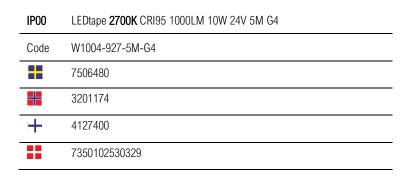
# DATASHEET

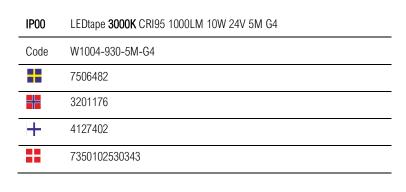






IP68	LEDtape <b>2700K</b> CRI95 1000LM 10W 24V IP68 5M G4
Code	W1004-927-IP68-5M-G4
	7506481
===	3201175
+	4127401
	7350102530336







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



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



IP68	LEDtape <b>4000K</b> 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**



pp. 2

#### Accessories



# Mounting Instructions



pp. 7

pp. 5

# TECHNICAL DATA

#### **Packaging**

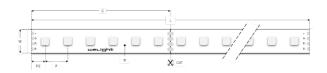
Full carton	20 pcs
Weight per pc	IP00: 600 g   IP68: 900 g
Box dimensions	250 x 250 x 30 mm

#### Electrical ①

Supply voltage (VDC)	24
DC Voltage Range 46	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 @

Dimonolonar ©	
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
LED quantity per m	168
MacAdam SDCM	≤3
CRI (R1-R8)	>95

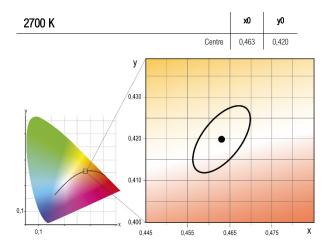
# Photometric Code (according to EN 62717)

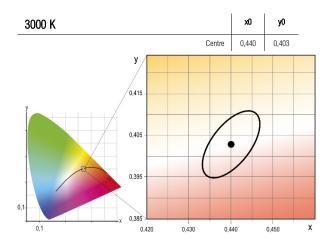
White Tone	CCT	Photometric Code	
Incandescent	2700 K	927 / 349	
Warm	3000 K	930 / 349	
Neutral	4000 K	940 / 349	

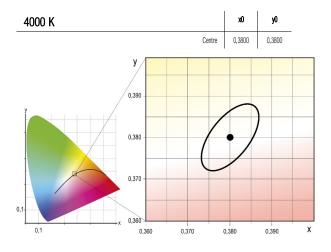
- ① Tolerance range for electrical and optical data ±10%
  ② Tolerance range for dimensional data ±1%
  ③ All values for ta = 25 °C / tc = 65 °C
  ④ Measured at the beginning of the LEDtape. Exceeding the maximum operating voltage leads to an overload on the tape. This may result in a significant reduction in lifetime or even destruction of the tape.
  ⑤ Self-cooling at ta ≤ 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.

CRI (R1-R14)

# Chromaticity coordinates and tolerances (according to CIE 1931)



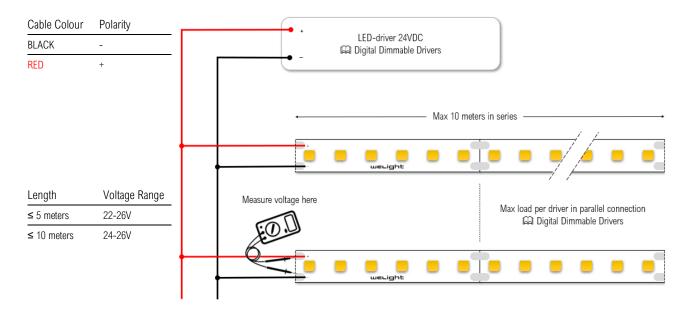




The specified color coordinates are measured by a current impulse with nominal values of module after a settling time of 100 msec. The ambient temperature of the measurement is ta = 25 °C. The measurement tolerance of the color coordinates is  $\pm$  0.01.

