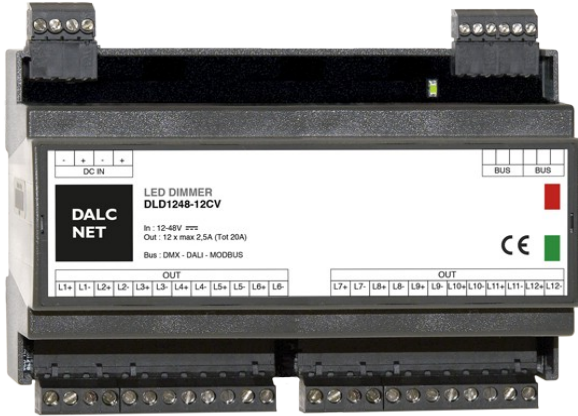




**FEATURES**

- Output: 12 channels
- BUS+SEQUENCER+FADER+DIMMER+DRIVER
- Input: DC 12/24/48 Vdc (Supply voltage range 10,8Vdc – 53,5Vdc)
- BUS Command: DMX512-A+RDM, DALI, MODBUS
- Controls: Dimmer, Dim to Warm, Tunable White, RGB, RGBW
- Voltage output for R-L-C loads
- Typical efficiency > 95%
- Variation of the CCT to warm white with decreasing light intensity (Dim to Warm)
- In RGB and RGBW mode it is possible to group the colors and manage them independently
- Adjusting the brightness up to completed off (Dim to Dark)
- Level minimum of brightness: 0.1% (1% in push)
- D-PWM Modulation
- Adjusting D-PWM frequency: 300 / 600 / 1200 Hz
- Adjusting output curve: Linear / Quadratic / Exponential
- Soft start and soft stop
- Soft dimming regulation
- Extended temperature range
- 100% Functional test – 5 Years warranty



→ For the whole and updated Device Manual refer to producer's website: <http://www.dalcnet.com>

**Constant voltage variants (Common anode)**

- Application (12 – channels output): Dimmer, Dim to Dark, Dim to Warm, Tunable White, RGB, RGBW

CODE	Power Supply	Output	Channels	Command	
DLD1248-12CV-DMX	12/24/48V DC	1x20A max	12	DMX	PROFESSIONAL
		12x2A (max 20A tot)			
DLD1248-12CV-MODBUS	12/24/48V DC	1x20A max	12	MODBUS RTU	PROFESSIONAL
		12x2A (max 20A tot)			
DLD1248-12CV-DALI	12/24/48V DC	1x20A max	12	DALI	PROFESSIONAL
		12x2A (max 20A tot)			

**Protections**

<b>OTP</b>	Over temperature protection (**)
<b>OVP</b>	Over voltage protection
<b>UVP</b>	Under voltage protection
<b>RVP</b>	Reverse polarity protection (*)
<b>IFP</b>	Input fuse protection (*)
<b>SCP</b>	Short circuit protection
<b>OCP</b>	Open circuit protection
<b>CLP</b>	Current limit protection

(\*) Protection on the control's logic

(\*\*) Protection on the outputs

## Reference Standards

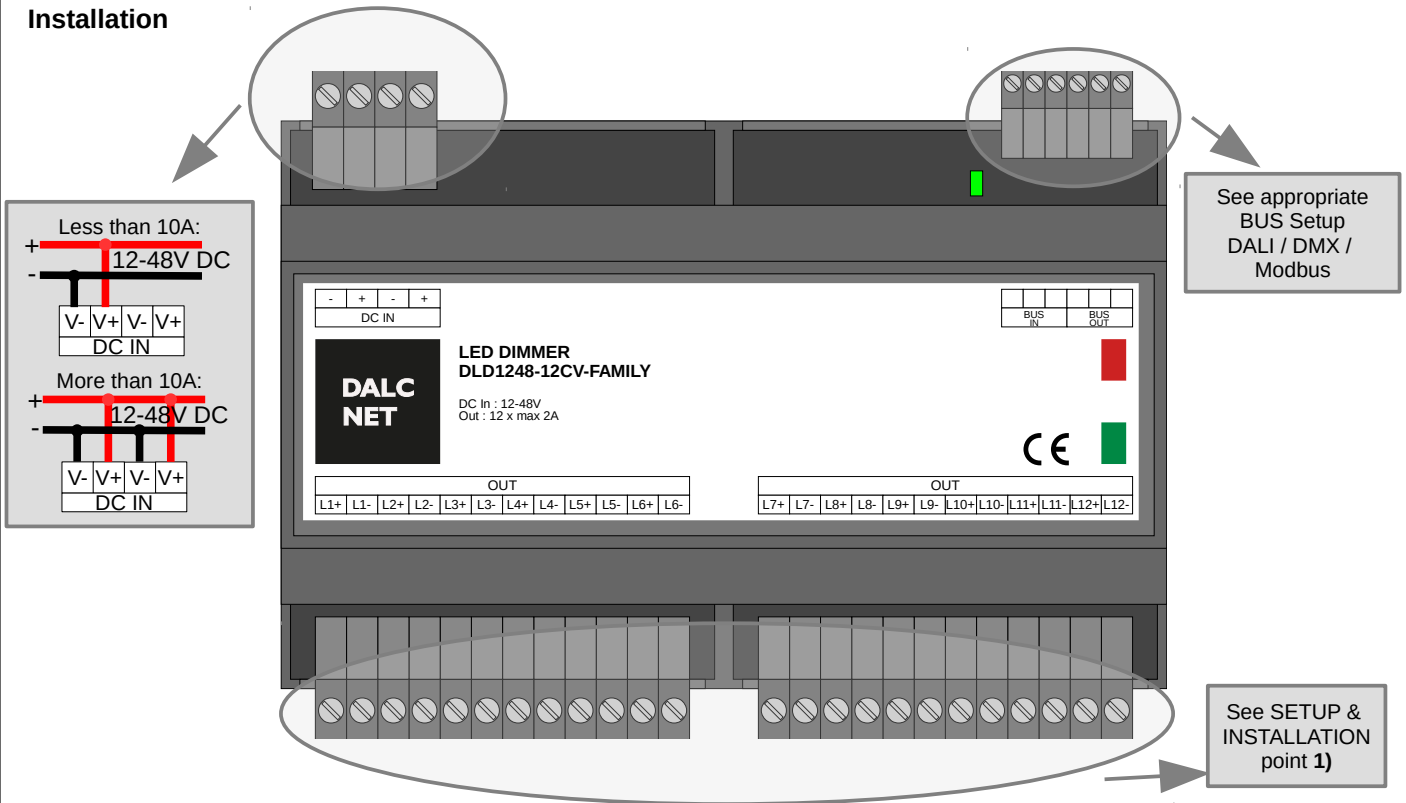
EN 61347-1:2008 +A1:2011+A2:2013	Lamp controlgear - Part 1: General and safety requirements
EN 61000-3-2:2014	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current $\leq 16$ A per phase)
EN 61000-3-3:2013	Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current $\leq 16$ A per phase and not subject to conditional connection
EN 62384:2006+A1:2009	DC or AC supplied electronic control gear for LED modules - Performance requirements
EN 55015:2013+A1:2015	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment
EN 61547:2009	Equipment for general lighting purposes - EMC immunity requirements
EN 50581:2012	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances
IEC/EN 62386-101	Digital addressable lighting interface - Part 101: General requirements - System
IEC/EN 62386-102	Digital addressable lighting interface - Part 102: General requirements - Control gear
IEC/EN 62386-207	Digital addressable lighting interface - Part 207: Particular requirements for control gear - LED modules (device type 6)
ANSI E1.11	Entertainment Technology - USITT DMX512-A - Asynchronous Serial Digital Data Transmission Standard for Controlling Lighting Equipment and Accessories
ANSI E1.20	Entertainment Technology-RDM-Remote Device Management over USITT DMX512 Networks
-	MODBUS APPLICATION PROTOCOL SPECIFICATION V1.1b

## Technical Specification

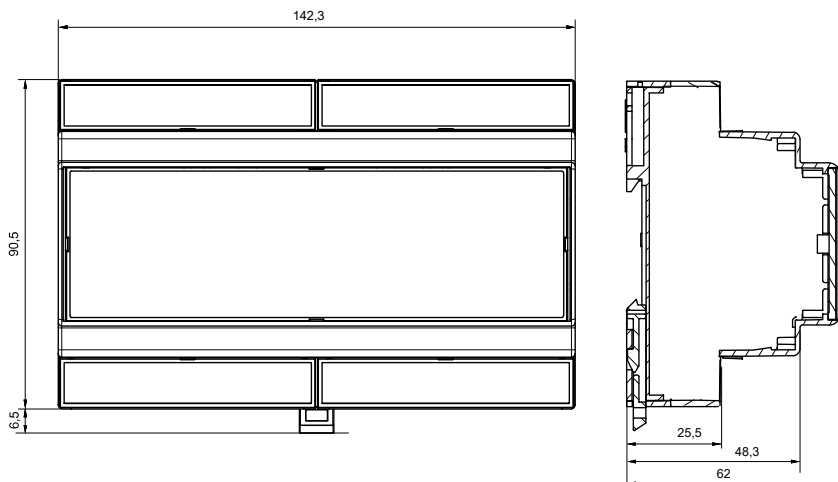
		Variants	
		Constant voltage	
Supply voltage	DC min: 10.8 Vdc .. max: 53,5 Vdc		
Output voltage	= Vin		
Input current	max 20A		
Output current	12x max 2 A <sup>3)</sup> (max 20A tot.)		1x max 20 A <sup>3)</sup> (12 parallel channels)
Nominal power <sup>3)</sup>	@12V	24 W/ch	240 Wtot
	@24V	48 W/ch	480 Wtot
	@48V	96 W/ch	960 Wtot
Thermal shutdown	150 °C		
D-PWM dimming frequency	300Hz / 600Hz / 1200Hz		
D-PWM resolution	16 bit		
D-PWM range	0,1% - 100%		
Storage Temperature	min: -40 max: +60 °C		
Ambient Temperature <sup>3)</sup>	min: -40 max: +60 °C		
Protection grade	IP10		
Wiring Button & Bus	1.5 mm <sup>2</sup> solid - 1 mm <sup>2</sup> stranded - 30/14 AWG		
Wiring Power & Leds	2.5mm <sup>2</sup> solid - 1.5mm <sup>2</sup> stranded - 30/12 AWG		
Mechanical dimensions	143 x 91 x 62 mm - DIN RAIL 8M		
Packaging dimensions	156 x 124 x 71 mm		
Weight	205g		

<sup>3)</sup> maximum value, dependent on the ventilation conditions

**Installation**

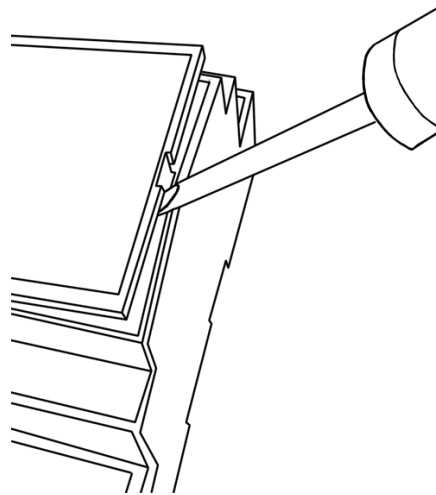


**Mechanical dimension:**  
 (without connectors)



## Opening the cover

For the Dip-switch and selectors configuration it is necessary to pull up the cover of the device. See the picture.



