

## **More secure data transfer in moving applications for Industry 4.0**

**igus sets new standards with fibre optic and CAT7 Ethernet cables**

**Hanover/Cologne, April 15, 2015 – In the factory of the future, highly dynamic machines will communicate permanently in real-time. A quick and safe energy and data transmission is particularly important here. At the Hannover Messe, igus presents its particularly versatile and forward looking cable solutions for use in the smart factory. Along with the promise: "3 years' guarantee from the first metre".**

For the factory of the future to work, a real-time communication of machines with each other at all levels must be guaranteed. To ensure that all stations can exchange their data with each other, Ethernet cables will be increasingly used in factories. Not just on stationary, but also specifically in moving equipment. For this reason, in the segment of copper-based Ethernet cables, igus offers 23 different types, all of which are designed exclusively for industrial, continuously moving applications, but also the most varied mechanical requirements.

### **CAT7 Ethernet technology for continuously moving applications**

igus will display its new CAT7 cable CFBUS.052 at the fair stand in Hannover. For substantially increasing data safety, it has braided shields, pair shields and an overall braided shield with 90 percent optical cover, which ensure functionality even after millions of bending cycles in energy chains. The special core/braiding structure gives this CFBUS cable a long-lasting flexural strength. "A braided shield made with an optimised braid angle protects the overall shield against mechanical fractures as well as the electromagnetic compatibility of the cable," explains Rainer Rössel, head of the chainflex cables division at igus. The shielded pairs are stranded with an optimised pitch length so that on the one hand they meet high mechanical requirements, and on the other fulfil the electrical requirements in terms of data transmission.

This CAT7 cable is flame retardant like all highly abrasion-resistant TPE CFBUS types. In addition, it has UL/CSA, EAC and CTP certifications and conforms to DESINA. The new cable is furthermore for use in clean room environments

**Fibre optic cables; communicate without interference in highly dynamic applications**

Due to their immunity to electrical interference and the substantially higher data capacity data transmission over fibre optic cables is of potential importance for Industry 4.0. The range of fibre optic cables, which have also been specially developed for continuous movement, covers all areas of mechanical requirements. For example with the CFLG.2EC series, igus offers an affordable fibre optic cable specifically designed for indoor use in handling or woodworking machines. The CFROBOT5 enables robots to have fail-safe communication in three-dimensional space. With the chainflex fibre optic cable CFLG.LB.PUR, igus also presents a special fibre optic cable series for the continuously moving application in the offshore and marine sectors. They are already available with 2, 4 or 6 optical fibres or 2 optical fibres and 2 power supply wires. The stranded-together multimode or single-mode fibres are very bending-resistant types designed as a sub-cable, which can be fitted very easily and cheaply with connectors. Due to its extremely high strength aramid (Kevlar) braid over the overall stranding, even high tensile forces that may occur in hanging applications do not damage the cable. The flame-resistant, pressure extruded PUR outer jacket, especially tailored for energy chain use, provides additional protection against external mechanical damage. Due to the DNV/GL offshore approval, the new fibre optic cable family, as well as the CAT7 cable, offers the capability to securely transmit data on offshore platforms and ships.

From the Hannover Messe onwards, igus offers a 36-month guarantee for all cables from the first ordered metre.

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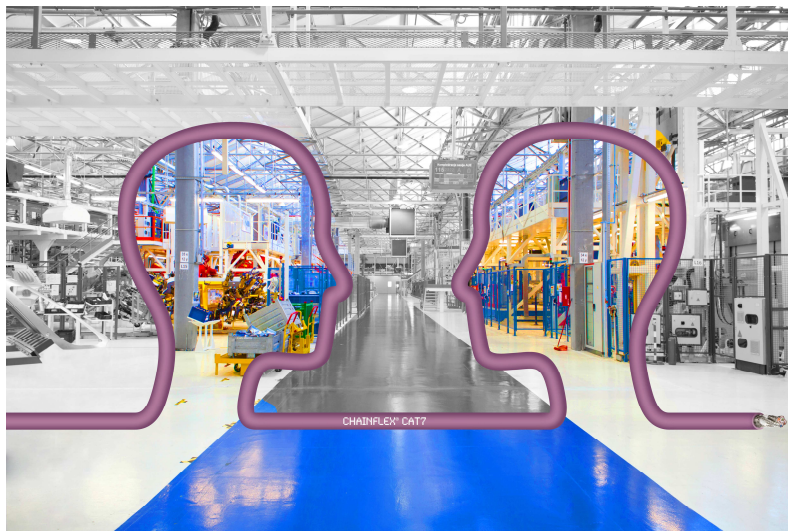
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**ABOUT IGUS:**

igus GmbH is a globally leading manufacturer of energy chain systems and polymer plain bearings. The Cologne-based family business has offices in 36 countries and employs around 2,700 people around the world. In 2014, igus generated a turnover of 469 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, e-ketten, e-kettensysteme, chainflex, readycable, easychain, e-chain, e-chainsystems, energy chain, energy chain system, flizz, readychain, robotlink, pikchain, triflex, twisterchain, invis, drylin, iglidur, igubal, xiros, xirodur, plastics for longer life, CFRIP, dryspin, manus and vector' are protected by trademark laws in the Federal Republic of Germany and internationally, where applicable.

**Captions:**



**Image PM1715-1**

With the world's first CAT7 Ethernet cable for the movement in energy chains, igus ensures secure data transfer in the factory of the future. (Source: igus GmbH)



**Image PM1715-2**

As igus operates the largest laboratory for continuously moving cables in the industry, spread over 1,750 sq. m., igus can give accurate information about application potentials and service life. (Source: igus GmbH)



**Image PM1715-3**

With the chainflex fibre optic cable CFLG.LB.PUR, igus presents in Hannover a special fibre optic cable for the continuously moving application in the offshore and marine sector. (Source: igus GmbH)