

DMX protocol

Robin LEDdBeam 350/Robin LEDBeam 350FW - DMX protocol					
Version: 1.3 Mode 1 -Standard 16-bit, Mode 2 -Reduced 8-bit, Mode 3 - Cpulse mode					
Mode/channel			DMX Value	Function	Type of control
1	2	3			
1	1	1		Pan (8 bit)	
			0 - 255	Pan movement by 540° or 450° (128=default)	proportional
2	2	2		Pan Fine (16 bit)	
			0 - 255	Fine control of pan movement (0=default)	proportional
3	3	3		Tilt (8 bit)	
			0 - 255	Tilt movement by 228° (128=default)	proportional
4	4	4		Tilt fine (16 bit)	
			0 - 255	Fine control of tilt movement (0=default)	proportional
5	5	5		Pan/Tilt speed , Pan/Tilt time	
			0	Standard mode (0=default)	step
			1	Max. Speed Mode	step
				Pan/Tilt speed mode	
			2 - 255	Speed from max. to min.	proportional
				Pan/Tilt time mode	
			2 - 255	Time from 0.2 sec. to 25.5 sec.	proportional
6	6	6		Power/Special functions	
			0 -19	Reserved (0=default)	
				<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 20/15/22 must be at range: 0-31 DMX). Corresponding menu items are temporarily overridden.</i>	
			20-24	Display On	step
			25-29	Display Off	step
			30-34	RGBW colour mixing mode	step
			35-39	CMY colour mixing mode	step
			40-44	Pan/Tilt speed mode	step
			45 - 49	Pan/Tilt time mode	step
			50 -54	Blackout while pan/tilt moving	step
			55 -59	Disabled blackout while pan/tilt moving	step
			60 - 64	Dimmer curve - square law	step
			65 - 69	Dimmer curve - linear	step
			70 - 74	Fans mode: Auto	step
			75 - 79	Fans mode: High	step
			80-84	White point 8000K ON	step
			85-89	White point 8000K OFF	step
			90-94	Fans mode: Quiet	step
			95-99	Pan 540°	step
			100-104	Pan 450°	step
			105 -129	Reserved	
				<i>To activate following functions, stop in DMX value for at least 3 seconds. Corresponding menu items are temporarily overridden.</i>	
			130 - 139	Reserved	
			140 - 149	Pan/Tilt reset	step
			150 - 159	Zoom reset	step
			160 - 169	Reserved	step
				<i>Tungsten effect simulation for whites 2700K-4200K</i>	

DMX protocol

Mode/channel			DMX Value	Function	Type of control
1	2	3			
			170-171	Tungsten effect simulation (750W) On	step
			172-173	Tungsten effect simulation (1000W) On	step
			174-175	Tungsten effect simulation (1200W) On	step
			176-177	Tungsten effect simulation (2000W) On	step
			178-179	Tungsten effect simulation (2500W) On	step
			180-181	Tungsten effect simulation Off	step
			182-184	Reserved	
				The following LED PWM frequency control influences DMX modes 1 and 2 only. Corresponding menu item (Frequency Setup) is temporarily overridden.	
			185	PWM output frequency of LEDs: 300Hz **	step
			186	PWM output frequency of LEDs: 600Hz** (factory menu display setting)	step
				** You can adjust selected frequency in 6 steps Up or Down around selected frequency - see table below . Default value of PWM frequency set in the fixture is Standard.	
			187	LED Frequency (step -6)	step
			188	LED Frequency (step -5)	step
			189	LED Frequency (step -4)	step
			190	LED Frequency (step -3)	step
			191	LED Frequency (step -2)	step
			192	LED Frequency (step -1)	step
			193	LED Frequency (300Hz or 600Hz)	step
			194	LED Frequency (step +1)	step
			195	LED Frequency (step +2)	step
			196	LED Frequency (step +3)	step
			197	LED Frequency (step +4)	step
			198	LED Frequency (step +5)	step
			199	LED Frequency (step +6)	step
			200 - 209	Total fixture reset	step
			210 - 218	Reserved	
				The following RoboSpot related commands are only applicable when the RoboSpot is connected:	
			219 - 220	RoboSpot enabled	step
			221 - 222	RoboSpot disabled - except handle faders and pan/tilt	step
			223 - 224	RoboSpot fully disabled	step
			225 - 255	Reserved	
*	*	7		LED frequency selection	
				Factory display menu setting: 600Hz	
				Select PWM output frequency of LEDs (DMX mode 3 only). Selected PWM frequency can be fine adjusted in 127 steps up/down around selected PWM frequency on the channel below. Corresponding menu item (Frequency Setup) is temporarily overridden.	
			0-4	PWM frequency from Display menu (fixture utilizes PWM frequency set in the display menu item Frequency Setup).	step
			5-9	300 Hz	step
			10-14	600 Hz (10=default)	step
			15-19	1200 Hz	step
			20-24	2400 Hz	step
			25-29	High	step
			30-255	Reserved (fixture utilizes PWM frequency set in the display menu item Frequency Setup).	
*	*	8		LED frequency fine adjusting	

