

qSCHNEEBERGER press release: AMS and MINISCALE

Profiled linear guideway – Integrated measuring system for distance measurement

If you need exact linear movements, the profiled linear guideway utilised must meet the strictest requirements with regard to quality. Extremely precise distance measurements are also required. SCHNEEBERGER offers cost-optimised solutions in the form of its Integrated measuring system for distance measurement, which can be used for a wide range of applications.

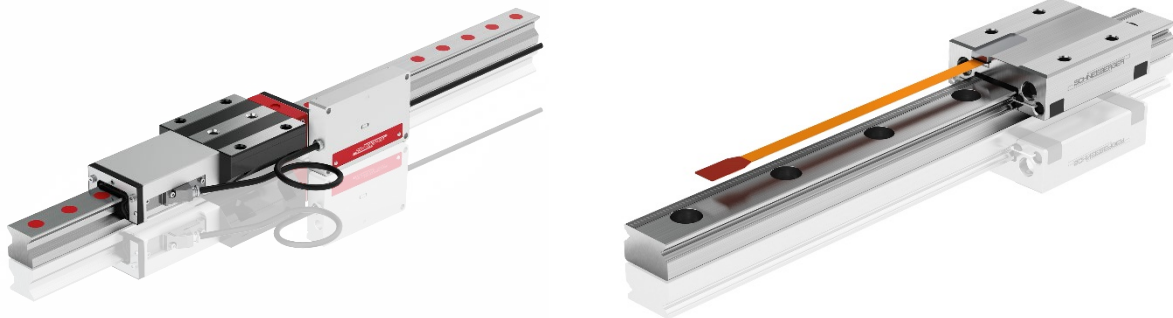
Users of linear technology often formulate their requirements according to two clear primary criteria: first, that the highest possible degree of precision is essential, and second, that the best possible price-performance ratio is a crucial requirement. To that effect, companies in many industries are united in these desires – from the measuring, semiconductor, medical and biotechnology sectors to the automation, machine tools and laser processing industries (as well as many more).

Differences frequently come down to size and technical design. As a leader of innovation, SCHNEEBERGER offers suitable solutions for the most diverse applications by means of its AMS (absolute or incremental) distance measuring system, which is integrated into its MONORAIL profiled linear guideways, and its MINISCALE system. With these products, it is always possible to take the most precise routes and maintain the closest tolerances.

As the guideway and measuring system are coordinated with one another as effectively as possible, the user does not have to carry out any complex or costly assembly work or adjustments. As a result, the highest absolute and incremental accuracy class of $\pm 5 \mu\text{m}/\text{m}$ is achieved thanks to the integrated AMS solutions. In the absolute system, the positioning data is available immediately after the system is activated. The error monitoring and operating status display is integrated into the system. In contrast, the incremental AMS boasts protection category IP68, meaning that it can be used in environments with harsh conditions (i.e. dust and water) without any problems.

The maximum one-piece guideway length is six metres. If required, several MONORAIL lengths can be combined. In conjunction with the AMS long distance measuring system, a measuring length of over 100 metres is possible.

Of course, SCHNEEBERGER does not just provide integrated measuring system for distance measurement for large-scale applications. Combined guiding and measuring in an extremely small footprint is also possible, e.g. in microscope tables. The MINISCALE, which is based on the MINIRAIL, is suitable for this type of application. It has a resolution of $0.1 \mu\text{m}$ and allows for measuring lengths of up to 1000 mm. Its optical measuring system is extremely small, thereby facilitating particularly compact and light designs.



B01: The profiled linear guideways with Integrated measuring system for distance measurement developed by SCHNEEBERGER provide cost-optimised solutions which can be used in a wide range of applications whilst meeting even the strictest quality requirements.

SCHNEEBERGER group

SCHNEEBERGER® serves original equipment manufacturers operating (OEM) in various industries worldwide – from **machine tool**, **solar technology** and **semiconductor technology** to **electrical engineering** and **medical engineering** and others. Linear bearings, profiled linear guideways, **measuring systems**, **gear racks**, **slides**, **positioning systems** and **mineral casting** are all part of SCHNEEBERGER's product and manufacturing range. **A.MANNESMANN** has been part of the SCHNEEBERGER Group since October 2017. A.MANNESMANN is a leading supplier for the production of ballscrew drives, telescopic actuators and drill spindles. A further expansion of the SCHNEEBERGER Group, an additional site was founded in Poland. The new company SCHNEEBERGER Components Poland (SPO) officially started on November 19, 2020 and has already commenced operations, producing precision parts for the entire Group. The core competence lies in the production of rolling bearing rollers. Also as part of its strategic development, the Business Unit Systems has established the company "SCHNEEBERGER Precision Motion Systems (Shenzhen)". With the establishment of the new technology center for systems in Shenzhen with development, production, sales and service, SCHNEEBERGER will be closer to its Asian customers and thus be able to serve them even better with high-precision single and multi-axis systems.

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