

Breakthrough Technology Makes Connectivity EASY

The Fischer LP360™ connector offers a unique and breakthrough plug & use technology able to fulfill urgent needs for connectivity solutions that are easy to mate, easy to clean for end users, and easy to integrate for design engineers.

Fischer Connectors continues to push the boundaries of technological innovation that fulfills customers' needs for connectivity miniaturization, high-speed data transmission, sealing and ruggedness.

Now, with its brand-new product line the Fischer Freedom™ Series and Fischer LP360™ connector, it meets the needs for interconnect usability and integrability in portable and wearable devices, and, by extension, in the Internet of Things (IoT).

The importance of connectors and their cabling to the functioning of electrical devices is critical. Should a single connector malfunction, the equipment and electronic system breaks down. It is vital, therefore, to provide design engineers with high-end, high-performance and highly engineered connectivity solutions in order to meet their urgent needs for easy and smart integration. In that sense, the connectivity industry is instrumental to driving innovation in the electronics world in general, and for the defense & security industry in particular, within its Dismounted Soldier Systems and Future Soldiers programs. In networked wearables sharing a common power and data bus, connectivity is a key innovation driver, helping to make devices smaller, lighter and smarter while maintaining or enhancing their performance.

In the Defense & Security environment, the innovations provided by the Fischer LP360™ connector enable design engineers and integrators to easily integrate connectors and cabling into the portable devices and those body-worn by soldiers in their armor and tactical vest, such as: cameras, weapons sights, switches/hubs, night vision goggles, radio and radio microphones embedded in helmets, sensors, light, GPS, and batteries hidden under armor to charge nanodrones designed to silently reconnoitre enemy positions.

The Dismounted Soldier Systems and Future Soldier programs have been working for years to make the soldier "connected". Sharing information in real time about the area



Fischer LP360™

he is operating in will make him more effective and bring faster and safer mission execution.

The Fischer Freedom™ Series fulfills two urgent needs: 1) optimized cable management, 2) shared data & power bus.

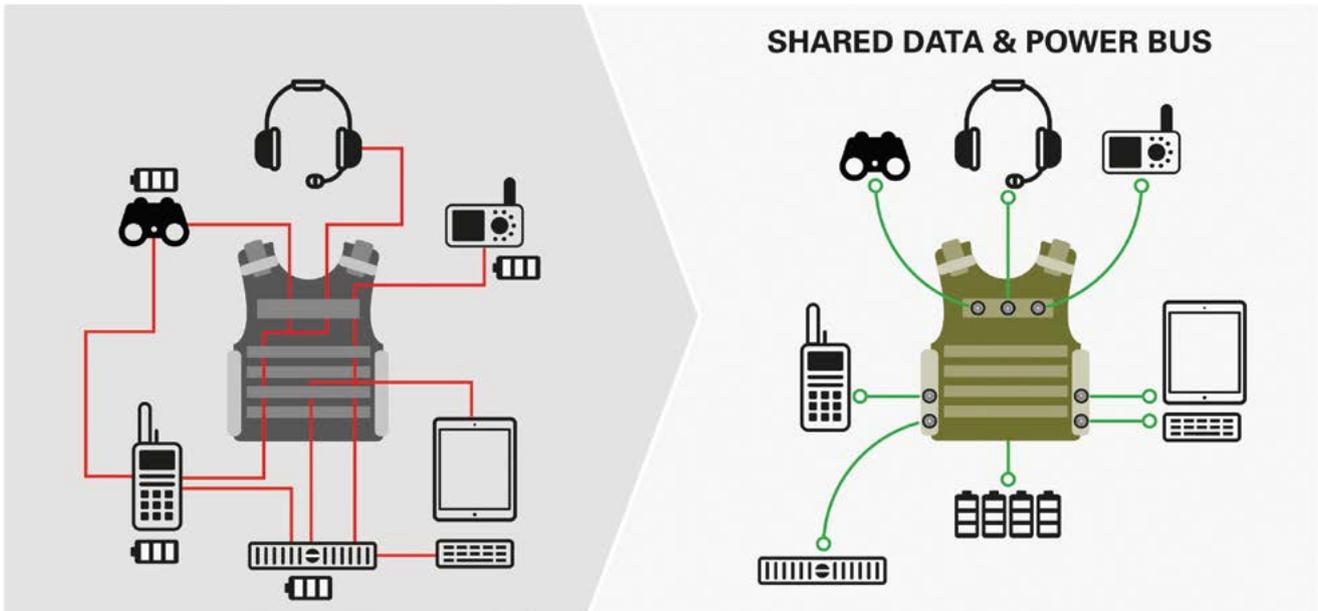
Optimized cable management

The Fischer LP360™ connector eliminates the key code, meaning it can be plugged and routed in any direction, ensuring that the cable on the vest can always go straight to the device. No more twists and turns means shorter cables in the kitted equipment. This also eliminates tangles, reduces clutter and increases usability, making equipment lighter and faster to set up.

