

DMX protocol

**Robin iBar 15 - DMX protocol**

**Version: 1.0 Mode 1** - Standard 16-bit, **Mode 2**-Reduced 8-bit, **Mode 3** -Extended 16-bit+RGB pixels, **Mode 4** -Extended 16-bit+RGBD pixels, **Mode 5** -Extended 16-bit+RGBD pixels+LED Frequency Setting, **Mode 6**- RGB pixels

Mode/channel						DMX Value	Function	Type of control
1	2	3	4	5	6			
1	1	1	1	1	*		<b>Power/Special functions</b>	
						0-19	Reserved (0= default)	
							<i>To activate following functions , stop in DMX value for at least 3 sec. and shutter must be closed at least 3 sec. (Shutter channel 14/10/2 must be at range of 0-31 DMX). Corresponding menu items are temporarily overridden</i>	
						20-24	Display On	step
						25-29	Display Off	step
						30-39	RGBW colour mixing mode	step
						40-49	CMY colour mixing mode	step
						50-59	Colour calibration mode On	step
						60-69	Colour calibration mode Off	step
						70-89	Reserved	
						90-99	Dimmer curve: linear	step
						100-109	Dimmer curve: square law	step
						110-119	White counting On	step
						120-129	White counting Off	step
							<i>To activate following functions, stop in DMX value for at least 3 seconds. Corresponding menu items are temporarily overridden.</i>	
							The following function allows you to fine change of PWM output frequency of LEDs in 18 levels Up and Down around the selected PWM frequency (Standard, High) in the table below.	
						130	LED Frequency (step -18)	step
						131	LED Frequency (step -17)	step
						132	LED Frequency (step -16)	step
						133	LED Frequency (step -15)	step
						134	LED Frequency (step -14)	step
						135	LED Frequency (step -13)	step
						136	LED Frequency (step -12)	step
						137	LED Frequency (step -11)	step
						138	LED Frequency (step -10)	step
						139	LED Frequency (step -9)	step
						140	LED Frequency (step -8)	step
						141	LED Frequency (step -7)	step
						142	LED Frequency (step -6)	step
						143	LED Frequency (step -5)	step
						144	LED Frequency (step -4)	step
						145	LED Frequency (step -3)	step
						146	LED Frequency (step -2)	step
						147	LED Frequency (step -1)	step
						148	LED Frequency (Standard or High)	step

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1	2	3	4	5	6			
						149	LED Frequency (step +1)	step
						150	LED Frequency (step +2)	step
						151	LED Frequency (step +3)	step
						152	LED Frequency (step +4)	step
						153	LED Frequency (step +5)	step
						154	LED Frequency (step +6)	step
						155	LED Frequency (step +7)	step
						156	LED Frequency (step +8)	step
						157	LED Frequency (step +9)	step
						158	LED Frequency (step +10)	step
						159	LED Frequency (step +11)	step
						160	LED Frequency (step +12)	step
						161	LED Frequency (step +13)	step
						162	LED Frequency (step +14)	step
						163	LED Frequency (step +15)	step
						164	LED Frequency (step +16)	step
						165	LED Frequency (step +17)	step
						166	LED Frequency (step +18)	step
						167-169	Reserved	
						170-174	PWM output frequency of LEDs: Standard (300Hz)*	step
						175-179	PWM output frequency of LEDs: High (600Hz)*	step
							* You can adjust selected frequency in 18 steps Up or Down around selected frequency. Default value of PWM frequency set in the fixture is Standard.	
						180-255	Reserved	
<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	*	*		<b>Red/Cyan (8 bit)- all pixels</b>	
						0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
<b>3</b>	*	<b>3</b>	<b>3</b>	*	*		<b>Red/Cyan (16bit)- all pixels</b>	
						0 - 255	Colour saturation control - fine (255=default)	proportional
<b>4</b>	<b>3</b>	<b>4</b>	<b>4</b>	*	*		<b>Green/Magenta (8 bit) - all pixels</b>	
						0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
<b>5</b>	*	<b>5</b>	<b>5</b>	*	*		<b>Green/Magenta (16bit) - all pixels</b>	
						0 - 255	Colour saturation control - fine (255=default)	proportional
<b>6</b>	<b>4</b>	<b>6</b>	<b>6</b>	*	*		<b>Blue/Yellow (8 bit) - all pixels</b>	
						0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
<b>7</b>	*	<b>7</b>	<b>7</b>	*	*		<b>Blue/ Yellow (16bit) -all pixels</b>	
						0 - 255	Colour saturation control - fine (255=default)	proportional
<b>8</b>	<b>5</b>	<b>8</b>	<b>8</b>	*	*		<b>White (8 bit) - all pixels</b>	
							<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	
<b>9</b>	*	<b>9</b>	<b>9</b>	*	*		<b>White (16 bit) - all pixels</b>	
						0 - 255	Colour saturation control - fine (255=default)	proportional
<b>10</b>	<b>6</b>	<b>10</b>	<b>10</b>	*	*		<b>CTO (all pixels)</b>	
						0	No function (0=255)	
						1-255	Colour temperature correction	proportional
<b>11</b>	<b>7</b>	<b>11</b>	<b>11</b>	*	*		<b>Virtual colour wheel - all pixels</b>	