## Technical Notes

### Installation:

- Installation and maintenance must be performed only by qualified personnel in compliance with current regulations.
- The product must be installed inside an electrical panel protected against overvoltages.
- The product must be installed in a vertical or horizontal position with the cover / label upwards or vertically; other positions are not permitted. It is not permitted the bottom-up position (with the lower face plate / label).
- Keep separate the 230V circuits (LV) and not SELV circuits from safety extra low voltage (SELV) and all connections for this product. It's absolutely forbidden to connect, for any reason, directly or indirectly, the 230V mains voltage to the bus or to other parts of the circuit.

### Power Supply:

- For power supply use only SELV power supplies with limited current and short circuit protection, and of appropriately sized power. In case of power supplies provided with an earth terminal, ALL protective earthing points (PE = Protection Earth) must be connected to a valid protection earth.
- The connection cables between the power source and the product must be sized properly and should be isolated from any wiring or live parts not SELV. Use double insulated cables.
- In the event of higher than 10A total output current to plug into both power input pairs "V +" and "V-".
- Dimension the power supply for the load connected to the device. If the power supply is oversized compared to the maximum running current, insert a protection against over-current between the power supply and the device.

### Command:

- The length and type of the bus cables (DMX512, Modbus, DALI or other) must comply with the specifications defined by the respective protocols and the respective regulations; They should be isolated from any wiring or live parts not SELV. Use shielded cables and twisted double insulation.
- All devices and related control signals to the bus (DMX512, Modbus, DALI or other) must be SELV (connected devices must be SELV or otherwise provide a SELV signal).

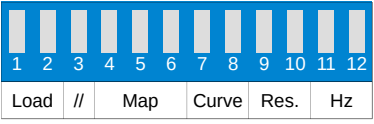
### Outputs:

- The length of the connecting cables between the product and the LED modules must be less than 10m; the cables must be sized properly and should be isolated from any wiring or live parts not SELV. Use shielded cables and twisted double insulation.

## ■ SETUP & INSTALLATION

A 12 way dip-switch (under the cover) can provide a rich set of possible configurations:


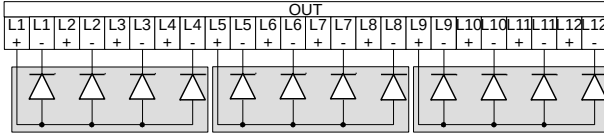
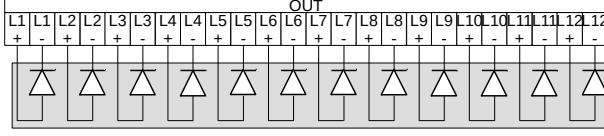


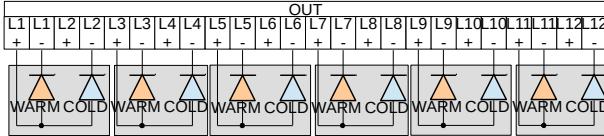
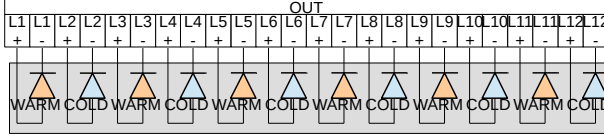


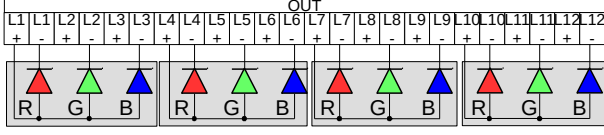
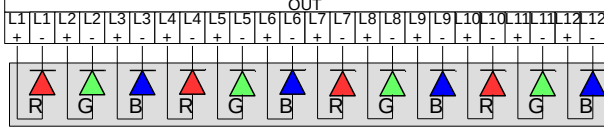


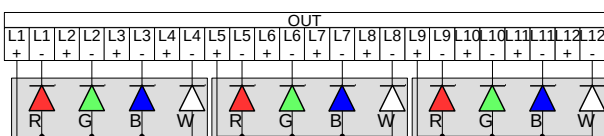
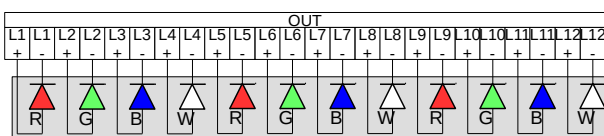

Note: Factory positions = all OFF

Function		<ul style="list-style-type: none"> <li>Switches da 1 to 2:</li> <li>Switch 3:</li> <li>Switches da 4 to 6:</li> <li>Switches da 7 to 8:</li> <li>Switches da 9 to 10:</li> <li>Switches da 11 to 12:</li> </ul>	<p><b>Load Type</b>  <b>Parallel outputs</b>  <b>Map</b>  <b>Curve</b>  <b>Reserved</b>  <b>Output frame rate (freq.)</b></p>																								
	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td>Load</td><td>//</td><td>Map</td><td>Curve</td><td>Res.</td><td>Hz</td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>	1	2	3	4	5	6	7	8	9	10	11	12	Load	//	Map	Curve	Res.	Hz								
1	2	3	4	5	6	7	8	9	10	11	12																
Load	//	Map	Curve	Res.	Hz																						

1) Select Load Type and Management of Independent channels: Switches from 1 to 2. Dip 3 set to OFF.


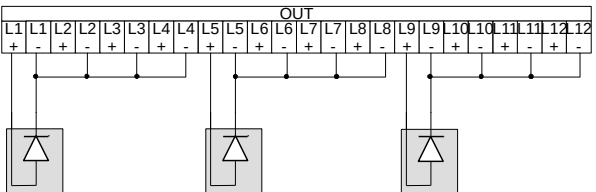
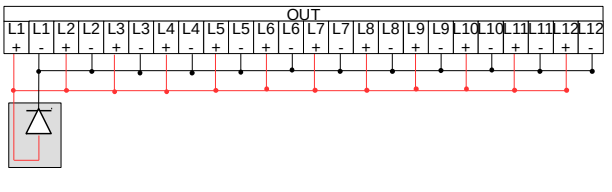


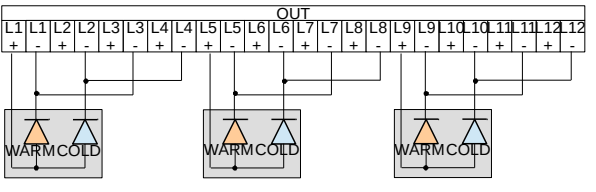
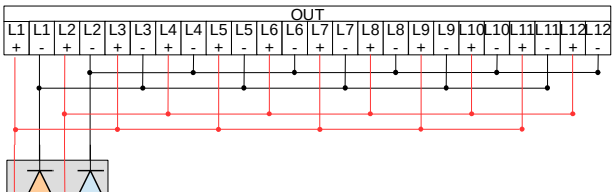


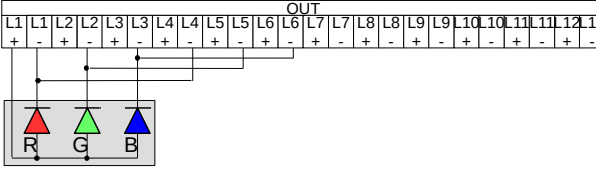
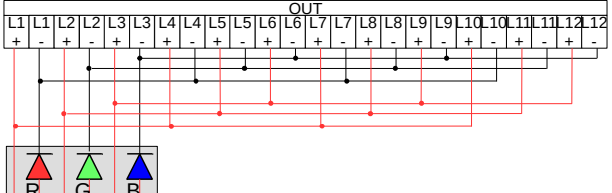


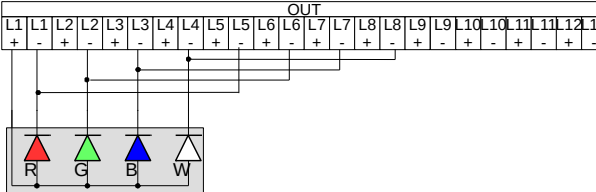
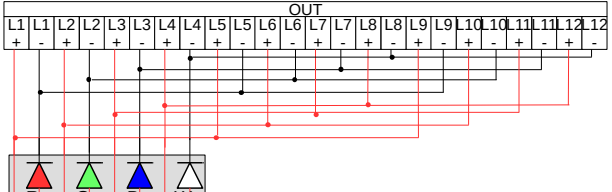

To manage independently channels, the Switch DIP 3 must be set to OFF:



Load Type	Output connection at common anode(*)	Output connection on 12 independent anode (current tot. 0 - 20A max)	DIP
 White			
 Tunable White			
 RGB			
 RGBW			


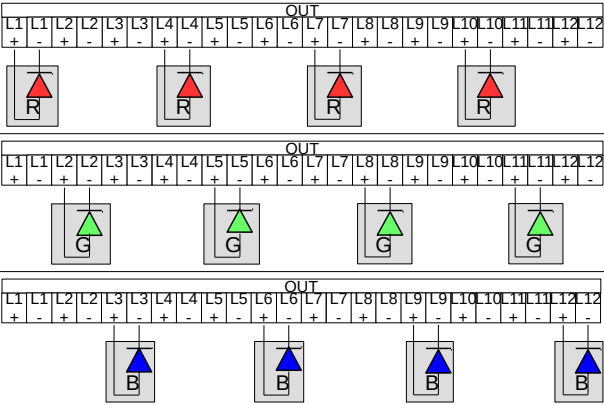
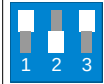

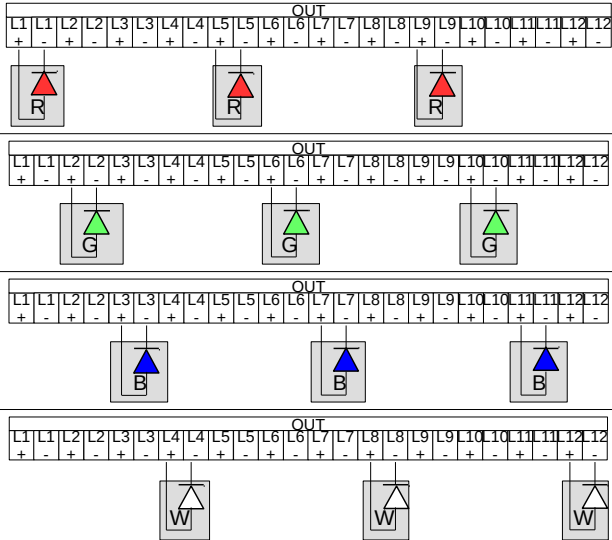
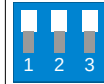
(\*)NOTE: The connection at common anode must not exceed 10A.

