

DATASHEET



IP00	D LEDtape 2700K CRI95 1000LM 10W 24V 5M G4
Cod	le W1004-927-5M-G4
	7506480
#	3201174
+	4127400
	7350102530329



IP68	LEDtape 2700K CRI95 1000LM 10W 24V IP68 5M G4
Code	W1004-927-IP68-5M-G4
	7506481
	3201175
+	4127401
	7350102530336



IP00	LEDtape 3000K CRI95 1000LM 10W 24V 5M G4
Code	W1004-930-5M-G4
	7506482
===	3201176
+	4127402
	7350102530343



IP68	LEDtape 3000K CRI95 1000LM 10W 24V IP68 5M G4
Code	W1004-930-IP68-5M-G4
	7506483
	3201177
+	4127403
	7350102530350





IP00	LEDtape 4000K CRI95 1000LM 10W 24V 5M G4
Code	W1004-940-5M-G4
+	7506484
	3201178
+	4127404
	7350102530367



IP68	LEDtape 4000K CRI95 1000LM 10W 24V IP68 5M G4
Code	W1004-940-IP68-5M-G4
	7506485
#	3201179
+	4127405
	7350102530374

HIGHLIGHTS

- Flexible LEDtape for professional lighting applications with high density and light output
- Colour temperature 2700K, 3000K and 4000K
- Ultra-high CRI>95
- Available in IP00 and IP68-version
- High efficiency >100 lm/W
- Best in class colour tolerance MacAdam 3
- Possible to connect 10 meters in series @
- Optimal for homogenous illumination at short distances 168 LEDs per meter
- High quality adhesive 3M-tape on backside for easy mounting on common surfaces
- Long lifetime: L70 = 50 000h ①
- Optimized for high resolution digital dimming 0.1-100% using Welight LED-driver W71XX-series.
- Can be made to order in any CCT between 2000-6500K. Contact us for more details.

Accessories

- · Solder-free connectors and bridges (included)
- Aluminium profiles for linear and corner applications
- Wide variety of lenses and covers 15°/30°/60°/120°/Asymmetric/Batwing
- Fixed or adjustable mounting brackets
- Optimised drivers to fit every need and application

Technical Data



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Accessories



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Mounting Instructions



pp. 7



TECHNICAL DATA

Packaging

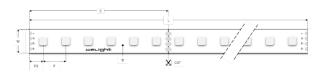
Full carton	20 pcs
Weight per pc	IP00: 320 g IP68: 700 g
Box dimensions	250 x 250 x 30 mm

Electrical ①

Supply voltage (VDC)	24
DC Voltage Range 4 6	22-26V @ L ≤5m 24-26V @ L ≤10m
Power (W) per m	10
Current (mA) per m	415
Supply Cable	L = 1 m (both ends) AWG20 UL standard BK (Black +) RD (Red -)

Dimensional @

Difficiational ©	
Length (L)	5 m
Max length in series ®	10 m
Min Bending Radius	IP00: 30 mm IP68: 50 mm
Width (W)	IP00: 10 mm IP68: 12 mm Incl. Endcap: 14 mm
Height	IP00: 1,4 mm IP68: 4,5 mm Incl. Endcap: 6,5 mm
Cutting length (C)	41,6 mm
Pitch distance (P)	6 mm



Temperature and Lifetime

Performance Temp Rating (Tp)	65 °C
Operating Temp Range (Ta) (\$\square\$)	-35/+50 °C
Max PCB Temp (Tc)	75 °C
Storage Temp	-35/+80 °C
L70F10 @Tp	50 000 h
L90F10 @Tp	35 000 h
Adhesive	3M VHB 5-year warranty
Warranty Period @Tp	5 years

Safety & Compliance

•	
Constant Current IC	Yes, bipolar IC
Insulation Voltage	0,5kV DC 10mA 60sec
IEC Standards	IEC 62031 IEC 62471 IEC 62717 IEC 61000-4-2
ESD Class	1
Risk group (EN 62471:2008)	1
Classification acc. to IEC 62031	Class III
Energy Declaration (EEEI)	A+ 10 kWh / 1000h
Optical ①③	
Luminous Flux (Im) per m	1000
Beam Angle	120
LED package	2835

Photometric Code (according to EN 62717)

White Tone	CCT	Photometric Code	
Incandescent	2700 K	927 / 349	
Warm	3000 K	930 / 349	
Neutral	4000 K	940 / 349	

168

≤3

>95

>95

LED quantity per m

MacAdam SDCM

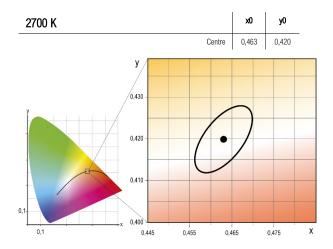
CRI (R1-R8)

