

ENGLISH

LED Dim-3 MKII

V1

Ordercode: A9915042

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Warning



**For your own safety, please read this user manual carefully
before your initial start-up!**

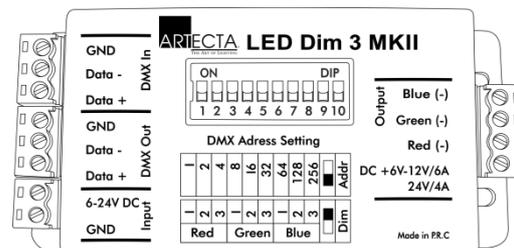


Unpacking Instructions

Immediately upon receiving this product, carefully unpack the carton and check the contents to ensure that all parts are present, and have been received in good condition. Notify the dealer immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

Your shipment includes:

- Artecta LED Dim-3 MKII
- User manual



LED Expected Lifespan

LEDs gradually decline in brightness over time. HEAT is the dominant factor that leads to the acceleration of this decline. Packaged in clusters, LEDs exhibit higher operating temperatures than in ideal or singular optimum conditions. For this reason, when all color LEDs are used at their fullest intensity, life of the LEDs is significantly reduced. If improving the lifespan is of higher priority, place care in providing for lower operational temperatures. This may include climatic-environmental and the reduction of overall projection intensity.



CAUTION!

**Keep this device away from rain and moisture!
Unplug mains lead before opening the housing!**



Safety Instructions

Every person involved with the installation, operation and maintenance of this device has to:

- be qualified
- follow the instructions of this manual



**CAUTION! Be careful with your operations.
With a dangerous voltage you can suffer
a dangerous electric shock when touching the wires!**



Before the initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the device.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes contained in this manual.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

This device contains no user-serviceable parts. Refer servicing to qualified technicians only.

IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

- Never let the power cord come into contact with other cables! Handle the power cord and all connections with the mains with particular caution!
- Never remove warning or informative labels from the unit.
- Never use anything to cover the ground contact.
- Never look directly into the light source.
- Never leave any cables lying around.
- Do not open the device and do not modify the device.
- Do not connect this device to a dimmerpack.
- Do not switch the device on and off in short intervals, as this will reduce the device's life.
- Do not shake the device. Avoid brute force when installing or operating the device.
- Only use the device indoors, avoid contact with water or other liquids.
- Only operate the fixture after having checked if the housing is firmly closed and all screws are tightly fastened.
- Only operate the device after having familiarized with its functions.
- Avoid flames and do not put close to flammable liquids or gases.
- Always keep the case closed while operating.
- Always allow a free air space of at least 50 cm around the unit for ventilation.
- Always disconnect power from the mains, when device is not used or before cleaning! Only handle the power cord holding it by the plug. Never pull out the plug by tugging the power cord.
- Make sure that the device is not exposed to extreme heat, moisture or dust.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power cord is never crimped or damaged. Check the device and the power cord from time to time.
- If device was dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.
- If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.
- If your Artecta device fails to work properly, discontinue the use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Artecta dealer for service.
- For adult use only. The fixture must be installed beyond the reach of children. Never leave the unit running unattended.
- Never attempt to bypass the thermostatic switch or fuses.
- The user is responsible for correct positioning and operating of the LED Dim-3 MKII. The manufacturer will not accept liability for damages caused by the misuse or incorrect installation of this device.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- WARRANTY: Till one year after date of purchase.



CAUTION! Eyedamages!!!
Avoid looking directly into the lightsource!!!
(meant especially for epileptics)!!!



Operating Determinations

- This device is not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.
- The minimum distance between light output and the illuminated surface must be bigger than 1 meter.
- The maximum ambient temperature $t_a = 40^{\circ}\text{C}$ must never be exceeded.
- The relative humidity must not exceed 50 % with an ambient temperature of 40°C .
- If this device is operated in any other way than the one described in this manual, the product may suffer damages and the warranty becomes void.
- Any other operation may lead to dangers like short-circuit, burns, electric shock, crash, etc.

