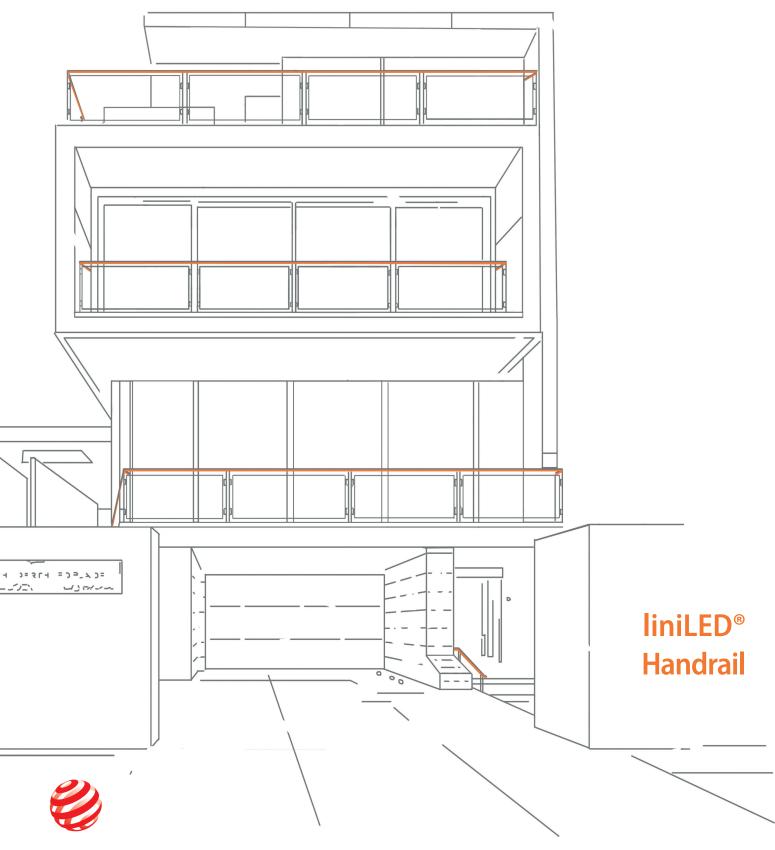
liniLED®



reddot award 2015 winner

liniLED[®] Handrail



The liniLED[®] Handrail is the result of a customized OEM project. The goal was to create a revolutionary LED based handrail system that provides functional lighting for a safe environment. By integrating the liniLED® Top LED strips (24 V DC) in the stainless steel liniLED® Handrail, the product is ideal for high-end indoor and outdoor projects in various sectors, such as: architecture, infrastructure, construction, health and the entertainment industry. The liniLED[®] Handrail has the same light benefits as a LED fixture: energy efficient with an expected lifetime of more than 50.000 hours. Ideal for a long lasting indoor and outdoor handrail solution.

LED strips | High-quality, flexible & energy efficient

The high-quality, flexible liniLED® Top LED strips have a unique co-extrusion technology with built-in reflection, which guarantees an optimal light output (24 V DC). The liniLED® Top LED strips are available in three luminous intensities (Deco, Power and Power Short Pitch) and several colours, such as: Warm White 2700K and 3000K, Natural White 4000K and Cold White 6500K. The Deco and Power versions are also available in the colours: red, green, blue and amber.

Handrail | Durable, luxurious & smart design

The liniLED® LED strips are fully integrated into the handrail. The liniLED® Handrail is made of stainless steel (AISI 316) and is therefore ideal for indoor and outdoor (IP65) usage. The liniLED® Handrails are available with an outer diameter of 42.4 mm and 48.3 mm.

The liniLED® Handrails can be wall mounted or post mounted. The maximum unit length of the handrail is 6 metres and can easily be connected mechanically or by welding. The specially designed liniLED® Handrail connectors ensure a continuous light line, without any interruption.

The liniLED® Handrail components are designed for quick and easy installation and maintenance. All necessary parts required for installation are readily available, such as: cables, connectors, profiles and brackets.

Why choose liniLED[®] Handrail?

The liniLED® Handrail is part of the liniLED® System: a concept which consists of high-quality, flexible LED strips (IP20, IP40, IP68), several light fixtures (IP65, IP68) and a number of accessories. The liniLED® assortment is developed and produced in Europe under exceptionally high quality standards. Therefore it can be applied both indoor and outdoor, as functional or decorative lighting.