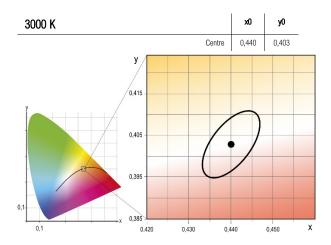
CRI (R1-R14)

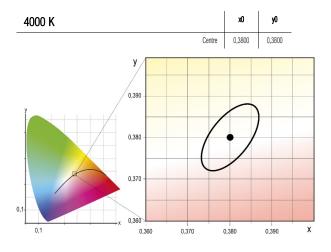
- ① Tolerance range for electrical and optical data $\pm 10\%$ ② Tolerance range for dimensional data $\pm 1\%$ ③ All values for ta = 25 °C / tc = 65 °C
 ④ Measured at the beginning of the LEDtape. Exceeding the maximum operating voltage leads to an overload on the tape. This may result in a significant reduction in lifetime or even destruction of the tape.
 ⑤ Self-cooling at ta \leq 35 °C
 ⑥ When connecting 10 meters in series, the supply voltage must be between 24-26V at the beginning of the tape. Lower voltage can cause a significant reduction in light output at the end of length.



Chromaticity coordinates and tolerances (according to CIE 1931)





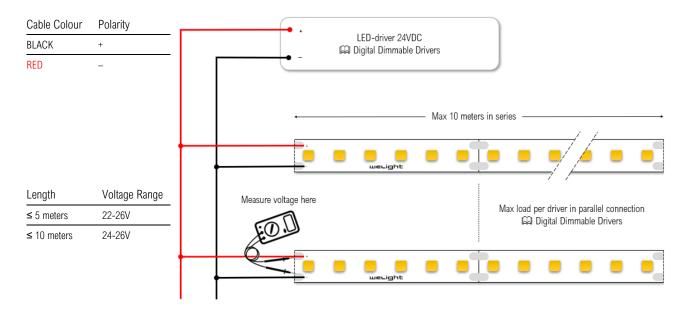


The specified color coordinates are measured by a current impulse with nominal values of module after a settling time of 100 msec. The ambient temperature of the measurement is ta = 25 °C. The measurement tolerance of the color coordinates is $\pm\,0.01$.



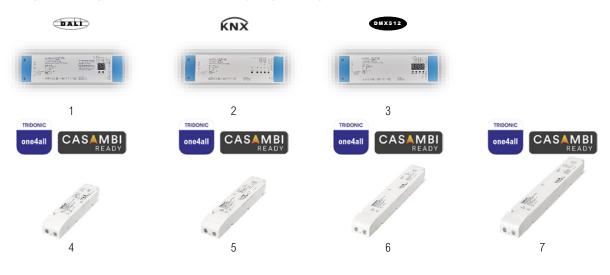
WIRING

The LEDtape is delivered with colour coded connection cable at each end, L = 1 m, $2 \times 0.5 \text{ mm}^2$ (AWG20). Do not connect more than 10 meters in series and make sure that the voltage is within the specified range at the beginning of the LEDtape.



DIGITAL DIMMABLE DRIVERS

Welight offers a range of suitable LED-drivers especially designed for high-end dimmable applications.



	Control Signal	Art. Code	Driver Type	Max length per driver
1	DALI-2	W7101	LEDdriver LCV 100W 24V 1-4CH DALI2 SR	10 m
2	KNX	W7102	LEDdriver LCV 100W 24V 1-4CH KNX SR	10 m
3	DMX	W7103	LEDdriver LCV 100W 24V 1-4CH DMX SR	10 m
4	one4all ①	28001920	LCA 35W 24V one4all SC PRE	3.5 m
5	one4all ①	28001921	LCA 60W 24V one4all SC PRE	6 m
6	one4all ①	28001922	LCA 100W 24V one4all SC PRE	10 m
7	one4all ①	28001923	LCA 150W 24V one4all SC PRE	15 m
4	bDW / Casambi	28002677	LC 35W 24V bDW SC PRE2	3.5 m
5	bDW / Casambi	28002674	LC 60W 24V bDW SC PRE2	6 m
6	bDW / Casambi	28002675	LC 100W 24V bDW SC PRE2	10 m
7	bDW / Casambi	28002678	LC 150W 24V bDW SC PRE2	15 m

① The driver can be controlled via DALI DT6, DSI, switchDIM, corridorFUNCTION and ready2mains.