You endanger your own safety and the safety of others!

Connection with the mains

Connect the device to the mains with the power-plug.

Always check if the right color cable is connected to the right place.

International	EU Cable	UK Cable	US Cable	Pin
L	BROWN	RED	YELLOW/COPPER	PHASE
N	BLUE	BLACK	SILVER	NEUTRAL
	YELLOW/GREEN	GREEN	GREEN	PROTECTIVE GROUND

Make sure that the device is always properly connected to the earth!

Improper installation can cause serious injuries and/or damage of property!



Return Procedure

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Authorization Number (RMA number). Products returned without an RMA number will be refused. Highlite will not accept the returned goods or any responsibility. Call Highlite 0031-455667723 or mail offersales@highlite.nl and request an RMA prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. Highlite reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

Note: If you are given an RMA number, please include the following information on a piece of paper inside the box:

- 01) Your name
- 02) Your address
- 03) Your phone number
- 04) A brief description of the symptoms

Claims

The client has the obligation to check the delivered goods immediately upon delivery for any shortcomings and/or visible defects, or perform this check after our announcement that the goods are at their disposal. Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise.

It is the customer's responsibility to report and submit claims with the shipper in the event that a fixture is damaged due to shipping. Transportation damage has to be reported to us within one day after receipt of the delivery.

Any return shipment has to be made post-paid at all times. Return shipments must be accompanied with a letter defining the reason for return shipment. Non-prepaid return shipments will be refused, unless agreed otherwise in writing.

Complaints against us must be prepared in writing or sent by fax within 10 working days after receipt of the invoice. After this period complaints will not be handled anymore.

Complaints will only then be considered if the client has so far complied with all parts of the agreement, regardless of the agreement from which the obligation is resulting.

Description of the device

The LED Dim-3 MKII is a compact and easy to use RGB LED Dimmer. It is a perfect solution for controlling any constant voltage LED strip by means of DMX control system. The LED Dim-3 MKII can handle a load of 6A-12V or 4A-24V.

The power input is supplied by an external (optional) power supply which can vary between 12V and 24V depending on the connected load.

Features

- 2 control modes: DMX and manual
- 1 DMX channel
- DMX control system
- Black powder coated housing
- DMX pin inputs and outputs
- RGB outputs
- IP rating: 20

