

## What a few millimeters can do...

### More robust linear encoders due to smaller dimensions.

TR Electronic has many years of experience in the development and production of linear-absolute displacement measuring systems, which detect linear movements and positioning quickly, precisely and wear-free on the basis of magnetostriction. These systems are suitable for the toughest applications due to their fundamentally robust design. For example, they measure inclination angles of railroad vehicles, feed and discharge movements in injection molding machines, or are used with working and support cylinders in construction and work machines. As is usual with TR, the measuring systems fit seamlessly into very different control environments and offer a wide range of industrial standard interfaces for this purpose. From traditional analog output in current or voltage interface to digital direct connections such as SSI and real-time capable Industrial Ethernet systems such as PROFINet, etherCAT, Powerlink and Ethernet/IP, various connections and protocols are available. Signal evaluation and interface communication takes place in the head of the measuring system.

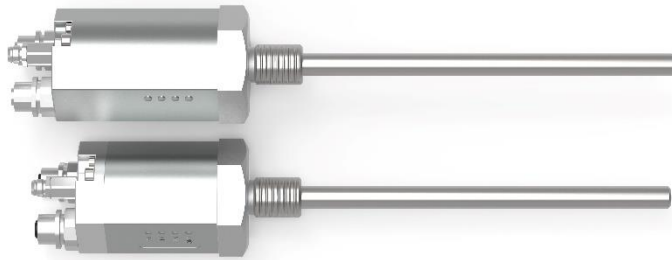
Through optimization and a technological revision of the scanning and measured value determination, the necessary housing length could be shortened by 10 mm. What looks like little at first glance already makes a measurable difference for vibration resistance. With the shortened electronics, the LM\_I46 now achieve maximum vibration and shock resistance up to 100 g shock (DIN EN 60068-2-27, DIN EN 60068-2-6) and up to 20 g respectively. At the same time, 10 mm shorter housing also means a shortened lever arm for lateral tensile stress, e.g. due to poorly supported cables.

By the way, the updated versions are fully compatible with existing devices in their application - they can be exchanged 1:1 without changing anything in the control configuration; even mixed use in the same plant is possible without any problems if, starting with the devices with PROFINET, the different variants are converted to the new design.

The revised series of LM\_I46 linear-absolute displacement encoders from TR Electronic are thus the best choice for existing users as well as for new applications with increased stress due to vibration and shock.

Products of the LM\_I46 family on the TR Electronic website

<http://www.tr-electronic.com/s/S019246>



Linear-absolute position sensor, below the new, shortened version -  
TR Electronic GmbH