CABLE & CONNECTION ACCESSORIES



					Suitable fo	r LEDtape
Pic	Туре	Art. Code	Description	Included	IP00	IP68
1	LEDtape Connector Strip-Strip	W8434	Connect IP00 strips to each other	1 pc	✓	×
2	LEDtape Connector Strip-Cable	W8435	Connect IP00 strip to a 2-wire cable (cable not included). Max cross section AWG20 (0,5mm²).	1 pc	√	×
3	LEDtape Connector Slim Strip-Strip	W8436	Connect IP00 strips to each other inside a confined space, e.g. a mounting profile (cable not included)	1 pc	√	×
4	LEDtape Connector Slim Strip-Cable	W8437	Connect IP00 strip to a 2-wire cable inside a confined space, e.g. a mounting profile (cable not included). Max cross section AWG20 (0,5mm²).	1 pc	√	×
5	LEDtape Connector IP Strip-Strip	W8438	Connect IP68 strips to each other 🛕	1 pc	X	✓
6	LEDtape Connector IP Strip-Cable	W8439	Connect IP68 strip to a cable (20cm cable included)	1 pc	X	✓
7	LEDtape Connector Strip-Corner-Strip	W8451	Connect IP00 strips in a 90° angle. Suitable for corners.	_	√	×
8	LEDaccessory Plug Connector 2P IP20 36V 9A	W8412-D2	Pluggable Cable Joint. Can act as both female and male by turning it upside down. Max cross section AWG20 (0,5mm²).	-	√	×
9	LEDaccessory T Splicer 2P IP20 300V 10A	W8412-T2	T Splicer. Can be used to split the supply cable in two directions. Max cross section AWG20 (0,5mm²).	-	√	×
10	LEDaccessory Connector IP68 kit F+M	W8411-A2	IP68 connector with lockable female and male plug incl. 30cm cable, white	-	×	√
11	LEDcable RKUB 2X0.5 AWG20 Rd/Bk 6m	W8417	Black/red connection cable, 6m reel. Indoor use only.	1	✓	✓
12	LEDcable RKUB 2X0.5 AWG20 W/W 6m	W8418	White connection cable, 6m reel. Indoor use only.	-	✓	✓
11	LEDcable RKUB 2X0.5 AWG20 Rd/Bk 100m	W8421	Black/red connection cable, 100m reel. Indoor use only.	1	✓	✓
12	LEDcable RKUB 2X0.5 AWG20 W/W 100m	W8422	White connection cable, 100m reel. Indoor use only.	1	✓	✓
13	LEDcable RKKB 2X1 Rd/Bk Yd 5,8mm Bk 100m	W8413	Black/red connection cable with UV-resistant insulation, 100m reel. Suitable for outdoor use.	-	✓	✓
14	LEDtape 3M VHB Adhesive 10mm 33m reel	W8449	Additional adhesive for repairing or replacing the adhesive on the back of LEDtape IP00 and IP68. Pre-cut to fit PCB width 10mm. Reel length 33m.	-	√	√
15	LEDtape IP Endcap	W8432	Suitable for sealing the end of a cut LEDtape IP68. Use with W8433.	5 pcs	×	✓
16	LEDtape Silicon Tube with tip W8433 Suitable for sealing the end of a cut LEDtape IP68. Can be used together with W8432 for optimal protection.		1 pc	×	✓	
17	LEDtape IP Assembly Kit 10	W8901	Endcaps, Mounting Brackets & Silicon	-	X	✓
18	LEDtape Mounting Clip	W8430	Mounting clip with single screw for IP00-rated LEDtape	10 pcs	√	×
18	LEDtape Mounting Clip IP68	W8431	Mounting clip with single screw for IP68-rated LEDtape	10 pcs	X	✓

When properly applied the overall IP-rating of the solution will be IP67.



PROFILE SYSTEMS & LENSES

Start by selecting an aluminium profile (A) and a suitable lens cover (B) and then add optional accessories (C).



									Optional accessories			
Pic	Туре	Art. Code	L (mm)	W (mm)	H (mm)	W (mm) incl. lens cover	H (mm) incl. lens cover	Application	Lens Cover	End Cap	Fixed Mount	Adjustable Mount
1	Z200-2	24166148	2000	18	9	21	16	Corner	\	×	×	×
2	Z201-2	24166149	2000	18	9	21	16	Linear Slim	√	✓	✓	×
3	Z22W-2	24166150	2000	18	16	21	24	Linear	√	√	✓	✓



						Profile		
Pic	Туре	Art. Code	L (mm)	Mounting Method	Typ. application	Z200-2	Z201-2	Z22W-2
1	15°	24166405	2000	Slide-on	Wall wash 🛆	>	✓	✓
2	30°	24166409	2000	Slide-on	Wall wash	~	<	√
3	60°	24166410	2000	Slide-on	Shelf/Cabinet	>	<	✓
3	90°	24166411	2000	Slide-on	Shelf/Cabinet	✓	✓	✓
4	30° x 60°	24166412	2020	Slide-on	Asymmetric	✓	✓	✓
5	Batwing	24166123	2000	Snap-on	Side-emitting	×	×	✓
6	120°	24138743	2000	Snap-on	Accent / Cove	✓	✓	✓
7	Opal	24138742	2000	Snap-on	Accent / Cove	√	√	√



				i ioilio	
Pic	Туре	Art. Code	Z200-2	Z201-2	Z22W-2
1	End cap Grey PMMA	24166334	×	✓	×
2	End Cap Aluminium	24139174	×	X	✓
2	End Cap Aluminium Cable Entry	24139173	×	×	✓
3	Mounting Bracket 0°	88166859	×	√	✓
4	Mounting Bracket 15°	88167372	×	√	✓
4	Mounting Bracket 30°	88167373	×	√	✓
4	Mounting Bracket 45°	88167374	×	√	✓
4	Mounting Bracket 60°	88167375	×	√	✓
5	Mounting Bracket Adjustable	24166024	×	×	√