Overview

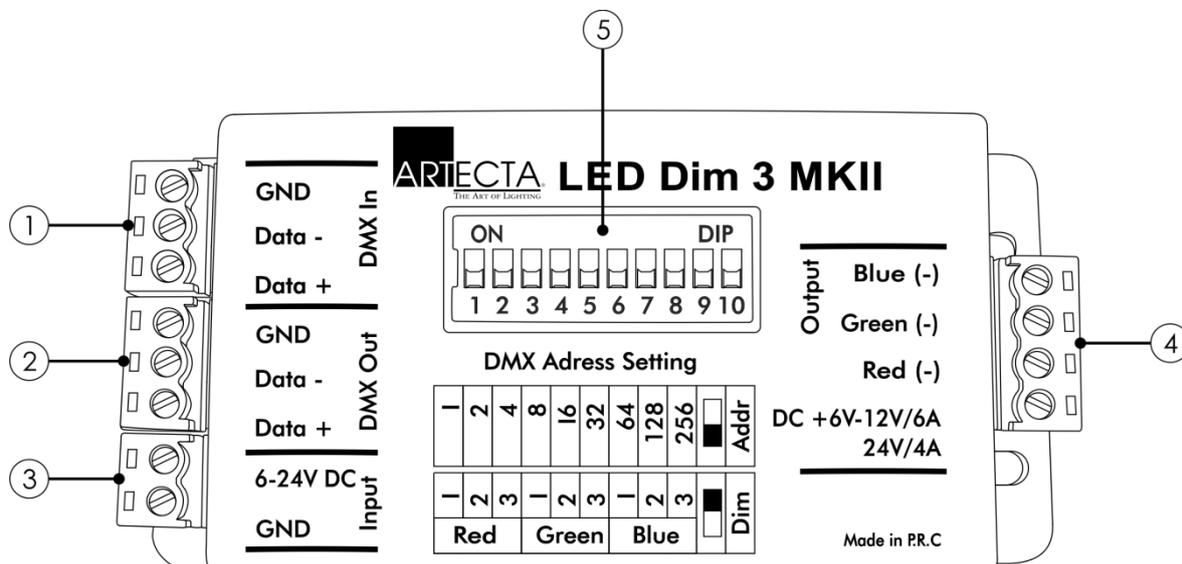


Fig. 01

- 01) **DMX 3-pin input connector (DMX In)**
Connect the unit to a DMX controller, using a 3-pin connector.
- 02) **DMX 3-pin output connector (DMX Out)**
Connect the unit to another LED dimmer, using a 3-pin connector.
- 03) **DC In +6-24V 6A power connector**
Main power supply. Connect the unit using a 2-pin connector.
- 04) **RGB and DC +6V-12V/6A and 24V/4A connector**
Connect an RGB or a 0-10V fixture to the unit using a 4-pin connector.
- 05) **DMX DIP switches**
Use the switches to adjust the DMX addresses.

Installation

Remove all packing materials from the LED Dim-3 MKII. Check if all foam and plastic padding is removed. Connect all cables.

Do not supply power before the whole system is set up and connected properly.

Always disconnect from electric mains power supply before cleaning or servicing.

Damages caused by non-observance are not subject to warranty.

Set Up and Operation

Before plugging the unit in, always make sure that the power supply matches the product specification voltage.

When the power input is **6-12V DC/6A**, a maximum of **6A** load **is allowed** on a single channel and the maximum of loads distributed over all three channels **must not exceed 6A**.

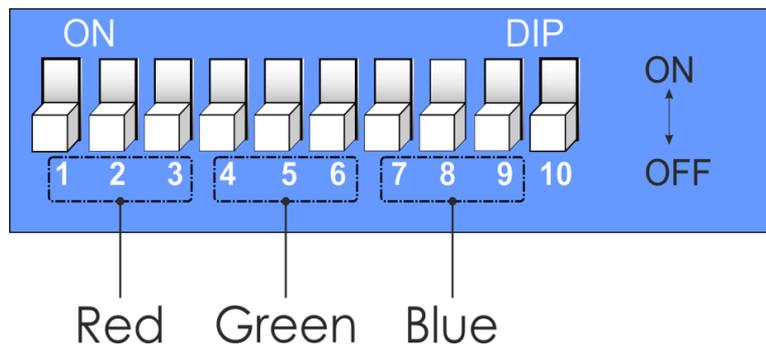
When the power input is **24V DC/4A**, a maximum of **4A** load **is allowed** on a single channel and the maximum of loads distributed over all three channels **must not exceed 4A**.

Control Modes

There are 2 modes:

Manual
DMX512 (3CH)

Manual Control Mode

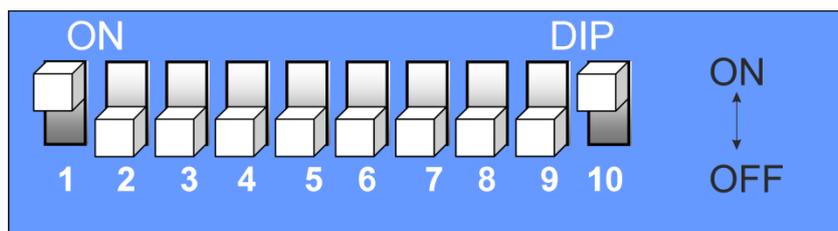


- 01) In Manual control mode, the DIP switch 10 must be switched to **OFF**.
- 02) Flip the DIP switches from 1 to 3 to set the intensity of red LEDs, from 4 to 6 to set the intensity of green LEDs and from 7 to 9, to set the intensity of blue LEDs. Please, familiarize yourself with the table below for further reference.

