

# Secure Connections for UltiMate Protection

## New Fischer UltiMate™ Military Connectors Line

### Putting maximum safety at the top of the agenda

Whether it is the U.S. Military's Future Force Warrior Program, the UK Ministry of Defence's Future Infantry Soldier Technology (FIST) Programme, or France's FELIN equipment, designed to outfit soldiers for the high-tech battlefield by creating lightweight, fully integrated infantry combat systems, Fischer Connectors is a long-standing partner with the world's military and its defence suppliers and contractors.

"Fischer's Core Series line and cable assembly solutions are well known and adopted by military forces around the world primarily because of their secure connections," says Dick Bickford National Sales Manager, Fischer Connectors U.S. "Safety for the soldier through reliable, durable, easy to use, quality products that perfectly meets the needs of the new digital battlefield is our assignment. If connections are more secure because of a Fischer product and lives are protected, then our connector system has done its job and we've accomplished our mission."

All Future Soldier Programmes around the world are focused primarily on development of technologies to reduce the soldiers fighting load and power requirements, improve the soldier's protection, lethality, and environmental and situational awareness.

### Fischer UltiMate™ Military Connectors Line in sight

With these objectives in mind, and because so much is at stake when it comes to the safety of warfighters, Fischer Connectors challenged its engineering and

design team to create a new line of products specially designed for Defence Forces: Fischer UltiMate™ Military Connectors Line.

"We anticipate it will be well suited for high security applications where extreme reliability and ruggedness are paramount," states Dominique Glauser, CEO of Fischer Connectors SA. "However, our primary purpose is and always will be to improve the safety, reliability and efficiency of the product for the end user, that is, the soldiers. We are proud to provide very high standard connections to improve the protection of the soldiers," affirmed Dominique.



*Fischer LandForce™ Series  
Compact, Rugged, Lightweight*

As military digitization continues to expand for Land Forces, Fischer was driven by the knowledge that reliable computing and connections are the backbone of today's and tomorrow's battlefields. To answer these needs, Fischer designed and created the new Fischer LandForce™ connector series as the first product within the Fischer UltiMate™ Military Connectors Line. Specially designed for soldiers, vehicles, and mixed applications, this new series will be introduced in January 2010.

### Fischer LandForce™ Series meet mission critical technical parameters

Major features of the new Fischer LandForce™ Series include compact, rugged and lightweight connectors offering extremely robust keying, ultimate sealing level IP68/69K even unmated, with Fischer's new facilitated cable assembly solutions.

In addition, Fischer LandForce™ Series is complete with EMC 360° high performance shielding tested according to IEC norm 60512-23-3, four extremely robust mechanical codings (more on request) allowing an easy mating even in the dark, and a wide range of configurations including multiple contacts from 2 to 19 poles, available in two body sizes.

Thanks to its new monoblock plug design associated with cable assembly containing highly performing epoxy potting, Fischer has achieved a new industry benchmark. Fischer LandForce™ connector Series are Nuclear, Biological, Chemical, Radiological (NBCR) Ready, with IP68/69K sealing level even unmated, tested according

▶ to IEC norm 60529. As a result, they are also easily cleanable on the field.

A special feature of Fischer's new line includes a compact product design with a shorter plug, small and easy to handle and a low profile receptacle which makes this line perfect for connected devices with restricted space requirement needs. These could help to revolutionize the future warrior's uniform by enabling military contractors to focus on further downsizing and reducing the dimension of the equipment they design.

This is also one of the reasons that Fischer developed its new Fischer UltiMate™ line of connectors from special high-resistant aluminium making it 50 % lighter in weight than our typical brass connectors. Every gram can make a difference to soldiers who may be carrying in excess of 130 pounds (58 kilogrammes) during a mission.

