ADDRESSABLE LED NEON · PIXEL RGB · IP67

# NEON-612S-PX

6 × 12 mm addressable pixel RGB side-bend silicone neon, 24 V DC, WS2811




| | |
|---|---|
| PROFILE | 6 × 12 mm |
| POWER | 12.5 W/m |
| VOLTAGE | 24 V DC |
| PROTECTION | IP67 |
| PIXELS | 10 / m |
| IC | WS2811 |

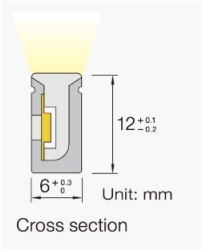
## Overview

NEON-612S-PX is a slim 6 × 12 mm side-bend silicone neon with individually addressable RGB pixels every 100 mm. Driven by a WS2811 single-wire SPI signal, it runs chases, gradients and colour effects along tight contours on deck furniture, steps, handrails and interior details. One-piece extruded silicone, IP67, resistant to salt solution, weak acids, alkalis and UV.

## Specifications

| | |
|---|---|
| Light type | **Addressable RGB (pixel)** |
| Cross section | **6 +0.3/−0 × 12 +0.1/−0.2 mm** |
| Bending direction | **Side (horizontal)** |
| Input voltage | **24 V DC** |
| Power | **12.5 W/m (RGB full output)** |
| Control | **SPI, single data line (DI/DO)** |
| IC | **WS2811** |
| Pixels | **10 per metre** |
| Cut unit | **100 mm** |
| Protection | **IP67** |
| Material | **Silicone, milky-white diffuser** |
| Cable | **PVC, OD 4.0 mm, 3-core, with waterproof connectors** |

## Cross Section




Cross section

ORDERING INFORMATION

## Product Code

**NEON-612S-PX**
MODEL

**RGB**
COLOUR
WS2811 · 10 px/m

Single ordering code. Pixel pitch 100 mm (10 pixels per metre), cut at every pixel mark. Controlled by any SPI pixel controller supporting WS2811.

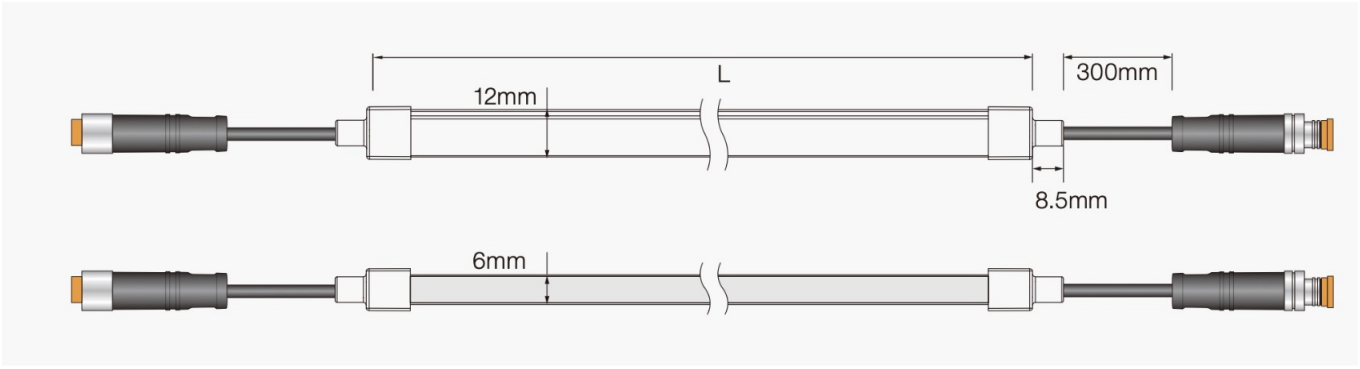
## Photometric Data

| CODE | OUTPUT | POWER | LM/M | LM/W | PIXELS/M | CUT | IC |
|---|---|---|---|---|---|---|---|
| **NEON-612S-PX** | RGB (all channels) | 12.5 W/m | 162 | 13.0 | 10 | 100 mm | WS2811 |
| | Red only | 4.8 W/m | 42 | 8.8 | 10 | 100 mm | WS2811 |
| | Green only | 4.8 W/m | 122 | 25.4 | 10 | 100 mm | WS2811 |
| | Blue only | 4.8 W/m | 22 | 4.6 | 10 | 100 mm | WS2811 |

Measured at 24 V DC, full output per channel. Single-wire SPI data (DI/DO).