Intensity	Red (DIP switch 1-3)	Green (DIP switch 4-6)	Blue (DIP switch 7-9)
0%	000	000	000
14%	100	100	100
28%	010	010	010
43%	110	110	110
57%	001	001	001
71%	101	101	101
86%	011	011	011
100%	111	111	111

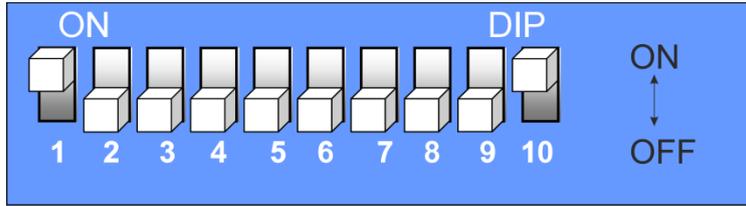
DMX Control Mode

- 01) In DMX control mode, DIP switch 10 must be switched to **ON** (see below).
- 02) Now it is possible to adjust DMX addresses (by flipping the other DIP switches) and the intensity of the dimmer (using a light controller).
- 03) Red effect is controlled by Channel 1, Green effect by Channel 2 and Blue effect by Channel 3, assuming that your current active DMX channel is **001** (see the picture below).



DIP switch setting for DMX Mode

DMX products must have their own unique address to receive DMX signals. Addresses on the controller are set by flipping the appropriate DMX DIP switches.

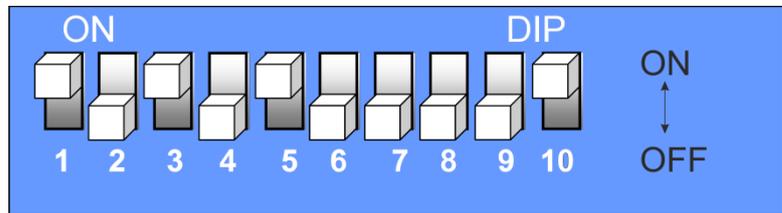


You need to know that DMX address settings are the sum of the DIP switch values. The values, alongside with the corresponding switches, can be found on the frontside of the device and in the quick reference chart (see page 8).

Example 1

LED Dim-3 MKII **Address Value** **DMX DIP Switches "ON"**
 21 #1 , #3, #5

Switch	Value
#1	1
#3	4
#5	<u>16</u> +
Total sum	21



Explanation: Since each unit has 3 channels, each address advances 3 values (See Address Value above).

Once address values are determined, add DMX dip switch values to obtain the appropriate address (DMX Dip Switches "ON") for each unit. Flip appropriate DMX dip switches on each unit.

Example 2

- 01) If you want to give a LED Dim-3 MKII a DMX address 133, you first have to find the number 133 in the DMX Address Quick Reference Chart (see page 8).
- 02) Then look at the left side (DIP Switches #1-#5) horizontally from 133. In the table you will see that #1=ON, #2=OFF, #3=ON, #4=OFF, #5=OFF.
- 03) Finally, look at the upper side of the table (DIP Switches #6-#9) vertically from 133. In the table below you will see that #6=OFF, #7=OFF, #8=ON, #9=OFF.

DMX Address Quick Reference

DMX DIP SWITCH SET						#9	0	0	0	0	0	0
0=OFF						#8	0	0	0	0	0	1
1=ON						#7	0	0	1	1	0	0
						#6	0	1	0	1	0	1
#1	#2	#3	#4	#5								
0	0	0	0	0			32	64	96	128	160	
1	0	0	0	0		1	33	65	97	129	161	
0	1	0	0	0		2	34	66	98	130	162	
1	1	0	0	0		3	35	67	99	131	163	
0	0	1	0	0		4	36	68	100	132	164	
1	0	1	0	0		5	37	69	101	133	165	
0	1	1	0	0		6	38	70	102	134	166	

