12	10	8		Blue/Yellow (8 bit)***	
			0 - 255	Blue or Yellow colour saturation control - coarse (0-100%)	proportional
13	*	*		Blue/ Yellow (16bit)***	
			0 - 255	Blue or Yellow colour saturation control - fine	proportional
14	11	9		White (8 bit)	
				If RGBW mode is selected:	
			0-255	White colour saturation control - coarse (0-100%)	proportional
				If CMY mode is selected:	
			0 - 255	No function	
15	*	*		White (16 bit)	
			0 - 255	White colour saturation control - fine (RGBW mode only)	proportional
16	12	10		CTC	
				If function "White Point 8000K" is ON	
			0-255	Col. temperature correction from 8000K to 2700K -for whites only (0=8000K, 64=5600K, 128=4200K, 192=3200K, 0=2700K)	proportional
				To get colour temperatures stated above, RGBW channels have to be set at the same value (e.g. 255DMX) or RGB=0 and White channel > 0 DMX	

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1	2	3			
				<i>If function "White Point 8000K" is OFF</i>	
			0-255	Colour temperature correction for mixed colours	proportional
17	13	11		Speed of rot. Gobo selection	
			0-255	Speed of rot. gobo selection from max. to min. (0-25.5sec.)	proportional
18	14	12		Static gobo wheel	
				<u>Continual Positioning</u>	
				<i>In range 0-64 DMX is possible fine gobo positioning - set value at channel 19</i>	
			0	Open/hole	proportional
			7	Gobo 1	proportional
			13	Gobo 2	proportional
			19	Gobo 3	proportional
			26	Gobo 4	proportional
			32	Gobo 5	proportional
			39	Gobo 6	proportional
			45	Gobo 7	proportional
			51	Gobo 8	proportional
			58	Gobo 9	proportional
			64	Open/hole	proportional
				<u>Positioning</u>	
			65 - 69	Gobo 1	step
			70 - 74	Gobo 2	step
			75 - 79	Gobo 3	step
			80 - 84	Gobo 4	step
			85 - 89	Gobo 5	step
			90 - 94	Gobo 6	step
			95 - 99	Gobo 7	step
			100 - 104	Gobo 8	step
			105 - 109	Gobo 9	step
				<u>Shaking gobos from slow to fast</u>	
			110 - 119	Gobo 1	proportional
			120 - 129	Gobo 2	proportional
			130 - 139	Gobo 3	proportional
			140 - 149	Gobo 4	proportional
			150 - 159	Gobo 5	proportional
			160 - 169	Gobo 6	proportional
			170 - 179	Gobo 7	proportional
			180 - 189	Gobo 8	proportional
			190 - 199	Gobo 9	proportional
			200 - 201	Open/hole	step
			202 - 221	Forwards gobo wheel rotation from fast to slow	proportional
			222 - 223	No rotation	
			224 - 243	Backwards gobo wheel rotation from slow to fast	proportional
			244 - 249	Random gobo selection by audio control	step
				<i>(Set microphone sensitivity in menu „Personality“)</i>	
			250 - 255	Auto random gobo selection from fast to slow	proportional
19	*	*		Static gobo wheel-fine	
			0 - 255	Fine positioning	proportional
20	15	13		Rotating gobo wheel	
				<i>In the range of 0-59 DMX the gobo selection speed is controlled by the Effect Speed channel.</i>	

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1	2	3			
				<i>Index - set indexing on channel 21/16/14</i>	
			0-3	Open/hole	step
			4-7	Gobo 1	step
			8-11	Gobo 2	step
			12-15	Gobo 3	step
			16-19	Gobo 4	step
			20-23	Gobo 5	step
			24-27	Gobo 6	step
			28-31	Gobo 7	step
				<i>Rotation - set rotation on channel 21/16/14</i>	
			32-35	Gobo 1	step
			36-39	Gobo 2	step
			40-43	Gobo 3	step
			44-47	Gobo 4	step
			48-51	Gobo 5	step
			52-55	Gobo 6	step
			56-59	Gobo 7	step
				<i>Shaking gobos from slow to fast</i>	
				<i>Index - set indexing on channel 21/16/14</i>	
			60 - 69	Gobo 1	proportional
			70 - 79	Gobo 2	proportional
			80 - 89	Gobo 3	proportional
			90 - 99	Gobo 4	proportional
			100 - 109	Gobo 5	proportional
			110 - 119	Gobo 6	proportional
			120 - 129	Gobo 7	proportional
				<i>Shaking gobos from slow to fast</i>	
				<i>Rotation - set rotation on channel 21/16/14</i>	
			130 - 139	Gobo 1	proportional
			140 - 149	Gobo 2	proportional
			150 - 159	Gobo 3	proportional
			160 - 169	Gobo 4	proportional
			170 - 179	Gobo 5	proportional
			180 - 189	Gobo 6	proportional
			190 - 199	Gobo 7	proportional
			200 - 201	Open/hole	step
			202 - 221	Forwards gobo wheel rotation from fast to slow	proportional
			222 - 223	No rotation	step
			224 - 243	Backwards gobo wheel rotation from slow to fast	proportional
			244 - 249	Random gobo selection by audio control (Set microphone sensitivity in menu „Personality“)	step
			250 - 255	Auto random gobo selection from fast to slow	proportional
21	16	14		Rot. gobo indexing and rotation	
				<i>Gobo indexing - set position on channel 20/15/13</i>	
			0 - 255	Gobo indexing	proportional
				<i>Gobo rotation - set position on channel 20/16/13</i>	
			0	No rotation	step
			1 - 127	Forwards gobo rotation from fast to slow	proportional
			128 - 129	No rotation	step
			130 - 255	Backwards gobo rotation from slow to fast	proportional