#### 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	<b>✓</b>	×
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	<b>√</b>	×
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	<b>√</b>	×
5	LEDtape Connector IP Strip-Strip	W8438	Connect IP68 strips to each other 🛕	1 pc	×	✓
6	LEDtape Connector IP Strip-Cable	W8439	Connect IP68 strip to a cable (20cm cable included)	1 pc	×	<b>✓</b>
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).	-	<b>√</b>	×
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).	-	<b>√</b>	×
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.	-	✓	✓
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.	_	✓	✓
12	LEDcable RKUB 2X0.5 AWG20 W/W 100m	W8422	White connection cable, 100m reel. Indoor use only.	-	✓	✓
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.	-	✓	<b>√</b>
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.	-	<b>√</b>	<b>√</b>
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	×	<b>√</b>
17	LEDtape IP Assembly Kit 10	W8901	Endcaps, Mounting Brackets & Silicon	_	×	✓
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	×	✓

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	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>

(B)					×	6	6
	1	2	3	4	5	6	7

						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 ▲	<b>√</b>	✓	<b>&gt;</b>	
2	30°	24166409	2000	Slide-on	Wall wash	✓	<b>√</b>	<b>√</b>	
3	60°	24166410	2000	Slide-on	Shelf/Cabinet	✓	<b>√</b>	<b>√</b>	
3	90°	24166411	2000	Slide-on	Shelf/Cabinet	✓	<b>√</b>	<b>√</b>	
4	30° x 60°	24166412	2020	Slide-on	Asymmetric	✓	<b>√</b>	✓	
5	Batwing	24166123	2000	Snap-on	Side-emitting	×	×	<b>✓</b>	
6	120°	24138743	2000	Snap-on	Accent / Cove	✓	<b>√</b>	✓	
7	Opal	24138742	2000	Snap-on	Accent / Cove	1	1	1	



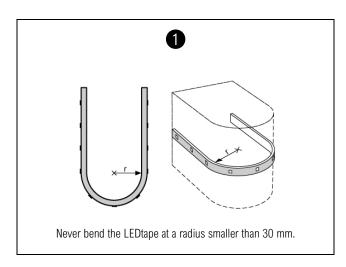
			1 TOTALE			
Pic	Туре	Art. Code	Z200-2	Z201-2	Z22W-2	
1	End cap Grey PMMA	24166334	×	<	×	
2	End Cap Aluminium	24139174	X	×	✓	
2	End Cap Aluminium Cable Entry	24139173	X	×	✓	
3	Mounting Bracket 0°	88166859	X	<b>√</b>	✓	
4	Mounting Bracket 15°	88167372	X	<b>√</b>	<b>√</b>	
4	Mounting Bracket 30°	88167373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