Select Load Type and Parallel Out depending on output connections: Switches from 1 to 2. **Dip 3 set to ON**

























Load Type	Output connection at common anode(*)	Output connection on independent anode (current tot. 0 - 20A max)	DIP
			
			
			
			

**NOTE:** With this setting it is possible to connect parallel out to get higher output current (Macro Dimmer). The connection at common anode must not exceed 10A. If you connect a higher load than 10A it is possible to connect all the negative outputs and positive output to get only one channel with more current intensity (depending on the current required) see the "Output connection on independent anode" column. The maximum current output is 20A.





**In RGB and RGBW functions is possible to control all RED channels or all Green channels or all Blue channels or all White channels synchronously**

Function	Control	Diagram	DIP
RGB Function 	Synchronous control of single colors R, G e B		
RGBW Function 	Synchronous control of single colors R, G, B e W		

2) Select Map: Switches from 4 to 6





White Load	Tunable White Load	RGB Load	RGBW Load
			
Dimmer 	Dimmer 	Dimmer 	Dimmer 
	Dim to Warm 	Dim to Warm 	Dim to Warm 
	Tunable White 	Tunable White 	Tunable White 
		Smart HSV Intensity, temperature correction, color hue & rotation, saturation and strobe 	Smart HSV Intensity, temperature correction, color hue & rotation, saturation and strobe 
		RGB 	RGB Convert RGB -> RGBW 
		RGBW Convert RGBW -> RGB 	RGBW 
		Master+RGB+Strobe 	Master+RGB+Strobe Convert RGB -> RGBW 
		Master+RGBW+Strobe Convert RGBW -> RGB 	Master+RGBW+Strobe 

3) Select Dimming Curve: Switches from 7 to 8

Default (by bus type) 	Exponential 	Quadratic 	Linear 
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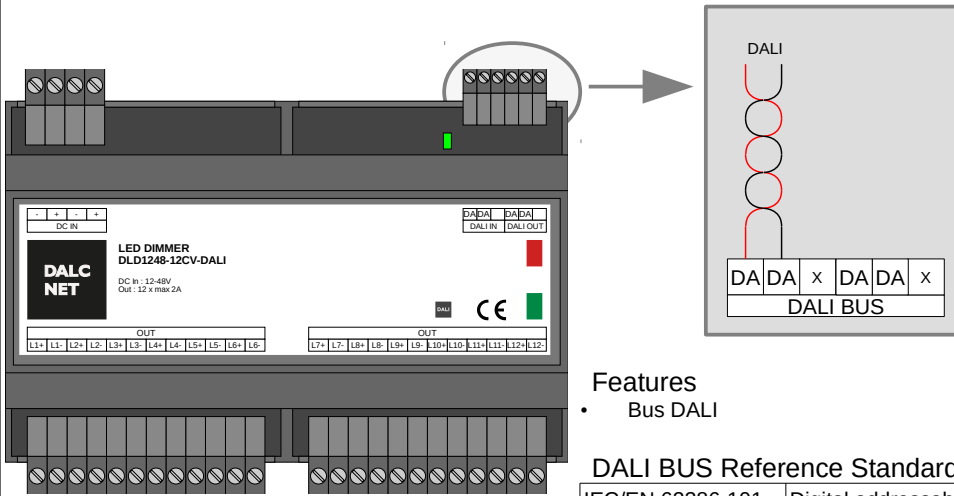
4) Switches da 9 a 10: Configuration Reserved

5) Set output Frequency: Switches from 11 to 12

300Hz 	600Hz 	1200Hz 	Reserved 
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## ■ DALI BUS SETUP

In **DALI BUS SETUP** all the leds are controlled by an external DALI controller.



- Features
- Bus DALI

### DALI BUS Reference Standards



IEC/EN 62386-101	Digital addressable lighting interface - Part 101: General requirements - System
IEC/EN 62386-102	Digital addressable lighting interface - Part 102: General requirements - Control gear
IEC/EN 62386-207	Digital addressable lighting interface - Part 207: Particular requirements for control gear - LED modules (device type 6)

### Onboard led:

- In the case of no bus power detected, or bus error, the led blinks fast (2 pulsed per second).
- In the case of bus power but no data, led blinks slow (1 pulse per second).
- In the case of data link active, the led stands on.

### Addressing

By selectors	✓
Simplified method (One ballast connected at a time)	✓
Random Address Allocation	✓

DALI	000 (default):		Address defined by DALI
	from 001	 to 064	First channel address, form 0 to 63



CHANNELS MAP – DALI

**MAP: DIMMER**

MAP	Function	
DIMMER	Dimmer	Dimmer (Brightness Value) 0 .. 254

**ASSIGNMENT ADDRESSES DEPENDING ON TYPE OF LOAD: White, Tunable White, RGB and RGBW**



**Management of single channel (DIP 3 set to "OFF")**

Addr	Function	OUT	Addr	Function	OUT	Addr	Function	OUT	Addr	Function	OUT
+0	Dimmer	CH 1	+0	Dimmer	CH 1-2	+0	Dimmer	CH 1-3	+0	Dimmer	CH 4
+1	Dimmer	CH 2	+1	Dimmer	CH 3-4	+1	Dimmer	CH 4-6	+1	Dimmer	CH 8
+2	Dimmer	CH 3	+2	Dimmer	CH 5-6	+2	Dimmer	CH 7-9	+2	Dimmer	CH 12
+3	Dimmer	CH 4	+3	Dimmer	CH 7-8	+3	Dimmer	CH 10-12			
+4	Dimmer	CH 5	+4	Dimmer	CH 9-10						
+5	Dimmer	CH 6	+5	Dimmer	CH 11-12						
+6	Dimmer	CH 7									
+7	Dimmer	CH 8									
+8	Dimmer	CH 9									
+9	Dimmer	CH 10									
+10	Dimmer	CH 11									
+11	Dimmer	CH 12									

**Management of parallel channels (DIP 3 set to "ON")**

Addr	Function	OUT	Addr	Function	OUT	Addr	Function	OUT	Addr	Function	OUT
+0	Dimmer	ALL CH	+0	Dimmer	ALL CH	+0	Dimmer	ALL CH	+0	Dimmer	CH 4,8,12

## MAP: DIM TO WARM

MAP	Function
DIM TO WARM	Dim to Warm

Dimmer (Brightness Value)  
0 .. 254

### ASSIGNMENT ADDRESSES DEPENDING ON TYPE OF LOAD: Tunable White, RGB and RGBW

		
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#### Management of single channel (DIP 3 set to "OFF")

Addr	Function	OUT	Addr	Function	OUT	Addr	Function	OUT
+0	Dim to Warm	CH 1-2	+0	Dim to Warm	CH 1,2,3	+0	Dim to Warm	CH 1,2,3,4
+1	Dim to Warm	CH 3-4	+1	Dim to Warm	CH 4,5,6	+1	Dim to Warm	CH 5,6,7,8
+2	Dim to Warm	CH 5-6	+2	Dim to Warm	CH 7,8,9	+2	Dim to Warm	CH 9,10,11,12
+3	Dim to Warm	CH 7-8	+3	Dim to Warm	CH 10,11,12			
+4	Dim to Warm	CH 9-10						
+5	Dim to Warm	CH 11-12						

#### Management of parallel channels (DIP 3 set to "ON")

Addr	Function	OUT	Addr	Function	OUT	Addr	Function	OUT
+0	Dim to Warm	ALL CH	+0	Dim to Warm	ALL CH	+0	Dim to Warm	ALL CH

**MAP: TUNABLE WHITE**

MAPPA	FUNCTION	
TUNABLE WHITE	Dimmer	Dimmer (Brightness Value) 0 .. 254
	CCT	Color Correction Temperature 0 .. 254 (Value 127 Natural White)

**ASSIGNMENT ADDRESSES DEPENDING ON TYPE OF LOAD: Tunable White, RGB and RGBW**

		
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**Management of single channel (DIP 3 set to "OFF")**

Addr	Function	OUT	Addr	Function	OUT	Addr	Function	OUT
+0	Dimmer	CH 1-2	+0	Dimmer	CH 1-3	+0	Dimmer	CH 1-4
+1	CCT	CH 1-2	+1	CCT	CH 1-3	+1	CCT	CH 1-4
+2	Dimmer	CH 3-4	+2	Dimmer	CH 4-6	+2	Dimmer	CH 5-8
+3	CCT	CH 3-4	+3	CCT	CH 4-6	+3	CCT	CH 5-8
+4	Dimmer	CH 5-6	+4	Dimmer	CH 7-9	+4	Dimmer	CH 9-12
+5	CCT	CH 5-6	+5	CCT	CH 7-9	+5	CCT	CH 9-12
+6	Dimmer	CH 7-8	+6	Dimmer	CH 10-12			
+7	CCT	CH 7-8	+7	CCT	CH 10-12			
+8	Dimmer	CH 9-10						
+9	CCT	CH 9-10						
+10	Dimmer	CH 11-12						
+11	CCT	CH 11-12						

**Management of parallel channels (DIP 3 set to "ON")**



Addr	Function	OUT	Addr	Function	OUT	Addr	Function	OUT
+0	Dimmer	ALL CH	+0	Dimmer	ALL CH	+0	Dimmer	ALL CH
+1	CCT	ALL CH	+1	CCT	ALL CH	+1	CCT	ALL CH

