

## Initial Situation

Our customer is one of the world's leading manufacturers of lighting systems in the automotive sector. The systems are shaped by the constant new development of innovative technologies with which the convenience and safety of the drivers and passengers in the vehicle are continuously improved. They are used by all renowned manufacturers and are installed in a large number of newly registered vehicles in Europe. A medium-sized vehicle from a successful German automotive manufacturer required the development of an LED headlight for medium range and an LED matrix headlight for high range.



## Requirements

A connector system was required with which all connections for the signal and light function could be realized. To be approved for the selection process, the components had to meet the test regulations according to LV-214. A wide range of pin counts was critical to ensure that functions such as low beam, high beam, matrix beam, indicator and all-weather light are actuated with the same system. Due to the variety of functions that had to be housed in a very small space, a miniaturized size was also an important factor. For easier processing, an angled cable connector solution was also required.

# MINIATURIZED CONNECTOR FOR HEADLIGHTS

## Our Solution

With the MicroBridge, ERNI has developed an automotive connector on which the customer demands from the industry were rigorously implemented. It was developed following the automotive test regulations VW75174 and USCAR-2, whereby the requirements for the selection procedure were complied with in full. The available numbers of pins, ranging from 2 – 14-pin, also enabled actuation of the various systems without unnecessary pins on the connectors. In combination with the extremely compact design of the MicroBridge, the existing installation space was optimally utilized. The angled MicroBridge cable connectors also enable a simple, cost-optimized mating process that can be performed both manually and automatically.



## Additional Features of the MicroBridge

- Up to 9 A current-carrying capacity per contact
- Temperature resistance of -40 to 150 °C
- Interlocking on both sides – can be released without tools
- Koshiri security guarantees an exact mating process
- Electrical CPA available as an option
- Soldering clip for excellent holding forces on the PCB
- Pitch: 1.27 mm



For additional information, please visit <https://www.erni.com/en/microbridge>

At ERNI, we support our clients through their entire developmental journey – from the prototype design to their finished product. Our many years of experience and vast knowledge in the automotive industry give us a competitive edge over other manufacturers. It is no coincidence that our clients hold ERNI in high regard as an innovative leader and supplier of high-quality electronic connectors worldwide.

Contact us at [info@erni.com](mailto:info@erni.com) and find out how ERNI can help you.