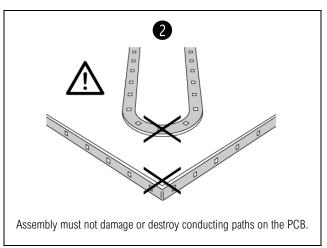
#### LEDtape Indoor Series IP00

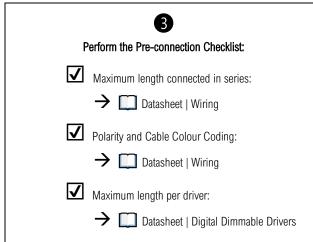
**INSTRUKTIONER INSTRUCTIONS ANLEITUNG ISTRUZIONI INSTRUCCIONES** 

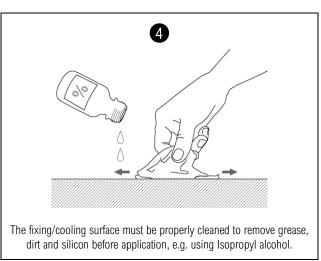


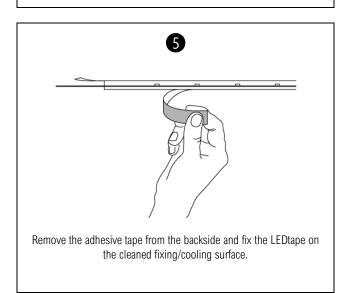
#### INSTALLATION

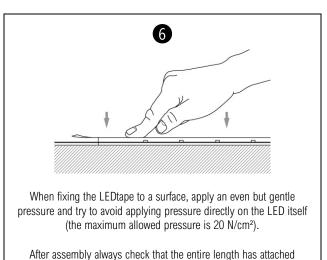




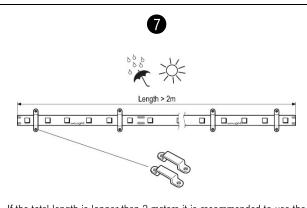




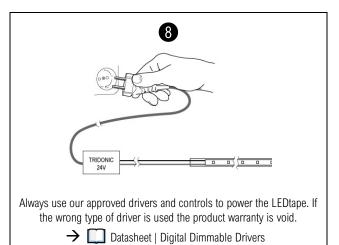


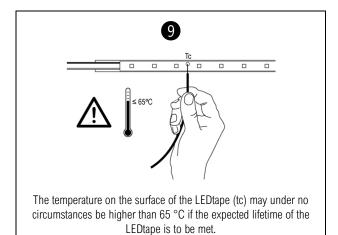


properly to the surface and that there is no air pockets underneath.

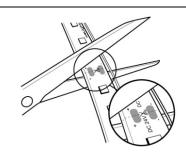


If the total length is longer than 2 meters it is recommended to use the included screw mounting clips in addition to the adhesive tape.

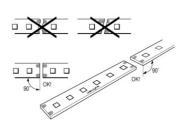




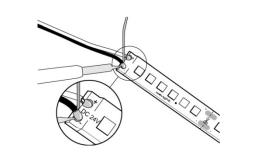
# **CUT & SOLDER**



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 –  $90^{\circ}$  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 LEDtape, please watch this VIDEO TUTORIAL:

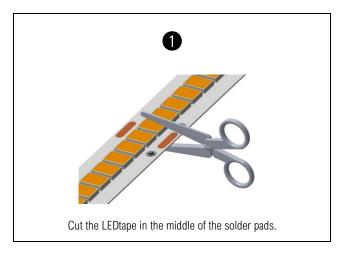


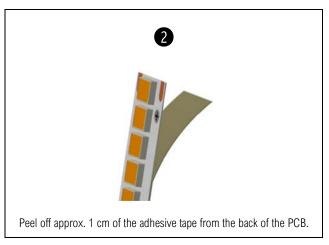
# LEDtape Indoor Series IP00

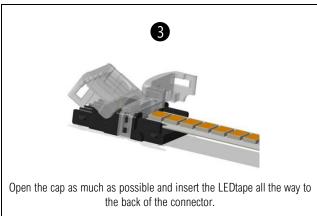
**KOPPLINGSDON CONNECTORS** VERBINDER CONNETTORI **CONECTORES** 

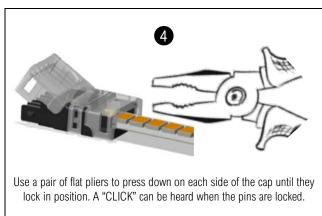


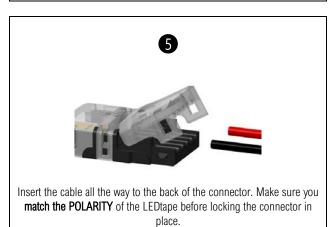
# STRIP TO CABLE

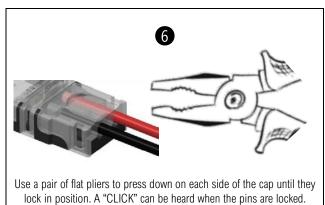




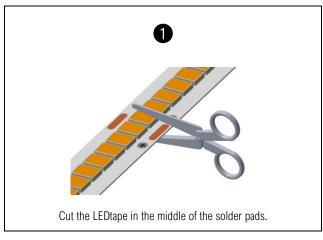


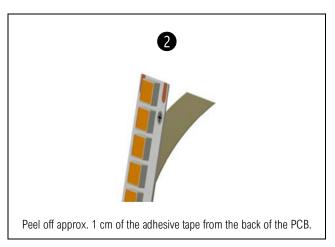


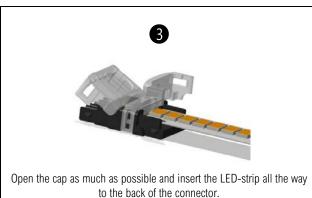


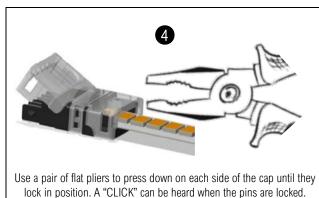


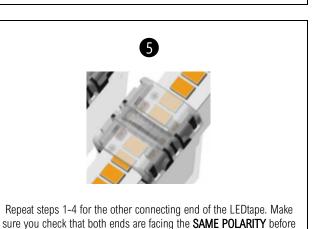
#### STRIP TO STRIP











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

#### VIDEO TUTORIAL:



# Do NOT use Quick Connectors when...

locking the last connector in place.

