



Linear encoders – LMRI46, LMPI46
with improved performance

The new generation of linear displacement measurement systems

LM_I 46 - contactless position sensor system with improved performance

Based on the successful LA46 and LP46 series, TR-Electronic developed a new generation of magnetostrictive absolute displacement measurement systems. The mechanical structures of the series in the profile housing with guided magnet (LMPI46) and in the tubular housing for cylinder installation (LMRI46) are identical to the currently delivered series. An internal optimized measuring system permits better performance. Solution and hysteresis are significantly improved for applications with a measuring range up to one meter. The measuring systems are contactless and are thus permanently without any wear. The system moves permanent magnets that do not need any connection cables. This means no trailing cables and thus no additional moving masses.

Various flange geometries of the LMRI measuring system for pipe installation adjust to different installation situations in hydraulic cylinders. The variant with detachable enveloping tube decouples the mechanical installation from the sensor installation: Independently of the electronic system, you can install the enveloping tube, that is essential for the tightness of the overall system, and pressurize the system. The sensor element can be installed or replaced later without emptying the system. The stainless steel enveloping tubes are tested for a pressure up to 600 bars.

The measuring systems of the LM_I46 series is available with the interfaces that are available at TR. This includes the analog interface, which is still common in the linear section, SSI, commonly used field buses, and Industrial Ethernet (PROFINET, Ethernet/IP, EtherCAT, Powerlink, and Sercos). Depending on the interface, a measuring system can scan several magnet positions at the same time.

The LM_I46 measuring systems are available up to a measuring length of 4 m.

<http://www.tr-electronic.com/s/S011433>

<http://www.tr-electronic.com/news/news.html>

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LMRI46_ETC_PN_2016.jpg



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LMPI46_2016_EIP.jpg

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