DMX Address Quick Reference Chart

Dip Switch Position

DMX DIP SWITCH SET 0=OFF 1=ON					Dip Switch Position																
					#9	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
					#8	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
					#7	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
					#6	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
#1	#2	#3	#4	#5																	
0	0	0	0	0		32	64	96	128	160	192	224	256	288	320	352	384	416	448	480	
1	0	0	0	0	1	33	65	97	129	161	193	225	257	289	321	353	385	417	449	481	
0	1	0	0	0	2	34	66	98	130	162	194	226	258	290	322	354	386	418	450	482	
1	1	0	0	0	3	35	67	99	131	163	195	227	259	291	323	355	387	419	451	483	
0	0	1	0	0	4	36	68	100	132	164	196	228	260	292	324	356	388	420	452	484	
1	0	1	0	0	5	37	69	101	133	165	197	229	261	293	325	357	389	421	453	485	
0	1	1	0	0	6	38	70	102	134	166	198	230	262	294	326	358	390	422	454	486	
1	1	1	0	0	7	39	71	103	135	167	199	231	263	295	327	359	391	423	455	487	
0	0	0	1	0	8	40	72	104	136	168	200	232	264	296	328	360	392	424	456	488	
1	0	0	1	0	9	41	73	105	137	169	201	233	265	297	329	361	393	425	457	489	
0	1	0	1	0	10	42	74	106	138	170	202	234	266	298	330	362	394	426	458	490	
1	1	0	1	0	11	43	75	107	139	171	203	235	267	299	331	363	395	427	459	491	
0	0	1	1	0	12	44	76	108	140	172	204	236	268	300	332	364	396	428	460	492	
1	0	1	1	0	13	45	77	109	141	173	205	237	269	301	333	365	397	429	461	493	
0	1	1	1	0	14	46	78	110	142	174	206	238	270	302	334	366	398	430	462	494	
1	1	1	1	0	15	47	79	111	143	175	207	239	271	303	335	367	399	431	463	495	
0	0	0	0	1	16	48	80	112	144	176	208	240	272	304	336	368	400	432	464	496	
1	0	0	0	1	17	49	81	113	145	177	209	241	273	305	337	369	401	433	465	497	
0	1	0	0	1	18	50	82	114	146	178	210	242	274	306	338	370	402	434	466	498	
1	1	0	0	1	19	51	83	115	147	179	211	243	275	307	339	371	403	435	467	499	
0	0	1	0	1	20	52	84	116	148	180	212	244	276	308	340	372	404	436	468	500	
1	0	1	0	1	21	53	85	117	149	181	213	245	277	309	341	373	405	437	469	501	
0	1	1	0	1	22	54	86	118	150	182	214	246	278	310	342	374	406	438	470	502	
1	1	1	0	1	23	55	87	119	151	183	215	247	279	311	343	375	407	439	471	503	
0	0	0	1	1	24	56	88	120	152	184	216	248	280	312	344	376	408	440	472	504	
1	0	0	1	1	25	57	89	121	153	185	217	249	281	313	345	377	409	441	473	505	
0	1	0	1	1	26	58	90	122	154	186	218	250	282	314	346	378	410	442	474	506	
1	1	0	1	1	27	59	91	123	155	187	219	251	283	315	347	379	411	443	475	507	
0	0	1	1	1	28	60	92	124	156	188	220	252	284	316	348	380	412	444	476	508	
1	0	1	1	1	29	61	93	125	157	189	221	253	285	317	349	381	413	445	477	509	
0	1	1	1	1	30	62	94	126	158	190	222	254	286	318	350	382	414	446	478	510	
1	1	1	1	1	31	63	95	127	159	191	223	255	287	319	351	383	415	447	479	511	

Dip Switch Position

DMX Address

DMX Channels

3 channels

Channel 1 – Red

0-255

Red LED intensity control, from 0 to 100%

Channel 2 – Green

0-255

Green LED intensity control, from 0 to 100%

Channel 3 – Blue

0-255

Blue LED intensity control, from 0 to 100%

Maintenance

The LED Dim-3 MKII requires almost no maintenance. However, you should keep the unit clean.