With its extremely rugged design for harsh and demanding environments, as well as vibration and corrosion resistance, this new line of connectors is immune to even the toughest elements including fog, salt spray (5 percent 35°C, MIL STD-202 Method101A), sand, and moisture. Its long lifetime usage is guaranteed for 10,000 mating cycles.

Fischer LandForce™ Series is available with two proven locking systems. One is a secure push-pull locking famous for its ease of use, safety of mating and quickness in connection and disconnection. The other one



Secure connections for UltiMate protection are needed in the area of battlefield communications

an emergency release system without locking to avoid injuries to the users and damages to the material.

Already able to withstand extreme temperature fluctuations from -55°C to 140°C in standard configuration, Fischer LandForce™ Series can achieve even more with special fluorosilicone O-rings.

The highly conductive treatment ensures the integrity of data transfer. Essential to today's digitized battlefield, this feature significantly improves the equipment that protects the soldier and thereby enhances soldiers' situational awareness and help warfighters participate in the worldwide internetworked systems that share critical information with them and their units without compromising missions.

When designing its UltiMate™ Military Connectors Line, Fischer knew that every detail could impact the welfare of the warfighter. So it created the Fischer LandForce™ Series with special anti-reflective and conductive body coating, in black and natural chrome colours.

For ultimate protection of unmated connectors in the field, Fischer developed molded sealing soft caps, easily installed on plugs and receptacles. Soft caps, noiseless in operation, are available with nylon thin cord or stainless steel cable lanyards and single thermoplastic elastomer pieces.

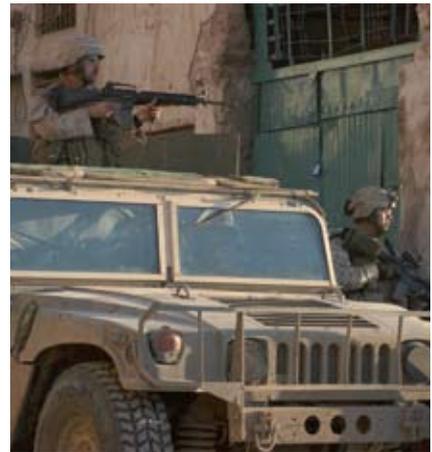
This complete turnkey system is easy to assemble and Fischer cable assembly solutions are available in both straight and at right angles overmolding to accommodate devices conveniently on the warfighters' body. Fischer Connectors can provide you with complete solutions—connector, cabling and overmolding—all from one supplier.

#### Applications on the field

The most significant applications for use of Fischer Connectors LandForce™ Series include soldier equipment, manned and unmanned vehicles, and mixed use involving both soldier and vehicle.

Modern Soldier applications are mostly involved with C4I & STAR environment where high end optronic communication battle management systems must interactively and securely transfer voice data, pictures and videos.

Fischer LandForce™ Series has been designed as well for very demanding onboard armoured vehicles to



Fischer LandForce™ Series are specially designed for soldiers, vehicles and mixed applications

interconnect modern soldiers with electronic equipment and power sources. The high performance in water tightness and in vibration allows our connectors to be used on land and sea ROV, and UAV with fixed wings and rotary wings. These unmanned vehicles are designed to operate in the harshest environments where reliability of connections becomes vital.

#### Perform without failure

Finally and most importantly, Fischer focuses on the warfighters and making sure they can count on Fischer's secure connections for ultimate protection. When your life not only depends on rapid connections but also on accurate transmissions of signals, you must be able to blindly rely on the performance of your connected equipment. That is why our products are tested to strict IEC norms, comparable to MIL-Specs and manufactured under the strictest quality conditions. ■

For more than 50 years, Fischer Connectors has been designing, manufacturing and distributing high-performance connectors and cable assembly solutions. Known for their reliability, precision, and resistance to demanding environments, its products are commonly used in major military programmes. Primary design and manufacturing facilities are located in Switzerland, with subsidiaries and distributors located worldwide. For more information, log on to [www.fischerconnectors.com](http://www.fischerconnectors.com)