As the Fischer LP360™ has no key code, it offers 360° mating "freedom", meaning it can be plugged and routed in any direction, ensuring that the cable can always go straight to the device. **No more twists and turns** means shorter cables in the equipment body-worn by dismounted soldiers, healthcare professionals or patients, civil engineers, surveyors and operators, and law enforcement officers and security guards.

Shared data and power bus opens up new opportunities in smart clothing and IoT

The usability as well as the integrability of the Fischer



Freedom™ Series connectivity solutions contribute to **making wearable devices smaller, faster and smarter** – and, ultimately, to making high-performance and smart clothing a reality.

The Fischer Freedom™ Series enables design engineers to build **an intelligent vest which works as a hub** with multiple portable and body-worn devices connected to a shared data and power bus. Clutter is reduced and usability increased, making equipment lighter and faster to set up. These benefits also open up further opportunities in the Internet of Things (IoT).

Usability is threefold: “easy mating”, “easy cleaning” and “easy integration” are fundamental to the Fischer Freedom™ Series:

The Fischer LP360™ makes life easier for end users by reducing cognitive, weight and reliability burdens thanks to:

1. **Easy mating.** Mating the lightweight and compact LP360™ connector becomes as easy and intuitive as buttoning up a vest – without compromising on the high-performance reliability required in harsh military environments.
2. **Easy cleaning.** The connector is fully cleanable (both plug and receptacle), and is easy to use and maintain, with a faster set up and improved durability.

Integrability is the capability and versatility that Fischer Connectors’ direct customers, design engineers, need in order to easily and seamlessly integrate connectors – with or without cables (as explained below) – into the multifunctional devices that are part of the modern soldier’s armor and tactical vest.

3. **Easy integration.** Thanks to its compact and low-profile design – which is also MOLLE compatible – the LP360™ connector is easy to integrate into clothing with devices and subsystems; via the panel-mounted plug interface, cables can even be removed completely, and the connector can be directly integrated into the housing of the device, for example a camera or a sensor.

Wim Vanheertum, Director of Product Management at Fischer Connectors, explains: “The Fischer Freedom™ Series

offers a unique connectivity solution that has been thought of and designed entirely from the outset for the benefit of our customers. It fulfills in a unique way the need for usability and easy integration that our customers, the design engineers, constantly express – and also our customers’ customers: those who use the applications they have designed. Our breakthrough lightweight, compact, extremely reliable and intuitive solution is easy to integrate into applications operating in diverse and challenging environments, including portable and wearable electronic ecosystems delivering power and data with optimized cabling: the cable can always go in a straight line to the device, without any twists, turns and tangles. In certain applications, the need for cable can be eliminated completely when the plug is integrated directly into the housing of devices such as a camera, a sensor, a light, or a GPS. It offers, in that sense, the “wireless (cable-free) without the hassle of the wireless” and thus paves the way for further expansion into breakthrough connectivity solutions for the Internet of Things (IoT).” Vanheertum concludes: “The creation of a brand-new product line with breakthrough connectivity technology at its heart, as embodied by the Fischer Freedom™ Series, isn’t something that happens every day. It’s an exceptional honor for me to have managed this product development and to plan the future expansion of this new product line.”

Thanks to these innovations, the Fischer Freedom™ Series **facilitates integration, maximizes usability and optimizes cable management** for a wide variety of applications within markets such as defense, security, medical, industrial and civil engineering – to name just a few.

“Our core mission at Fischer Connectors is to make our customers’ lives easier with a collaborative approach and tailored connectivity solutions,” says Jonathan Brossard, Fischer Connectors Group’s CEO. “The creation of the Fischer Freedom™ Series is evidence that our mission actually strengthens our customers’ abilities to design for their markets. Reimagining connectivity like we’ve shown in the new Fischer Freedom™ Series allows those customers to turn their ambitious ideas into solutions that fit their world and help them break into new markets as well. ■