Disconnect the mains power supply and then wipe the cover with a damp cloth. Do not immerse in liquid. Do not use alcohol or solvents.

Keep connections clean. Disconnect electric power and then wipe the connections with a damp cloth. Make sure connections are thoroughly dry before linking equipment or supplying electric power.

Troubleshooting

No Light

This troubleshooting guide is meant to help solve simple problems. If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.

If the light effect does not operate properly, refer servicing to a technician.

01) Power supply. Check if the unit is plugged into the appropriate power supply.

02) If you are unable to determine the cause of the problem, do not open the LED Dim-3 MKII, as this may damage the unit and the warranty will become void.

03) Return the device to your Artecta dealer.

No Response to DMX

Response: Suspect the DMX cable or connectors, a controller malfunction, a light effect DMX card malfunction.

01) Check the DMX setting. Make sure that DMX addresses are correct.

02) Check the DMX cable: Unplug the unit; change the DMX cable; then reconnect to electrical power. Try your DMX control again.

03) Determine whether the controller or light effect is at fault. Does the controller operate properly with other DMX products? If not, take the controller in for repair. If it indeed operates properly, take the DMX cable and the light effect to a qualified technician.

Product Specifications

Model:	Artecta LED Dim-3 MKII
Power supply:	12-24V DC 6A Max
Load @ 12V:	max 1.66A/Channel (6A Total/60W)
Load @ 24V:	max 1.33A/Channel (4A Total/96W)
Housing:	Black powder coated housing
DMX In:	3-pin terminal
DMX Out:	3-pin terminal
RGB Output:	4-pin terminal
12/24V DC input:	2-pin terminal
Ingress protection rating:	IP20
Operating Temperature:	0 °C to +40 °C
Dimensions:	90 x 40 x 20 mm (LxWxH)
Weight:	120 g

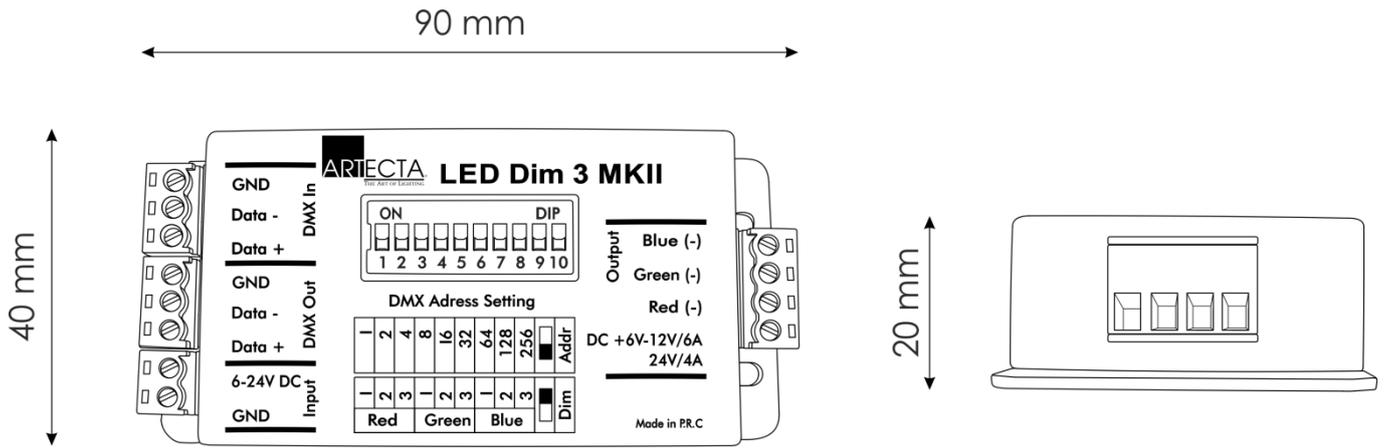
Design and product specifications are subject to change without prior notice.



Website: www.Artecta.nl

Email: service@highlite.nl

Dimensions





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