

LED PUCK HUB



LED Puck HUB is the incredibly lightweight, highly versatile, and elegant catenary lighting system for today's modern world. High performance yet only a fraction of the size and weight of other systems, HUB enables safe, reliable, clutter-free catenary and welcomes infinite design possibilities for everything from outdoor gathering spaces to indoor accent lighting.

Discreet, robust, and with an incredibly compact design. At only 25mm in diameter and approximately 100 grams per luminaire, the LED PUCK HUB's tension requirements for mounting are minimal, reducing project time and cost; also removing engineering complexity (calculations of strength of material).

Material

The housing is made in marine grade aluminium.

The lenses are in polycarbonate / PMMA.

Standard finish: anodized black matte. Any RAL color on request.

Lens ring color options available. In standard: black, gold or silver.

Customise your HUB with options and interchangeable accessories.

Dimensions and weight

Dimensions of the standard housing, without any accessories.

Ø25mm x 150mm (ON/OFF – GLOBAL DALI)
Weight: **100 g**

Ø25mm x 203,5mm (INDIVIDUAL DALI)



H=150mm / Weight=100g



H=147,5mm / Weight=206g

Distribution and performance

The luminaire can deliver up to 850 lm.

Power output of 8W.

Distribution	Opening angle	Lumen output (3000K)
Narrow	19°	822
Medium	25,5°	795
Wide	43,5°	575
Ultra wide	114°	765
Oval	19,2° x 44,7°	653
Zoom	18° => 60°	300 => 620

Lumen output at Ta = 25°C (+/-10%)

Lumen Maintenance L70/B50 > **100 000h**
(50% of the LED keeping 70% from initial lumen output)

White color:

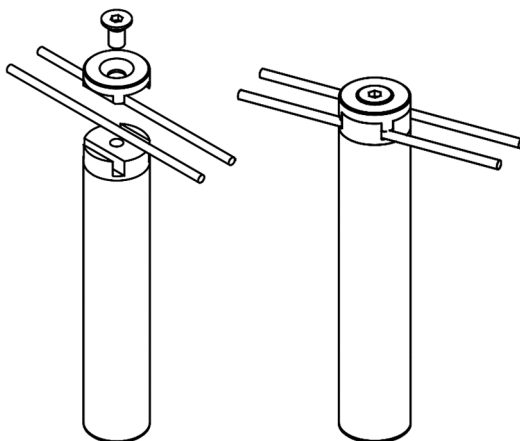
2700K	CRI > 80
3000K	CRI > 80
4000K	CRI > 80
5700K	CRI > 80

CRI 90+ on request.

PCB with color LED under development.

Connection

HUB's cap comes supplied with its screw loosened to allow easy alignment and connection of HUB luminaires to the catenary cabling. Simply lift the cap then align the two cables within the two grooves on the luminaire so that the cables lie between the luminaire and its cap. Secure the cap with an Allen key (4mm) and the connection is secured on the cabling.



HUB's instant mounting and connection feature makes repositioning luminaires stunningly simple so your light can adapt with the seasons.

Electrical

Electrical class III.

Ambient operating conditions: - 40°C to + 55°C.

Combined power and suspension system with a custom-made cable.

No need for separate power cable.

Low voltage system 24VDC.

The 24VDC power supply can be located at 25m from the catenary assuming a 0,75mm² cable is used (from the power supply to the catenary). By using a 1,5mm² cable, the power supply can be located at 50m from the catenary.

We provide several types of power supply depending the needs of the project.

- ON/OFF

A 120W power supply can drive from 1 to 10 luminaires, a 240W power supply up to 20 luminaires, a 320W power supply up to 25 luminaires and a 480W power supply up to 40 luminaires.

- DALI (global)

A 100W power supply can drive from 1 to 8 luminaires and a 240W power supply up to 20 luminaires. All the luminaires installed on the catenary will be controlled simultaneously.

- DALI (individual)

This solution requires to extend the housing by 53,5mm (total length of 203,5mm).

A dedicated 150W power supply (IP20) can drive from 1 to 15 luminaires. Each luminaire can be individually controlled in PLC (Power-Line Communication).

NB: this system works in 48VDC.

