

**TTK70 motor feedback system .
The “turbo” for your linear drive .**

The first linear motor feedback system with HIPERFACE®.



TTK70 – absolute and turbo-fast .

Precision, speed, dynamics, rigidity and high-quality control: in high-end applications of drive technology, these features almost always matter. The new TTK70 linear measuring system offers all these features. What's more, it is currently the most compact motor feedback system with HIPERFACE® interface on the market. The magnetic principle of operation, long measuring lengths and very high resolution open up a wide range of applications for the absolute position determination of linear motors.

High-tech in the smallest spaces

The TTK70 linear measuring system consists of an absolute reading head and a magnetic tape, as measuring scale, 10 mm wide and up to 4,000 mm long. The magnetic principle of operation offers clear advantages over optical linear systems in terms of price, susceptibility to contamination and reliability.

The robust metal housing of the reading head offers IP65 protection, has two mounting holes designed for high tightening torques and, including the plug connection, is hardly bigger than a matchbox, currently the smallest system of its kind.

Internal values:

Inside, the TTK70 features the latest in sensor and evaluation technology. The sensor PCB, which is aligned with the measuring plane, is equipped with Hall sensors on two parallel tracks.

When installed their placement coincides with the position of an incremental and an absolute track on the magnetic tape.

In operation, the absolute position values are calculated by the reading head first detecting the absolute starting position during start-up of the linear motor via Manchester coding. All further positions of the drive are determined via the incremental position on the magnetic track, ie. sine/cosine signals.

The standard: HIPERFACE®

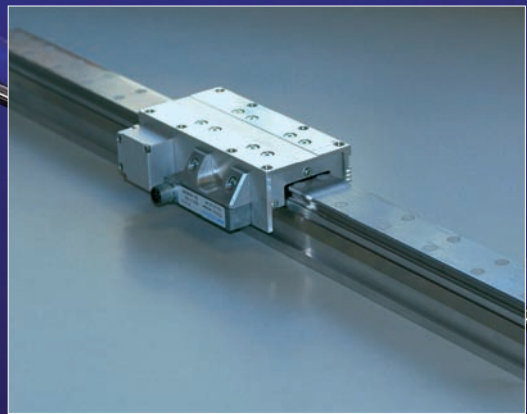
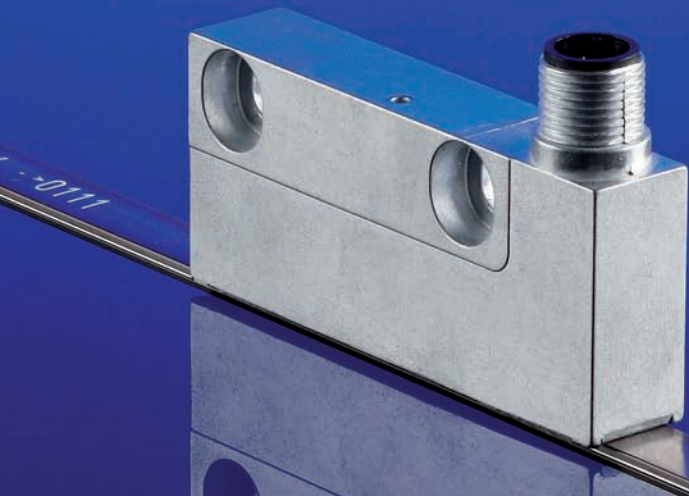
The values thus formed are transmitted via the HIPERFACE® interface to the evaluation electronics of the linear drive – a method of communication which has established itself as a market standard and, with the TTK70, is now available for linear measuring systems. Now there is an interface standard for all common servo drives which covers all applications with only one signal type.



The one-stop shop for motor feedback solutions

The development of the TTK70 is a direct result of the market trend towards direct drives.

As the only current supplier worldwide, SICK-STEGMANN can offer drive manufacturers both rotary and linear motor feedback systems with an integrated HIPERFACE® interface, for applications such as erosion machines, handling systems in semiconductor production, automatic assembly and placement machines, vertical lifting systems, pick & place applications in electronic production or the food industry.



Resolution of $< 1 \mu\text{m}$, system accuracy of $< 10 \mu\text{m}$ and operating speeds up to 10 m/s – TTK70 is the accurate and fast solution for a diverse range of applications.

TTK70



Absolute, non-contact linear measuring system TTK70

Sensor housing dimensions:
Measuring length:
Operating speed:
Working temperature range:
Supply voltage:

70 x 30 x 14 (L x H x W) without connector
 max. 4.000 mm
 10 m/s
 -30...+85 °C
 7...12 V DC

Protection:

IP 65

Approvals:



FACTORY AUTOMATION

With its intelligent sensors, safety systems, and auto idet applications, SICK realises comprehensive solutions for factory automation.

- Non-contact detecting, counting, classifying, and positioning of any types of object
- Accident protection and personal safety using sensors, as well as safety software and services



LOGISTICS AUTOMATION

Sensors made by SICK form the basis for automating material flows and the optimisation of sorting and warehousing processes.

- Automated identification with bar code and RFID reading devices for the purpose of sorting and target control in industrial material flow
- Detecting volume, position, and contours of objects and surroundings with laser measurement systems



PROCESS AUTOMATION

Analyzers and Process Instrumentation by SICK MAIHAK provides for the best possible acquisition of environmental and process data.

- Complete systems solutions for gas analysis, dust measurement, flow rate measurement, water analysis or, respectively, liquid analysis, and level measurement as well as other tasks



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