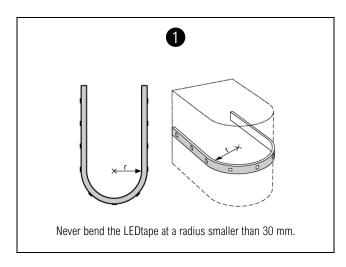


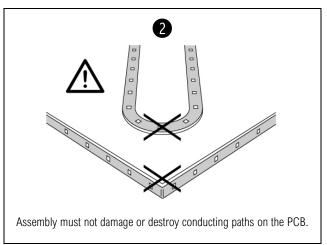
LEDtape Indoor Series IP00

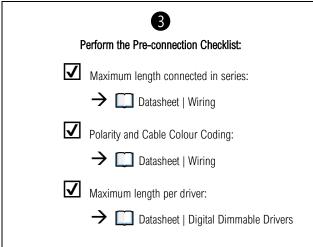
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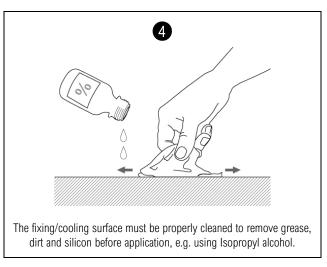


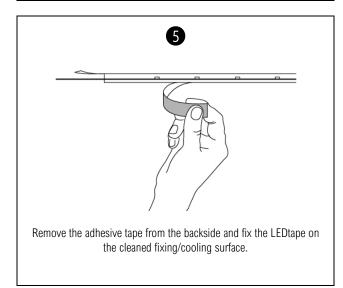
INSTALLATION

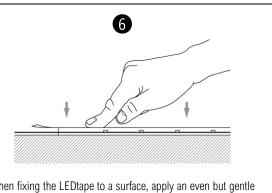






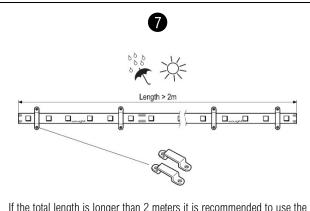




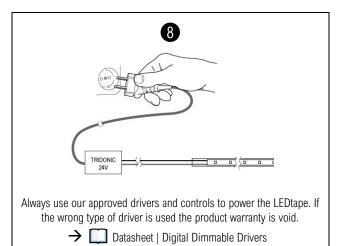


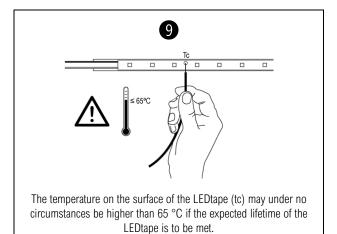
When fixing the LEDtape to a surface, apply an even but gentle pressure and try to avoid applying pressure directly on the LED itself (the maximum allowed pressure is 20 N/cm²).

After assembly always check that the entire length has attached properly to the surface and that there is no air pockets underneath.

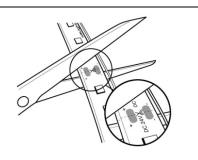


If the total length is longer than 2 meters it is recommended to use the included screw mounting clips in addition to the adhesive tape.

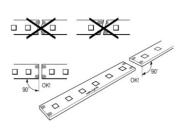




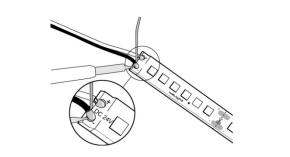
CUT & SOLDER



The LEDtape is separable at the middle of every solder pad with the full function of each LED segment. It is only allowed to cut at the indicated cutting line.



Always cut the LEDtape in a straight line -90° in relation to the PCB edges. Use Welight's official connection accessories to split, connect, and bridge the LEDtape.



If you need to solder the LEDtape, pre-tin the cables only. Soldering temperature max 300 °C for 4 seconds.

