

FLEXPOINT® Laser Modules

A Success Story Made in Germany

Many aspects of life would be unimaginable without laser modules. They are used, in particular, as pilot lasers, alignment aids, or in digital image processing. In modern Industry 4.0 control systems, they are an important component in the production processes of tomorrow.

We have been manufacturing laser modules under the FLEXPOINT® trademark since 1987. Our strength lies in the production of custom modules; in fact, we develop custom modules in individual pieces or in series production: You provide us with your specifications in terms of wavelength, beam profile, power level, housing, connection, and power distribution and we will customize your module.



Manufacturing FLEXPOINT® Laser Diode Modules

No Two Modules Are Alike

Our FLEXPOINT® laser modules are as individual as our customers' systems. We often modify existing products to meet very specific demands; in fact, we have a myriad of components and housings available in stock that we often simply have to recombine to create a new model.

Our internal R&D team takes over new developments:

It is All a Matter of the Right Combination

Our R&D team consists of physicists and engineers from different fields who collaborate on the development of various products. Each team member brings his own knowhow to the table when analyzing customer demands.

Oftentimes the expert you need is just a door away. An active exchange of experience dominates in our meetings, which we hold regularly. In this atmosphere, we are able to find the right solution quickly, even for tricky issues.

Our developers use Solid Edge® or Trace Pro® software in the implementation of their ideas to simulate mechanics and beam guidance down to the smallest detail. We even develop the electronics in house and certify them as prototypes.

Quality – More than Just a Promise

LASER COMPONENTS' FLEXPOINT® modules are quality products that rise significantly above the cheap, mass-produced products from the Far East.

A high standard of quality depends on many factors and begins with the selection of components. Our suppliers are subject to the same strict standards that we set for ourselves: we certify our suppliers' components using our own lifetime tests via the laser modules.

Our regional suppliers carry out series production of the components developed by us – electronics and mechanics. We profit, on the one hand, from the high standards of our engineering pool in Germany and, on the other hand, from the short communication lines that guarantee personal consultations and quick delivery, even of small quantities. There are several optoelectronics companies near our headquarters in Olching, with which we have enjoyed long-term partnerships.

We track the product flow of all our components in house: we guarantee complete protection of all areas – from receiving to quality control to storage – against electrostatic discharges according to DIN EN 61340-5-1.

Extensive Testing

Our customers measure the quality of their modules based on long-term stability: we guarantee compliance with specifications throughout a long lifetime and test the durability of the entire system, which consists of a diode, electronics, and a housing.

Each FLEXPOINT® model is subject to an accelerated lifetime test in which we allow the modules to age under various thermal conditions. Of course, all FLEXPOINT®s are CE certified and comply with RoHS.

Certified Laser Classification

The reliable assignment of laser classes helps in the proper handling of modules and prevents harmful radiation damage. Therefore, we measure each new FLEXPOINT® model according to DIN EN 60825-1 and assign it to the appropriate laser class. To ensure that errors do not occur, we voluntarily have our measuring stations certified by external specialists on a regular basis. As radiation damage is a serious health issue, we take it very seriously: Our technical director is, therefore, also involved in the standardization committee on laser and electro-optical systems.

Our quality promise does not end with delivery. We assign each batch of FLEXPOINT® modules an individual identification number. This makes it possible to track the components used in the individual modules clearly and unambiguously. In the unlikely event that an error occurs, we are able to retrace the cause of the problem quickly and find a solution to resolve it.

Successful with High-End Products

"Made in Germany" is still a symbol of excellent engineering skill and high quality. This is the reason for the success of our FLEXPOINT® modules. In the high-tech industry, reliability, precision, and quality often carry more weight than the production of large quantities at low cost. In addition, we are familiar with the latest developments in the industry. As part of Industry 4.0, our products are able to be integrated into state-of-the-art control systems. The fundamentals of data communication and the control of key parameters are implemented in a digital laser controller. This is why companies specializing in medical technology, engineering, and the automobile industry rely on laser modules from LASER COMPONENTS.