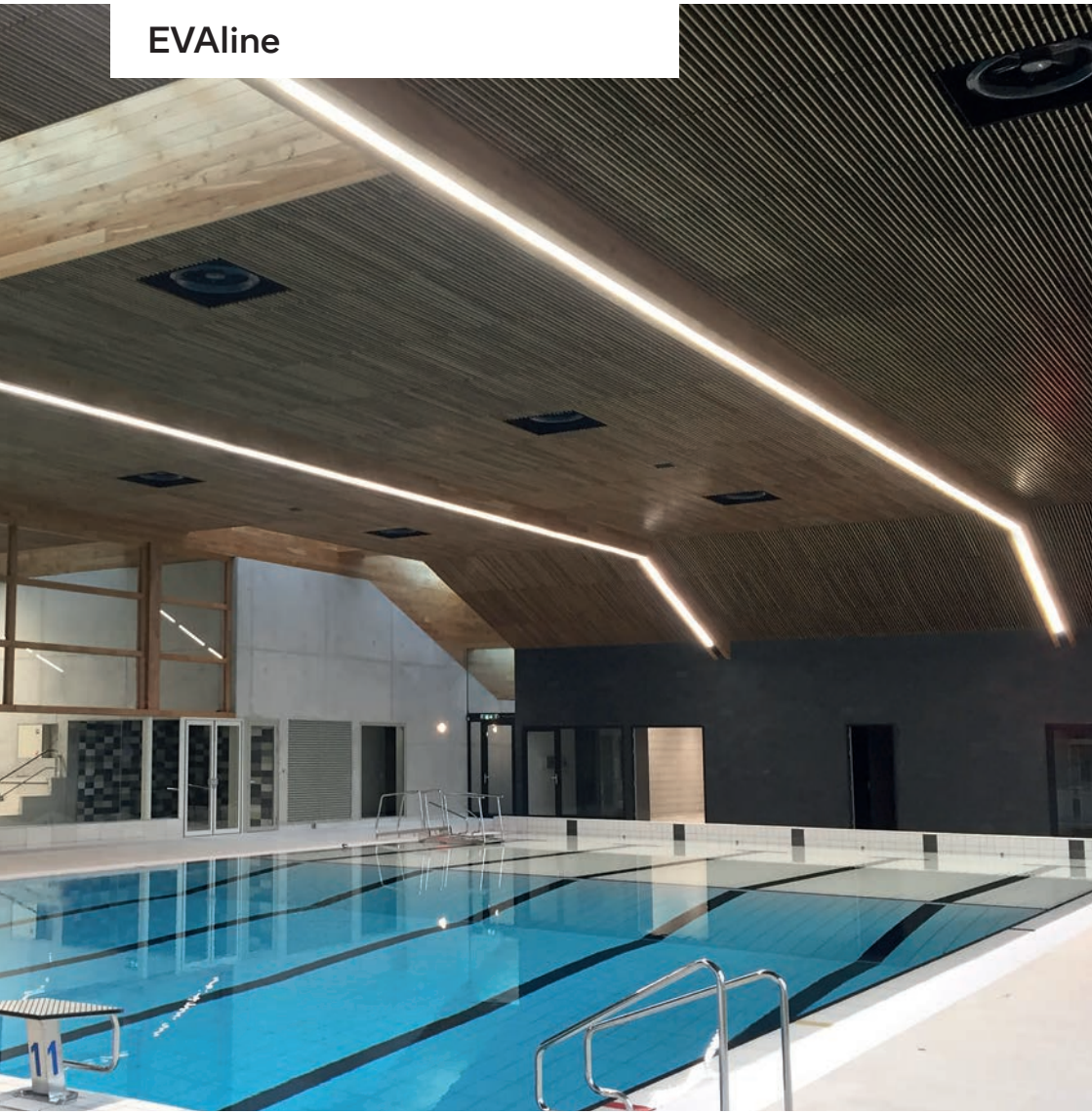
EVAline



MOUNTING MANUAL

A step-by-step guide to mounting EVAline

Table of contents

	Safety instructions	4
	General mounting instructions	5
	Explanation system EVAline	6
Step 1	Mounting the base module	8
Step 2	Linking base modules	10
Step 3	Mounting the Woertz cable	12
Step 4	Electrical connection	13
Step 5	Mounting the light modules	19
Step 6	Mounting the cover modules	22
Step 7	Connecting to the main power	24