DIMENSIONS & INSTALLATION

## Dimensions (unit: mm)




L = ordered length; 300 mm connector cable on both ends; 8.5 mm end cap.

## Wiring

| CORE | FUNCTION |
|---|---|
| Red | V+ (24 V DC) |
| Green | Data DI / DO |
| Black | V− (GND) |

PVC cable OD 4.0 mm with waterproof male/female connectors.

## Control

| | |
|---|---|
| Signal | SPI, single data cable |
| IC | WS2811 |
| Pixel pitch | 100 mm |
| Controller | Any WS2811-compatible SPI pixel controller |

## Pixel & Length

| ITEM | VALUE |
|---|---|
| Pixel pitch / cut unit | 100 mm |
| Pixels per metre | 10 |
| Lengths | To order, in multiples of 100 mm |

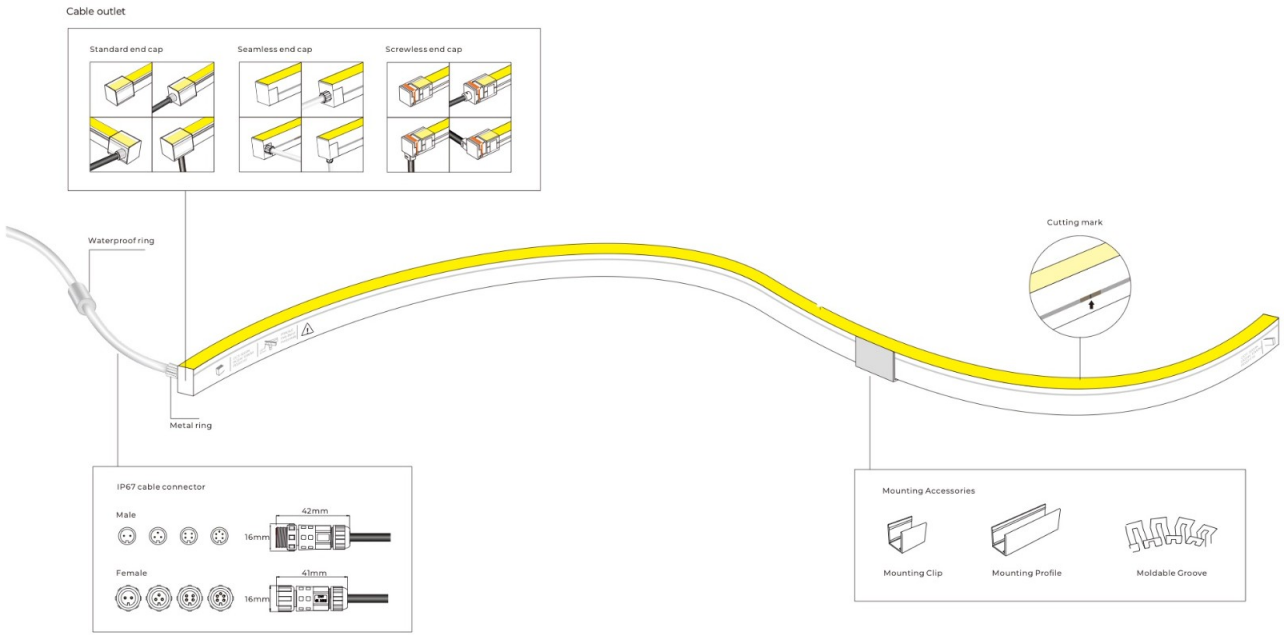
Light output and power may vary by up to ±10% due to production and component tolerances.

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# Cable Outlet & Mounting

End caps, cable entry, connectors and mounting accessories for MareLuce silicone neon.

## System Overview



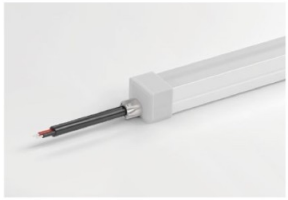

Each piece is supplied sealed: cable outlet at the feed end, closed end cap at the far end. Cut only at the marked cutting points; the maximum run length per feed point is given in the product datasheet.