**MAP: SMART HSV**



MAPPA	Function															
Smart HSV	Master Dimmer	Master Dimmer (Brightness Value) 0 .. 254														
	Color Correction	Color Temperature Correction 0 .. 254														
	Hue	Hue 0 .. 254														
	Hue Rotation (rainbow) Time	Stop 0 ... 25	3s 26 .. 51	6s 52 .. 76	15s 77 .. 102	30s 103 .. 127	1' 128 .. 153	3' 154 .. 179	6' 180 .. 204	15' 205 .. 230	30' 231 .. 254					
		Hue Fine 0 .. 15	Hold 16..25													
	Saturation	Saturation 0 .. 254														
Strobo Rate	steady 0 .. 15	blackout 16 .. 31	1fps 32 .. 47	2fps 48 .. 63	3fps 64 .. 79	4fps 80 .. 95	5fps 96 .. 111	6fps 112..127	7fps 128..143	8fps 144..159	9fps 160..175	10fps 176..191	12fps 192..207	14fps 208..223	16fps 224..239	steady 240..254

**ASSIGNMENT ADDRESSES DEPENDING ON TYPE OF LOAD: RGB and RGBW**


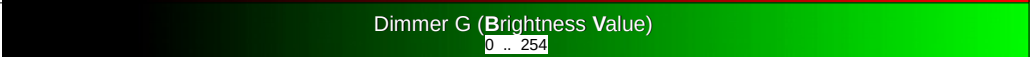

Management of single channel (DIP 3 set to "OFF")

RGB 			RGBW 		
Addr	Function	OUT	Addr	Function	OUT
+0	DIMMER	CH 1,2,3	+0	DIMMER	CH 1,2,3,4
+1	CCT	CH 1,2,3	+1	CCT	CH 1,2,3,4
+2	HUE	CH 1,2,3	+2	HUE	CH 1,2,3,4
+3	Rainbow	CH 1,2,3	+3	Rainbow	CH 1,2,3,4
+4	Saturation	CH 1,2,3	+4	Saturation	CH 1,2,3,4
+5	Strobo	CH 1,2,3	+5	Strobo	CH 1,2,3,4
+6	DIMMER	CH 4,5,6	+6	DIMMER	CH 5,6,7,8
+7	CCT	CH 4,5,6	+7	CCT	CH 5,6,7,8
+8	HUE	CH 4,5,6	+8	HUE	CH 5,6,7,8
+9	Rainbow	CH 4,5,6	+9	Rainbow	CH 5,6,7,8
+10	Saturation	CH 4,5,6	+10	Saturation	CH 5,6,7,8
+11	Strobo	CH 4,5,6	+11	Strobo	CH 5,6,7,8
+12	DIMMER	CH 7,8,9	+12	DIMMER	CH 9,10,11,12
+13	CCT	CH 7,8,9	+13	CCT	CH 9,10,11,12
+14	HUE	CH 7,8,9	+14	HUE	CH 9,10,11,12
+15	Rainbow	CH 7,8,9	+15	Rainbow	CH 9,10,11,12
+16	Saturation	CH 7,8,9	+16	Saturation	CH 9,10,11,12
+17	Strobo	CH 7,8,9	+17	Strobo	CH 9,10,11,12
+18	DIMMER	CH 10,11,12			
+19	CCT	CH 10,11,12			
+20	HUE	CH 10,11,12			
+21	Rainbow	CH 10,11,12			
+22	Saturation	CH 10,11,12			
+23	Strobo	CH 10,11,12			





Management of parallel channels (DIP 3 set to "ON")

RGB 			RGBW 		
Addr	Function	OUT	Addr	Function	OUT
+0	DIMMER	ALL CH	+0	DIMMER	ALL CH
+1	CCT	ALL CH	+1	CCT	ALL CH
+2	HUE	ALL CH	+2	HUE	ALL CH
+3	Rainbow	ALL CH	+3	Rainbow	ALL CH
+4	Saturation	ALL CH	+4	Saturation	ALL CH
+5	Strobo	ALL CH	+5	Strobo	ALL CH


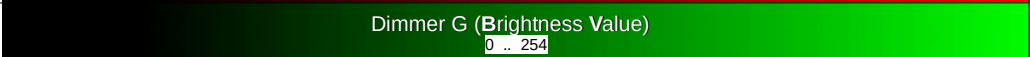


**MAP: RGB**

MAP	Function
RGB	R  Dimmer R (Brightness Value) 0 .. 254
	G  Dimmer G (Brightness Value) 0 .. 254
	B  Dimmer B (Brightness Value) 0 .. 254





**ASSIGNMENT ADDRESSES DEPENDING ON TYPE OF LOAD: RGB and RGBW**

Management of single channel (DIP 3 set to "OFF")						Management of parallel channels (DIP 3 set to "ON")					
RGB 			RGBW 			RGB 			RGBW 		
Addr	Function	OUT	Addr	Function	OUT	Addr	Function	OUT	Addr	Function	OUT
+0	R	CH 1	+0	R	CH 1	+0	R	CH 1,4,7,10	+0	R	CH 1,5,9
+1	G	CH 2	+1	G	CH 2	+1	G	CH 2,5,8,11	+1	G	CH 2,6,10
+2	B	CH 3	+2	B	CH 3	+2	B	CH 3,6,9,12	+2	B	CH 3,7,11
+3	R	CH 4	+3	R	CH 5						
+4	G	CH 5	+4	G	CH 6						
+5	B	CH 6	+5	B	CH 7						
+6	R	CH 7	+6	R	CH 9						
+7	G	CH 8	+7	G	CH 10						
+8	B	CH 9	+8	B	CH 11						
+9	R	CH 10									
+10	G	CH 11									
+11	B	CH 12									

**MAPPA: RGBW**

MAP	Function
RGBW	R  Dimmer R (Brightness Value) 0 .. 254
	G  Dimmer G (Brightness Value) 0 .. 254
	B  Dimmer B (Brightness Value) 0 .. 254
	W  Dimmer W (Brightness Value) 0 .. 254

**ASSIGNMENT ADDRESSES DEPENDING ON TYPE OF LOAD: RGB and RGBW**

Management of single channels (DIP 3 set to "OFF")						Management of parallel channels (DIP 3 set to "ON")					
 RGB			 RGBW			 RGB			 RGBW		
Addr	Function	OUT	Addr	Function	OUT	Addr	Function	OUT	Addr	Function	OUT
+0	R	CH 1	+0	R	CH 1	+0	R	CH 1,4,7,10	+0	R	CH 1,5,9
+1	G	CH 2	+1	G	CH 2	+1	G	CH 2,5,8,11	+1	G	CH 2,6,10
+2	B	CH 3	+2	B	CH 3	+2	B	CH 3,6,7,12	+2	B	CH 3,7,11
+3	W	CH 1-3	+3	W	CH 4	+3	W	CH TUTTI	+3	W	CH 4,8,12
+4	R	CH 4	+4	R	CH 5						
+5	G	CH 5	+5	G	CH 6						
+6	B	CH 6	+6	B	CH 7						
+7	W	CH 4-6	+7	W	CH 8						
+8	R	CH 7	+8	R	CH 9						
+9	G	CH 8	+9	G	CH 10						
+10	B	CH 9	+10	B	CH 11						
+11	W	CH 7-9	+11	W	CH 12						
+12	R	CH 10									
+13	G	CH 11									
+14	B	CH 12									
+15	W	CH 10-12									



**MAP: MRGB+**

MAP	Function	
MRGB+	Master Dimmer	Master Dimmer (Brightness Value) 0 .. 254
	R	Dimmer R (Brightness Value) 0 .. 254
	G	Dimmer G (Brightness Value) 0 .. 254
	B	Dimmer B (Brightness Value) 0 .. 254
	Strobo Rate	steady blackout 1fps 2fps 3fps 4fps 5fps 6fps 7fps 8fps 9fps 10fps 12fps 14fps 16fps steady

**ASSIGNMENT ADDRESSES DEPENDING ON TYPE OF LOAD: RGB and RGBW**

Management of single channels (DIP 3 set to "OFF")

RGB			RGBW		
Addr	Function	OUT	Addr	Function	OUT
+0	MASTER DIMMER	CH 1-3	+0	MASTER DIMMER	CH 1-3
+1	R	CH 1	+1	R	CH 1
+2	G	CH 2	+2	G	CH 2
+3	B	CH 3	+3	B	CH 3
+4	STROBO RATE	CH 1-3	+4	STROBO RATE	CH 1-3
+5	MASTER DIMMER	CH 4-6	+5	MASTER DIMMER	CH 5-7
+6	R	CH 4	+6	R	CH 5
+7	G	CH 5	+7	G	CH 6
+8	B	CH 6	+8	B	CH 7
+9	STROBO RATE	CH 4-6	+9	STROBO RATE	CH 5-7
+10	MASTER DIMMER	CH 7-9	+10	MASTER DIMMER	CH 9-11
+11	R	CH 7	+11	R	CH 9
+12	G	CH 8	+12	G	CH 10
+13	B	CH 9	+13	B	CH 11
+14	STROBO RATE	CH 7-9	+14	STROBO RATE	CH 9-11
+15	MASTER DIMMER	CH 10-12			
+16	R	CH 10			
+17	G	CH 11			
+18	B	CH 12			
+19	STROBO RATE	CH 10-12			

Management of parallel channels (DIP 3 set to "ON")

RGB			RGBW		
Addr	Function	OUT	Addr	Function	OUT
+0	MASTER DIMMER	ALL CH	+0	MASTER DIMMER	CH 1,2,3,5,6,7,9,10,11
+1	R	CH 1,4,7,10	+1	R	CH 1,5,9
+2	G	CH 2,5,8,11	+2	G	CH 2,6,10
+3	B	CH 3,6,9,12	+3	B	CH 3,7,11
+4	STROBO RATE	ALL CH	+4	STROBO RATE	CH 1,2,3,5,6,7,9,10,11

**MAP: MRGBW+**

MAP	Function	
MRGBW+	Master Dimmer	Master Dimmer (Brightness Value) 0 .. 254
	R	Dimmer R (Brightness Value) 0 .. 254
	G	Dimmer G (Brightness Value) 0 .. 254
	B	Dimmer B (Brightness Value) 0 .. 254
	W	Dimmer W (Brightness Value) 0 .. 254
	Strobo Rate	steady blackout 1fps 2fps 3fps 4fps 5fps 6fps 7fps 8fps 9fps 10fps 12fps 14fps 16fps steady