Safety instructions

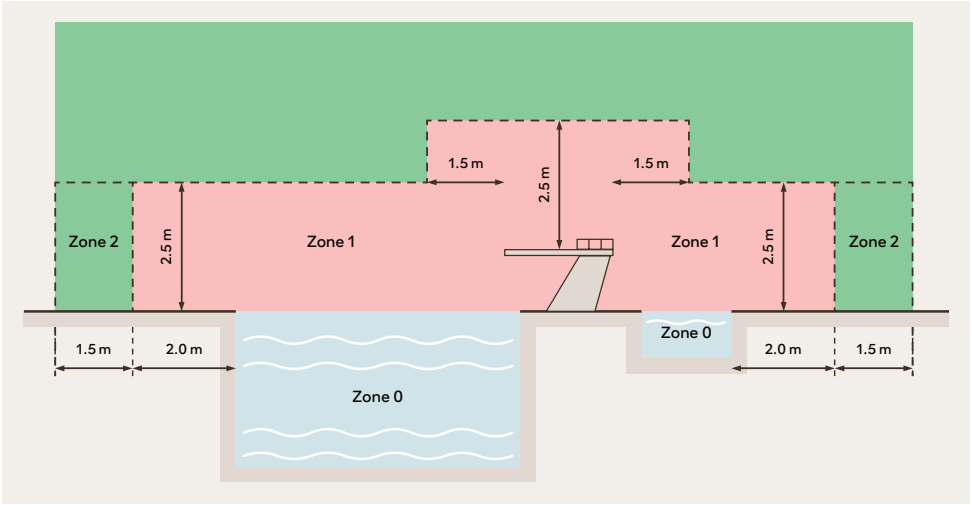
WARNING

Important: safety instructions

1. Follow the installation instructions carefully. For questions, contact your distributor or reseller, or visit www.evaoptic.com.
2. Have this lighting system installed by a certified electrician, in accordance with all applicable local rules and regulations. Improper installation may cause electrical hazards.
3. Switch off all relevant live electrical circuits before you start the installation.
4. Keep these instructions for future reference.

Install this lighting system in accordance with the zones specified in the international safety standard IEC 60364-7-702.

In swimming pools, mount EVAline above zone 1 and not within zones 1 or 2.



General mounting instructions

WARNING

Important: general mounting instructions

1. Use only materials that are suitable for your specific application, and make sure they comply with the requirements and guidelines that apply to your installation. In swimming pool environments, for example, most stainless steel is not permitted.
2. Do not cover the heat sink of the armature, as it is essential for efficient cooling.
3. Keep a minimum clearance of 6 cm on all sides of the armature. This space is required for air circulation and cooling of the system. EVAline consists of hinged modules, and the hinge function must remain accessible for maintenance. For this reason, at least 6 cm of free space around the luminaire is required.
4. Before you start, check the delivery for accuracy and completeness. Make sure the part numbering of the project is followed strictly.
5. EVA Optic B.V. warrants its products to be free from defects in material and/or workmanship under normal conditions of use, operation and maintenance. The warranty period is four (4) years from the original invoice date for LED luminaires, and four (4) years for drivers and power supplies. Visit www.evaoptic.com for datasheets and the full warranty terms.

Explanation system EVAline

EVAline is a modular LED line system made of clear anodized aluminium. The system consists of three types of modules:

- The base module is attached to the ceiling.
- The light modules are connected to the base module wherever light is required. Cover modules close the gaps between the light modules.
- EVAline is also available as a complete armature, consisting of equal numbers of base modules and light modules.