For details on how to solder an IP00 LED tape, please watch this VIDEO TUTORIAL:



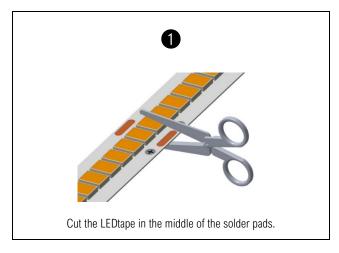


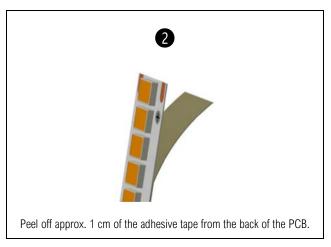
LEDtape Indoor Series IP00

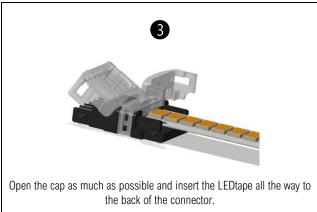
KOPPLINGSDON CONNECTORS VERBINDER CONNECTORI CONECTORES

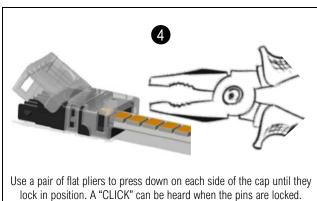


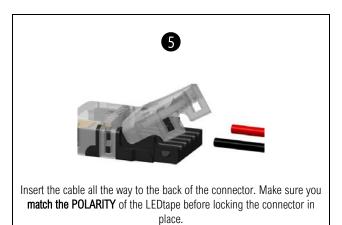
STRIP TO CABLE

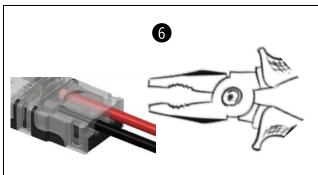








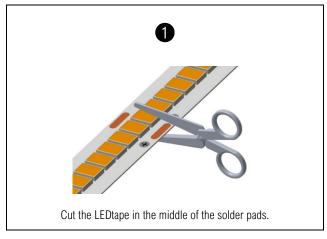


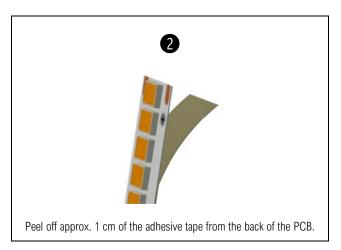


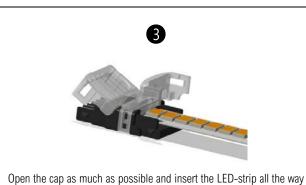
Use a pair of flat pliers to press down on each side of the cap until they lock in position. A "CLICK" can be heard when the pins are locked.



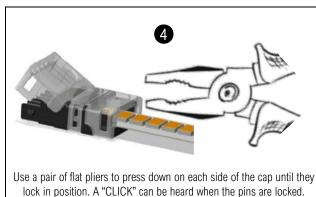
STRIP TO STRIP

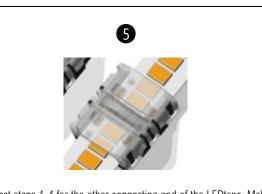






to the back of the connector.





If you are in doubt, consider soldering your connection instead. There is no substitute for a permanent soldered connection.

VIDEO TUTORIAL:



Repeat steps 1-4 for the other connecting end of the LEDtape. Make sure you check that both ends are facing the **SAME POLARITY** before locking the last connector in place.

Do NOT use Quick Connectors when...

imes You need to connect a pre-soldered joint.





Your LED strips might be subjected to movement - as in installations on cars, boats, or other vehicles; or in installations that might be installed or set up several times, such as portable shelving or displays.

- You have a large number of connections to make particularly in installations that require many connections back to back, where one failure would result in the loss of large sections of light.
- You are installing in tight places when the added size of the connector would make your LED strip installation difficult or impossible.
- X Your connectors absolutely MUST NOT fail as in connectors installed in hard to reach places, in products or installations you're delivering or shipping to a customer.



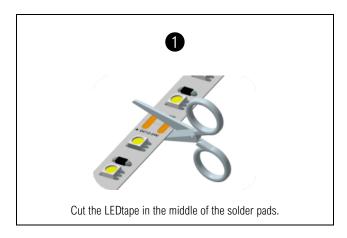
LEDtape Indoor Series IP00

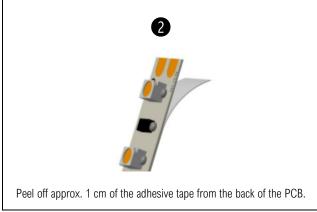
KOPPLINGSDON MINI CONNECTORS SLIM VERBINDER KLEIN CONNETTORI SOTTILE CONECTORES DELGADO