× 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
- imes You are installing in tight places when the added size of the connector would make your LED strip installation difficult or impossible.
- imes 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.

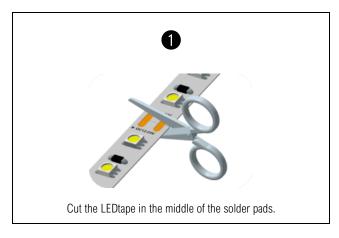
# LEDtape Indoor Series IP00

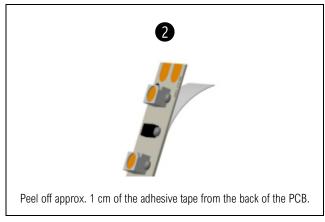
KOPPLINGSDON MINI **CONNECTORS SLIM** VERBINDER KLEIN CONNETTORI SOTTILE **CONECTORES DELGADO** 

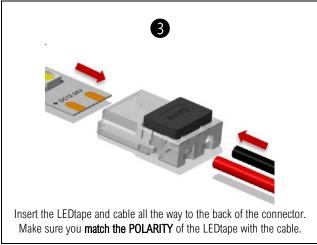


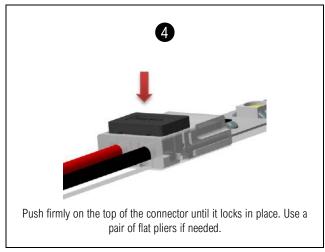


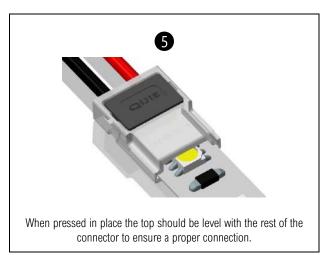
# STRIP TO CABLE



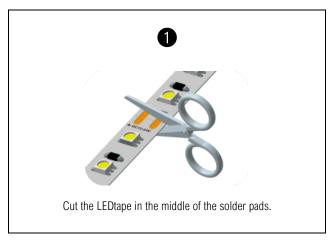


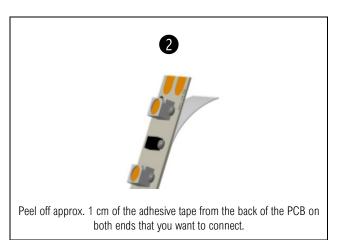


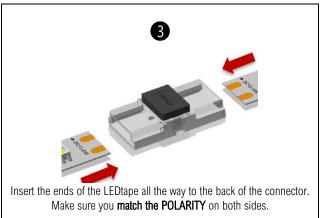


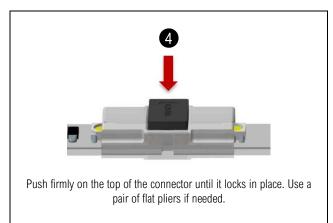


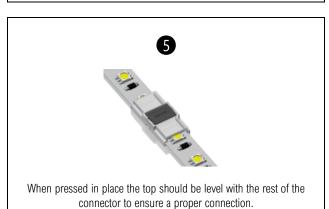
#### STRIP TO STRIP











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

#### VIDEO TUTORIAL:



# Do **NOT** use Quick Connectors when...

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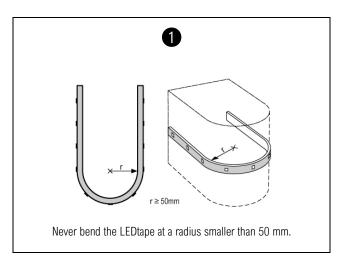
- × You have a large number of connections to make particularly in installations that require many connections back to back, where one failure would result in the loss of large sections of light.
- × You are installing in tight places when the added size of the connector would make your LED strip installation difficult or impossible.
- × 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.