**ASSIGNMENT ADDRESSES DEPENDING ON TYPE OF LOAD**

Management of single channels (DIP 3 set to "OFF")						Management of parallel channels (DIP 3 set to "ON")					
RGB			RGBW			RGB			RGBW		
Addr	Function	OUT	Addr	Function	OUT	Addr	Function	OUT	Addr	Function	OUT
+0	MASTER DIMMER	CH 1-3	+0	MASTER DIMMER	CH 1-4	+0	MASTER DIMMER	ALL CH	+0	MASTER DIMMER	ALL CH
+1	R	CH 1	+1	R	CH 1	+1	R	CH 1,4,7,10	+1	R	CH 1,5,9
+2	G	CH 2	+2	G	CH 2	+2	G	CH 2,5,8,11	+2	G	CH 2,6,10
+3	B	CH 3	+3	B	CH 3	+3	B	CH 3,6,9,12	+3	B	CH 3,7,11
+4	W	CH 1-3	+4	W	CH 4	+4	W	CH TUTTI	+4	W	CH 4,8,12
+5	STROBO RATE	CH 1-3	+5	STROBO RATE	CH 1-4	+5	STROBO RATE	ALL CH	+5	STROBO RATE	ALL CH
+6	MASTER DIMMER	CH 4-6	+6	MASTER DIMMER	CH 5-8						
+7	R	CH 4	+7	R	CH 5						
+8	G	CH 5	+8	G	CH 6						
+9	B	CH 6	+9	B	CH 7						
+10	W	CH 4-6	+10	W	CH 8						
+11	STROBO RATE	CH 4-6	+11	STROBO RATE	CH 5-8						
+12	MASTER DIMMER	CH 7-9	+12	MASTER DIMMER	CH 9-12						
+13	R	CH 7	+13	R	CH 9						
+14	G	CH 8	+14	G	CH 10						
+15	B	CH 9	+15	B	CH 11						
+16	W	CH 7-9	+16	W	CH 12						
+17	STROBO RATE	CH 7-9	+17	STROBO RATE	CH 9-12						
+18	MASTER DIMMER	CH 10-12									
+19	R	CH 10									
+20	G	CH 11									
+21	B	CH 12									
+22	W	CH 10-12									
+23	STROBO RATE	CH 10-12									

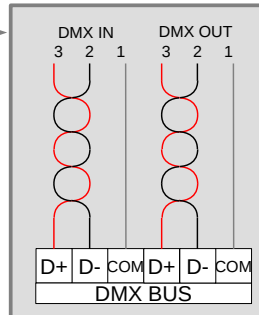
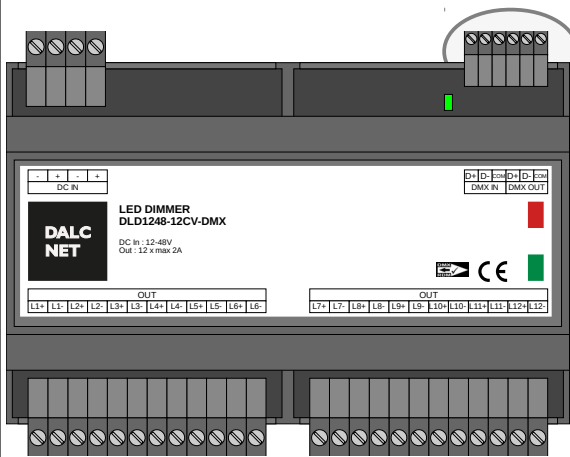




■ **DMX+RDM BUS SETUP**

With the **DMX+RDM BUS SETUP** in the “slave” condition the outputs are managed by an external DMX controller.

In the “master” condition, the DMX+RDM allows the communications between devices.



**Features**

- BUS DMX512-A +RDM

**DMX+RDM BUS Reference Standards**

ANSI E1.11	Entertainment Technology - USITT DMX512-A - Asynchronous Serial Digital Data Transmission Standard for Controlling Lighting Equipment and Accessories
ANSI E1.20	Entertainment Technology-RDM-Remote Device Management over USITT DMX512 Networks

**Technical Specifications**

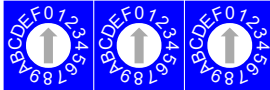


Standard DMX512-A+RDM
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**Onboard led:**

- In the case of bus error, the led blinks fast (2 pulsed per second).
- In the case of no bus detected, led blinks slow (1 pulse per second).
- In the case of data link active, the led stands on.

**Addressing:**

RDM	✓
By selectors	✓

DMX	000 (default):		Address defined by RDM
	from 001	 to 	First channel address, from 1 to 512

CHANNELS MAP – DMX512

**MAP: DIMMER**

MAP	FUNCTION
DIMMER	Dimmer Dimmer (Valore Intensità) 0 .. 255

**ASSIGNMENT ADDRESSES DEPENDING ON TYPE OF LOAD: White, Tunable White, RGB and RGBW**



**Management of single channels (DIP 3 set to "OFF")**

Ch	Function	OUT	Ch	Function	OUT	Ch	Function	OUT	Ch	Function	OUT
1	Dimmer	CH 1	1	Dimmer	CH 1-2	1	Dimmer	CH 1-3	1	Dimmer	CH 1-4
2	Dimmer	CH 2	2	Dimmer	CH 3-4	2	Dimmer	CH 4-6	2	Dimmer	CH 5-8
3	Dimmer	CH 3	3	Dimmer	CH 5-6	3	Dimmer	CH 7-9	3	Dimmer	CH 9-12
4	Dimmer	CH 4	4	Dimmer	CH 7-8	4	Dimmer	CH 10-12			
5	Dimmer	CH 5	5	Dimmer	CH 9-10						
6	Dimmer	CH 6	6	Dimmer	CH 11-12						
7	Dimmer	CH 7									
8	Dimmer	CH 8									
9	Dimmer	CH 9									
10	Dimmer	CH 10									
11	Dimmer	CH 11									
12	Dimmer	CH 12									

**Management of parallel channels (DIP 3 set to "ON")**

Ch	Function	OUT	Ch	Function	OUT	Ch	Function	OUT	Ch	Function	OUT
1	Dimmer	ALL CH	1	Dimmer	ALL CH	1	Dimmer	ALL CH	1	Dimmer	CH 4,8,12

**MAP: DIM TO WARM**

MAP	Function
DIM TO WARM	Dim to Warm Dimmer (Brightness Value) 0 .. 255

**ASSIGNMENT ADDRESSES DEPENDING ON TYPE OF LOAD: Tunable White, RGB and RGBW**



**Management of single channels (DIP 3 set to "OFF")**

Ch	Function	OUT	Ch	Function	OUT	Ch	Function	OUT
1	Dim to Warm	CH 1-2	1	Dim to Warm	CH 1,2,3	1	Dim to Warm	CH 1,2,3,4
2	Dim to Warm	CH 3-4	2	Dim to Warm	CH 4,5,6	2	Dim to Warm	CH 5,6,7,8
3	Dim to Warm	CH 5-6	3	Dim to Warm	CH 7,8,9	3	Dim to Warm	CH 9,10,11,12
4	Dim to Warm	CH 7-8	4	Dim to Warm	CH 10,11,12			
5	Dim to Warm	CH 9-10						
6	Dim to Warm	CH 11-12						



**Management of parallel channels (DIP 3 set to "ON")**

Ch	Function	OUT	Ch	Function	OUT	Ch	Function	OUT
1	Dim to Warm	ALL CH	1	Dim to Warm	ALL CH	1	Dim to Warm	ALL CH

## MAP: TUNABLE WHITE

MAP	Function	
TUNABLE WHITE	Dimmer	Dimmer (Brightness Value) 0 .. 255
	CCT	Color Correction Temperature 0 .. 255 (Value 127 Natural White)

### ASSIGNMENT ADDRESSES DEPENDING ON TYPE OF LOAD: Tunable White, RGB and RGBW

		
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#### Management of single channels (DIP 3 set to "OFF")

Ch	Function	OUT	Ch	Function	OUT	Ch	Function	OUT
1	Dimmer	CH 1-2	1	Dimmer	CH 1-3	1	Dimmer	CH 1-4
2	CCT	CH 1-2	2	CCT	CH 1-3	2	CCT	CH 1-4
3	Dimmer	CH 3-4	3	Dimmer	CH 4-6	3	Dimmer	CH 5-8
4	CCT	CH 3-4	4	CCT	CH 4-6	4	CCT	CH 5-8
5	Dimmer	CH 5-6	5	Dimmer	CH 7-9	5	Dimmer	CH 9-12
6	CCT	CH 5-6	6	CCT	CH 7-9	6	CCT	CH 9-12
7	Dimmer	CH 7-8	7	Dimmer	CH 10-12			
8	CCT	CH 7-8	8	CCT	CH 10-12			
9	Dimmer	CH 9-10						
10	CCT	CH 9-10						
11	Dimmer	CH 11-12						
12	CCT	CH 11-12						

#### Management of parallel channels (DIP 3 set to "ON")



Ch	Function	OUT	Ch	Function	OUT	Ch	Function	OUT
1	Dimmer	ALL CH	1	Dimmer	ALL CH	1	Dimmer	ALL CH
2	CCT	ALL CH	2	CCT	ALL CH	2	CCT	ALL CH

**MAP: SMART HSV**



MAP	Function															
Smart HSV	Master Dimmer	Master Dimmer (Brightness Value) 0 .. 255														
	Color Correction	Color Temperature Correction 0 .. 255														
	Hue	Hue 0 .. 255														
	Hue Rotation (rainbow) Time	Stop 0 ... 25	3s 26 .. 51	6s 52 .. 76	15s 77 .. 102	30s 103 .. 127	1' 128 .. 153	3' 154 .. 179	6' 180 .. 204	15' 205 .. 230	30' 231 .. 255					
		Hue Fine 0 .. 15	Hold 16 .. 25													
	Saturation	Saturation 0 .. 255														
Strobo Rate	steady 0 .. 15	blackout 16 .. 31	1fps 32 .. 47	2fps 48 .. 63	3fps 64 .. 79	4fps 80 .. 95	5fps 96 .. 111	6fps 112..127	7fps 128..143	8fps 144..159	9fps 160..175	10fps 176..191	12fps 192..207	14fps 208..223	16fps 224..239	steady 240..255

**ASSIGNMENT ADDRESSES DEPENDING ON TYPE OF LOAD: RGB and RGBW**

Management of single channels (DIP 3 set to "OFF")