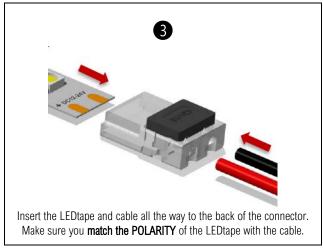


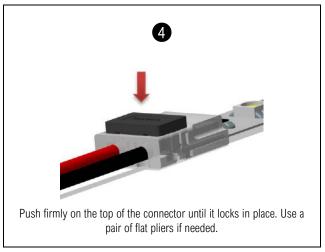


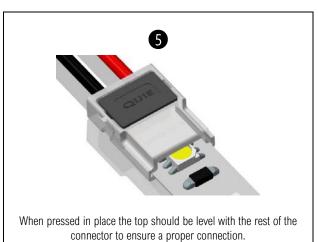
STRIP TO CABLE





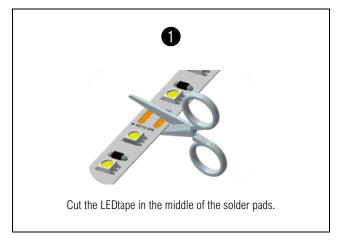


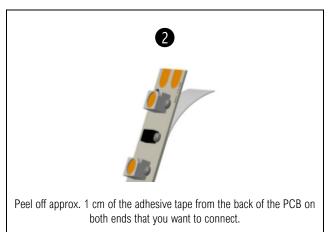


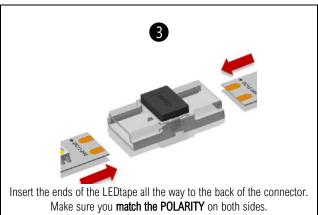


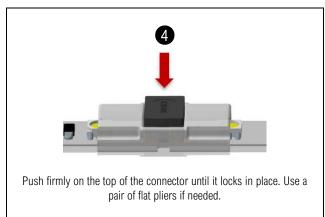


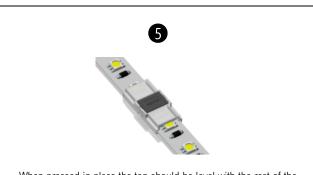
STRIP TO STRIP











If you are in doubt, consider soldering your connection instead. There is no substitute for a permanent soldered connection.

VIDEO TUTORIAI ·



When pressed in place the top should be level with the rest of the connector to ensure a proper connection.

Do NOT use Quick Connectors when...

imes You need to connect a pre-soldered joint.





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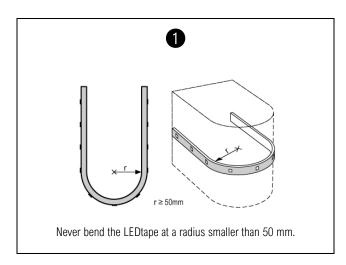


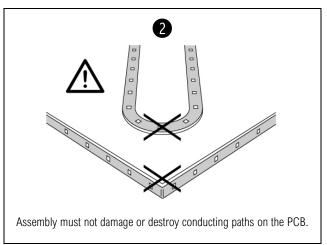
LEDtape Outdoor Series IP68

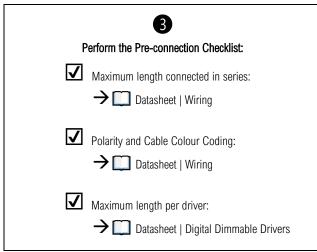
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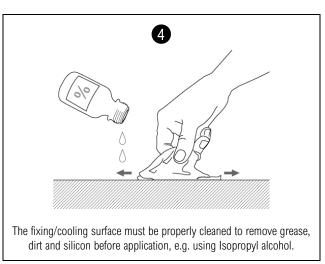


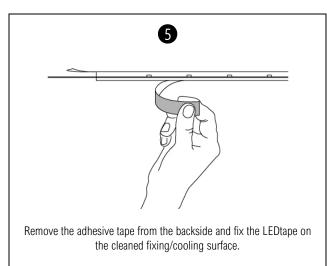
INSTALLATION

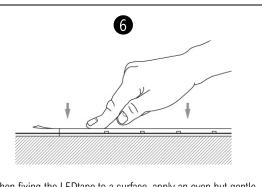








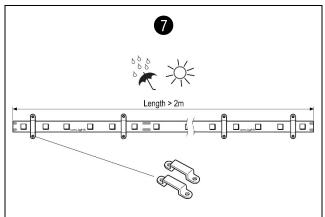




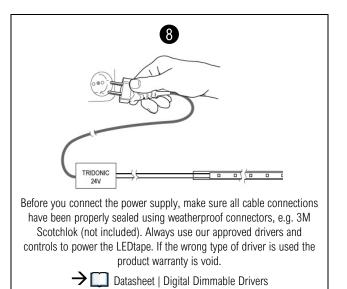
When fixing the LEDtape to a surface, apply an even but gentle pressure and try to avoid applying pressure directly on the LED itself (the maximum allowed pressure is 20 N/cm²).

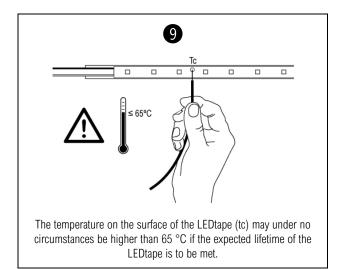
After assembly always check that the entire length has attached properly to the surface and that there is no air pockets underneath.