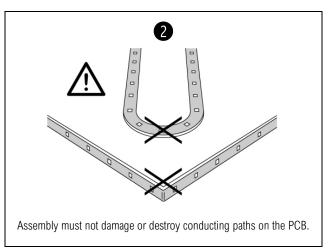
# **LEDtape Outdoor Series IP68**

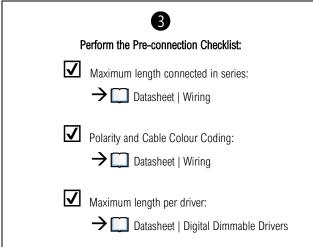
**INSTRUKTIONER INSTRUCTIONS ANLEITUNG ISTRUZIONI INSTRUCCIONES** 

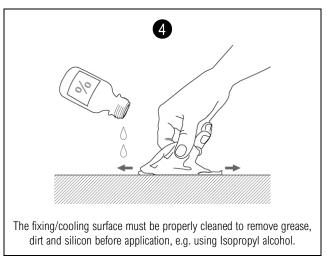


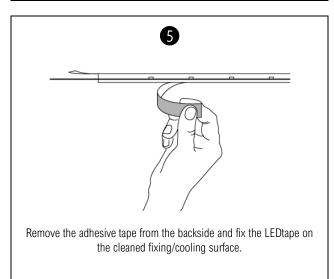
#### **INSTALLATION**

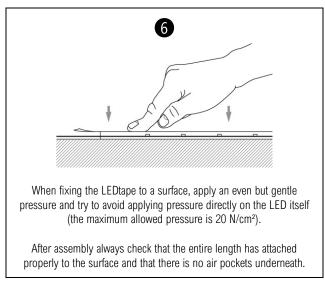


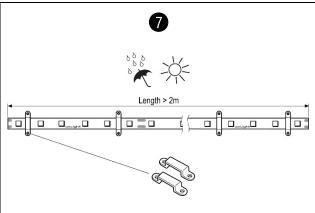




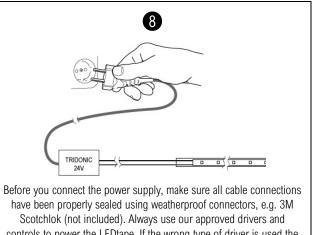






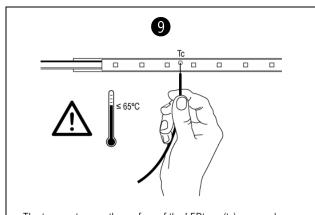


If the total length is longer than 2 meters or when used in environments with large variations in temperature (e.g. outdoor applications) it is recommended to use the included screw mounting clips in addition to the adhesive tape.



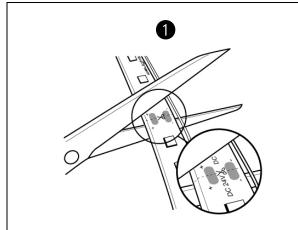
controls to power the LEDtape. If the wrong type of driver is used the product warranty is void.

→ □ Datasheet | Digital Dimmable Drivers

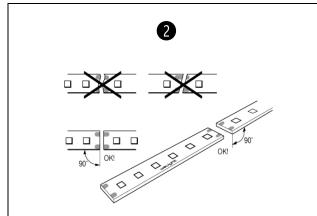


The temperature on the surface of the LEDtape (tc) may under no circumstances be higher than 65 °C if the expected lifetime of the LEDtape is to be met.

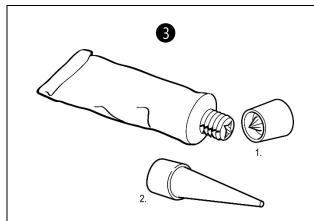
#### **CUT & RE-SEAL**



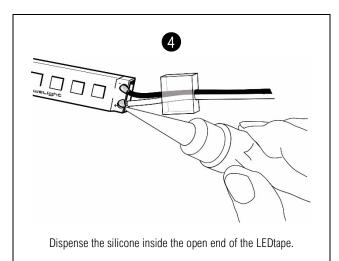
The LEDtape is separable at the middle of every solder pad with the full function of each LED segment. It is only allowed to cut at the indicated cutting line.

