

Contactless LHK linear sensor series with Hall technology

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The new contactless linear position transducer from the LHK series is particularly recommended for small oscillating movements or vibrations. The linear sensor delivers reliable measurements in such cases thanks to the Hall-effect sensors. Loss of accuracy caused by wear is a thing of the past. In addition, the live-zero signal enables wire break detection, which prevents costly consequential damage in the case of particularly safety-critical applications.

The new linear sensor features an electrical measuring range of 30 millimetres and is based on wear-free Hall sensor technology, meaning it has a longer service life than similar potentiometric models and is more cost-effective than similar inductive models. The robust nature of the overall construction of the LHK opens up new fields of application where it is extremely difficult to use potentiometric linear sensors and other contactless sensors are too expensive. In addition, the signal levels enable the detection of wire breaks when the signal output reaches 0 V or if a short circuit is determined when the initial value is larger than 4.5 V. This is particularly important in the case of safety-critical applications in order to avert further damage.

The internal sensor electronics transmits a resilient 0.5...4.5 V analogue signal. There is no need to perform external signal processing. The position feedback is also available immediately after the sensor is switched on and off. The sensor has good linearity of $\pm 0.5\%$ FS, enabling precise position detection and path measurement.

The sensor is also available with an external return spring for use as a measuring probe. Bearing positions on both sides ensure precise guiding of the driving rod. The LHK series features a base plate with two through-holes with a diameter of 3.3 millimetres for simple installation.