

# Safety light beaconing









Reflex Control







### Using technology to safeguard users and the environment

Since 2004, ECO-INNOV has been working alongside local authorities and businesses to reduce energy consumption related to lighting, while improving user safety. For this purpose, we design and market solar LED and extra low voltage lighting devices.

Energy efficient, these units offer real economic savings. Their interest is therefore ecological with a strong reduction in light pollution, but also aesthetic thanks to the many choices of colors and light animations that LEDs offer.

In cooperation with design offices and architects, we select the products and options most suited to your projects, advise on implementation, fitting and follow-up of the installations thanks to our network of local commercial agents. Our main customers are local authorities, private companies and installers.

Our products incorporate multiple technological innovations in the fields of photovoltaics, electronics, energy storage, optics and mechanical engineering.

These innovations are a source of performance (light output, autonomy), durability (robustness, maintenance) and adaptability (customisation options).

LED technology is at the heart of our offering because of its remarkable properties: very low energy consumption, luminous efficiency, reliability and long service life.

Reduce your energy bills and your installation and maintenance costs!

**CERTIFICATIONS** 









## Recycling



ECO-INNOV is a founding member of ECOSYSTEM, eco-organisation responsible for the collection and recycling of electrical and electronic equipment waste.



We are a participating member of BATRIBOX, the eco-organisation responsible for the collection and recycling of used batteries.

The unique identifier FR006801\_05MBCK attesting to enrollment in the register of producers in the EEE sector, pursuant to article L.541-10-13 of the Environmental Code, has been assigned by ADEME to the company ECO-INNOV (SIRET 451 859 409 00026). This identifier attests to its compliance with the obligation to matriculate in the register of producers of Electrical and Electronic Equipment and to the realisation of its declarations of placing on the market with ECOSYSTEM.



# Solar

Solar beaconing is an ideal technology for securing installations by limiting civil engineering work and eliminating energy costs. Versatile and customisable, our solar range meets the varied requirements of road or architectural projects (LED colours, lighting modes). Our photovoltaic technology recharges our equipment during the day and restores the available energy by lighting up at night.

Customised electronic control depending on the installation site ensures the best balance between light output, autonomy and component lifespan.

#### Embedded solar studs



**ECO-35** 



ECO-40



ECO-54



**ECO-57** 



**ECO-84** 



ECO-124



ECO-128



ECO-142



ECO-143



ECO-160 A



ECO-160 X



ECO-190

#### Surface solar beacons



ECO-118



ECO-MAR



ECO-SOL 50

## Vertical solar light



ECO-506

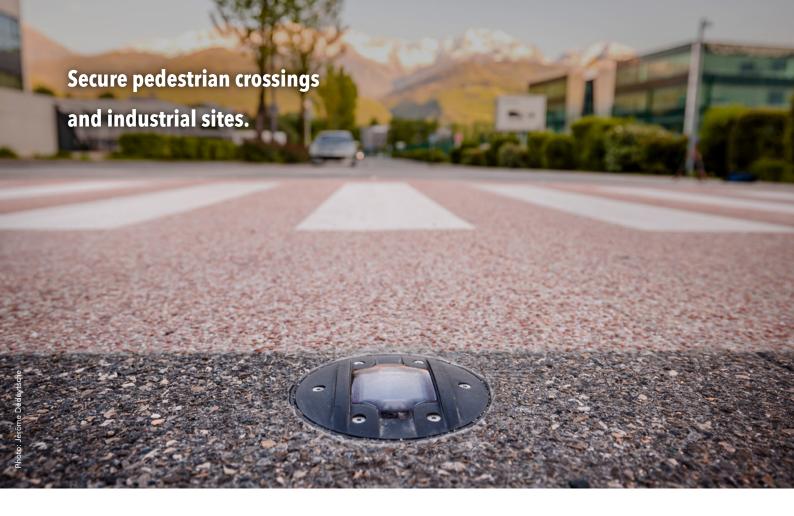


ECO-545

#### Flexible solar bollard



**ECO-CITY 35** 



# **ECO-160 A**

## Roadway solar stud



Latest-generation embedded solar stud, GPS technology. Mechanical design adapted to demanding traffic with 2 protective hoops and low projection.