EVAline is available in three versions:

- **EVAline**, for standard applications.
- **EVAline Sport**, for indoor sports centres.
- **EVAline Aqua HE**, for swimming pool accommodations that require resistance to chlorine, moisture and heat. EVAline Sport and EVAline Aqua HE are also available in matt black anodized aluminium.

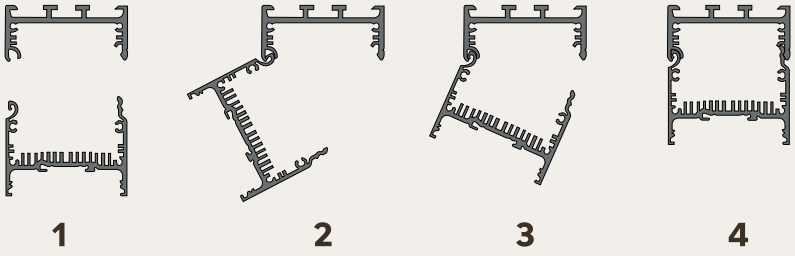
Explanation system EVAline

System assembly EVAline

The modules are attached to each other with a hinge system and a snap closure. When you install the base modules, position the hinges on the water side. This is essential for correct placement, and it keeps the system easily accessible for service and maintenance.

CAUTION

Do not use a screwdriver or any other tool to open or close the fixture. This may damage the material and cause corrosion.

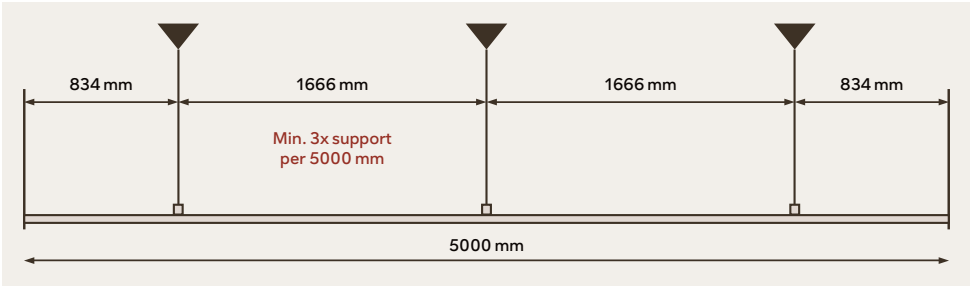


1 Mounting the base module

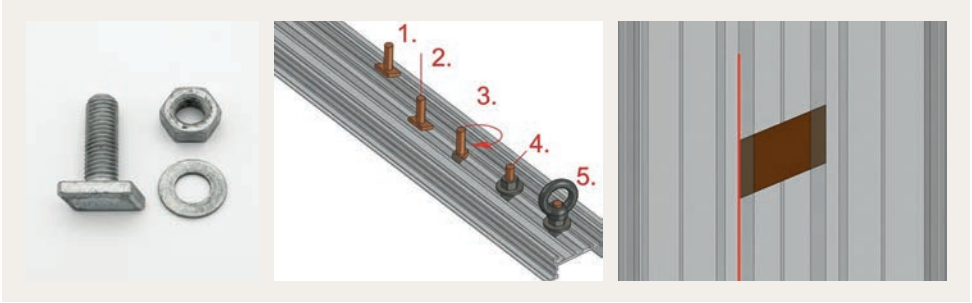
The most common way to mount EVAline is with T-head bolts, sometimes combined with additional mounting materials. Several types of T-head bolts are available; the supplied type depends on the application.

The most common option is to attach the T-head bolts directly to the ceiling beams.

Use at least three T-head bolts for every 5 metres of base module.



Placing T-head bolts



Place the T-head bolts as shown above and tighten them securely with a wrench.