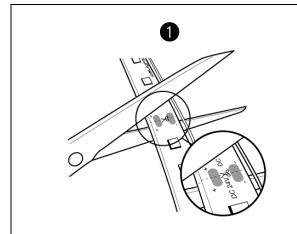


If the total length is longer than 2 meters or when used in environments with large variations in temperature (e.g. outdoor applications) it is recommended to use the included screw mounting clips in addition to the adhesive tape.

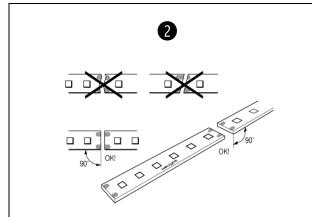




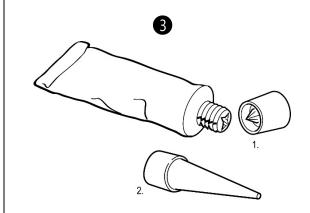
CUT & RE-SEAL



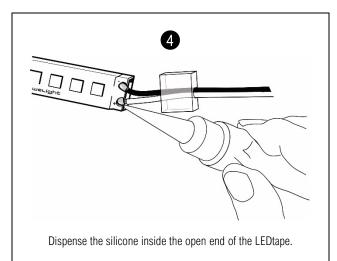
The LEDtape is separable at the middle of every solder pad with the full function of each LED segment. It is only allowed to cut at the indicated cutting line.

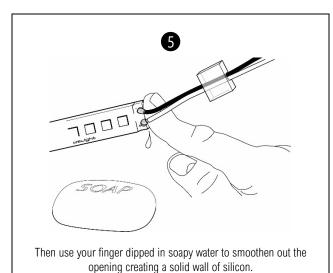


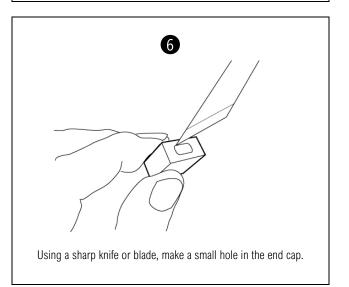
Always cut the LEDtape in a straight line -90° in relation to the PCB edges. Failure to do so can result in damage of the internal conducting paths. Use Welight's official connection accessories to split, connect, bridge and re-seal the LEDtape.

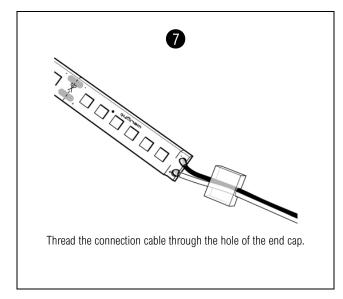


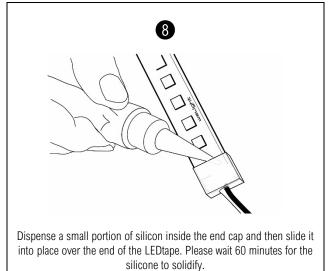
Locate the accessories included in the LEDtape box. Puncture the seal of the tube using the backside of the tube cap. Screw the dispersion needle onto the tube. Cut the top of the needle at an angle of 45-60°.

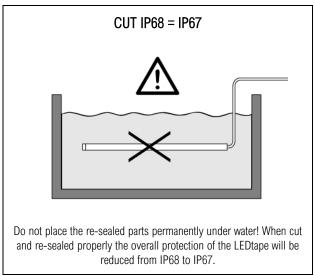




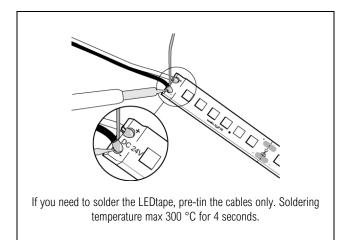








SOLDERING



For details on how to solder an IP68 LEDtape, please watch this VIDEO TUTORIAL:



