

Maintenance requirements identified in advance with the new smart plastics linear guide

Intelligent igus sensor keeps track of the wear of linear plain bearing liners, increasing the reliability

Detecting the wear of liners in linear systems at an early stage was the goal of the engineers at igus, who have now developed a new, intelligent linear guide. A sensor in the bearing liners measures the individually determinable wear limit and sounds an alarm when it is reached. This allows maintenance to be planned in advance and avoid unexpected system failure.

When should I change my bearing? This question is posed by operators of systems that use linear robots and linear systems around the clock. From the packaging machine and the glass processing industry up to machine tools. Linear guides must withstand extreme loads. In order to detect early wear of the sliding lubrication-free bearings made of high-performance plastics and to plan the maintenance in advance, igus has now developed a new smart system for its drylin linear systems. The new smart plastics technology measures the wear of dirt and dust-resistant bearings and gives the user a signal when the wear limit is reached.

Patented technology for wear monitoring

A new intelligent and patented technology ensures the measurement of the wear of a bearing in all directions. To do this, igus integrates a sensor in the bearing, which sends the measured data to the icom. The communication module collects the data of all smart plastics sensors, processes them and forwards them. The user can take over the monitoring with the terminal device of his choice and therefore always carry out maintenance, repair and replacement.

Fast replacement directly on the rail

If a bearing change is needed, it is quite simple, because this is where igus banks on its smart bearing replacement technique. The linear axis or the multi-axis gantry with toothed belt drive no longer has to be disassembled, because the replacement takes place directly on the rail. Similar to a pit stop in Formula 1, the linear plain bearing can be changed in no time at all and thanks to a free tool, it reduces downtimes to a minimum. The system can be put back into operation within a few minutes.

Caption:



Picture PMXXX-1

The new smart plastics linear system measures the wear of the bearings in operation and gives an early warning. Maintenance can be planned. With the smart bearing replacement technology, the bearing can be changed in seconds directly on the rail. (Source: igus GmbH)

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ABOUT IGUS:

igus GmbH is a globally leading manufacturer of energy chain systems and polymer plain bearings. The Cologne-based family business has offices in 35 countries and employs around 4,150 people around the world. In 2018, igus generated a turnover of 748 million euros with motion plastics, plastic components for moving applications. igus operates the largest test laboratories and factories in its sector to offer customers quick turnaround times on innovative products and solutions tailored to their needs.

The terms "igus", "Apiro", "chainflex", "CFRIP", "conprotect", "CTD", "drylin", "dry-tech", "dryspin", "easy chain", "e-chain", "e-chain-systems", "e-ketten", "e-kettensysteme", "e-skin", "flizz", "igear", "igidur", "igubal", "kineKIT", "manus", "motion plastics", "pikchain", "plastics for longer life", "readychain", "readycable", "ReBeL", "speedigus", "triflex", "roboLink", and "xiros" are protected by trademark laws in the Federal Republic of Germany and internationally, where applicable.