DMX protocol

Mode/channel			DMX Value	Function	Type of control
1	2	3			
				Factory display menu setting: 600Hz	
				<i>Select desired PWM output frequency of LEDs on the channel above (DMX mode 3 only).</i>	
			0-1	Selected LED Frequency	step
			2	LED Frequency (step -126)	step
			3	LED Frequency (step -125)	step
			4	LED Frequency (step -124)	step
			:		
			125	LED Frequency (step -3)	step
			126	LED Frequency (step -2)	step
			127	LED Frequency (step -1)	step
			128	Selected LED Frequency (128=default)	step
			129	LED Frequency (step +1)	step
			130	LED Frequency (step +2)	step
			131	LED Frequency (step +3)	step
			:		
			252	LED Frequency (step +124)	step
			253	LED Frequency (step +125)	step
			254	LED Frequency (step +126)	step
			255	Selected LED Frequency	step
7	7	9		Virtual colour wheel	
			0	No function (0=default)	step
			1-2	Filter 4 (Medium Bastard Amber)	step
			3-4	Filter 25 (Sunset Red)	step
			5-6	Filter 19 (Fire)	step
			7-8	Filter 26 (Bright Red)	step
			9-10	Filter 58 (Lavender)	step
			11-12	Filter 68 (Sky Blue)	step
			13-14	Filter 36 (Medium Pink)	step
			15-16	Filter 89 (Moss Green)	step
			17-18	Filter 88 (Lime Green)	step
			19-20	Filter 90 (Dark Yellow Green)	step
			21-22	Filter 49 (Medium Purple)	step
			23-24	Filter 52 (Light Lavender)	step
			25-26	Filter 102 (Light Amber)	step
			27-28	Filter 103 (Straw)	step
			29-30	Filter 140 (Summer Blue)	step
			31-32	Filter 124 (Dark Green)	step
			33-34	Filter 106 (Primary Red)	step
			35-36	Filter 111 (Dark Pink)	step
			37-38	Filter 115 (Peacock Blue)	step
			39-40	Filter 126 (Mauve)	step
			41-42	Filter 117 (Steel Blue)	step
			43-44	Filter 118 (Light Blue)	step
			45-46	Filter 122 (Fern Green)	step
			47-48	Filter 182 (Light Red)	step
			49-50	Filter 121 (Filter Green)	step
			51-52	Filter 128 (Bright Pink)	step
			53-54	Filter 131 (Marine Blue)	step
			55-56	Filter 132 (Medium Blue)	step

