

**Full Service  
Die Casting**

Design  
Die Casting  
Machining  
Assembly  
Surface Treatment

**PEDEO**  
Die casting  
zinc - aluminium



## HOUSINGS AND HEATSINKS IN ZINC ALLOY/ALUMINIUM

**Filip Decock, sales engineer**

[filip.decock@pedeo.be](mailto:filip.decock@pedeo.be)

**Hans De Croo, sales engineer**

[hans.decroo@pedeo.be](mailto:hans.decroo@pedeo.be)

### STRENGTHS OF ALUMINIUM & ZAMAK

Zamak and aluminium high-pressure casting parts are ideally suited for all kinds of applications in the world of electronics assembly.

For example, the **high mechanical strength** of the base materials, **precise casting tolerances** and **fine surface finishes** make for visually attractive and robust housings, while **good thermal and electrical conductivity** and **electromagnetic shielding** also provide a functional bonus.



- Ⓞ Light and strong
- Ⓞ Complex 3D design
- Ⓞ Wide range of surface treatments

### A SUSTAINABLE CHOICE

- Ⓞ Electronics last longer (and function better)
  - Ⓞ Electronic components are optimally protected
  - Ⓞ Efficient heat dissipation and cooling
  - Ⓞ Perfect fit due to extreme dimensional stability and precise tolerances
- Ⓞ Optimal use of raw materials
  - Ⓞ Light components due to thin walls
  - Ⓞ Economical production technology
  - Ⓞ Good circuit for recovery of used raw materials
- Ⓞ Pedeo reduces the impact of its production on the environment with innovative investments

## CREATIVE AND FUNCTIONAL DESIGNS

### Cool designs without boundaries

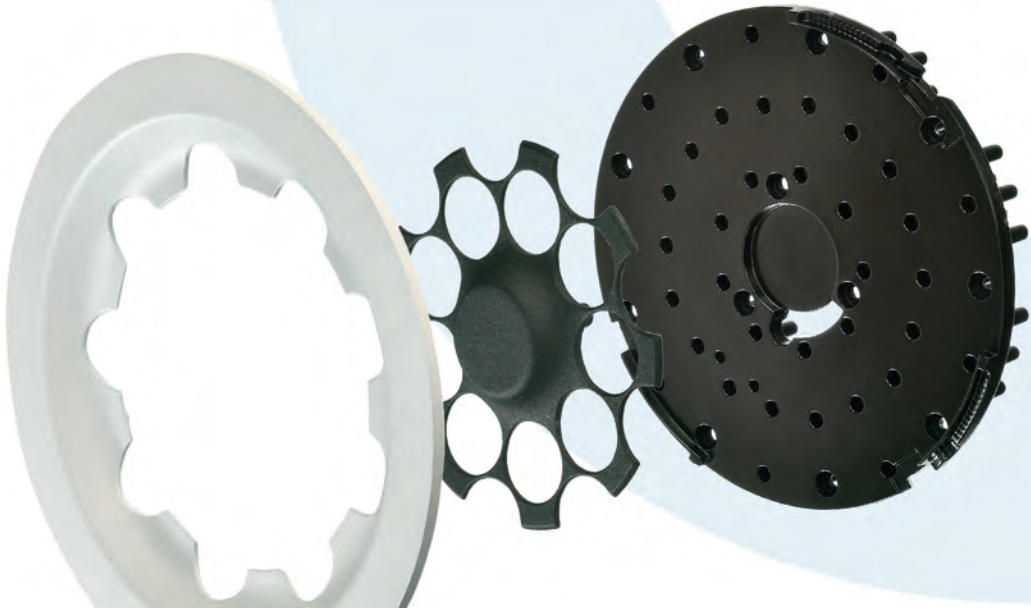
Nowhere is **freedom of design** more important than in electronics. The design is fully **tailored to the functional needs**, while still keeping production scalable.

Heatsinks and housing take the most whimsical forms. This makes the best use of the available space. The **thin walls** keep the part **light and manageable**, and clever design means you use a **minimum of material**.



### Aesthetics matter too

Many housing are a visible and tangible part of the final product. Even more so, they have a significant impact on the user experience and perception. The **sophisticated design**, **high-quality finish** and 'metal look and feel' exude both solidity and luxury.



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## HOUSINGS

**Includes openings, sealing ribs, mounting lugs, cable channels and threads.**



Electronic components not only require proper protection, all parts must be attached and embedded in exactly the right place.

So it's a complex design, completely customised, where the **accuracy** and **dimensional stability** of the high-pressure casting process are key assets.

All these details are **integrated into the design** and cast directly, or finished with minimal CNC machining. This makes production fast and scalable.

The visual possibilities are endless, with a wide choice of finishing techniques and surface treatments. Because often the housing is a visible and tangible part of the final product.

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## HEATSINKS

**Unlimited design in function of optimum heat dissipation.**



Electronics produce heat, and this needs to be dissipated efficiently.

Therefore, the housing is conceived as a heatsink, or combined with it.

Solid zones collect heat, which is dissipated through thin ribs, supported by a fan or not depending on the application.

The high-pressure casting process offers the designer enormous freedom of design. The **most whimsical shapes are possible**. Insights from a heat simulation can be optimally integrated into the design.

This is how the heatsink guarantees optimum airflow, **effective heat dissipation** and a **long service life** of the electronic components.

## ELECTRONICS AND HIGH-PRESSURE DIE CASTING: A SUCCESSFUL MARRIAGE

### Financial transactions on public domain

A payment terminal undergoes extensive physical testing over several days, during which its durability is rigorously assessed. Also during everyday use in public spaces, a robust housing is no unnecessary luxury.



### NGrave Cold Wallet

This high-end cold wallet guarantees the ownership codes of its owner's virtual coins. It excels in its simplicity, thanks to its sturdy housing with fine lacquer finish. There are cutouts for the fingerprint sensor and integrated camera. It was possible for production to scale up quickly, as NGrave got off to a flying start.



### Cooling block for LED lighting

The innovative design ensures optimal cooling throughout, from the outer surface to the warmer core. The result? Even and uniform lighting that also lasts longer.



### Traficam from Teledyne FLIR

The aluminium housing keeps this camera looking like new, despite extreme weather conditions. The camera is very resistant to vandalism. The housing is completely conceived as a heatsink, with the black colour providing even better heat dissipation.



## FULL SERVICE APPROACH

Pedeo produces and develops components together with you, tailored to your project. The engineering team provides both functional and aesthetic suggestions, to arrive together at the optimal design.

Quality and operational excellence are in our employees' DNA, and are the common thread in everything we do. Pedeo offers a full service and guides you through the entire process, in order to achieve a high-quality end product and a reliable production process. From idea to series production.

Our strengths:



reliability



proximity



co-design