## End Cap Types

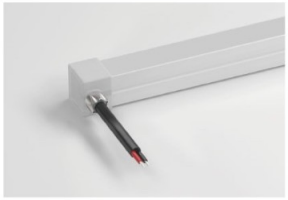
| TYPE | CONSTRUCTION | BEST FOR |
|---|---|---|
| **Standard silicone end cap** | Moulded silicone cap, IP67 sealed | General use; the default option |
| **Seamless end cap** | Light runs to the very end, no dark area | Corners, butted joints and closed shapes |
| **Screwless end cap** | Mechanical quick-connect cap with gasket, IP67 (see next page) | On-site cutting and fast replacement |

## Cable Entry Direction

Silicone End Cap (IP67)



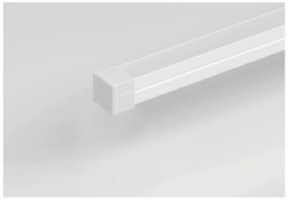
Front Cable Entry



Side Cable Entry



Bottom Cable Entry



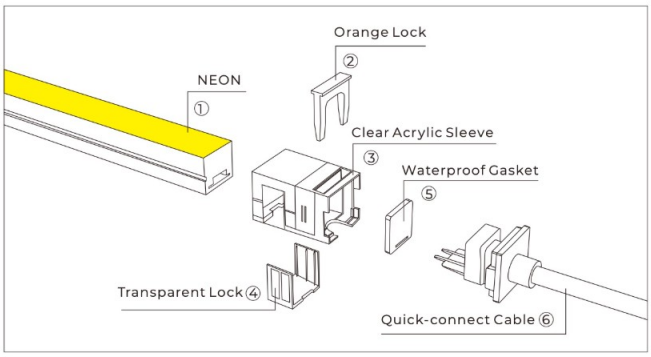
Closed end cap

**Front:** cable exits in line with the neon. **Side:** cable leaves at 90° for runs that end against a wall. **Bottom:** cable passes straight down through the mounting surface for hidden wiring. **Closed end cap:** blind end without cable. Specify end cap and cable entry for each end when ordering; availability varies by model.

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## Screwless End Cap

IP67 screwless end cap deconstruction diagram



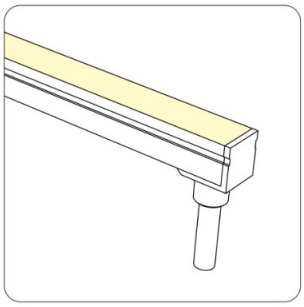

The screwless end cap seals a cut end to IP67 without glue or soldering, so pieces can be cut to length and connected on site.

1. Neon
2. Orange lock
3. Clear acrylic sleeve
4. Transparent lock
5. Waterproof gasket
6. Quick-connect cable

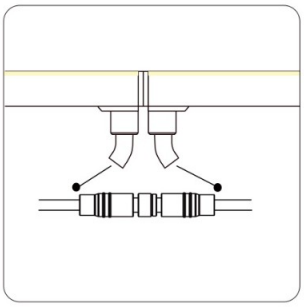
Follow the assembly instructions supplied with the cap.

## Joints & Corners

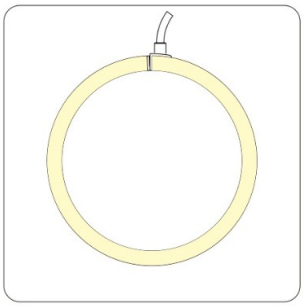
IP67 seamless end cap without dark area



Linear interconnection without dark area



Curve interconnection of lighting outward without dark area



Curve interconnection of lighting outward without dark area



Seamless end caps let two pieces meet without a dark gap, in straight lines and in closed curves. Join pieces with IP67 cable connectors (Ø16 mm, 41–42 mm long, 2 to 5 pins) and place connectors where they stay dry and accessible.

## Mounting

| ACCESSORY | USE |
|---|---|
| **Mounting clips** | Fixed at regular intervals along straight and curved runs; quick to install. |
| **Mounting profile** | Aluminium or PC channel for continuous support and a clean, straight line; recommended on exterior and overhead runs. |
| **Moldable groove** | Flexible channel that follows curves, letters and logos. |
| **Recessed (wing) neon** | Pressed into a routed groove, no profile needed; groove size in the product datasheet. |

## Installation Notes

- Respect the **bending direction** and **minimum bend diameter** in the product datasheet; do not bend at end caps or cable outlets.
- Do not twist the neon, and never pull or carry it by the cable.
- Cut only at the marked cutting points and reseal every cut end with an end cap to keep the IP rating.
- Use the power supply type and voltage given in the datasheet and do not exceed the maximum run length; feed longer lines from several points.
- On deck and exterior areas keep connections and power supplies protected from standing water; rinse salt deposits with fresh water.
- Switch off the power before installation or maintenance; installation should be carried out by a qualified electrician.

Drawings are for illustration; details may vary by model. Contact MareLuce for project-specific advice.