RGB 			RGBW 		
Ch	Function	OUT	Ch	Function	OUT
1	DIMMER	CH 1,2,3	1	DIMMER	CH 1,2,3,4
2	CCT	CH 1,2,3	2	CCT	CH 1,2,3,4
3	HUE	CH 1,2,3	3	HUE	CH 1,2,3,4
4	Rainbow	CH 1,2,3	4	Rainbow	CH 1,2,3,4
5	Saturation	CH 1,2,3	5	Saturation	CH 1,2,3,4
6	Strobo	CH 1,2,3	6	Strobo	CH 1,2,3,4
7	DIMMER	CH 4,5,6	7	DIMMER	CH 5,6,7,8
8	CCT	CH 4,5,6	8	CCT	CH 5,6,7,8
9	HUE	CH 4,5,6	9	HUE	CH 5,6,7,8
10	Rainbow	CH 4,5,6	10	Rainbow	CH 5,6,7,8
11	Saturation	CH 4,5,6	11	Saturation	CH 5,6,7,8
12	Strobo	CH 4,5,6	12	Strobo	CH 5,6,7,8
13	DIMMER	CH 7,8,9	13	DIMMER	CH 9,10,11,12
14	CCT	CH 7,8,9	14	CCT	CH 9,10,11,12
15	HUE	CH 7,8,9	15	HUE	CH 9,10,11,12
16	Rainbow	CH 7,8,9	16	Rainbow	CH 9,10,11,12
17	Saturation	CH 7,8,9	17	Saturation	CH 9,10,11,12
18	Strobo	CH 7,8,9	18	Strobo	CH 9,10,11,12
19	DIMMER	CH 10,11,12			
20	CCT	CH 10,11,12			
21	HUE	CH 10,11,12			
22	Rainbow	CH 10,11,12			
23	Saturation	CH 10,11,12			
24	Strobo	CH 10,11,12			

Management of parallel channels (DIP 3 set to "ON")

RGB 			RGBW 		
Ch	Function	OUT	Ch	Function	OUT
1	DIMMER	ALL CH	1	DIMMER	ALL CH
2	CCT	ALL CH	2	CCT	ALL CH
3	HUE	ALL CH	3	HUE	ALL CH
4	Rainbow	ALL CH	4	Rainbow	ALL CH
5	Saturation	ALL CH	5	Saturation	ALL CH
6	Strobo	ALL CH	6	Strobo	ALL CH



**MAP: RGB**

MAP	Function
RGB	R  Dimmer R (Brightness Value) 0 .. 255
	G  Dimmer G (Brightness Value) 0 .. 255
	B  Dimmer B (Brightness Value) 0 .. 255

**ASSIGNMENT ADDRESSES DEPENDING ON TYPE OF LOAD: RGB and RGBW**

Management of single channels (DIP 3 set to "OFF")

RGB			RGBW		
Ch	Function	OUT	Ch	Function	OUT
1	R	CH 1	1	R	CH 1
2	G	CH 2	2	G	CH 2
3	B	CH 3	3	B	CH 3
4	R	CH 4	4	R	CH 5
5	G	CH 5	5	G	CH 6
6	B	CH 6	6	B	CH 7
7	R	CH 7	7	R	CH 9
8	G	CH 8	8	G	CH 10
9	B	CH 9	9	B	CH 11
10	R	CH 10			
11	G	CH 11			
12	B	CH 12			

Management of parallel channels (DIP 3 set to "ON")

RGB			RGBW		
Ch	Function	OUT	Ch	Function	OUT
1	R	CH 1,4,7,10	1	R	CH 1,5,9
2	G	CH 2,5,8,11	2	G	CH 2,6,10
3	B	CH 3,6,9,12	3	B	CH 3,7,11



**MAP: RGBW**

MAP	Function
RGBW	R <span style="background-color: red; color: white; padding: 2px;">Dimmer R (Brightness Value) 0 .. 255</span>
	G <span style="background-color: green; color: white; padding: 2px;">Dimmer G (Brightness Value) 0 .. 255</span>
	B <span style="background-color: blue; color: white; padding: 2px;">Dimmer B (Brightness Value) 0 .. 255</span>
	W <span style="background-color: gray; color: white; padding: 2px;">Dimmer W (Brightness Value) 0 .. 255</span>

**ASSIGNMENT ADDRESSES DEPENDING ON TYPE OF LOAD: RGB and RGBW**

Management of single channels (DIP 3 set to "OFF")						Management of parallel channels (DIP 3 set to "ON")					
RGB			RGBW			RGB			RGBW		
Ch	Function	OUT	Ch	Function	OUT	Ch	Function	OUT	Ch	Function	OUT
1	R	CH 1	1	R	CH 1	1	R	CH 1,4,7,10	1	R	CH 1,5,9
2	G	CH 2	2	G	CH 2	2	G	CH 2,5,8,11	2	G	CH 2,6,10
3	B	CH 3	3	B	CH 3	3	B	CH 3,6,7,12	3	B	CH 3,7,11
4	W	CH 1-3	4	W	CH 4	4	W	ALL CH	4	W	CH 4,8,12
5	R	CH 4	5	R	CH 5						
6	G	CH 5	6	G	CH 6						
7	B	CH 6	7	B	CH 7						
8	W	CH 4-6	8	W	CH 8						
9	R	CH 7	9	R	CH 9						
10	G	CH 8	10	G	CH 10						
11	B	CH 9	11	B	CH 11						
12	W	CH 7-9	12	W	CH 12						
13	R	CH 10									
14	G	CH 11									
15	B	CH 12									
16	W	CH 10-12									





**MAP: MRGB+**



MAP	Function	
MRGB+	Master Dimmer	Master Dimmer (Brightness Value) 0 .. 255
	R	Dimmer R (Brightness Value) 0 .. 255
	G	Dimmer G (Brightness Value) 0 .. 255
	B	Dimmer B (Brightness Value) 0 .. 255
	Strobo Rate	steady blackout 1fps 2fps 3fps 4fps 5fps 6fps 7fps 8fps 9fps 10fps 12fps 14fps 16fps steady

**ASSIGNMENT ADDRESSES DEPENDING ON TYPE OF LOAD: RGB and RGBW**

Management of single channels (DIP 3 set to "OFF")

RGB 			RGBW 		
Ch	Function	OUT	Ch	Function	OUT
1	MASTER DIMMER	CH 1-3	1	MASTER DIMMER	CH 1-3
2	R	CH 1	2	R	CH 1
3	G	CH 2	3	G	CH 2
4	B	CH 3	4	B	CH 3
5	STROBO RATE	CH 1-3	5	STROBO RATE	CH 1-3
6	MASTER DIMMER	CH 4-6	6	MASTER DIMMER	CH 5-7
7	R	CH 4	7	R	CH 5
8	G	CH 5	8	G	CH 6
9	B	CH 6	9	B	CH 7
10	STROBO RATE	CH 4-6	10	STROBO RATE	CH 5-7
11	MASTER DIMMER	CH 7-9	11	MASTER DIMMER	CH 9-10
12	R	CH 7	12	R	CH 9
13	G	CH 8	13	G	CH 10
14	B	CH 9	14	B	CH 11
15	STROBO RATE	CH 7-9	15	STROBO RATE	CH 9-10
16	MASTER DIMMER	CH 10-12			
17	R	CH 10			
18	G	CH 11			
19	B	CH 12			
20	STROBO RATE	CH 10-12			



Management of parallel channels (DIP 3 set to "ON")



RGB 			RGBW 		
Ch	Function	OUT	Ch	Function	OUT
1	MASTER DIMMER	ALL CH	1	MASTER DIMMER	CH 1,2,3,5,6,7,9,10,11
2	R	CH 1,4,7,10	2	R	CH 1,5,9
3	G	CH 2,5,8,11	3	G	CH 2,6,10
4	B	CH 3,6,9,12	4	B	CH 3,7,11
5	STROBO RATE	ALL CH	5	STROBO RATE	CH 1,2,3,5,6,7,9,10,11

**MAP: MRGBW+**

MAP	Function	
MRGBW+	Master Dimmer	Master Dimmer (Brightness Value) 0 .. 255
	R	Dimmer R (Brightness Value) 0 .. 255
	G	Dimmer G (Brightness Value) 0 .. 255
	B	Dimmer B (Brightness Value) 0 .. 255
	W	Dimmer W (Brightness Value) 0 .. 255
	Strobo Rate	steady <b>blackout</b> 1fps 2fps 3fps 4fps 5fps 6fps 7fps 8fps 9fps 10fps 12fps 14fps 16fps steady

**ASSIGNMENT ADDRESSES DEPENDING ON TYPE OF LOAD: RGB and RGBW**


Management of single channels (DIP 3 set to "OFF")					
 RGB			 RGBW		
Ch	Function	OUT	Ch	Function	OUT
1	MASTER DIMMER	CH 1-3	1	MASTER DIMMER	CH 1-4
2	R	CH 1	2	R	CH 1
3	G	CH 2	3	G	CH 2
4	B	CH 3	4	B	CH 3
5	W	CH 1-3	5	W	CH 4
6	STROBO RATE	CH 1-3	6	STROBO RATE	CH 1-4
7	MASTER DIMMER	CH 4-6	7	MASTER DIMMER	CH 5-8
8	R	CH 4	8	R	CH 5
9	G	CH 5	9	G	CH 6
10	B	CH 6	10	B	CH 7
11	W	CH 4-6	11	W	CH 8
12	STROBO RATE	CH 4-6	12	STROBO RATE	CH 5-8
13	MASTER DIMMER	CH 7-9	13	MASTER DIMMER	CH 9-12
14	R	CH 7	14	R	CH 9
15	G	CH 8	15	G	CH 10
16	B	CH 9	16	B	CH 11
17	W	CH 7-9	17	W	CH 12
18	STROBO RATE	CH 7-9	18	STROBO RATE	CH 9-12
19	MASTER DIMMER	CH 10-12			
20	R	CH 10			
21	G	CH 11			
22	B	CH 12			
23	W	CH 10-12			
24	STROBO RATE	CH 10-12			

Management of parallel channels (DIP 3 set to "ON")					
 RGB			 RGBW		
Ch	Function	OUT	Ch	Function	OUT
1	MASTER DIMMER	ALL CH	1	MASTER DIMMER	ALL CH
2	R	CH 1,4,7,10	2	R	CH 1,5,9
3	G	CH 2,5,8,11	3	G	CH 2,6,10
4	B	CH 3,6,9,12	4	B	CH 3,7,11
5	W	ALL CH	5	W	CH 4,8,12
6	STROBO RATE	ALL CH	6	STROBO RATE	ALL CH



