**smart plastics EC.T sensor monitors the condition of glide bars in e-chains**

High speeds on long travels are distinct challenges for energy chain systems. To overcome these issues, igus has developed a more wear resistant glide bar, which has a service life that is five times longer. Integrated into the rail is the smart plastics EC.T sensor monitors the condition of the rail and alerts the maintenance team in advance of a breakdown.

Rolling energy chains have been performing in high speed and long travel applications for a long time but are more expensive than conventional energy chains. As a complementary, more cost-effective alternative, igus has now developed wear-resistant, high-performance plastic, that is suitable for speeds of over 5m/s and travels of 200 metres or more. The new glide bars with the sensor are suitable for a number of applications, including linear robots in automotive production, on gantries in machine tool construction or on the 7th axis of industrial robots.

It consists of a glide bar made from a new high-performance polymer, which has been tested in the company's laboratory, providing a service life that is five times longer than the previously used profile. The wear-resistant rail is designed in such a way that it moves gently against the energy chain and, to monitor the condition of the glide bar, igus has integrated an EC.T sensor.

The EC.T sensor measures the condition of the rail and gives maintenance recommendations when needed. It works wirelessly and is battery powered. At regular intervals, it sends a signal about its condition to the communication module icom. This prepares the data of all igus isense sensors and offers the option of integration in any desired maintenance tool. If there is an interruption of the conductor loop in the sensor, the service life algorithms can be used to predict the number of days until the next maintenance is necessary.

For more information about smart plastics , please visit: [www.igus.co.uk/smartplastics](http://www.igus.co.uk/smartplastics) or call igus directly on: 01604 677240

**igus resources:**

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**About igus:**

Based in Northampton in the UK and with global headquarters in Cologne, Germany, igus is a leading international manufacturer of energy chain systems and polymer plain bearings. The family-run company is represented in 35 countries and employs 4,150 people around the world. In 2018, igus generated a turnover of 748 million euros with motion plastics, plastic components for moving applications.

With plastic bearing experience since 1964, cable carrier experience since 1971 and continuous-flex cable experience since 1989, igus provides the right solution based on 100,000 products available from stock, with between 1,500 and 2,500 new product introductions each year. 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, ibow, igear, iglidur, 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.

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