Grazing light with 3 LEDs per side.

Easy maintenance of the LED module through the cover. IP68 (waterproof), IK10+ (100 joules impact).









Resistance

#### **Custom options**

#### Customisation

Aluminium cover: anodised, powder-coated (RAL), glossy, matt.

#### Light modes

Constant, flashing, GPS-synchronised flashing, clock. Unidirectional 3 LED or bidirectional 2x3 LED beaconing.

#### **LED** colours







2700K



3000K



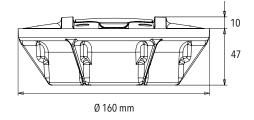














## Surface solar beacon



Square above-ground beacon used to mark impassable obstacles on roundabouts, islands and chicanes.

Quick and easy to install by gluing and screwing to its base (2 anchor bolts supplied).

Height of 20 mm unsuitable for roadway use. IP68 (waterproof), IK10 (impact).



Resistance



#### **Custom options**

#### Light modes

Flashing.

Unidirectional 2 LED or bidirectional 2x2 LED beaconing. Central reflector for extra visibility.

**LED** colours



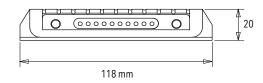


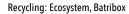




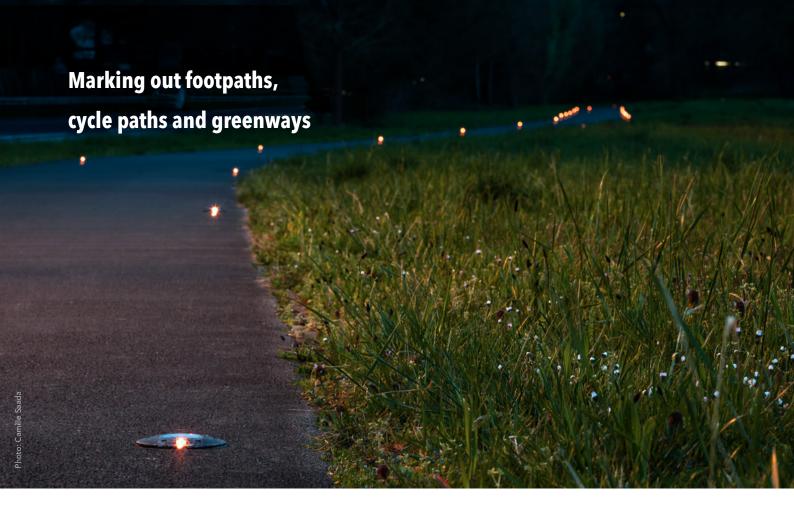












## Embedded solar stud



Luminous beacon with the appearance of a roadway nail. Low profile for pedestrians and two-wheelers.

Grazing light with 1 or 2 LEDs per side.

Easy maintenance of the LED module through the cover. IP68 (waterproof), IK10+ (100 joules impact).





Pedestrian

Cyclist

### **Custom options**

#### Customisation

Aluminium cover: anodised, powder-coated (RAL), glossy, matt.

#### Light modes

Constant, flashing, clock.

Unidirectional or bidirectional beaconing, 1 or 2 LEDs per side.