The liniLED® Handrail is available in maximum unit lengths of 6 metres (other lengths are available on request).

liniLED[®] Handrail. European quality & manufacturing.

liniLED[®] Handrail



USP's liniLED® Handrail

- European quality, design & manufacturing
- Durable materials, stainless steel (AISI 316)
- Energy efficient & dimmable
- Expected lifetime > 50,000 hours
- Indoor & outdoor
- Designed for quick & easy installation
- Astonishing light effect without interruption
- High-quality, flexible liniLED[®] Top LED strips
- Available in various colours & luminous intensities

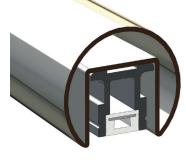


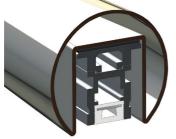
Luminous intensities, light output & power

The high-quality, flexible liniLED® Top LED strips are fully integrated into the stainless steel handrail. Provided with a unique co-extrusion technology with built-in reflection, the liniLED® Top LED strips have an optimal light output (24 V DC). The LED strips are available in three luminous intensities (Deco max. 112 lm/m, Power max. 368 lm/m en PSP max. 741 lm/m) and several colours: Warm White 2700K and 3000K, Natural White 4000K and Cold White 6500K. The Deco and Power versions are also available in the colours: red, green, blue and amber.

Indoor & outdoor

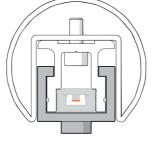
The liniLED® Handrails are available with a diameter of 42.4 mm and 48.3 mm. Both types can be applied indoor and outdoor, but using the 42.4 mm for indoor projects and the 48.3 mm for outdoor projects is recommended.





Round Ø 42.4 mm





Cross section of the round handrail with LED strip

Wall or post mounting & infill options

The liniLED® Handrails can be wall mounted or post mounted*. All components are designed for quick installation and maintenance. In case of post mounting it is possible to install the liniLED® Handrail with several infill options, e.g. glass, cables, railings, etc.



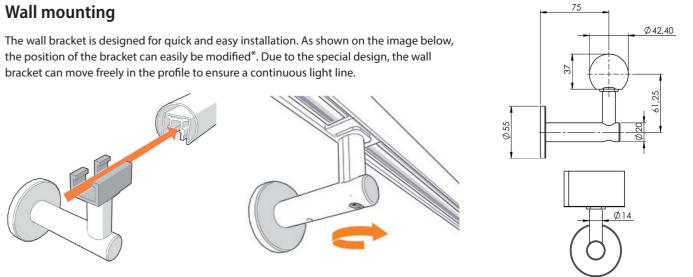




Post mounting *NOTE: Post and wall bracket spacing/ height must be determined by a licensed architect or structural engineer as this will vary depending on local rules and guide lines.

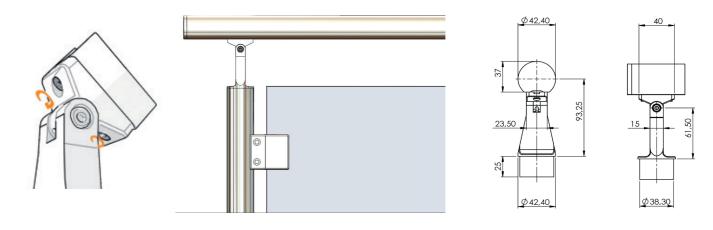






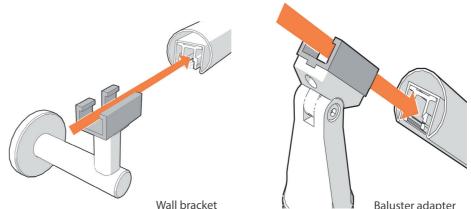
Post mounting

As well as the wall bracket, the position of the adapter can easily be adjusted to ensure a continuous light line. The liniLED® Handrail can be delivered with several infill options, such as: glass, cables and railings. It is possible to prefabricate the posts. For example: if glass infill is desired, the posts can be customized with glass clamps. Ask us about the customized options.



Continuous line of light & easy installation

The wall brackets and baluster adapters are designed to move freely within the profile. When assembling the handrail, the position of the brackets and adapters can easily be modified. As shown on the image below, the power cables are fully integrated in the brackets and adapters.