1 Mounting the base module

Additional mounting materials

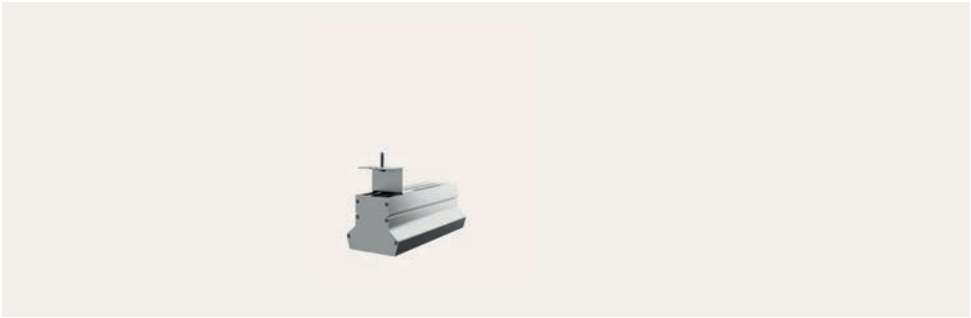
Option 1: Eye bolt with T-head bolt.

For pendulum mounting with a chain.



Option 2: T-head bolt with coupling nut and lag screw.

For direct mounting to the ceiling.



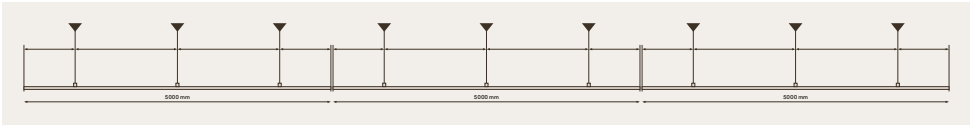
Position

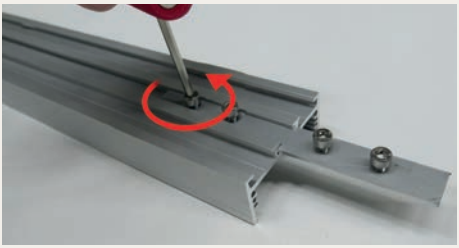
Before you continue with the light modules and cover modules, make sure all mounting points are firmly fixed and the base module is properly aligned.

2 Linking base modules

EVAline base modules have a maximum length of 5 metres. Use the special coupling pieces to join base modules to each other.

Mounting the coupling joint







Before you link the base modules, slide the required fall protection into the system for each 5-metre base module.

Mounting fall protection

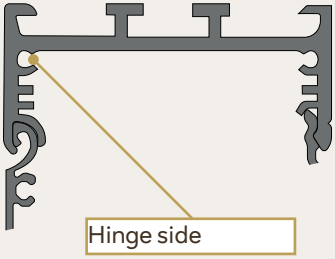
EVAline Sport and EVAline Aqua HE are equipped with fall protection. Install it as follows:

1. Slide the safety cable head into the base module, on the hinge side of the luminaire.
2. Connect two fall protection cables per light module inside the base module.
3. Position the fall protection inside the base module at the location of the light modules.

2 Linking base modules







3 Mounting the Woertz cable

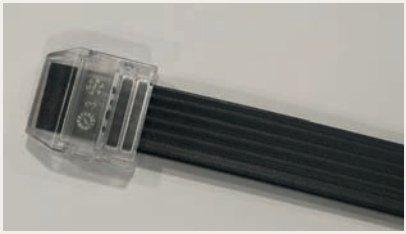
The Woertz flat cable is supplied on rolls. Once the base module is assembled, you can install the Woertz flat cable and the light modules.

EVAline systems use only one type of Woertz cable:

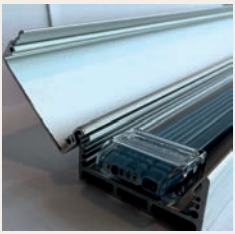
Woertz Dali flat cable 5G2.5 + 2 × 1.5 mm²



7-wire Woertz cable



At our factory, the Woertz cable is cut to length and fitted with an end cap.



When you install the Woertz cable in the base module, pay close attention to the orientation of the cable in the connector. As shown on page 12 (7-wire Woertz cable), the cable has a slot on one side. The connector has a matching recess for this slot.

4 Electrical connection

Once the base modules are mounted, you can connect the wiring to the Woertz connector box on the light modules. Use one (1) connector per light module.

Supplies

Black Woertz connector blocks connect the light modules to the Woertz flat cable. Use one (1) Woertz connector per light module to connect the wiring from the driver.





