

CORNING

Varioptic® Lenses



Liquid lens solution for barcode readers



The Corning® Varioptic® Lenses business is working with leaders of the barcode industry to develop the next generation of barcode readers. Our customers have highlighted that speed and accuracy are two key elements when dealing with barcode reading. Additionally, these optical devices must resist to the harsh environmental conditions of the warehouses where they are used. The future line of products is moving towards faster devices with excellent imaging performance while being robust.

Customer's expectations

Our customer's request is to develop a new generation of product:

- Fast focus on a range from infinity to several centimeters
- High image quality
- Resist to harsh environmental conditions

An additional request was to have a compact solution for their hand-held device.

Selection of a liquid lens optical module

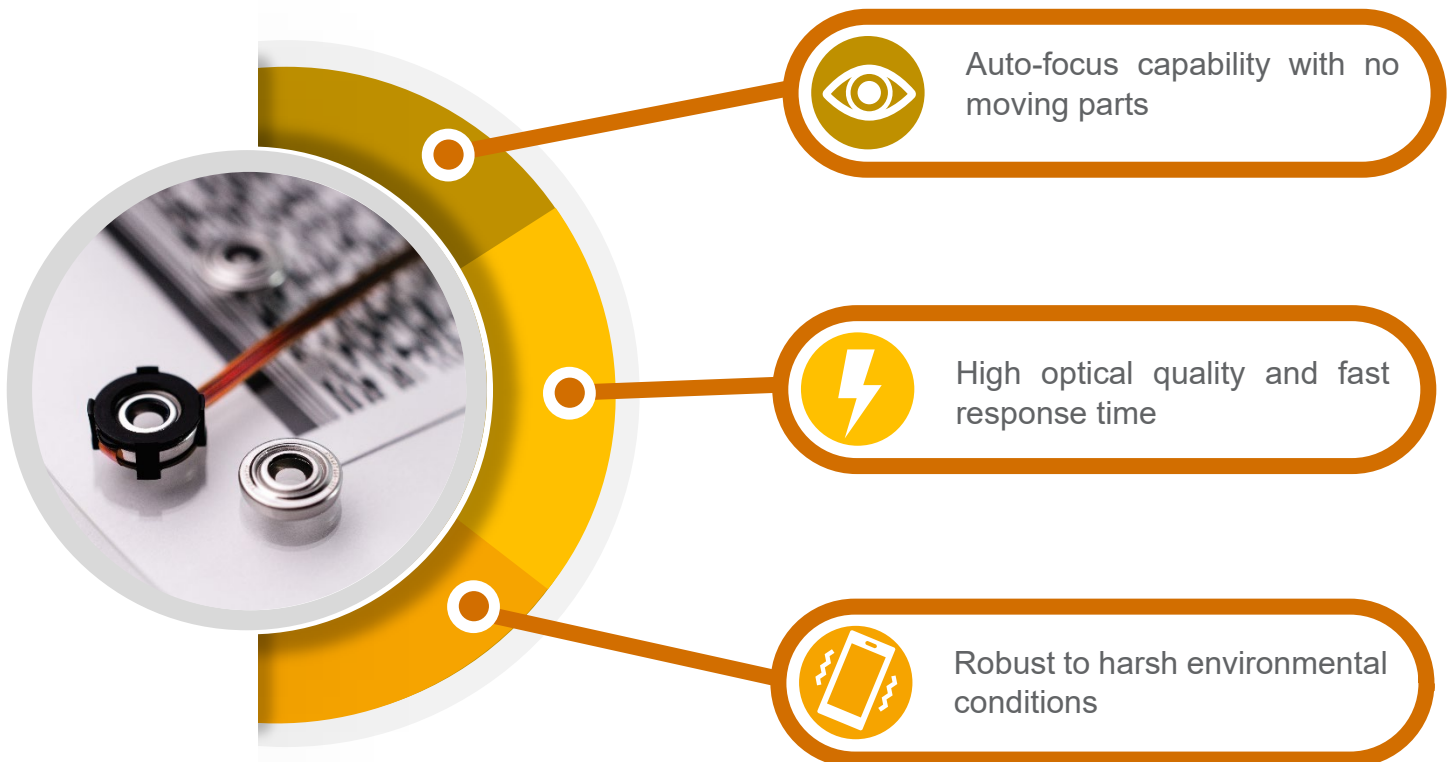
Based on the customer's optical requirement, Corning Varioptic was able to provide an off-the-shelf packaged liquid lens that fitted the technical specifications: the A-25H0. This lens has a clear aperture of 2.5 mm and a dynamic range of 18 diopters.

Thanks to the low wave front error of liquid lenses, the optical system can capture high quality images and read barcodes over the entire range of focus.

Liquid lenses from Corning Varioptic are extremely robust to vibrations, accelerations, and shocks thanks to the iso-density of its liquid components. Additionally, their compact package can easily be integrated inside the optical system of the barcode company.

Thanks to the dedicated electronics provided by Corning Varioptic, the response time of the liquid lens has been optimized to minimize the time to focus for this use-case. Coupled to a time-of-flight sensor, our customer was able to drive the liquid lens in open-loop mode and therefore capture instantly the best focus on objects at different depth without any manual refocus.

Key solution highlight



Contact us

You would like to know more about our products, or you have a specific use-case in mind?

Please visit our website: [Corning® Varioptic® Lenses](https://www.corning.com/varioptric)

Or contact us at varioptric@corning.com

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