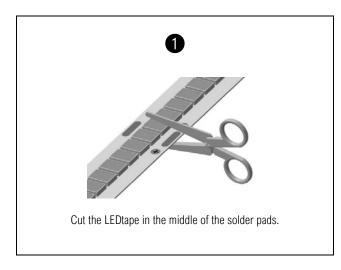


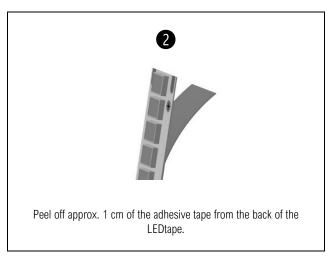
LEDtape Outdoor Series IP68

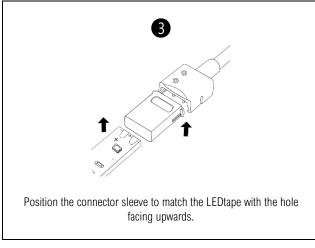
KOPPLINGSDON CONNECTORS VERBINDER CONNETTORI CONECTORES

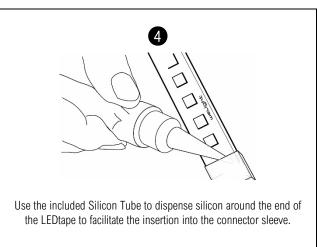


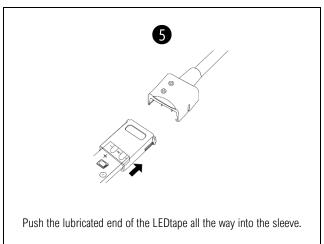
STRIP TO CABLE

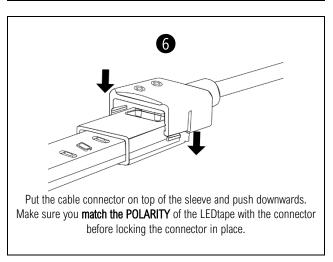




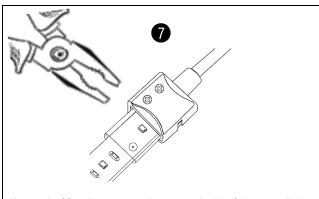




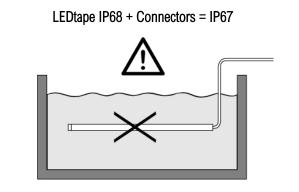






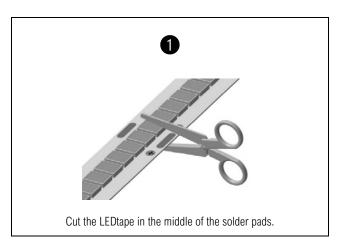


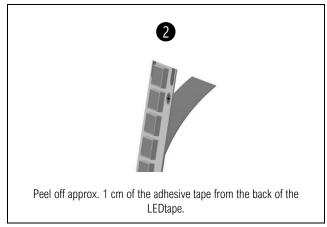
Use a pair of flat pliers to press down on each side of the cap until they lock in position. A "CLICK" can be heard when the pins are locked.

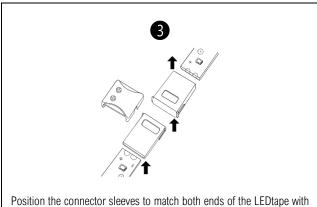


Do not use connectors permanently under water! When using connectors, the overall protection of the LEDtape will be reduced from IP68 to IP67.

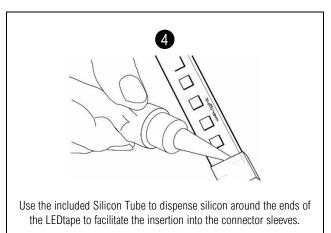
STRIP TO STRIP



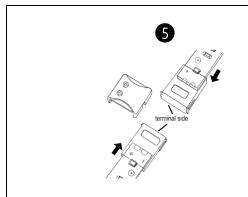




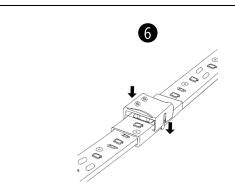
the holes facing upwards.



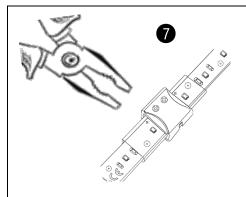




Push the lubricated ends of the LEDtape all the way into the sleeves.

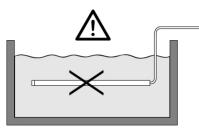


Put the bridge connector on top of the sleeves and push downwards. Make sure you **match the POLARITY** of the LEDtape with the connector before locking the bridge connector in place.



Use a pair of flat pliers to press down on each side of the cap until they lock in position. A "CLICK" can be heard when the pins are locked.

LEDtape IP68 + Connectors = IP67



Do not use connectors permanently under water! When using connectors, the overall protection of the LEDtape will be reduced from IP68 to IP67.

Do NOT use Quick Connectors when...

× You need to connect a pre-soldered joint.





X Your LED strips might be subjected to movement - as in installations on cars, boats, or other vehicles; or in installations that might be installed or set up several times, such as portable shelving or displays.

- You have a large number of connections to make particularly in installations that require many connections back to back, where one failure would result in the loss of large sections of light.
- × You are installing in tight places when the added size of the connector would make your LED strip installation difficult or impossible.
- X Your connectors absolutely MUST NOT fail as in connectors installed in hard to reach places, in products or installations you're delivering or shipping to a customer.

If you are in doubt, consider soldering your connection instead. There is no substitute for a permanent soldered connection.

VIDEO TUTORIAL:

