

Safe cable guidance on the robot for a small price with igus retraction system

New retraction system for energy chains ensures fail-safe operation of robots in modern factories

Welding, riveting, soldering: Industrial robots must work dynamically and quickly in production. Therefore, a safe and compact guidance of cables and hoses is required. This is where the three-dimensional triflex energy chains from igus are used. If the e-chains form loops in the work area of the robot, it can damage the cables and hoses as well as lead to machine failure. For this reason, igus has now developed the new low-cost TR.RSEL retraction system. The system guides the energy chain in a line on the robot, ensuring trouble-free and fail-safe operation.

Industrial robots for assembling vehicle parts in the automotive industry, for example, work with high rotations and many fast movements. Users rely on energy chains to ensure that cables for data, pneumatic and energy supply are safely guided on the robot. The triflex R e-chains from igus are very useful here because they are specially designed for industrial robotics and adapt to the three-dimensional movements of robots. However, with the growing diversity in automated production technology, it is necessary to guide not only electrical and pneumatic cables, but also hoses for bolts, rivets and screws. Since these hoses are not compatible with tight bend radii, a retraction system is required for the energy supply of the robot. For this reason igus has now developed a new, very cost-effective retraction system triflex RSEL for its energy chains. This ensures that the e-chain is kept as compact as possible on the robot arm. The system prevents the hanging energy supply system from affecting or blocking the movements of the robot, even in highly dynamic applications. In the worst case, looping would damage the energy chain, the cables and hoses inside it, leading to machine failure.

Cost-effective and easy to retrofit retraction system

Due to its standard dimensions and its very compact design, the new retraction system can be mounted directly on the 3rd axis of all common types of robots. This means that all existing triflex R series such as TRC, TRE and TRCF can

be quickly and easily converted. The fixed end of the energy chain can be freely selected by the new system. Another advantage: by using the linear retraction system, the user saves additional cable length and associated costs, since no deflection is required. The triflex RSEL is available from igus as a variant with two elastomer bands in sizes 70 or 85.

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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", "Apro", "chainflex", "CFRIP", "conprotect", "CTD", "drylin", "dry-tech", "dryspin", "easy chain", "e-chain", "e-chain-systems", "e-ketten", "e-kettensysteme", "e-skin", "flizz", "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.

Caption:



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Cost-effective and safe: The new TR.RSEL retraction system with energy chains ensures trouble-free operation of robots. (Source: igus GmbH)