## **LED** colours











3000K

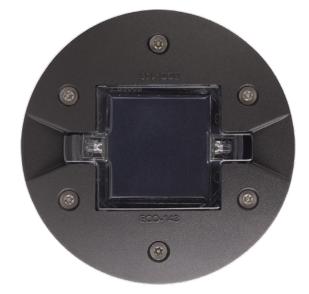


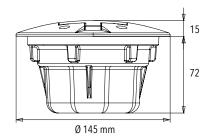


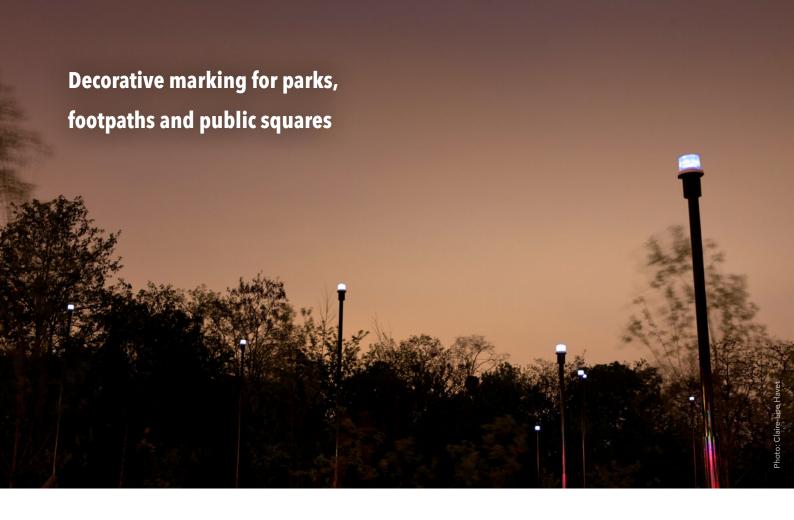












# **ECO-MAR**

## Surface solar beacon



Autonomous beacon light for installation on a pole or mast. 360° light diffusion through a Fresnel lens for enhanced luminous brilliance.

Various warm LED colours and an internal timer that can be programmed to switch off in the middle of the night to protect biodiversity (dark infrastructure).

#### **Custom options**

#### Customisation

Adjustable beam angle and number of LEDs.

Stainless steel cladding and custom fixings.

#### Light modes

Constant, flashing, breathing, clock or other upon request. Standard version with 8 LED 360° lighting.

#### **LED** colours











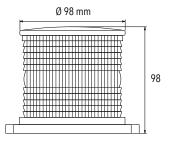














# **ECO-CITY 35**



## Flexible solar bollard

Solar beacon at the head of a shape memory bollard.
Returns to position after impact w/o damaging the sealing.
Revient en place après impact sans altérer le scellement.
Protects users, particularly two-wheelers, from head impacts compared to a steel post.
UV-resistant polyurethane suitable for salty environments.

UV-resistant polyurethane suitable for salty environments. Long service life and easy maintenance.

#### **Custom options**

#### **Bollard** colour

Anthracite grey RAL 7016. Custom RAL available based on quantity.

#### Fixing

Anchor foot to suit the support and site constraints.

#### Light modes

Constant, flashing, GPS-synchronised flashing, clock. 360° beaconing with 4 or 8 LEDs.

#### LED colours













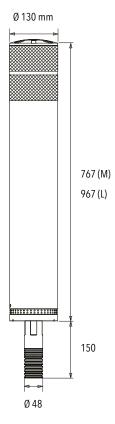


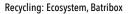




Blue











# Extra-low voltage

Extra-low voltage (ELV) beaconing offers a wide range of functions when the equipment can be connected to the electrical network.

Requiring a little civil engineering during installation, this technology offers a host of advantages: LED light output, long life, intelligent control using our microcontrollers, differentiated lighting during the day and night, interaction with other signalling devices. The robustness and watertightness of our extra-low voltage embedded studs have been tried and tested in airports and flood-prone areas.

#### **Embedded ELV studs**







ECO-835



ECO-843



ECO-845



ECO-848



ECO-850



ECO-870

#### Surface-mounted ELV beacons



ECO-801



ECO-803



ECO-824

## Embedded ELV paving stones





ECO-STONE 80



# Extra-low voltage embedded stud



Unidirectional wired beacon with 8 LEDs. ELV 12V DC or 24V DC power supply (0.96W or 1.92W). Stainless steel cover suitable for demanding traffic. Low profile for pedestrians and two-wheelers.

Easy maintenance of the LED module through the cover. IP68 (waterproof), IK10+ (100 joules impact).