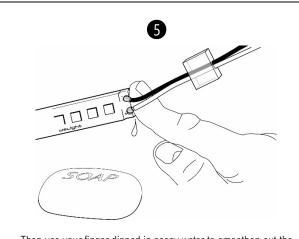


Always cut the LEDtape in a straight line - 90° in relation to the PCB edges. Failure to do so can result in damage of the internal conducting paths. Use Welight's official connection accessories to split, connect, bridge and re-seal the LEDtape.

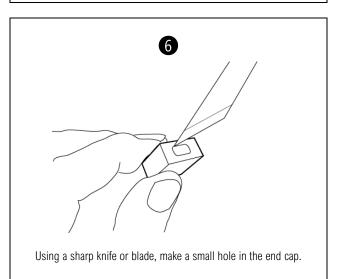


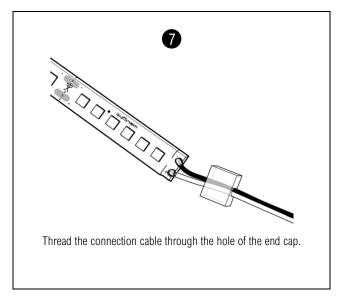
Locate the accessories included in the LEDtape box. Puncture the seal of the tube using the backside of the tube cap. Screw the dispersion needle onto the tube. Cut the top of the needle at an angle of 45-60°.

