



A Phoenix Mecano Company



RAIL

Enclosures for the Railway Industry
by Rose Systemtechnik

Rail enclosures by ROSE

ROSE Systemtechnik has been a development partner to the railway industry for many years and is highly familiar with the sector's demanding requirements. We offer aluminum, stainless steel, and polyester enclosures for a wide range of applications, all of which can be individually customized to meet specific customer needs.

- + **Stainless steel enclosures offer an ideal protection concept in the underfloor area**
- + **Aluminium profile housings for sensitive electronics**
- + **Plastic housings for electronic distribution of heating systems**
- + **Individual special enclosures for challenging applications**

For all materials and enclosure types, ROSE Systemtechnik provides complete machining and assembly. Drilling, milling, coating, painting, laser cutting, sealing, and engraving are standard processes for us. Flexibility and close collaboration with our customers are at the heart of our enclosure configuration. The key factor is always the individual requirements of the customer and the optimal implementation for the specific application. Together with our engineering department, we carefully examine the integration possibilities of various connectors and connection systems, the position and design of the grounding point, and the implementation of additional special components. Even complex electronic assemblies are integrated directly in-house. Each product is thoroughly tested for functionality before delivery

CL-2 Approval

The quality and reliability of our products are of the highest importance to us. ROSE Systemtechnik holds the CL-2 welding certification for stainless steel enclosures. This ensures that our enclosures and processes meet the highest safety and quality



standards required in the railway industry, including individually customized designs.

HL 1 to HL 3

ROSE enclosures are also tested in external laboratories according to railway-relevant standards for shock and vibration resistance as well as fire protection. This allows our customers to confidently integrate our products into their systems and rely on their technical properties and functionality in applications such as railway communication systems, rolling stock manufacturing, or installations at stations and signal boxes. According to testing based on DIN EN 45545-2 (fire protection in railway vehicles), our enclosures are suitable for areas with hazard level requirements from HL 1 to HL 3.

Polyester Railway Enclosures for Every Application

Our polyester railway enclosures are specifically designed to meet the requirements of the railway sector. They are made from a special thermosetting polyester material that neither melts nor drips in the event of a fire and produces only moderate smoke development. Tests carried out in an accredited laboratory show excellent results in terms of smoke density, lateral flame spread, and heat release during a fire. Naturally, the material also complies with DIN EN 45545 requirements.



Our enclosures provide protection against

- > **Vibrations**
between 5 and 25 g
- > **Environmental factors**
Moisture, dust, dirt, and UV radiation
- > **Fire protection (HL 1 to HL 3)**
Material of the enclosure meets the requirements of DIN EN 45545
- > **Overheating**
When using high-performance electronics, the enclosures reliably dissipate the heat generated
- > **Electromagnetic radiation**
Our enclosures for railway operators are insensitive to electromagnetic fields
- > **Rockfall**
Up to IK09 (10 Joule) acc. to IEC 62262
- > **Temperature fluctuations**
Depending on material -60 °C to 165 °C

What services do we offer?

- > Custom development
- > Drilling, milling, punching
- > Laser cutting
- > Priming
- > Wet painting
- > Powder coating
- > Screen printing
- > Pad printing
- > Engraving
- > Assembly
- > Packaging / kitting
- > EMC protection
- > Laboratory testing

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