CAT7 cable for energy chains: moving into the future with igus

The latest Ethernet technology for use in continuous motion

The CFBUS.052 chainflex bus cable from igus GmbH based in Cologne has qualified for the CAT7 standard. As the world's first CAT7 cable for use in e-chains, it enables secure data transmission even in highly dynamic moving applications. At the PLC/IPC Drives automation trade fair, igus exhibited the cable has reliably completed 40 million strokes in the igus test lab, in Hall 4 Stand 250.

Ethernet cables for energy chains are an important part of the chainflex cable range, which already comprises 1,040 cables. The chainflex Ethernet CAT5 cable was introduced by igus in 1999, and was the first cable to be developed and tested specifically for energy chain use. The CAT6 cable came four years later. In the meantime the chainflex Ethernet cable range includes more than 17 different assembled “readycable” types. With the world's first CAT7 cable for constantly moving applications in e-chains, igus continues to lead the way in offering users today the standard for tomorrow.

Special structure offers protection in continuous motion

To increase data security, the CFBUS.052 CAT7 cable has braided and pair-braided shields and an overall braided shield with 90 percent optical coverage. This ensures functionality even after millions of bending cycles in an energy chain. The special core/braiding structure guarantees this CFBUS cable a long-lasting flexural strength. A braided shield made with an optimised braid angle prevents mechanical fracture whilst offering a high level of electromagnetic shielding. The shielded pair cores are wound with an optimised pitch length so that they meet high mechanical requirements and also fulfil the electrical requirements for high integrity data transmission.
Certified for a wide range of applications

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 can also be used in the clean room and has the DNV-GL approval for energy chain applications in the offshore sector. This cable has also been extensively life tested in energy chains at igus in the largest test laboratory in the industry, which covers an area of 1,750 square metres. In this test it achieved more than 40 million strokes. Data from the extensive test program is also used within the chainflex online service life calculator. Any customer can use this tool to easily calculate the service life for any chainflex cable by entering parameters such as travel length, bending radius and speed for their application.
PRESS RELEASE

Captions:

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In order to ensure a high level of data security in fast energy chains, the CAT7 cable CFBUS.052 has braided and pair-braided shields and a braided overall shield with 90 percent optical cover. (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 2,400 people around the world. In 2013, igus generated a turnover of 427 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, robolink, pikchain, triflex, twisterchain, invis, drylin, iglidur, igubal, xiros, xiodur, plastics for longer life, CFRIP, dryspin, manus and vector’ are protected by trademark laws in the Federal Republic of Germany and internationally, where applicable.