Select the correct installation scheme

Connect the power supply to the Woertz cable in the light module according to the installation scheme that applies to your situation.

Number of groups:

- 1 × 16 A B: maximum 20 drivers per group
- 1 × 16 A C: maximum 28 drivers per group

4 Electrical connection

Scheme A | 1 Phase



N	Neutral: (earth) Blue
PE	Ground: Green - Yellow
L1	Switched phase (power): Black

Scheme B | 3 Phase



N	Neutral: (earth) Blue
⏚	Ground: Green - Yellow
L1 / L2 / L3	Choose L1 / L2 / L3 Switched power phase 1, 2 or 3: Black

4 Electrical connection

Scheme C | 1 or 3 Phase with dimming



N — Neutral: (earth) Blue

Ground: Green - Yellow

L1 / L2 / L3 — Choose L1 / L2 / L3
Switched power phase 1, 2 or 3:
Black



+ — Dim + (Dimming)

- — Dim - (Dimming)
0 - 10V or DALI dimming

4 Electrical connection

Scheme D | 1 or 2 Phases with emergency power and optical dimming





N	Neutral: (earth) Blue
⏚	Ground: Green - Yellow
L1	Constant power (for emergency): Brown
L2 / L3	Choose L2 / L3 Switched power phase 1, 2 or 3: Black
+	Dim + (Dimming)
-	Dim - (Dimming) 0 - 10V or DALI dimming

4 Electrical connection

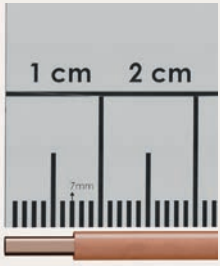
Connecting the power connector

Strip the wires 7 mm and push them as deep as possible into the connector.

Place a connector at the beginning of the cable, so the cable can be connected to the main power. Make sure the connector is in a location with sufficient space.

When the electrical connection is complete, fully tighten all white screws on the black Woertz connector.





4 Electrical connection

Position the connector correctly

Do not place the connector in the same position as the power supply (red area). Place it next to the power supply (green area), or where a cover module will be installed.

Tip: to make the connection to the main power supply (step 7) easier, position the connector with its connection side facing the power supply.



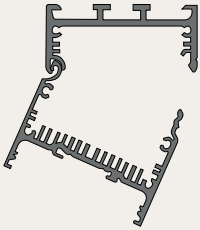
CAUTION

Do not place the connector in the same place as the power supply.

5 Mounting the light modules

Mounting the light module to the hinge

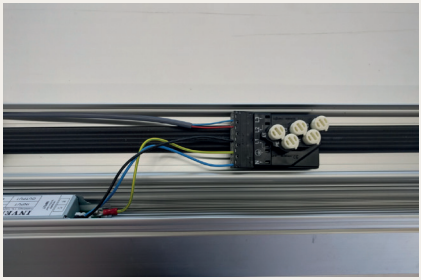
Position the light module at the correct location on the base module, using the hinge system. See the diagram in step 2 for the correct positioning.



Connecting the connector to the Woertz cable

In step 4, you connected the connector to the power supply inside the light module. Now connect this connector to the Woertz cable with a screwdriver.





Place the Woertz cable correctly in the base module, as described in step 3.

5 Mounting the light modules

Connecting the fall protection

In step 2, you inserted two fall protection cables per light module into the base module. Now fasten the cables securely to the light module by tightening the screws.





CAUTION

Make sure all materials are suitable for the specific application. Swimming pool environments, for example, require high-performance materials.