Resistance

#### **Custom options**

#### Customisation

Stainless steel or aluminium cover, wiring, 230V version on request.

#### Light modes

Constant, flashing, synchronised flashing, sequential, clock.

4 or 8 LED unidirectional beaconing.

#### **LED** colours













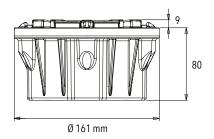


















# Extra-low voltage embedded stud



Bidirectional wired beacon with 16 LEDs.

ELV 12V DC or 24V DC power supply (1,92W ou 3,84W).

Stainless steel cover suitable for demanding traffic.

Low profile for pedestrians and two-wheelers.

Easy maintenance of the LED module through the cover. IP68 (waterproof), IK10+ (100 joules impact).









Resistance

#### **Custom options**

#### Customisation

Wiring, 230V version on request.

#### Light modes

Constant, flashing, synchronised flashing, sequential, clock.

2x8 LED bidirectional beaconing.

#### **LED** colours













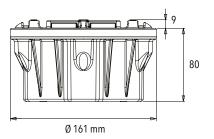


















## Extra-low voltage embedded stud



Omnidirectional wired beacon with 24 LEDs. ELV 12V DC or 24V DC power supply (1,92W ou 3,84W). Stainless steel cover suitable for demanding traffic. Low profile for pedestrians and two-wheelers. Easy maintenance of the LED module through the cover.

IP68 (waterproof), IK10+ (100 joules impact).









Resistance

#### **Custom options**

#### Customisation

Wiring, 230V version on request.

#### Light modes

Constant, flashing, synchronised flashing, sequential, clock. 12 LED (180°), 24 LED (360°) beaconing or other upon request.

#### **LED** colours















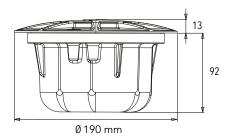














# Flexion and reflection

Reflective technology is an economical and eco-friendly solution that provides an initial level of safety through passive marking. It can be applied to flexible bollards or hardened glass reflecting edge studs.

Reflection, which consists of reflecting the light emitted by vehicle headlights, is achieved using a variety of technologies: technical films and paints, glass beads and reflectors.

The flexible nature of safety bollards brings considerable advantages: the seal is not torn off as it is with steel bollards when they are hit, and vehicles suffer only slight damage. The deterrent effect remains intact because of their similarity to rigid bollards.

#### Flexible bollard



## Embedded glass studs





ECO-V5

ECO-V10



# **ECO-CITY 80**



## Flexible reflective bollard

Bollards with a modern, streamlined design to mark out public spaces and protect the most exposed users: pedestrians, cyclists and motorcyclists. Its shape-memory structure is highly resistant, allowing it to return to its original shape after an impact. Anti-UV polyurethane suitable for salty environments. Various customisation options.

### **Custom options**

#### **Bollard** colour

Anthracite grey RAL 7016.

Custom RAL available based on quantity.

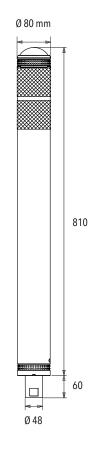
#### Fixing

Anchor foot to suit the support and site constraints.

### Reflection

Retroreflective strips: quantity, colour, size. White retroreflective glass beads: head, foot.







# **Control**

Microcontrollers facilitate customized management of extra-low voltage (ELV) wired beacons, allowing for precise and adaptable operation.

To help users understand and navigate their environment, our microcontrollers can be connected to existing devices such as radar, traffic lights, automatic controllers and detection loops.



