

Absolute position measurement with free choice of interface

Modular linear-absolute position measuring system LMRS27 from TR-Electronic

Contactless, wear-free measuring systems based on magnetostriction are often used for the absolute position measurement of linear movements. Tight, pressure-resistant sensor tubes allow installation in hydraulic cylinders and thus a reliable option for recording the extension length. Cylinders equipped in this way are used, for example, in construction machines that support the operator with automation technology. With the new LMRS27 device series, TR-Electronic creates a new class of compact measuring systems and remains true to its ability to offer "all" important interfaces for industrial use.

The system has a modular structure for this: the position of up to 3 magnets at the same time is recorded with the sensor element, whose small head with a diameter of 25 mm can be installed almost anywhere. The scaling and communication with the controller is done by an interface module that is mounted separately from the actual sensor. The cable between the sensor and the interface module is either 2 or 5 m long, longer lengths are technically possible. This means that very inaccessible hydraulic cylinders can also be reached. The user is free to choose the interface modules: A mounted sensor can be combined with all interface modules of the LMRS27 series. This results in great advantages in procurement, especially for the outfitters of series components. The sensor element is delivered built-in in the cylinder, the users choose their interface module to match the control environment of their application. The current Industrial Ethernet variants such as PROFINET, Ethercat, Ethernet / IP and Ethernet Powerlink are of course available, as well as traditional field buses such as PROFIBUS and CANopen and interfaces such as SSI.

The user selects the desired measuring length in the range of up to 4 m, which is recorded and output with a resolution of typically 0.01 mm.

If the resolution may be lower, the LMRB27 is a measuring system that even works without an interface module with the same sensor head. The measured value is output directly as a current or voltage analog signal or even as IO-Link protocol. This makes the LMR_27 family the most compact solution from TR-Electronic to record linear movements absolutely and without wear.

TR-Products <https://www.tr-electronic.com/s/S023901>

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Interface modules SSI to Industrial Ethernet for series LMRS27

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