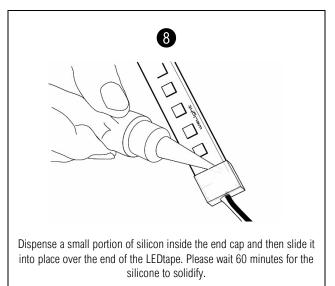


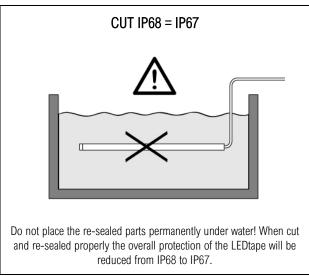




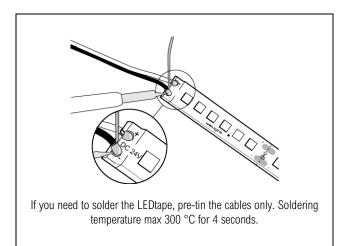








# **SOLDERING**



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

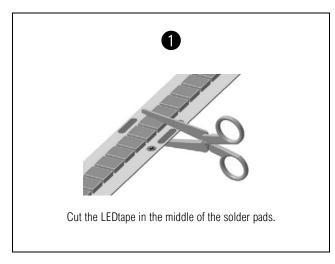


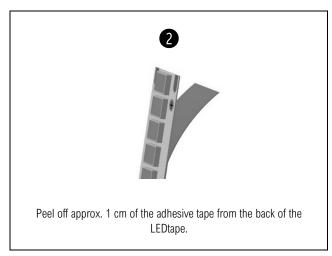
# LEDtape Outdoor Series IP68

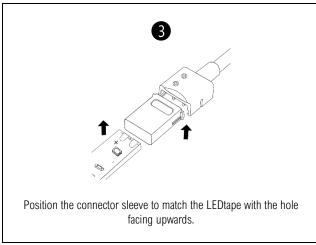
**KOPPLINGSDON CONNECTORS** VERBINDER CONNETTORI **CONECTORES** 

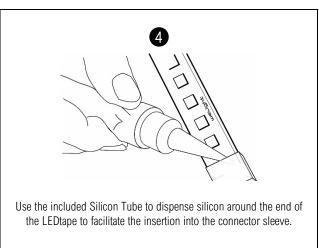


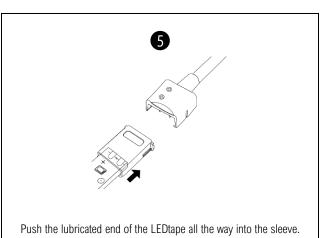
# STRIP TO CABLE

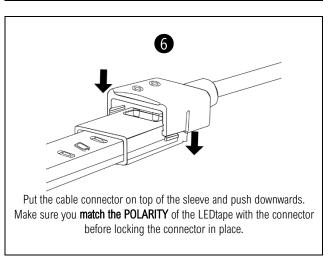


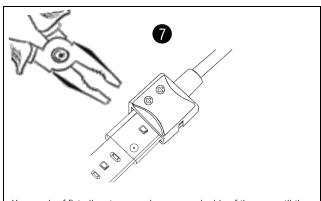




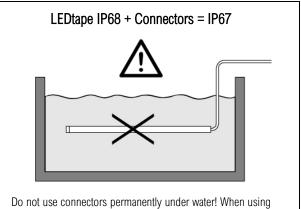






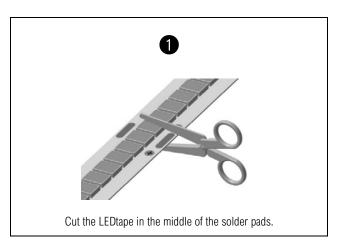


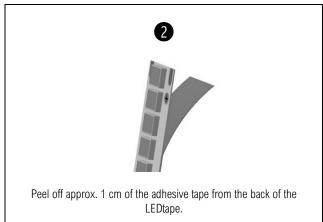
Use a pair of flat pliers to press down on each side of the cap until they lock in position. A "CLICK" can be heard when the pins are locked.

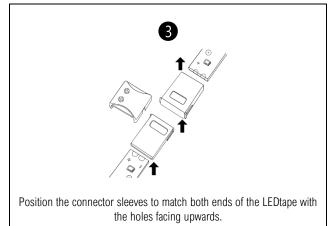


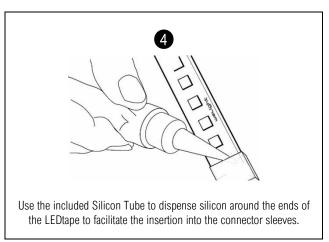
# connectors, the overall protection of the LEDtape will be reduced from IP68 to IP67.

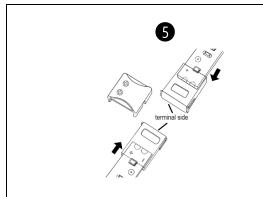
# STRIP TO STRIP



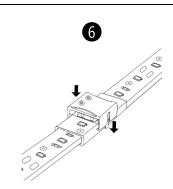




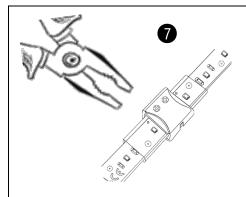




Push the lubricated ends of the LEDtape all the way into the sleeves.

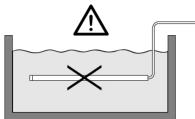


Put the bridge connector on top of the sleeves and push downwards. Make sure you **match the POLARITY** of the LEDtape with the connector before locking the bridge connector in place.



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.





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:



# SAFETY INSTRUCTIONS

- Read these instructions carefully before starting the installation and save for future reference. All connections to the device must be made by a qualified electrician or person with the necessary expertise in electrical installation in accordance with relevant rules and standards. Make sure that the mains voltage is disconnected before installation or maintenance.
- Läs dessa instruktioner innan installationen påbörjas och lämna dem vidare till brukaren av anläggningen. All anslutning till enheten får endast utföras av behörig elektriker eller person med kännedom om elektrisk installation i enlighet med gällande regler och standard. Se till att spänningen är frånslagen före installation eller underhåll.
- Lue nämä ohjeet ennen asentamista ja luovuta ohjeet valaisimen seuraavalle käyttäjälle. Kytkennät ohjaimeen saa tehdä ainoastaan pätevä sähköasentaja tai sähköasennukset hallitseva henkilö voimassa olevien määräysten ja standardien mukaisesti. Varmista, että jännite on kytketty päältä ennen asennusta ja huoltoa.
- NO Les disse instruksjonene før du starter installeringen, og gi den deretter videre til anleggets bruker. All tilkobling til enheten skal utføres av godkjent elektriker eller person med nødvendig kunnskap om elektrisk installasjon i henhold til gjeldende forskrifter og standard. Sørg for at strømmen er koblet fra før installering og ved vedlikehold.
- Læs disse anvisninger før du starter installationen og aflever vejledningen til anlæggets bruger. Alle tilslutninger på enheden skal udføres af en autoriseret elinstallatør i overensstemmelse med gældende regler og standarder. Afbryd spænding før installation og vedligeholdelse.