**FADE UP / FADE DOWN:**

From F00 To FFF



Fade:  
 Selector "x 10" = UP Fade Time  
 Selector "x 1" = DOWN Fade Time

0 = no Fade, F=60 second (see table)

**Fade Times:**

0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
NO fade	0.5s	1s	2s	3s	4s	5s	6s	7s	8s	9s	10s	15s	20s	30s	60s

**Examples:**

Turn on/off without fade (no fade UP/DOWN): F00

Turn on without fade (no fade UP) and turn off fade of 5 seconds (fade DOWN): F06

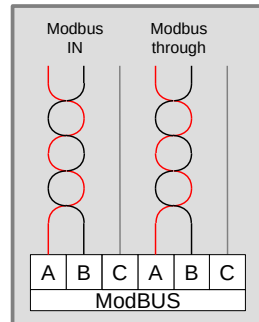
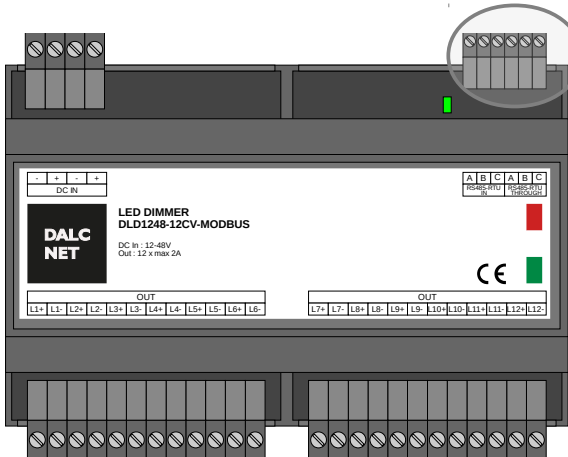
Turn on fade of 1 seconds (fade UP) and turn off fade of 10 seconds (fade DOWN): F2B

**Notes:**

This function is available on maps: "Dimmer", "Dim to Warm", "Tunable White", "Smart Colors"

■ **MODBUS SETUP**

In **MODBUS SETUP** in the "slave" condition the outputs LEDs are managed by an external MODBUS RTU master controller (RS-485).



**Features**

- BUS MODBUS RTU SLAVE su RS485

**MODBUS Reference standards**






-	MODBUS APPLICATION PROTOCOL SPECIFICATION V1.1b
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Onboard led:









In the case of bus error, the led blinks fast (2 pulsed per second).  
 In the case of no bus detected, led blinks slow (1 pulse per second).  
 In the case of data link active, the led stands on.

Addressing by selectors

Selectors x10, x1 (middle and right)

Modbus	00 (default):			Default modbus ID (1)	
	From 01			to 99	

Selectors x100 (left)

Modbus								
	0 115200 baud 8N1	1 115200 baud 8E1	2 38400 baud 8N1	3 38400 baud 8E1	4 19200 baud 8N1	5 19200 baud 8E1	6 9600 baud 8N1	7 9600 baud 8E1

CHANNELS MAP – MODBUS

**MAP: DIMMER**

MAP	Function
DIMMER	Dimmer (Brightness Value) 0 .. 255

**ASSIGNMENT ADDRESSES DEPENDING ON TYPE OF LOAD: White, Tunable White, RGB and RGBW**



**Management of single channels (DIP 3 set to "OFF")**

Var	Function	OUT	Var	Function	OUT	Var	Function	OUT	Var	Function	OUT
0	Dimmer	CH 1	0	Dimmer	CH 1-2	0	Dimmer	CH 1-3	0	Dimmer	CH 1-4
1	Dimmer	CH 2	1	Dimmer	CH 3-4	1	Dimmer	CH 4-6	1	Dimmer	CH 5-8
2	Dimmer	CH 3	2	Dimmer	CH 5-6	2	Dimmer	CH 7-9	2	Dimmer	CH 9-12
3	Dimmer	CH 4	3	Dimmer	CH 7-8	3	Dimmer	CH 10-12			
4	Dimmer	CH 5	4	Dimmer	CH 9-10						
5	Dimmer	CH 6	5	Dimmer	CH 11-12						
6	Dimmer	CH 7									
7	Dimmer	CH 8									
8	Dimmer	CH 9									
9	Dimmer	CH 10									
10	Dimmer	CH 11									
11	Dimmer	CH 12									

**Management of parallel channels (DIP 3 set to "ON")**

Var	Function	OUT	Var	Function	OUT	Var	Function	OUT	Var	Function	OUT
0	Dimmer	ALL CH	0	Dimmer	ALL CH	0	Dimmer	ALL CH	0	Dimmer	CH 4,8,12

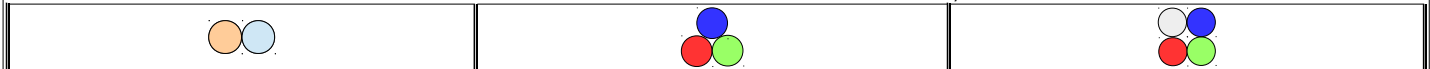


**MAP: DIM TO WARM**

MAP	Function
DIM TO WARM	Dim to Warm

Dimmer (Brightness Value)  
 0 .. 255

**ASSIGNMENT ADDRESSES DEPENDING ON TYPE OF LOAD: Tunable White, RGB and RGBW**



**Management of single channels (DIP 3 set to "OFF")**

Var	Function	OUT	Var	Function	OUT	Var	Function	OUT
0	Dim to Warm	CH 1-2	0	Dim to Warm	CH 1,2,3	0	Dim to Warm	CH 1,2,3,4
1	Dim to Warm	CH 3-4	1	Dim to Warm	CH 4,5,6	1	Dim to Warm	CH 5,6,7,8
2	Dim to Warm	CH 5-6	2	Dim to Warm	CH 7,8,9	2	Dim to Warm	CH 9,10,11,12
3	Dim to Warm	CH 7-8	3	Dim to Warm	CH 10,11,12			
4	Dim to Warm	CH 9-10						
5	Dim to Warm	CH 11-12						




**Management of parallel channels (DIP 3 set to "ON")**

Var	Function	OUT	Var	Function	OUT	Var	Function	OUT
0	Dim to Warm	ALL CH	0	Dim to Warm	ALL CH	0	Dim to Warm	ALL CH

**MAP: TUNABLE WHITE**

MAP	Function	
TUNABLE WHITE	Dimmer	Dimmer (Brightness Value) 0 .. 255
	CCT	Color Correction Temperature 0 .. 255 (Value 127 Natural White)

**ASSIGNMENT ADDRESSES DEPENDING ON TYPE OF LOAD: Tunable White, RGB and RGBW**

		
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**Management of single channels (DIP 3 set to "OFF")**

Var	Function	OUT	Var	Function	OUT	Var	Function	OUT
0	Dimmer	CH 1-2	0	Dimmer	CH 1-3	0	Dimmer	CH 1-4
1	CCT	CH 1-2	1	CCT	CH 1-3	1	CCT	CH 1-4
2	Dimmer	CH 3-4	2	Dimmer	CH 4-6	2	Dimmer	CH 5-8
3	CCT	CH 3-4	3	CCT	CH 4-6	3	CCT	CH 5-8
4	Dimmer	CH 5-6	4	Dimmer	CH 7-9	4	Dimmer	CH 9-12
5	CCT	CH 5-6	5	CCT	CH 7-9	5	CCT	CH 9-12
6	Dimmer	CH 7-8	6	Dimmer	CH 10-12			
7	CCT	CH 7-8	7	CCT	CH 10-12			
8	Dimmer	CH 9-10						
9	CCT	CH 9-10						
10	Dimmer	CH 11-12						
11	CCT	CH 11-12						

**Management of parallel channels (DIP 3 set to "ON")**

Var	Function	OUT	Var	Function	OUT	Var	Function	OUT
0	Dimmer	ALL CH	0	Dimmer	ALL CH	0	Dimmer	ALL CH
1	CCT	ALL CH	1	CCT	ALL CH	1	CCT	ALL CH





**MAP: SMART HSV**



MAP	Function															
Smart HSV	Master Dimmer	Master Dimmer (Brightness Value) 0 .. 255														
	Color Correction	Color Temperature Correction 0 .. 255														
	Hue	Hue 0 .. 255														
	Hue Rotation (rainbow) Time	Stop 0 ... 25	3s 26 .. 51	6s 52 .. 76	15s 77 .. 102	30s 103 .. 127	1' 128 .. 153	3' 154 .. 179	6' 180 .. 204	15' 205 .. 230	30' 231 .. 255					
		Hue Fine 0 .. 15	Hold 16 .. 25													
	Saturation	Saturation 0 .. 255														
Strobo Rate	steady 0 .. 15	blackout 16 .. 31	1fps 32 .. 47	2fps 48 .. 63	3fps 64 .. 79	4fps 80 .. 95	5fps 96 .. 111	6fps 112..127	7fps 128..143	8fps 144..159	9fps 160..175	10fps 176..191	12fps 192..207	14fps 208..223	16fps 224..239	steady 240..255

**ASSIGNMENT ADDRESSES DEPENDING ON TYPE OF LOAD: RGB and RGBW**


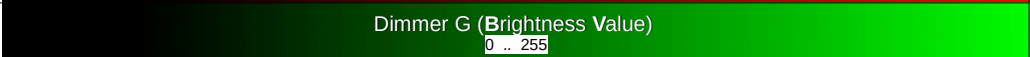

Management of single channels (DIP 3 set to "OFF")

