

DUAL FREQUENCY INVERTER

**WATERPROOF
FANLESS
CONFORM to IP 67**

for propulsion technology, engineering



Technology fields

Propulsion technology, MCR technology, software development

Requirements for the project

The **project objective** was the development of a waterproof double frequency converter for the most adverse conditions, for controlling an axle damping test bench in car repair shops. Due to the use under particularly harsh environmental conditions - rainwater, oil or other liquid losses - the housing had to meet IP 67. This meant that the cooling system had to be implemented without fans or ventilation slots. Further requirements were a fast and physical check of the axle damping, an automatic test bench standard after loading of the test plates, a fully automatic test sequence, as well as the possibility for frequency controlled noise search.

Facts/Highlights

- Waterproof housing IP 67
- Fully automatic test sequence
- High-precision measuring principle via Lehr's damping dimension
- Search function for disturbing noises on the vehicle

Services of KNESTEL

Potential analysis, target price estimation, project management, specifications, project planning, development of software and hardware, electrical and mechanical design, EMC test, prototyping, series production

Possible applications

- Agricultural technology
- Construction machinery
- Test benches
- Unprotected locations (protection against liquids or weather)

About KNESTEL: Knestel has been developing and producing customized electronic and mechatronic special solutions in the fields of motor and machine control, frequency converters, image processing, MCR technology, software development, radio, bus systems and gas analysis for 40 years. We support our customers from the idea to the finished implementation. Individual solutions and concepts - technically up to date. Our production - electronics manufacturing, device and switch cabinet construction, Production of subassemblies, assembly and mechanical processing - is equipped with the latest technology.