

Linear absolute displacement measuring systems for standard industrial applications

Linear displacement measuring systems based on magnetostriction detect the position of moving machine parts contactlessly and therefore wear-free in many applications .

TR-Electronic currently offers both: the high-end solution LM_I 46 with resolutions of 0.001 mm, which can also be directly equipped with Industrial Ethernet. Likewise, simple applications are supplied cost-effectively with LM_B 48 in the measuring range 2.5 m and with a resolution of 0.1 mm.

The new LM_S 34 closes gap between these two series. LMPS 34 offers a flat profile housing for machine installation.

Measuring lengths are available up to 3 m in increments of 5 mm . LMPS 34 achieves a resolution of 0.01 mm. The measuring system is noticeably smaller than Series 48 or 46 mm of the other families and is undercut only by the ultra-compact LMRB 27. However, this needs an external converter box for all interfaces except Analog.

Thus LMPS 34 offers a very compact sensor solution in the midfield, which can be equipped with the most important interfaces. Like all magnetostrictive measuring systems from TR-Electronic, LMRS 34 works completely wear-free. The position is transmitted by a movable permanent magnet.

These magnets are available as sliders that slide on the profile housing of the LMRS 34 or as block magnets which have to be guided by the mechanics of the measured axis. The latter solution even allows for "overriding" of the sensor end. This makes it possible to realize innovative machine concepts in which the same sensor system is used e.g. be used for precise positioning of different workpiece carriers in a processing cell.

LMPS can output the measured value via SSI or analog. With CANopen or IO-Link interface, an LMPS 34 can simultaneously detect the position of up to 3 magnets by e.g. to detect the position of up to three carriages of a linear axis with only one sensor. Zero point, scaling and counting direction can be set on all LMPS 34. Depending on the interface, this is done via a set input, via the service interface or directly via the bus. CANopen and IO-Link also provide additional actual values ??and provide comprehensive information about the status of the measuring system.

Technical Data:

<https://www.tr-electronic.com/s/S021148>

Brochure:

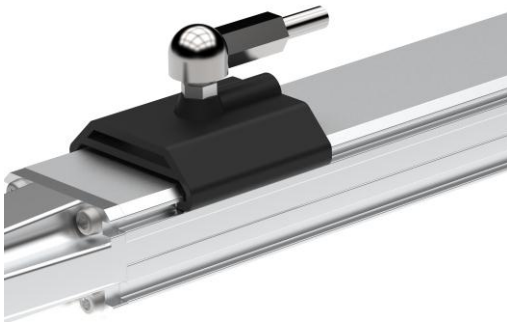
<https://www.tr-electronic.com/f/TR-V-PR-GB-0036>

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LMPS 34 Linear-absolute position sensor



Guided magnet slider with ball head attachment