DMX protocol

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1	2	3			
			57-58	Filter 134 (Golden Amber)	step
			59-60	Filter 135 (Deep Golden Amber)	step
			61-62	Filter 136 (Pale Lavender)	step
			63-64	Filter 137 (Special Lavender)	step
			65-66	Filter 138 (Pale Green)	step
			67-68	Filter 798 (Chrysalis Pink)	step
			69-70	Filter 141 (Bright Blue)	step
			71-72	Filter 147 (Apricot)	step
			73-74	Filter 148 (Bright Rose)	step
			75-76	Filter 152 (Pale Gold)	step
			77-78	Filter 154 (Pale Rose)	step
			79-80	Filter 157 (Pink)	step
			81-82	Filter 143 (Pale Navy Blue)	step
			83-84	Filter 162 (Bastard Amber)	step
			85-86	Filter 164 (Flame Red)	step
			87-88	Filter 165 (Daylight Blue)	step
			89-90	Filter 169 (Lilac Tint)	step
			91-92	Filter 170 (Deep Lavender)	step
			93-94	Filter 172 (Lagoon Blue)	step
			95-96	Filter 194 (Surprise Pink)	step
			97-98	Filter 180 (Dark Lavender)	step
			99-100	Filter 181 (Congo Blue)	step
			101-102	Filter 197 (Alice Blue)	step
			103-104	Filter 201 (Full C.T. Blue)	step
			105-106	Filter 202 (Half C.T. Blue)	step
			107-108	Filter 203 (Quarter C.T. Blue)	step
			109-110	Filter 204 (Full C.T. Orange)	step
			111-112	Filter 219 (Fluorescent Green)	step
			113-114	Filter 206 (Quarter C.T. Orange)	step
			115-116	Filter 247 (Filter Minus Green)	step
			117-118	Filter 248 (Half Minus Green)	step
			119-120	Filter 281 (Three Quarter C.T. Blue)	step
			121-122	Filter 285 (Three Quarter C.T. Orange)	step
			123-124	Filter 352 (Glacier Blue)	step
			125-126	Filter 353 (Lighter Blue)	step
			127-128	Filter 507 (Madge)	step
			129-130	Filter 778 (Millennium Gold)	step
			131-132	Filter 793 (Vanity Fair)	step
			133-235	Raw DMX	proportional
			236-245	Rainbow effect (with fade time) from slow-> fast	proportional
			246-255	Rainbow effect (without fade time) from slow-> fast	proportional
8	8	10		Red/Cyan (8 bit)*	
			0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
9	*	11		Red/Cyan (16bit)*	
			0 - 255	Colour saturation control - fine (255=default)	proportional
10	9	12		Green/Magenta (8 bit) *	
			0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
11	*	13		Green/Magenta (16bit) *	
			0 - 255	Colour saturation control - fine (255=default)	proportional

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Mode/channel			DMX Value	Function	Type of control
1	2	3			
12	10	14		Blue/Yellow (8 bit) *	
			0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
13	*	15		Blue/ Yellow (16bit) *	
			0 - 255	Colour saturation control - fine (255=default)	proportional
14	11	16		White (8 bit)	
				<i>If RGBW mode is selected:</i>	
			0-255	Colour saturation control - coarse 0-100% (255=default)	proportional
				<i>If CMY mode is selected:</i>	
			0 - 255	No function	
15	*	17		White (16 bit)	
			0 - 255	Colour saturation control - fine (255=default)	proportional
16	12	18		CTC	
				<i>If function "White Point 8000K" is On:</i>	
			0-255	Col. temperature correction from 8000K to 2700K -for whites only (0=8000K, 64=5600K, 128=4200K, 192=3200K, 255=2700K) To get colour temperatures stated above, RGBW channels have to be set at the same value e.g. 255DMX (0=default)	proportional
				<i>If function "White Point 8000K" is Off:</i>	
			0-255	Colour temperature correction for from cool white to 2700K	proportional
17	13	19		Colour Mix control	
				<i>Defines relation between colour channels</i>	
				"Virtual" = Virtual Colours (Virtual Colour Wheel)	
				"Colour mix" = Colour channels (RGBW/CMY)	
			0-9	Virtual colors ("Virtual" has priority)	step
			10-19	Maximum mode (highest values have priority)	step
			20-29	Minimum mode (lowest values have priority)	step
			30-39	Multiply mode (multiply Virtual and Colour Mix)	step
			40-49	Addition mode (Virtual + Colour mix) (45=default)	step
			50-59	Subtraction mode (Virtual – Colour mix)	step
			60-69	Inverted Subtraction mode (Virtual – Colour mix)	step
			70-128	Reserved	
			129	Virtual colors (virtual has priority)	step
			130-254	Crossfade (crossfade between Virtual and Colour mix)	proportional
			255	Colour channels ("Colour mix" has priority)	step
18	14	20		Zoom	
			0-255	Zoom from max. to min.beam angle (128=default)	proportional
19	*	21		Zoom - fine	
			0-255	Fine zooming (0=default)	proportional
20	15	22		Shutter/ strobe	
			0 - 31	Shutter closed	step
			32 - 63	Shutter open (32=default)	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
21	16	23		Dimmer intensity (8 bit)	

DMX protocol

Mode/channel			DMX Value	Function	Type of control
1	2	3			
			0 - 255	Dimmer intensity from 0% to 100% (0=default)	proportional
22	*	24		Dimmer intensity - fine (16 bit)	
			0 - 255	Fine dimming (0=default)	proportional
*Select RGB or CMY mixing mode on channel "Power/Special functions" .					
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