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1	2	3			
22	*	*		Rot. gobo indexing/rotation - fine	
			0-255	Fine indexing (rotation)	proportional
23	17	15		Prism	
			0 - 19	Open position (hole)	step
			20 - 127	3-facet rotating prism	step
			128 - 255	Prism/gobo macros	
			128 - 135	Macro 1	step
			136 - 143	Macro 2	step
			144 - 151	Macro 3	step
			152 - 159	Macro 4	step
			160 - 167	Macro 5	step
			168 - 175	Macro 6	step
			176 - 183	Macro 7	step
			184 - 191	Macro 8	step
			192 - 199	Macro 9	step
			200 - 207	Macro 10	step
			208 - 215	Macro 11	step
			216 - 223	Macro 12	step
			224 - 231	Macro 13	step
			232 - 239	Macro 14	step
			240 - 247	Macro 15	step
			248 - 255	Macro 16	step
24	18	16		Prism rotation	
			0	No rotation	step
			1 - 127	Forwards rotation from fast to slow	proportional
			128 - 129	No rotation	step
			130 - 255	Backwards rotation from slow to fast	proportional
25	19	17		Frost	
			0	Open	step
			1 - 179	Frost from 0% to 100%	proportional
			180 - 189	100% frost	step
			190 - 211	Pulse closing from slow to fast	proportional
			212 - 233	Pulse opening from fast to slow	proportional
			234 - 255	Ramping from fast to slow	proportional
26	20	18		Iris	
			0	Open	step
			1 - 179	From max.diameter to min.diameter	proportional
			180 - 191	Closed	step
				Pulse effects with Iris blackout:	
			192 - 219	Pulse opening from slow to fast	proportional
			220 - 247	Pulse closing from fast to slow	proportional
			248 - 249	Random pulse opening (fast)	step
			250 - 251	Random pulse opening (slow)	step
			252 - 253	Random pulse closing (fast)	step
			254 - 255	Random pulse closing (slow)	step
27	*	*		Iris - fine	
			0 - 255	Fine iris movement	proportional
28	21	19		Zoom	
			0 - 255	Zoom from max. to min.beam angle	proportional
29	*	*		Zoom - fine	

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Mode/channel			DMX Value	Function	Type of control
1	2	3			
			0-255	Fine zooming	proportional
30	22	20		Focus	
			0 - 255	Continuous adjustment from far to near	proportional
31	*	*		Focus - fine	
			0- 255	Fine focusing	proportional
32	23	21		Autofocus (priority & distance selection)	
				Select desired distance and effect on which you need to focus and use "Focus" channel (30/22/20) to focus the image.	
			0	Autofocus Off	step
				Hole	
			1	4 metres	proportional
			8	6 metres	proportional
			16	8 metres	proportional
			24	10 metres	proportional
			32	12 metres	proportional
			40	14 metres	proportional
			48	16 metres	proportional
			56	18 metres	proportional
				Static gobo wheel	
			64	4 metres	proportional
			72	6 metres	proportional
			80	8 metres	proportional
			88	10 metres	proportional
			96	12 metres	proportional
			104	14 metres	proportional
			112	16 metres	proportional
			120	18 metres	proportional
				Rotating gobo wheel	
			128	4 metres	proportional
			136	6 metres	proportional
			144	8 metres	proportional
			152	10 metres	proportional
			160	12 metres	proportional
			168	14 metres	proportional
			176	16 metres	proportional
			184	18 metres	proportional
			192-255	<i>Reserved</i>	
33	24	22		Shutter/ strobe	
			0 - 31	Shutter closed	step
			32 - 63	Shutter open	step
			64 - 95	Strobe-effect from slow to fast	proportional
			96 - 127	Shutter open	step
			128 - 143	Opening pulse in sequences from slow to fast	proportional
			144 - 159	Closing pulse in sequences from fast to slow	proportional
			160 - 191	Shutter open	step
			192 - 223	Random strobe-effect from slow to fast	proportional
			224 - 255	Shutter open	step
34	25	23		Dimmer intensity	
			0 - 255	Dimmer intensity from 0% to 100%	proportional

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1	2	3			
35	*	*		Dimmer intensity - fine	
			0 - 255	Fine dimming	proportional
** In the Halogen lamp mode the Dimmer channel imitates behaviour of the halogen lamp during dimming					
*** Select RGB or CMY mixing mode on channel "Power/Special functions"					