#### **Automated control**

Interaction with existing systems Flashing for speeding Synchronisation with traffic lights

## **Configurable beaconing**

Power and Light modes Outdoor brightness sensor Time zone

#### **Remote control**

Fault and peripheral monitoring Transmission of logs and alerts Remote control with 4G router

# MC-500

Microcontroller IP65



#### Installation for electrical cabinet

Low-voltage power supply not included

Input: 12V DC or 24V DC

Outputs: 1 to 6 lines of studs (optional extension)

Connection: dry contacts can be fitted Standard dimensions:  $210 \times 185 \times 85 \text{ mm}$ 

# MC-529

Microcontroller IP68



#### Installation for underground manhole

Low-voltage power supply included

Input: 230V AC

Outputs: 1 to 9 lines of studs (optional extension)

Connection: IP68 plug-in connectors Standard dimensions: 280 x 190 x 130 mm

# **Custom options**

#### **LED colours and temperatures**

















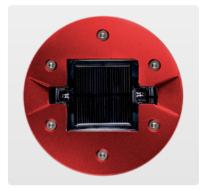


## Light modes



Constant, synchronised flashing, flashing, sequential, breathing, firefly, candle.

#### **Cover finish**



Aluminium cover: anodised, powder-coated (RAL to choice), glossy or matt.

## **Branding**

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Logo, coat of arms or text.

#### **Accessories**



Anti-theft screw



Snow cover



IP68 plug-in connectors

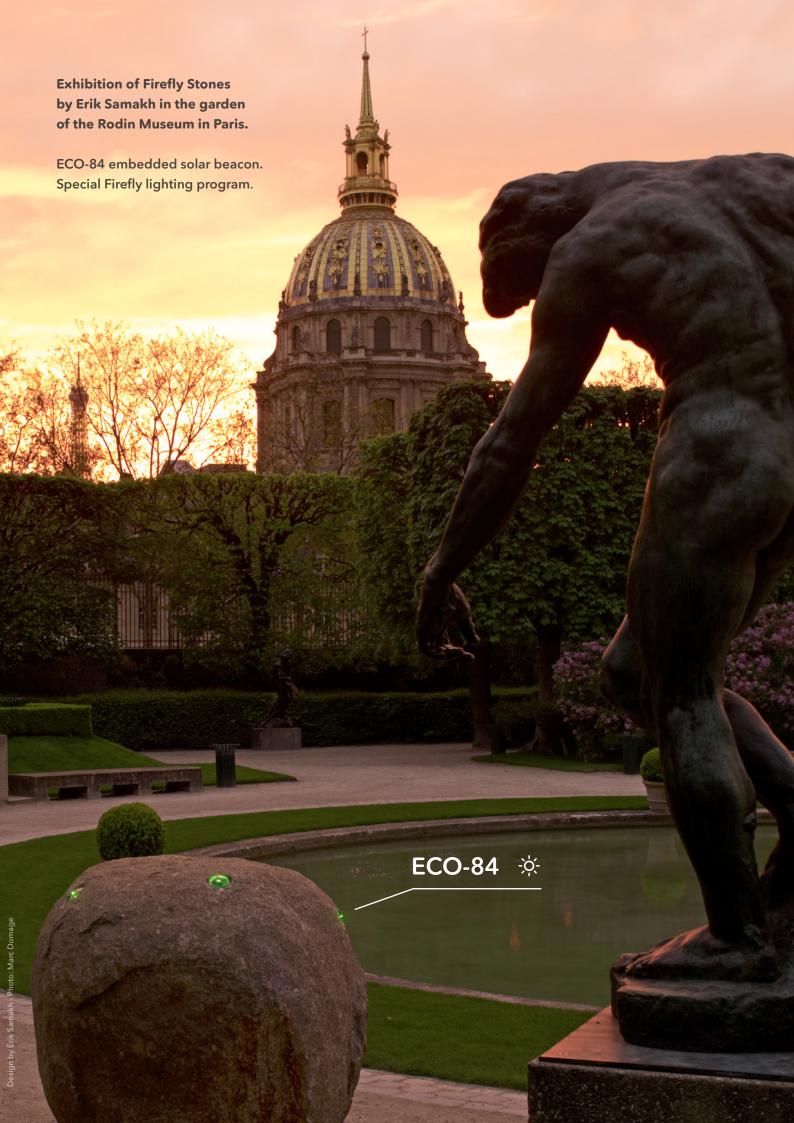
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