Catenary

As written above, the catenary cable is a custom made Ø3.2mm insulated cable with Kevlar thread woven around a 1mm² copper multi-strand cable. The insulation enables the system to be used in both indoor and outdoor applications, and the Kevlar gives a breaking strain of 100kg – ten times more than required for most applications. The catenary having two cables, the breaking strain of the system would be around 200kg.

As an example: a 30m long catenary with 10 luminaires of 100 grammes will have a total weight of only 2,7 kg including the cabling!

Assuming there are no support points (other than the two ends) and in order to avoid any noticeable sag, we would recommend a maximal catenary length of around 40m.

Mounting hardware

There are 3 main types of mounting sets: pole mount, eyebolt mounting or universal plate.

These mounting accessories are designed to install the two ends mounting points of the catenary system composed with the two Ø3.2mm insulated Kevlar cables.

Each set is delivered with a turnbuckle to adjust the tension on the cables. Each turnbuckle offers approximately 50mm of adjustment, so a turnbuckle at both ends will provide maximum 100mm of tensioning. Typically, you might need 10 or 20mm of adjustment to remove any sag out of the cables once the lights have been hung. Turnbuckles should be hand tightened ONLY.

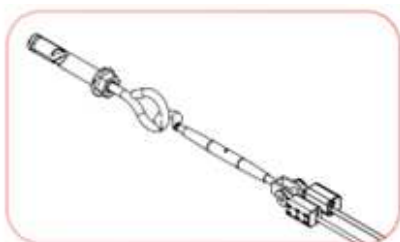
There is a hook at one end of the turnbuckle and the other end is used to integrate the two catenary's cables. The set also includes two fixing blocks in acetal to secure cables in position on the turnbuckle.



Below, the different options we can offer:



Masonry



Pole

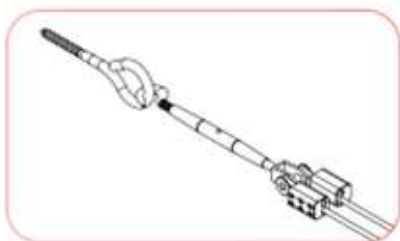


Expanding shield anchor for a characteristic load of 7,5kN into non-cracked concrete C20/25.

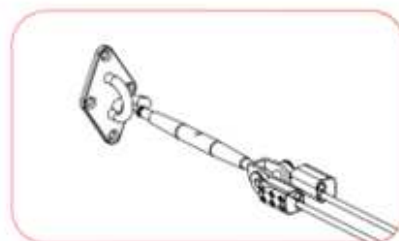
Adjustable clamp mount for pole or tree. Specify pole diameter (range is 50mm to 441mm).



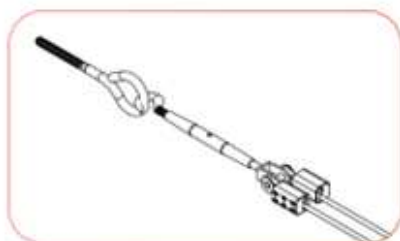
Timber



Universel



Metal



Electrical accessories

We offer a range of 3 accessories allowing an electrical connection on the catenary cables:

- Reference PLACCH0010 (height of 25mm)



This is a non-rotating connector allowing to distribute the 24VDC from the power supply to the catenary cables. It can be connected wherever you need to supply the 24VDC on the catenary. The power supply cable should have a maximal cross section of 1,5mm² and a maximal outer diameter of 3,2mm in order to be able to fit into the connector.

The connector could also be used when you need to get around a pole. In this case, you need to use two connectors; see example on the next page.

- Reference PLACCH0013 (height of 65mm)



It is the same kind of connector as the reference PLACCH0010 but can be rotated. It can be used when you need to bring the power from a catenary to another crossing catenary (allowing to make X shaped catenaries for instance).