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1	2	3	4	5	6			
						0	No function (0=default)	step
						1-2	White 2700 K	step
						3	White 2700 K (tungsten emulation)*	step
						4-5	White 3200 K	step
						6	White 3200 K (tungsten emulation)*	step
						7-9	White 4200 K	step
						10-12	White 5600 K	step
						13-15	White 8000 K	step
						16	<b>Blue</b> (Blue=full, Red+Green+White=0)	step
						17-55	Red=0, Green→ up, Blue =full, White=0	proportional
						56	<b>Light Blue</b> (Red=0, Green=full, Blue =full, white=0)	step
						57 - 95	Red=0, Green=full, Blue→ down, White=0	proportional
						96	<b>Green</b> (Red=0, Green=full, Blue =0, White=0)	step
						97 – 134	Red → up, Green=full, Blue=0, White=0	proportional
						135	<b>Yellow</b> (Red=full, Green=full, Blue=0,White=0)	step
						136 - 174	Red=full, Green→ down, Blue=0, White=0	proportional
						175	<b>Red</b> (Red=full, Green=0, Blue=0, White=0)	step
						176 -214	Red=full, Green=0, Blue→ up, White=0	proportional
						215	<b>Magenta</b> (Red=full, Green=0, Blue=full, White=0)	step
						216 - 246	Red→ down, Green=0, Blue=full, White=0	proportional
						247	<b>Blue</b> (Red=0, Green=0, Blue=full, White=0)	step
						248-251	Rainbow effect( with fade time) from min.->max. speed	proportional
						252-255	Rainbow effect(without fade time)from min.->max.speed	proportional
<b>12</b>	<b>8</b>	<b>12</b>	<b>12</b>	<b>*</b>	<b>*</b>		<b>Pixel effects</b>	
						0-2	No function (0=default)	
						3-4	Effect 1	step
						5-6	Effect 2	step
						:	:	:
						181-182	Effect 90	step
						183-255	Reserved	
<b>13</b>	<b>9</b>	<b>13</b>	<b>13</b>	<b>*</b>	<b>*</b>		<b>Pixel effects speed</b>	
						0-63	Speed from min. —>max. without fade time (0=default)	proportional
						64-127	Speed from max. —>min. without fade time (op. direction)	proportional
						128-191	Speed from min. —>max. with fade time	proportional
						192-255	Speed from max. —>min. with fade time (op. direction)	proportional
<b>14</b>	<b>10</b>	<b>14</b>	<b>14</b>	<b>2</b>	<b>*</b>		<b>Shutter/ strobe - all pixels</b>	
						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
<b>15</b>	<b>11</b>	<b>15</b>	<b>15</b>	<b>*</b>	<b>*</b>		<b>Dimmer intensity (8 bit) -all pixels</b>	
						0 - 255	Dimmer intensity from 0% to 100% (0=default)	proportional
<b>16</b>	<b>*</b>	<b>16</b>	<b>16</b>	<b>*</b>	<b>*</b>		<b>Dimmer intensity fine (16 bit) -all pixels</b>	

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Mode/channel						DMX Value	Function	Type of control
1	2	3	4	5	6			
						0 - 255	Fine dimming (0=default)	proportional
*	*	17	17	3	1		<b>Red pixel 1</b>	
						0-255	Red LED saturation control 0-100% (0=default)	proportional
*	*	18	18	4	2		<b>Green pixel 1</b>	
						0-255	Green LED saturation control 0-100% (0=default)	proportional
*	*	19	19	5	3		<b>Blue pixel 1</b>	
						0-255	Blue LED saturation control 0-100% (0=default)	proportional
*	*	*	20	*	*		<b>Dimmer 1</b>	
						0-255	Dimmer intensity control 0-100% (0=default)	proportional
							:	
*	*	59	73	45	43		<b>Red pixel 15</b>	
						0-255	Red LED saturation control 0-100% (0=default)	proportional
*	*	60	74	46	44		<b>Green pixel 15</b>	
						0-255	Green LED saturation control 0-100% (0=default)	proportional
*	*	61	75	47	45		<b>Blue pixel 15</b>	
						0-255	Blue LED saturation control 0-100% (0=default)	proportional
*	*	*	76	*	*		<b>Dimmer 15</b>	
						0-255	Dimmer intensity control 0-100% (0=default)	proportional
* In the Tungsten effect simulation the Dimmer channel imitates behaviour of the halogen lamp during dimming								
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