igus®

tech talk

The main advantages of igus cable assemblies

Every moving application requires continuous-flex cables, but why waste time assembling them when you don't have to?

The readycable® line of motor, servo, signal and encoder cable assemblies comes equipped with standard industrial connectors that are ready to plug in to your application the second they arrive. They are expertly built similar to 30 different manufacturer standards and are continuously tested under real-world conditions in the 41,000-square-foot igus® test lab. Our tests ensure each cable provides an extensive service life inside cable carriers, in robotic applications, and more.

Read on to learn more about the advantages of readycable®.

Cable assembly with quality assurance

At 12 state-of-the-art facilities throughout the world, including the U.S., highly-skilled technicians customize approximately 20,000 ready-to-connect chainflex® cables each week. All of the cables are assembled in accordance with over 20 manufacturer standards, including Siemens, Allen Bradley and FANUC, and come equipped with industrial connectors from the biggest names in the industry, such as Intercontec, Harting and Yamaichi. Plus, igus has created a new ibow® angle adapter that safely secures cable connection at a 90-degree angle.

Our technicians electrically test every cable, visually inspect every connection, and measure crimp heights and all critical dimensions precisely to ensure our cable assemblies will function perfectly upon delivery and every day during the life of your machine. More than 1,200 cable types are available for customization.

Learn more at www.igus.ca/info/readycable

igus® tech talk

Cable design features for an extended service life

Unlike traditional cables, chainflex® continuous-flex cables are engineered for optimal efficiency and can dramatically increase the service life and productivity of dynamic applications.

The following design features enable chainflex® cable to outperform other first party cables that tend to fail prematurely, even those from the 20+ manufacturers readycable® can be built similar to:

1. A high-quality, high-tensile strength center element for strain relief
2. A medium-to-fine conductor and strand diameter to prevent the strand from kinking while being subjected to a high number of cycles
3. High quality pressure-extruded PVC or TPE materials that support the individual strands of the conductor and prevent the cable's insulation from adhering to one another
4. Individual conductors bundled into groups, which are cabled together in a single layer surrounding the cable core that enable pulling and compressive forces in the bending motion to balance and cancel out torsional forces
5. A pressure-extruded inner jacket that ensures the insulated conductors are guided efficiently
6. A high-quality braided shield that provides electromagnetic interference (EMI) protection for the cable
7. A cost-effective outer jacket material that is resistant to UV radiation, abrasion, oils and chemicals
8. CFRIP technology that allows users to open the cable's jacket like a zipper, saving you time and eliminating the need for additional tools

Cable options for a variety of applications

Cable selections from larger manufacturers can be limited, with many only offering PUR outer jackets for their cables and cutting them at predetermined lengths with no room for custom length options. This can prove too strict of a limitation for applications tight on budget or with specific requirements that demand unique cable lengths or alternatives to PUR outer jackets.

chainflex® cable assemblies can be ordered in any custom length with no minimum length requirements, and aren't limited to PUR outer jackets. PUR, PVC and TPE jackets are all available to offer solutions for the widest possible range of applications while remaining competitively priced.

Extensively tested under real-word conditions

Unfortunately for consumers, there are no standardized testing procedures for continuous-flex cables; therefore, it is important to know how a manufacturer tests its products. Ideally, these cables should be tested in configurations and environments that replicate real-world applications.

The 41,000-square-foot igus test lab is the largest of its kind in the industry. Our engineers run 2 billion test cycles each year to ensure cables designed for specific types of movement have the strength and durability to maintain their structure over millions of linear, torsional or multi-axis cycles.

Results show that in most cases, chainflex® cables can withstand temperatures between -40C and 100C. They are also flame-retardant, UV-resistant and highly oil-resistant. All chainflex® cables have a predictable service life and come with a UL-verified service life guarantee of up to 36 months. Additionally, orders ship within 24 hours from our Rhode Island warehouse.

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