- Reference PLACCH0014 (height of 29mm)

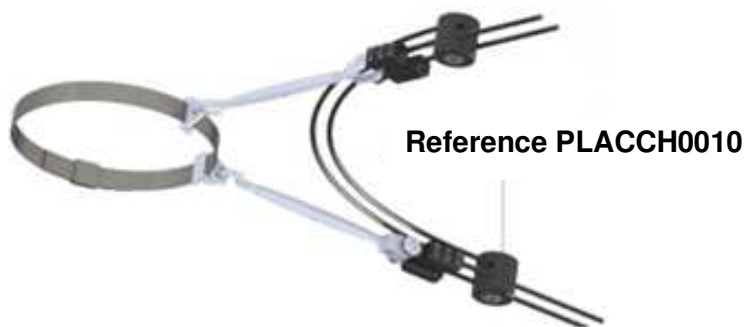


This is a rotating connector but without ensuring any electrical continuity. It will be used to give structure to catenary wires.

Mounting examples

Through-power pole example:

For such configuration, you will need to order the pole clamp and the needed numbers of turnbuckles. You will find below a drawing showing that we need a pole clamp with 2 sets (2 turnbuckles and 4 fixing blocks) but also 2 connectors reference PLACCH0010. The connectors are needed to make the through wiring from one catenary system to the other one, around the pole.



Up to 6 turnbuckles can be installed on a single pole mount.



Universal plate mount:



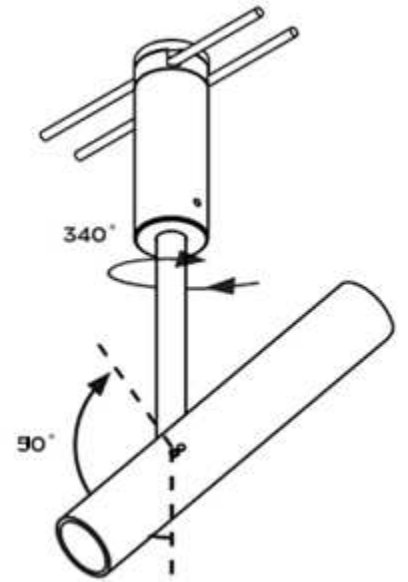
Alternatives

- The HUB is available with an axis body (HUB AXIS). It allows a horizontal orientation around 340° and a vertical inclination up to 90°.

HUB AXIS

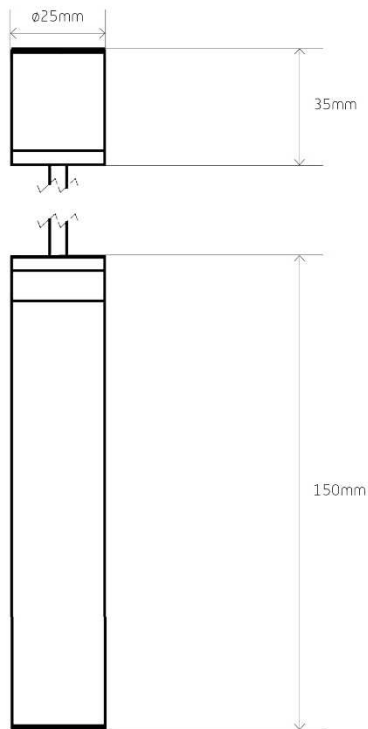


HUB AXIS ZOOM

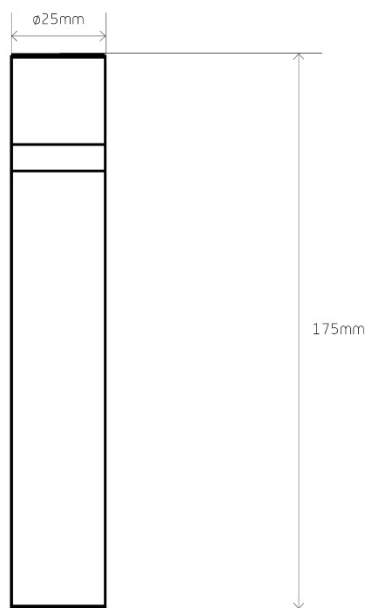


- Pendant mount (HUB PENDANT)

Available for a mounting on a ceiling or on a catenary



- Surface mounted (HUB SURFACE)



Certification

EN 60598

Protection rating: **IP67**.

The AXIS body has an IP65 and the ZOOM is IP66.

Impact resistance class: **IK10**

The SHINY range has a IK09 and the GLOBE is IK03. A polycarbonate version of the globe is available. It has a diameter of 55mm and reaches IK10.

Specifications are subject to change without notice.