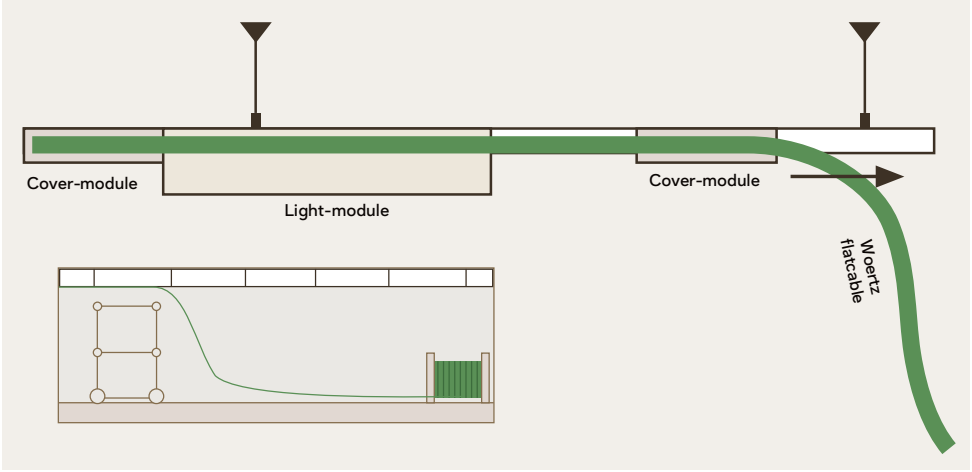
Closing the module

When the connector is connected to the cable and the fall protection is secured, snap the light module into the base module. Make sure no cables or wires get trapped.

5 Mounting the light modules

Securing the cable with a cover module

Use a section of cover module to hold the cable inside the base module and secure it to the ceiling. Move it as needed to keep the installation of the light modules easy. Then install the light modules and cover modules alternately, in accordance with the lighting plan.

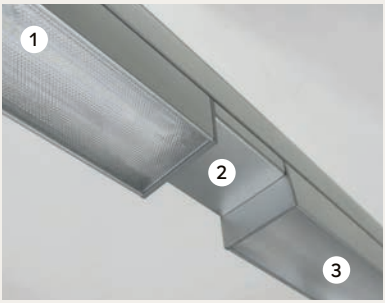


6 Mounting the cover modules

Install the light modules and cover modules alternately, as shown in the drawing on page 21. When this is done, you can install the end covers.

Connect cover modules using the system

Attach each cover module to the base module, next to the light module, using the hinge system. Make sure no cables or wires get trapped when you snap the cover module into the base module.



6 Mounting the cover modules

Assembling the end covers

Screw the end caps onto the light modules, cover modules and base modules.

Insert the supplied rubber seal only when you start with a light module, not when you start with a cover module.



7 Connecting to the main power

Disable main power

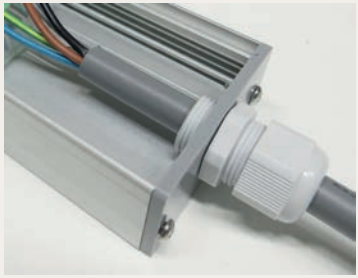
> DANGER
>
> **SWITCH OFF THE MAIN POWER SUPPLY**
>
> Make sure the main power supply is switched off before you connect to the power supply. Failing to do so can result in serious injury or death.

Connecting to main power

Route the main power cable through the end cover of the base module.

Screw the end cover onto the base module with the appropriate screws.



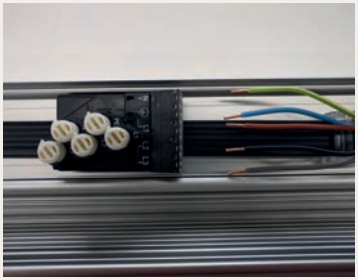


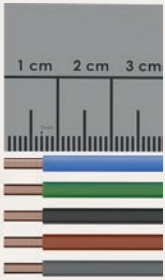
After connecting the cable, firmly tighten the cable gland in the end cover of the base module.

7 Connecting to the main power

Connecting the wiring

Strip the wires 7 mm and insert them as far as possible into the connector. When the wiring is complete, firmly tighten the cable gland on the connector.





For product information, software for DMX controllers and warranty details, visit www.evaoptic.com.

Technical modifications and/or printing errors do not constitute grounds for compensation claims.

EVA Optic B.V.
De Velde 1
8064 PH Zwartsluis
The Netherlands
+31 (0)38 337 50 67
info@evaoptic.com
evaoptic.com