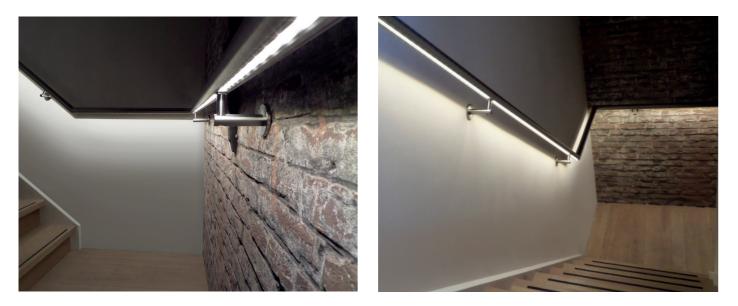


Wall bracket Baluster adapter With power cables *NOTE: Post and wall bracket spacing/ height must be determined by a licensed architect or structural engineer as this will vary depending on local rules and guide lines.

Without power cables



liniLED[®] Handrail



Standard & customized angles

There are three standard angles for the liniLED[®] Handrails: 45°, 90° and 120°. Other angles can be customized upon request, for instance: ADA compliant (ADA= *The Americans with Disabilities Act*).



45° Angle



90° Angle

ngle

120° Angle

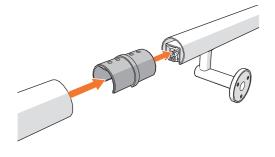


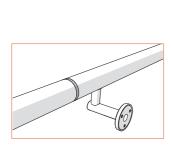
Customized bending

Example of a handrail connector

Connecting

The liniLED[®] Handrails can easily be connected with several connectors. One of our specialties is to translate ideas and requirements into customized solutions and to deliver the liniLED[®] Handrail pre-assembled^{*}.





*NOTE: Please consult a professional electician and handrail installer when installing the liniLED® Handrail on location.

Procedure

To create a customized quotation, fully dimensioned plans, DWG files and detailed drawings are needed. Dimensions usually vary from the architectural plan, thus it is important that actual field dimensions are used: consult a professional handrail installer.

In addition to the fully dimensioned plans and drawings, an electrical contractor and/ or lighting designer should be consulted to obtain the best possible light result.



How to compose your liniLED® Handrail

As each lighting project is unique, all the components of the liniLED[®] Handrail are professionally customized. Therefore it is of great importance to provide fully dimensioned plans, DWG files and detailed drawings, in addition to the useful menu below.

Environment*	Mounting Wall mounted	liniLED® Top LED str Deco	
Outdoor	Post mounted	□ Warm White 2700	
		□ Warm White 3000	
Size	Infill (Post)	□ Natural White 400	
□ 42.4 mm	□ Glass	□ Cold White 6500K	
□ 48.3 mm	□ Railing	□ Red	
	□ Cables	□ Green	
Total length: m	□ Custom	□ Blue	
		□ Amber	

Additional information:

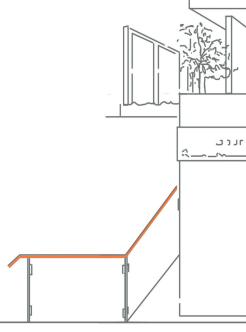
For more information about the liniLED[®] Handrail, please contact us. We will be happy to provide you with all the necessary information and are looking forward on advising you about the best available options for your project. Visit our website for the latest information: www.liniLED.com.

strip	liniLED® Top LED strip Power			liniLED [®] Top LED strip Power Short Pitch			
DOK		Warm White 2700K		Warm White 2700K			
DOK		Warm White 3000K		Warm White 3000K			
000K		Natural White 4000K		Natural White 4000K			
ОК		Cold White 6500K		Cold White 6500K			
		Red	Bei	nding			
		Green		45°	x (qty)		
		Blue		90°	x (qty)		
		Amber		120°	x (qty)		
				Custom			

Airports Train & Metro stations Shopping centres Theatres & Cinemas Docks & Parks Hotels Pedestrian areas Hospitals & Health industry Offices Sport stadiums Private residences Universities & High schools

Triolight BV Hermesweg 23-25 3771 ND Barneveld The Netherlands

T: +31 (0)342 450 506 F: +31 (0)342 450 232 E: info@liniLED.com www.liniLED.com



Innovative LED-based handrail system