RGB 			RGBW 		
Var	Function	OUT	Var	Function	OUT
0	DIMMER	CH 1,2,3	0	DIMMER	CH 1,2,3,4
1	CCT	CH 1,2,3	1	CCT	CH 1,2,3,4
2	HUE	CH 1,2,3	2	HUE	CH 1,2,3,4
3	Rainbow	CH 1,2,3	3	Rainbow	CH 1,2,3,4
4	Saturation	CH 1,2,3	4	Saturation	CH 1,2,3,4
5	Strobo	CH 1,2,3	5	Strobo	CH 1,2,3,4
6	DIMMER	CH 4,5,6	6	DIMMER	CH 5,6,7,8
7	CCT	CH 4,5,6	7	CCT	CH 5,6,7,8
8	HUE	CH 4,5,6	8	HUE	CH 5,6,7,8
9	Rainbow	CH 4,5,6	9	Rainbow	CH 5,6,7,8
10	Saturation	CH 4,5,6	10	Saturation	CH 5,6,7,8
11	Strobo	CH 4,5,6	11	Strobo	CH 5,6,7,8
12	DIMMER	CH 7,8,9	12	DIMMER	CH 9,10,11,12
13	CCT	CH 7,8,9	13	CCT	CH 9,10,11,12
14	HUE	CH 7,8,9	14	HUE	CH 9,10,11,12
15	Rainbow	CH 7,8,9	15	Rainbow	CH 9,10,11,12
16	Saturation	CH 7,8,9	16	Saturation	CH 9,10,11,12
17	Strobo	CH 7,8,9	17	Strobo	CH 9,10,11,12
18	DIMMER	CH 10,11,12			
19	CCT	CH 10,11,12			
20	HUE	CH 10,11,12			
21	Rainbow	CH 10,11,12			
22	Saturation	CH 10,11,12			
23	Strobo	CH 10,11,12			





Management of parallel channels (DIP 3 set to "ON")

RGB 			RGBW 		
Var	Function	OUT	Var	Function	OUT
0	DIMMER	ALL CH	0	DIMMER	ALL CH
1	CCT	ALL CH	1	CCT	ALL CH
2	HUE	ALL CH	2	HUE	ALL CH
3	Rainbow	ALL CH	3	Rainbow	ALL CH
4	Saturation	ALL CH	4	Saturation	ALL CH
5	Strobo	ALL CH	5	Strobo	ALL CH

**MAP: RGB**

MAP	Function
RGB	R  Dimmer R (Brightness Value) 0 .. 255
	G  Dimmer G (Brightness Value) 0 .. 255
	B  Dimmer B (Brightness Value) 0 .. 255

**ASSIGNMENT ADDRESSES DEPENDING ON TYPE OF LOAD: RGB and RGBW**

Management of single channels (DIP 3 set to "OFF")						Management of parallel channels (DIP 3 set to "ON")					
RGB 			RGBW 			RGB 			RGBW 		
Var	Function	OUT	Var	Function	OUT	Var	Function	OUT	Var	Function	OUT
0	R	CH 1	0	R	CH 1	0	R	CH 1,4,7,10	0	R	CH 1,5,9
1	G	CH 2	1	G	CH 2	1	G	CH 2,5,8,11	1	G	CH 2,6,10
2	B	CH 3	2	B	CH 3	2	B	CH 3,6,9,12	2	B	CH 3,7,11
3	R	CH 4	3	R	CH 5						
4	G	CH 5	4	G	CH 6						
5	B	CH 6	5	B	CH 7						
6	R	CH 7	6	R	CH 9						
7	G	CH 8	7	G	CH 10						
8	B	CH 9	8	B	CH 11						
9	R	CH 10									
10	G	CH 11									
11	B	CH 12									

**MAP: RGBW**

MAP	Function
RGBW	R <b>Dimmer R (Brightness Value)</b> 0 .. 255
	G <b>Dimmer G (Brightness Value)</b> 0 .. 255
	B <b>Dimmer B (Brightness Value)</b> 0 .. 255
	W <b>Dimmer W (Brightness Value)</b> 0 .. 255

**ASSIGNMENT ADDRESSES DEPENDING ON TYPE OF LOAD: RGB and RGBW**

Management of single channels (DIP 3 set to "OFF")						Management of parallel channels (DIP 3 set to "ON")					
RGB			RGBW			RGB			RGBW		
Var	Function	OUT	Var	Function	OUT	Var	Function	OUT	Var	Function	OUT
0	R	CH 1	0	R	CH 1	0	R	CH 1,4,7,10	0	R	CH 1,5,9
1	G	CH 2	1	G	CH 2	1	G	CH 2,5,8,11	1	G	CH 2,6,10
2	B	CH 3	2	B	CH 3	2	B	CH 3,6,7,12	2	B	CH 3,7,11
3	W	CH 1-3	3	W	CH 4	3	W	ALL CH	3	W	CH 4,8,12
4	R	CH 4	4	R	CH 5						
5	G	CH 5	5	G	CH 6						
6	B	CH 6	6	B	CH 7						
7	W	CH 4-6	7	W	CH 8						
8	R	CH 7	8	R	CH 9						
9	G	CH 8	9	G	CH 10						
10	B	CH 9	10	B	CH 11						
11	W	CH 7-9	11	W	CH 12						
12	R	CH 10									
13	G	CH 11									
14	B	CH 12									
15	W	CH 10-12									



**MAP: MRGB+**

MAP	Function	
MRGB+	Master Dimmer	Master Dimmer (Brightness Value) 0 .. 255
	R	Dimmer R (Brightness Value) 0 .. 255
	G	Dimmer G (Brightness Value) 0 .. 255
	B	Dimmer B (Brightness Value) 0 .. 255
	Strobo Rate	steady blackout 1fps 2fps 3fps 4fps 5fps 6fps 7fps 8fps 9fps 10fps 12fps 14fps 16fps steady

**ASSIGNMENT ADDRESSES DEPENDING ON TYPE OF LOAD: RGB and RGBW**

Management of single channels (DIP 3 set to "OFF")

RGB			RGBW		
Var	Function	OUT	Var	Function	OUT
0	MASTER DIMMER	CH 1-3	0	MASTER DIMMER	CH 1-3
1	R	CH 1	1	R	CH 1
2	G	CH 2	2	G	CH 2
3	B	CH 3	3	B	CH 3
4	STROBO RATE	CH 1-3	4	STROBO RATE	CH 1-3
5	MASTER DIMMER	CH 4-6	5	MASTER DIMMER	CH 5-7
6	R	CH 4	6	R	CH 5
7	G	CH 5	7	G	CH 6
8	B	CH 6	8	B	CH 7
9	STROBO RATE	CH 4-6	9	STROBO RATE	CH 5-7
10	MASTER DIMMER	CH 7-9	10	MASTER DIMMER	CH 9-11
11	R	CH 7	11	R	CH 9
12	G	CH 8	12	G	CH 10
13	B	CH 9	13	B	CH 11
14	STROBO RATE	CH 7-9	14	STROBO RATE	CH 9-11
15	MASTER DIMMER	CH 10-12			
16	R	CH 10			
17	G	CH 11			
18	B	CH 12			
19	STROBO RATE	CH 10-12			

Management of parallel channels (DIP 3 set to "ON")

RGB			RGBW		
Var	Function	OUT	Var	Function	OUT
0	MASTER DIMMER	ALL CH	0	MASTER DIMMER	CH 1,2,3,5,6,7,9,10,11
1	R	CH 1,4,7,10	1	R	CH 1,5,9
2	G	CH 2,5,8,11	2	G	CH 2,6,10
3	B	CH 3,6,9,12	3	B	CH 3,7,11
4	STROBO RATE	ALL CH	4	STROBO RATE	CH 1,2,3,5,6,7,9,10,11

**MAP: MRGBW+**

MAP	Function	
MRGBW+	Master Dimmer	Master Dimmer (Brightness Value) 0 .. 255
	R	Dimmer R (Brightness Value) 0 .. 255
	G	Dimmer G (Brightness Value) 0 .. 255
	B	Dimmer B (Brightness Value) 0 .. 255
	W	Dimmer W (Brightness Value) 0 .. 255
	Strobo Rate	steady blackout 1fps 2fps 3fps 4fps 5fps 6fps 7fps 8fps 9fps 10fps 12fps 14fps 16fps steady

**ASSIGNMENT ADDRESSES DEPENDING ON TYPE OF LOAD: RGB and RGBW**

Management of single channels (DIP 3 set to "OFF")						Management of parallel channels (DIP 3 set to "ON")					
RGB			RGBW			RGB			RGBW		
Var	Function	OUT	Var	Function	OUT	Var	Function	OUT	Var	Function	OUT
0	MASTER DIMMER	CH 1-3	0	MASTER DIMMER	CH 1-4	0	MASTER DIMMER	ALL CH	0	MASTER DIMMER	ALL CH
1	R	CH 1	1	R	CH 1	1	R	CH 1,4,7,10	1	R	CH 1,5,9
2	G	CH 2	2	G	CH 2	2	G	CH 2,5,8,11	2	G	CH 2,6,10
3	B	CH 3	3	B	CH 3	3	B	CH 3,6,9,12	3	B	CH 3,7,11
4	W	CH 1-3	4	W	CH 4	4	W	ALL CH	4	W	CH 4,8,12
5	STROBO RATE	CH 1-3	5	STROBO RATE	CH 1-4	5	STROBO RATE	ALL CH	5	STROBO RATE	ALL CH
6	MASTER DIMMER	CH 4-6	6	MASTER DIMMER	CH 5-8						
7	R	CH 4	7	R	CH 5						
8	G	CH 5	8	G	CH 6						
9	B	CH 6	9	B	CH 7						
10	W	CH 4-6	10	W	CH 8						
11	STROBO RATE	CH 4-6	11	STROBO RATE	CH 5-8						
12	MASTER DIMMER	CH 7-9	12	MASTER DIMMER	CH 9-12						
13	R	CH 7	13	R	CH 9						
14	G	CH 8	14	G	CH 10						
15	B	CH 9	15	B	CH 11						
16	W	CH 7-9	16	W	CH 12						
17	STROBO RATE	CH 7-9	17	STROBO RATE	CH 9-12						
18	MASTER DIMMER	CH 10-12									
19	R	CH 10									
20	G	CH 11									
21	B	CH 12									
22	W	CH 10-12									
23	STROBO RATE	CH 10-12									

SUPPORTED FUNCTIONS FOR READING AND WRITING – MODBUS RTU

Function code		
0x01	Read Coils	✘
0x02	Read Discrete Inputs	✘
0x03	Read Holding Registers	✔
0x04	Read Input Register	✘
0x05	Write Single Coil	✘
0x06	Write Single Register	✔
0x07	Read Exception Status	✘
0x08	Diagnostic	✘
0c0B	Get Com Event Counter	✘
0x0C	Get Com Event Log	✘
0x0F	Write Multiple Coils	✘
0x10	Write Multiple Registers	✔
0x11	Report Server ID	✘
0x14	Read File Record	✘
0x15	Write File Record	✘
0x16	Mask Write Register	✘
0x17	Read/Write Multiple Registers	✘
0x18	Read FIFO queue	✘
0x2B	Read Device Identification	✘